



PATENT OF CARL WOTSE

Dr. Abhay B. Solunke

Shri Govindrao Munghate arts & Science College,
Kurkheda. 441209

www.sgmunghatecollege.in/www.abhaysolunke.info

**Content**

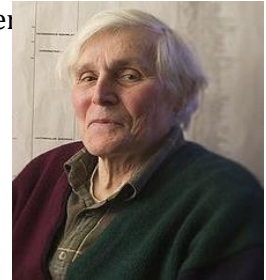
Sr. No.	Title
1	Introduction
2	Award
3	Patents



CARL RICHARD WOESE

Introduction

Carl Richard Woese was born July 15, 1928, in Syracuse and died on December 30, 2012, in Urbana, Illinois. His father, Carl F. Woese, was a consulting engineer. He earned bachelor's degrees in math and physics from Amherst College in 1950 and a Ph.D. in biophysics at Yale in 1953. He studied medicine for two years at the University of Rochester, spent five years as a researcher in biophysics at Yale and worked as a biophysicist at the General Electric Research Laboratory in Schenectady, N.Y., before joining the faculty of the University of Illinois in 1964.



Carl Woese an microbiologist who disproved the hypothesis of two domains of life prokaryotic and eukaryotic by introducing third kingdom Archae by the use of rRNA and also stated that the Archae have evolved separately and RNA is the base of life on Earth.

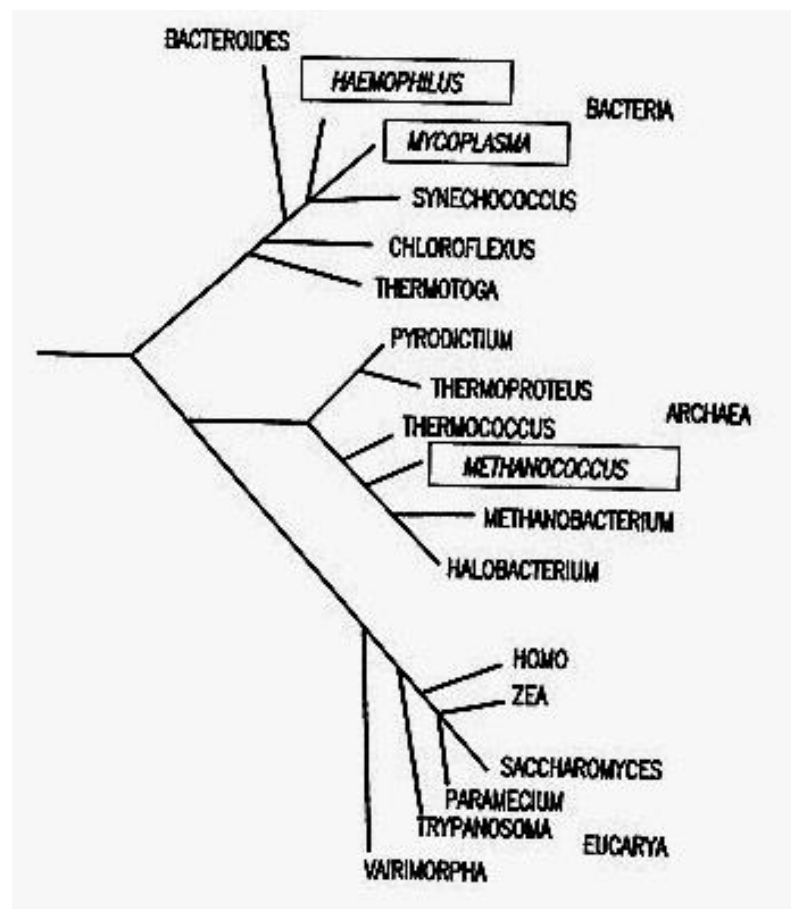
Award

In 1977 received **Seleman A. Wakshman award** for discovery of new kingdom of life called Archae.

He also received MacArthur Foundation "**Genius**" grant in 1984, the **National Medal of Science** in 2000, the **Crafoord Prize in Biosciences** from the Royal Swedish Academy of Sciences in 2003.

Leeuwenhoek Medal in 1992: and in 1983 **Bergey Award**.

Figure showing three domains of life based on rRNA.(Adopted from Patent)





Patents

Sr. No	Title of Patent	Year	Patent No.
1	Complete Genome Sequence of the Methanogenic Archaeon, <i>Methanococcus jannaschii</i>	1998	W098/07830

Reference:

1. WIPO Patent no.W098/07830.



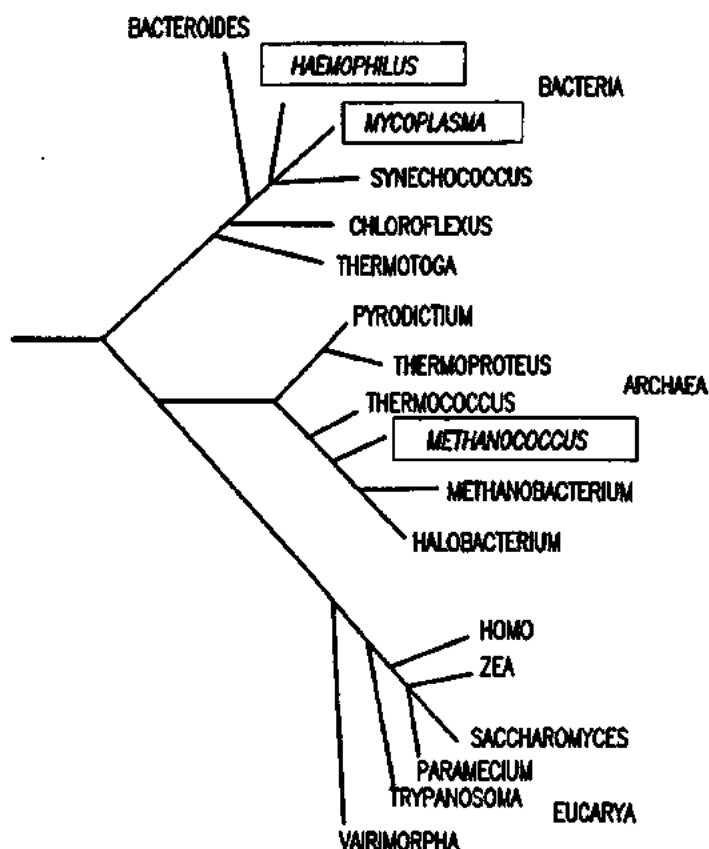
INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ ; C12N	A2	(11) International Publication Number: WO 98/07830 (43) International Publication Date: 26 February 1998 (26.02.98)
<p>(21) International Application Number: PCT/US97/14900</p> <p>(22) International Filing Date: 22 August 1997 (22.08.97)</p> <p>(30) Priority Data: 60/024,428 22 August 1996 (22.08.96) US</p> <p>(71) Applicants: THE INSTITUTE FOR GENOMIC RESEARCH [US/US]; 9712 Medical Center Drive, Rockville, MD 20850 (US). THE BOARD OF TRUSTEES OF THE UNIVERSITY OF ILLINOIS [US/US]; 506 S. Wright Street, Urbana, IL 61802 (US). JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE [US/US]; Department of Molecular Biology and Genetics, Baltimore, MD 21205 (US).</p> <p>(72) Inventors: BULT, Carol, J.; Box 525, Bar Harbor, ME 04609 (US). WHITE, Owen, R.; 886 Quince Orchard Boulevard # 202, Gaithersburg, MD 20878 (US). SMITH, Hamilton, O.; 8222 Carbridge Circle, Baltimore, MD 21204 (US). WOESE, Carl, R.; 806 West Delaware Avenue, Urbana, IL 61801 (US). VENTER, J., Craig; 9708 Medical Center Drive, Rockville, MD 20850 (US).</p> <p>(74) Agents: STEFFE, Eric, K. et al.; Sterne, Kessler, Goldstein & Fox P.L.L.C., Suite 600, 1100 New York Avenue, N.W., Washington, DC 20005-3934 (US).</p>		<p>(81) Designated States: CA, JP, European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).</p> <p>Published Without international search report and to be republished upon receipt of that report.</p>

(54) Title: COMPLETE GENOME SEQUENCE OF THE METHANOGENIC ARCHAEON, *METHANOCOCCUS JANNASCHII*

(57) Abstract

The present application describes the complete 1.66-megabase pair genome sequence of an autotrophic archaeon, *Methanococcus jannaschii*, and its 58- and 16-kilobase pair extrachromosomal elements. Also described are 1738 predicted protein-coding genes.



FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav Republic of Macedonia	TM	Turkmenistan
BF	Burkina Faso	GR	Greece	ML	Mali	TR	Turkey
BG	Bulgaria	HU	Hungary	MN	Mongolia	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MR	Mauritania	UA	Ukraine
BR	Brazil	IL	Israel	MW	Malawi	UG	Uganda
BY	Belarus	IS	Iceland	MX	Mexico	US	United States of America
CA	Canada	IT	Italy	NE	Niger	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NL	Netherlands	VN	Viet Nam
CG	Congo	KE	Kenya	NO	Norway	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NZ	New Zealand	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's Republic of Korea	PL	Poland		
CM	Cameroon	KR	Republic of Korea	PT	Portugal		
CN	China	KZ	Kazakhstan	RO	Romania		
CU	Cuba	LC	Saint Lucia	RU	Russian Federation		
CZ	Czech Republic	LI	Liechtenstein	SD	Sudan		
DE	Germany	LK	Sri Lanka	SE	Sweden		
DK	Denmark	LR	Liberia	SG	Singapore		
EE	Estonia						

Complete Genome Sequence of the Methanogenic Archaeon, *Methanococcus jannaschii*

Background of the Invention

Statement as to Rights to Inventions Made Under Federally-Sponsored Research and Development

Part of the work performed during development of this invention utilized U.S. Government funds. The U.S. Government may have certain rights in the invention - DE-FC02-95ER61962; DE-FC02-95ER61963; and NAGW 2554.

Field of the Invention

The present application discloses the complete 1.66-megabase pair genome sequence of an autotrophic archaeon, *Methanococcus jannaschii*, and its 58- and 16-kilobase pair extrachromosomal elements. Also identified are 1738 predicted protein-coding genes.

Related Background Art

The view of evolution in which all cellular organisms are in the first instance either prokaryotic or eukaryotic was challenged in 1977 by the finding that on the molecular level life comprises three primary groupings (Fox, G.E., *et al.*, *Proc. Natl. Acad. Sci. USA* 74:4537 (1977); Woese, C.R. & Fox, G.E., *Proc. Natl. Acad. Sci. USA* 74:5088 (1977); Woese, C.R., *et al.*, *Proc. Natl. Acad. Sci. USA* 87:4576 (1990)): the eukaryotes (Eukarya) and two unrelated groups of prokaryotes, Bacteria and a new group now called the Archaea. Although Bacteria and Archaea are both prokaryotes in a cytological sense, they differ profoundly in their molecular makeup (Fox, G.E., *et al.*, *Proc. Natl. Acad. Sci. USA* 74:4537 (1977); Woese, C.R. & Fox, G.E., *Proc. Natl. Acad. Sci. USA* 74:5088 (1977); Woese, C.R., *et al.*, *Proc. Natl. Acad. Sci. USA* 87:4576 (1990)).

-2-

Several lines of molecular evidence even suggest a specific relationship between Archaea and Eukarya (Iwabe, N., *et al.*, *Proc. Natl. Acad. Sci. USA* 86:9355 (1989); Gogarten J.P., *et al.*, *Proc. Natl. Acad. Sci. USA* 86:6661 (1989); Brown, J.R. and Doolittle, W.F., *Proc. Natl. Acad. Sci. USA* 92:2441 (1995)).

5 The era of true comparative genomics has been ushered in by complete genome sequencing and analysis. We recently described the first two complete bacterial genome sequences, those of *Haemophilus influenzae* and *Mycoplasma genitalium* (Fleischmann, R.D., *et al.*, *Science* 269:496 (1995); Fraser, C.M., *et al.*, *Science* 270:397 (1995)). Large scale DNA sequencing efforts also have
10 produced an extensive collection of sequence data from eukaryotes, including *Homo sapiens* (Adams, M.D., *et al.*, *Nature* 377:3 (1995)) and *Saccharomyces cerevisiae* (Levy, J., *Yeast* 10:1689 (1994)).

M. jannaschii was originally isolated by J.A. Leigh from a sediment sample collected from the sea floor surface at the base of a 2600 m deep "white
15 smoker" chimney located at 21° N on the East Pacific Rise (Jones, W., *et al.*, *Arch. Microbiol.* 136:254 (1983)). *M. jannaschii* grows at pressures of up to more than 500 atm and over a temperature range of 48-94 °C, with an optimum temperature near 85 °C (Jones, W., *et al.*, *Arch. Microbiol.* 136:254 (1983)). The organism is autotrophic and a strict anaerobe; and, as the name implies, it
20 produces methane. The dearth of archaeal nucleotide sequence data has hampered attempts to begin constructing a comprehensive comparative evolutionary framework for assessing the molecular basis of the origin and diversification of cellular life.

Summary of the Invention

25 The present invention is based on whole-genome random sequencing of an autotrophic archaeon, *Methanococcus jannaschii*. The *M. jannaschii* genome consists of three physically distinct elements: (i) a large circular chromosome; (ii) a large circular extrachromosomal element (ECE); and (iii) a small circular extrachromosomal element (ECE). The nucleotide sequences generated, the *M.*

jannaschii chromosome, the large ECE, and the small ECE, are respectively provided on pages 152-585 (SEQ ID NO:1), pages 585-600 (SEQ ID NO:2), and pages 601-605 (SEQ ID NO:3).

5 The present invention is further directed to isolated nucleic acid molecules comprising open reading frames (ORFs) encoding *M. jannaschii* proteins. The present invention also relates to variants of the nucleic acid molecules of the present invention, which encode portions, analogs or derivatives of *M. jannaschii* proteins. Further embodiments include isolated nucleic acid molecules comprising a polynucleotide having a nucleotide sequence at least 90% identical,
10 and more preferably at least 95%, 96%, 97%, 98% or 99% identical, to the nucleotide sequence of a *M. jannaschii* ORF described herein.

The present invention also relates to recombinant vectors, which include the isolated nucleic acid molecules of the present invention, host cells containing the recombinant vectors, as well as methods for making such vectors and host
15 cells for *M. jannaschii* protein production by recombinant techniques.

The invention further provides isolated polypeptides encoded by the *M. jannaschii* ORFs. It will be recognized that some amino acid sequences of the polypeptides described herein can be varied without significant effect on the structure or function of the protein. If such differences in sequence are
20 contemplated, it should be remembered that there will be critical areas on the protein which determine activity. In general, it is possible to replace residues which form the tertiary structure, provided that residues performing a similar function are used. In other instances, the type of residue may be completely unimportant if the alteration occurs at a non-critical region of the protein.

25 In another aspect, the invention provides a peptide or polypeptide comprising an epitope-bearing portion of a polypeptide of the invention. The epitope-bearing portion is an immunogenic or antigenic epitope useful for raising antibodies.

Brief Description of the Figures

Figure 1. A schematic showing the relationship of the three domains of life based on sequence data from the small subunit of rRNA (Fox, G.E., *et al.*, *Proc. Natl. Acad. Sci. USA* 74:4537 (1977); Woese, C.R. & Fox, G.E., *Proc. Natl. Acad. Sci. USA* 74:5088 (1977); Woese, C.R., *et al.*, *Proc. Natl. Acad. Sci. USA* 87:4576 (1990)).

Figure 2. Structure of a putative family of insertion sequence (IS) elements in the *M. jannaschii* genome. The family of elements has been named ISAMJ1 and contains 11 members distributed among three groups (A, B, and C). The outer rectangle indicates the entire IS element; the interior rectangles indicate the predicted coding regions, oriented with the NH₂-termini to the left. DNA immediately adjacent to the NH₂-termini is 75 to 100% identical over 50 bp; DNA sequence similarity at the COOH-termini ends immediately after the stop codon. Black triangles indicate terminal inverted repeats. Fill patterns indicate which regions are missing from the elements in groups B and C. (A) Two copies of this family are 642 bp long and are 97% similar to each other at the nucleotide level. They appear to encode a protein 214 amino acids in length (ORFs MJ0017 and MJ1466) that are 27% identical to the IS240 transposase of *Bacillus thuriangiensis* (GenBank Accession number: M23741). (B) Eight copies of the family range in length from 358 to 360 bp and are missing a 342-bp internal region relative to the two members of group A. Some members of group B have putative frameshifts (indicated by solid arrows) and in-frame UGA codons (indicated by open arrows). (C) The single copy in group C is 265 bp in length and occurs on the large ECE. The 436 bp internal region missing from this element is different than that of the members of group B.

Figure 3. Structure of a multicopy repetitive element in the *M. jannaschii* genome. Of the 18 copies identified on the main chromosome, seven are oriented in one direction (plus strand) and 11 are oriented in the opposite strand. Each element consists of a long, 391- to 425-bp repeat segment (designated LR) followed by up to 25 short, 27- to 28-bp repeat segments (designated SR). Each

SR segment is separated by 31 to 51 bp of sequence that is unique within and between each complete repeat element. (A) The longest repeat element has an LR segment followed by 25 SR segments, and spans more than 2 kbp, and (B) the shortest complete element has an LR segment followed by two SR segments. (C) One element is present in the genome with five SR segments and no LR component. (D and E) The LR segments of two elements in the genome are truncated at the end adjacent to the SR segments, both are followed by a single SR segment.

Figure 4. Block diagram of a computer system 102 that can be used to implement the computer-based systems of present invention.

Detailed Description of the Invention

The present invention is based on whole-genome random sequencing of an autotrophic archaeon, *Methanococcus jannaschii*. The *M. jannaschii* genome consists of three physically distinct elements: (i) a large circular chromosome of 1,664,976 base pairs (bp) (shown on pages 152-585 and in SEQ ID NO:1), which contains 1682 predicted protein-coding regions and has a G+C content of 31.4%; (ii) a large circular extrachromosomal element (the large ECE) of 58,407 bp (shown on pages 585-600 and in SEQ ID NO:2), which contains 44 predicted protein-coding regions and has a G+C content of 28.2%; and (iii) a small circular extrachromosomal element (the small ECE) of 16,550 bp (shown on pages 601-605 and in SEQ ID NO:3), which contains 12 predicted protein-coding regions and has a G+C content of 28.8%.

The primary nucleotide sequences generated, the *M. jannaschii* chromosome, the large ECE, and the small ECE, are provided in SEQ ID NOs:1, 2, and 3, respectively. As used herein, the "primary sequence" refers to the nucleotide sequence represented by the IUPAC nomenclature system. The present invention provides the nucleotide sequences of SEQ ID NOs:1, 2, and 3, or a representative fragment thereof, in a form which can be readily used, analyzed, and interpreted by a skilled artisan.

As used herein, a "representative fragment" refers to *M. jannaschii* protein-encoding regions (also referred to herein as open reading frames), expression modulating fragments, uptake modulating fragments, and fragments that can be used to diagnose the presence of *M. jannaschii* in a sample. A non-limiting identification of such representative fragments is provided in Tables 2(a) and 3. As described in detail below, representative fragments of the present invention further include nucleic acid molecules having a nucleotide sequence at least 90% identical, preferably at least 95, 96%, 97%, 98%, or 99% identical, to an ORF identified in Table 2(a) or 3.

As indicated above, the nucleotide sequence information provided in SEQ ID NOs:1, 2 and 3 was obtained by sequencing the *M. jannaschii* genome using a megabase shotgun sequencing method. The sequences provided in SEQ ID NOs:1, 2 and 3 are highly accurate, although not necessarily a 100% perfect, representation of the nucleotide sequence of the *M. jannaschii* genome. As discussed in detail below, using the information provided in SEQ ID NOs:1, 2 and 3 and in Tables 2(a) and 3 together with routine cloning and sequencing methods, one of ordinary skill in the art would be able to clone and sequence all "representative fragments" of interest including open reading frames (ORFs) encoding a large variety of *M. jannaschii* proteins. In rare instances, this may reveal a nucleotide sequence error present in the nucleotide sequences disclosed in SEQ ID NOs: 1, 2, and 3. Thus, once the present invention is made available (i.e., once the information in SEQ ID NOs:1, 2, and 3 and in Tables 2(a) and 3 have been made available), resolving a rare sequencing error would be well within the skill of the art. Nucleotide sequence editing software is publicly available. For example, Applied Biosystem's (AB) AutoAssembler™ can be used as an aid during visual inspection of nucleotide sequences.

Even if all of the rare sequencing errors were corrected, it is predicted that the resulting nucleotide sequences would still be at least about 99.9% identical to the reference nucleotide sequences in SEQ ID NOs:1, 2, and 3. Thus, the present invention further provides nucleotide sequences that are at least 99.9% identical to the nucleotide sequence of SEQ ID NO:1, 2, or 3 in a form which can

be readily used, analyzed and interpreted by the skilled artisan. Methods for determining whether a nucleotide sequence is at least 99.9% identical to a reference nucleotide sequence of the present invention are described below.

Nucleic Acid Molecules

5 The present invention is directed to isolated nucleic acid fragments of the *M. jannaschii* genome. Such fragments include, but are not limited to, nucleic acid molecules encoding polypeptides (hereinafter open reading frames (ORFs)), nucleic acid molecules that modulate the expression of an operably linked ORF (hereinafter expression modulating fragments (EMFs)), nucleic acid molecules
10 that mediate the uptake of a linked DNA fragment into a cell (hereinafter uptake modulating fragments (UMFs)), and nucleic acid molecules that can be used to diagnose the presence of *M. jannaschii* in a sample (hereinafter diagnostic fragments (DFs)).

 By "isolated nucleic acid molecule(s)" is intended a nucleic acid
15 molecule, DNA or RNA, that has been removed from its native environment. For example, recombinant DNA molecules contained in a vector are considered isolated for the purposes of the present invention. Further examples of isolated DNA molecules include recombinant DNA molecules maintained in heterologous host cells, purified (partially or substantially) DNA molecules in solution, and
20 nucleic acid molecules produced synthetically. Isolated RNA molecules include *in vitro* RNA transcripts of the DNA molecules of the present invention.

 In one embodiment, *M. jannaschii* DNA can be mechanically sheared to produce fragments about 15-20 kb in length, which can be used to generate a *M. jannaschii* DNA library by insertion into lambda clones as described in Example
25 1 below. Primers flanking an ORF described in Table 2(a) or 3 can then be generated using the nucleotide sequence information provided in SEQ ID NO:1, 2, or 3. The polymerase chain reaction (PCR) is then used to amplify and isolate the ORF from the lambda DNA library. PCR cloning is well known in the art. Thus, given SEQ ID NOs:1, 2, and 3, and Tables 2(a) and 3, it would be routine

to isolate any ORF or other representative fragment of the *M. jannaschii* genome. Isolated nucleic acid molecules of the present invention include, but are not limited to, single stranded and double stranded DNA, and single stranded RNA, and complements thereof.

5 Tables 2(a), 2(b) and 3 describe ORFs in the *M. jannaschii* genome. In particular, Table 2(a) (pages 67-115 below) indicates the location of ORFs (i.e., the position) within the *M. jannaschii* genome that putatively encode the recited protein based on homology matching with protein sequences from the organism appearing in parentheses (see the fourth column of Table 2(a)). The first
10 column of Table 2(a) provides a name for each ORF. The second and third columns in Table 2(a) indicate an ORF's position in the nucleotide sequence provided in SEQ ID NO:1, 2 or 3. One of ordinary skill in the art will appreciate that the ORFs may be oriented in opposite directions in the *M. jannaschii* genome. This is reflected in columns 2 and 3. The fifth column of Table 2(a)
15 indicates the percent identity of the protein sequence encoded by an ORF to the corresponding protein sequence from the organism appearing in parentheses in the fourth column. The sixth column of Table 2(a) indicates the percent similarity of the protein sequence encoded by an ORF to the corresponding protein sequence from the organism appearing in parentheses in the fourth
20 column. The concepts of percent identity and percent similarity of two polypeptide sequences are well understood in the art and are described in more detail below. The eighth column in Table 2(a) indicates the length of the ORF in nucleotides. Each identified gene has been assigned a putative cellular role category adapted from Riley (Riley, M., *Microbiol. Rev.* 57:862 (1993)).

25 Table 2(b) (page 116 below) provides the single ORF identified by the present inventors that matches a previously published *M. jannaschii* gene. In particular, ORF MJ0479, which is 585 nucleotides in length and is positioned at nucleotides 1,050,508 to 1,049,948 in SEQ ID NO:1, shares 100% identity to the previously published *M. jannaschii* adenylate kinase gene.

30 Table 3 (pages 117-150 below) provides ORFs of the *M. jannaschii* genome that did not elicit a homology match with a known sequence from either

M. jannaschii or another organism. As above, the first column in Table 3 provides the ORF name and the second and third columns indicate an ORF's position in SEQ ID NO:1, 2, or 3.

Table 4 (page 151 below) provides genes of *M. jannaschii* that contain inteins.

In the above-described Tables, there are three groups of ORF names. The one thousand six hundred and eighty two ORFs named "MJ-" (MJ0001-MJ1682) were identified on the *M. jannaschii* chromosome (SEQ ID NO:1). The forty four ORFs named "MJECL-" (MJECL01-MJECL44) were identified on the large ECE (SEQ ID NO:2). The twelve ORFs named "MJECS-" (MJECS01-MJES12) were identified on the small ECE (SEQ ID NO:3).

Further details concerning the algorithms and criteria used for homology searches are provided in the Examples below. A skilled artisan can readily identify ORFs in the *Methanococcus jannaschii* genome other than those listed in Tables 2(a), 2(b) and 3, such as ORFs that are overlapping or encoded by the opposite strand of an identified ORF in addition to those ascertainable using the computer-based systems of the present invention.

Isolated nucleic acid molecules of the present invention include DNA molecules having a nucleotide sequence substantially different than the nucleotide sequence of an ORF described in Table 2(a) or 3, but which, due to the degeneracy of the genetic code, still encode a *M. jannaschii* protein. The genetic code is well known in the art. Thus, it would be routine to generate such degenerate variants.

The present invention further relates to variants of the nucleic acid molecules of the present invention, which encode portions, analogs or derivatives of a *M. Jannaschii* protein encoded by an ORF described in Table 2(a) or 3. Non-naturally occurring variants may be produced using art-known mutagenesis techniques and include those produced by nucleotide substitutions, deletions or additions. The substitutions, deletions or additions may involve one or more nucleotides. The variants may be altered in coding regions, non-coding regions, or both. Alterations in the coding regions may produce conservative or

non-conservative amino acid substitutions, deletions or additions. Especially preferred among these are silent substitutions, additions and deletions, which do not alter the properties and activities of the *M. jannaschii* protein or portions thereof. Also especially preferred in this regard are conservative substitutions.

5 Further embodiments of the invention include isolated nucleic acid molecules comprising a polynucleotide having a nucleotide sequence at least 90% identical, and more preferably at least 95%, 96%, 97%, 98% or 99% identical, to (a) the nucleotide sequence of an ORF described in Table 2(a) or 3, (b) the
10 nucleotide sequence of an ORF described in Table 2(a) or 3, but lacking the codon for the N-terminal methionine residue, if present, or (c) a nucleotide sequence complementary to any of the nucleotide sequences in (a) or (b). By a polynucleotide having a nucleotide sequence at least, for example, 95% identical to the reference *M. jannaschii* ORF nucleotide sequence is intended that the nucleotide sequence of the polynucleotide is identical to the reference sequence
15 except that the polynucleotide sequence may include up to five point mutations per each 100 nucleotides of the ORF sequence. In other words, to obtain a polynucleotide having a nucleotide sequence at least 95% identical to a reference ORF nucleotide sequence, up to 5% of the nucleotides in the reference sequence may be deleted or substituted with another nucleotide, or a number of nucleotides
20 up to 5% of the total nucleotides in the reference sequence may be inserted into the reference sequence. These mutations of the reference sequence may occur at the 5' or 3' terminal positions of the reference nucleotide sequence or anywhere between those terminal positions, interspersed either individually among nucleotides in the reference sequence or in one or more contiguous groups within
25 the reference sequence.

As a practical matter, whether any particular nucleic acid molecule is at least 90%, 95%, 96%, 97%, 98% or 99% identical to the nucleotide sequence of a *M. jannaschii* ORF can be determined conventionally using known computer programs such as the Bestfit program (Wisconsin Sequence Analysis Package,
30 Version 8 for Unix, Genetics Computer Group, University Research Park, 575 Science Drive, Madison, WI 53711). Bestfit uses the local homology algorithm

of Smith and Waterman, *Advances in Applied Mathematics* 2: 482-489 (1981), to find the best segment of homology between two sequences. When using Bestfit or any other sequence alignment program to determine whether a particular sequence is, for instance, 95% identical to a reference sequence according to the present invention, the parameters are set, of course, such that the percentage of identity is calculated over the full length of the reference nucleotide sequence and that gaps in homology of up to 5% of the total number of nucleotides in the reference sequence are allowed.

Preferred are nucleic acid molecules having sequences at least 90%, 95%, 96%, 97%, 98% or 99% identical to the nucleic acid sequence of a *M. jannaschii* ORF that encode a functional polypeptide. By a "functional polypeptide" is intended a polypeptide exhibiting activity similar, but not necessarily identical, to an activity of the protein encoded by the *M. jannaschii* ORF. For example, the *M. jannaschii* ORF MJ1434 encodes an endonuclease that degrades DNA. Thus, a "functional polypeptide" encoded by a nucleic acid molecule having a nucleotide sequence, for example, 95% identical to the nucleotide sequence of MJ1434, will also degrade DNA. As the skilled artisan will appreciate, assays for determining whether a particular polypeptide is "functional" will depend on which ORF is used as the reference sequence. Depending on the reference ORF, the assay chosen for measuring polypeptide activity will be readily apparent in light of the role categories provided in Table 2(a).

Of course, due to the degeneracy of the genetic code, one of ordinary skill in the art will immediately recognize that a large number of the nucleic acid molecules having a sequence at least 90%, 95%, 96%, 97%, 98%, or 99% identical to the nucleic acid sequence of a reference ORF will encode a functional polypeptide. In fact, since degenerate variants all encode the same amino acid sequence, this will be clear to the skilled artisan even without performing a comparison assay for protein activity. It will be further recognized in the art that, for such nucleic acid molecules that are not degenerate variants, a reasonable number will also encode a functional polypeptide. This is because the skilled artisan is fully aware of amino acid substitutions that are either less likely or not

-12-

likely to significantly affect protein function (e.g., replacing one aliphatic amino acid with a second aliphatic amino acid).

For example, guidance concerning how to make phenotypically silent amino acid substitutions is provided in Bowie, J. U. *et al.*, "Deciphering the Message in Protein Sequences: Tolerance to Amino Acid Substitutions," *Science* 247:1306-1310 (1990), wherein the authors indicate that there are two main approaches for studying the tolerance of an amino acid sequence to change. The first method relies on the process of evolution, in which mutations are either accepted or rejected by natural selection. The second approach uses genetic engineering to introduce amino acid changes at specific positions of a cloned gene and selections or screens to identify sequences that maintain functionality. As the authors state, these studies have revealed that proteins are surprisingly tolerant of amino acid substitutions. The authors further indicate which amino acid changes are likely to be permissive at a certain position of the protein. For example, most buried amino acid residues require nonpolar side chains, whereas few features of surface side chains are generally conserved. Other such phenotypically silent substitutions are described in Bowie, J.U. *et al.*, *supra*, and the references cited therein.

The present invention is further directed to fragments of the isolated nucleic acid molecules described herein. By a fragment of an isolated nucleic acid molecule having the nucleotide sequence of a *M. jannaschii* ORF is intended fragments at least about 15 nt, and more preferably at least about 20 nt, still more preferably at least about 30 nt, and even more preferably, at least about 40 nt in length that are useful as diagnostic probes and primers as discussed herein. Of course, larger fragments 50-500 nt in length are also useful according to the present invention as are fragments corresponding to most, if not all, of the nucleotide sequence of a *M. jannaschii* ORF. By a fragment at least 20 nt in length, for example, is intended fragments that include 20 or more contiguous bases from the nucleotide sequence of a *M. jannaschii* ORF. Since *M. jannaschii* ORFs are listed in Tables 2(a) and 3 and the genome sequence has been provided, generating such DNA fragments would be routine to the skilled artisan. For

example, restriction endonuclease cleavage or shearing by sonication could easily be used to generate fragments of various sizes. Alternatively, such fragments could be generated synthetically.

Preferred nucleic acid fragments of the present invention include nucleic acid molecules encoding epitope-bearing portions of a *M. jannaschii* protein. Methods for determining such epitope-bearing portions are described in detail below.

In another aspect, the invention provides an isolated nucleic acid molecule comprising a polynucleotide that hybridizes under stringent hybridization conditions to a portion of the polynucleotide in a nucleic acid molecule of the invention described above, for instance, an ORF described in Table 2(a) or 3. By "stringent hybridization conditions" is intended overnight incubation at 42°C in a solution comprising: 50% formamide, 5x SSC (150 mM NaCl, 15mM trisodium citrate), 50 mM sodium phosphate (pH 7.6), 5x Denhardt's solution, 10% dextran sulfate, and 20 g/ml denatured, sheared salmon sperm DNA, followed by washing the filters in 0.1x SSC at about 65°C.

By a polynucleotide that hybridizes to a "portion" of a polynucleotide is intended a polynucleotide (either DNA or RNA) hybridizing to at least about 15 nucleotides (nt), and more preferably at least about 20 nt, still more preferably at least about 30 nt, and even more preferably about 30-70 nt of the reference polynucleotide. These are useful as diagnostic probes and primers as discussed above and in more detail below.

Of course, polynucleotides hybridizing to a larger portion of the reference polynucleotide (e.g., a *M. jannaschii* ORF), for instance, a portion 50-500 nt in length, or even to the entire length of the reference polynucleotide, are also useful as probes according to the present invention, as are polynucleotides corresponding to most, if not all, of a *M. jannaschii* ORF.

By "expression modulating fragment" (EMF), is intended a series of nucleotides that modulate the expression of an operably linked ORF or EMF. A sequence is said to "modulate the expression of an operably linked sequence" when the expression of the sequence is altered by the presence of the EMF. EMFs include, but are not limited to, promoters, and promoter modulating sequences (inducible elements). One class of EMFs are fragments that induce the expression of an operably linked ORF in response to a specific regulatory factor or physiological event. EMF sequences can be identified within the *M. jannaschii* genome by their proximity to the ORFs described in Tables 2(a), 2(b), and 3. An intergenic segment, or a fragment of the intergenic segment, from about 10 to 200 nucleotides in length, taken 5' from any one of the ORFs of Tables 2(a), 2(b) or 3 will modulate the expression of an operably linked 3' ORF in a fashion similar to that found with the naturally linked ORF sequence. As used herein, an "intergenic segment" refers to the fragments of the *M. jannaschii* genome that are between two ORF(s) herein described. Alternatively, EMFs can be identified using known EMFs as a target sequence or target motif in the computer-based systems of the present invention.

The presence and activity of an EMF can be confirmed using an EMF trap vector. An EMF trap vector contains a cloning site 5' to a marker sequence. A marker sequence encodes an identifiable phenotype, such as antibiotic resistance or a complementing nutrition auxotrophic factor, which can be identified or assayed when the EMF trap vector is placed within an appropriate host under appropriate conditions. As described above, an EMF will modulate the expression of an operably linked marker sequence. A more detailed discussion of various marker sequences is provided below.

A sequence that is suspected as being an EMF is cloned in all three reading frames in one or more restriction sites upstream from the marker sequence in the EMF trap vector. The vector is then transformed into an appropriate host using known procedures and the phenotype of the transformed host is examined under appropriate conditions. As described above, an EMF will modulate the expression of an operably linked marker sequence.

By "uptake modulating fragment" (UMF), is intended a series of nucleotides that mediate the uptake of a linked DNA fragment into a cell. UMFs can be readily identified using known UMFs as a target sequence or target motif with the computer-based systems described below. The presence and activity of a UMF can be confirmed by attaching the suspected UMF to a marker sequence. The resulting nucleic acid molecule is then incubated with an appropriate host under appropriate conditions and the uptake of the marker sequence is determined. As described above, a UMF will increase the frequency of uptake of a linked marker sequence.

By a "diagnostic fragment" (DF), is intended a series of nucleotides that selectively hybridize to *M. jannaschii* sequences. DFs can be readily identified by identifying unique sequences within the *M. jannaschii* genome, or by generating and testing probes or amplification primers consisting of the DF sequence in an appropriate diagnostic format for amplification or hybridization selectivity.

Each of the ORFs of the *M. jannaschii* genome disclosed in Tables 2(a) and 3, and the EMF found 5' to the ORF, can be used in numerous ways as polynucleotide reagents. The sequences can be used as diagnostic probes or diagnostic amplification primers to detect the presence *M. jannaschii* in a sample. This is especially the case with the fragments or ORFs of Table 3, which will be highly selective for *M. jannaschii*.

In addition, the fragments of the present invention, as broadly described, can be used to control gene expression through triple helix formation or antisense DNA or RNA, both of which methods are based on the binding of a polynucleotide sequence to DNA or RNA. Polynucleotides suitable for use in these methods are usually 20 to 40 bases in length and are designed to be complementary to a region of the gene involved in transcription (triple helix - see Lee *et al.*, *Nucl. Acids Res.* 6:3073 (1979); Cooney *et al.*, *Science* 241:456 (1988); and Dervan *et al.*, *Science* 251:1360 (1991)) or to the mRNA itself (antisense - Okano, *J. Neurochem.* 56:560 (1991); *Oligodeoxynucleotides as Antisense Inhibitors of Gene Expression*, CRC Press, Boca Raton, FL (1988)).

-16-

Triple helix- formation optimally results in a shut-off of RNA transcription from DNA, while antisense RNA hybridization blocks translation of an mRNA molecule into polypeptide. Both techniques have been demonstrated to be effective in model systems. Information contained in the sequences of the present invention is necessary for the design of an antisense or triple helix oligonucleotide.

Vectors and Host Cells

The present invention further provides recombinant constructs comprising one or more fragments of the *M. jannaschii* genome. The recombinant constructs of the present invention comprise a vector, such as a plasmid or viral vector, into which, for example, a *M. jannaschii* ORF is inserted. The vector may further comprise regulatory sequences, including for example, a promoter, operably linked to the ORF. For vectors comprising the EMFs and UMFs of the present invention, the vector may further comprise a marker sequence or heterologous ORF operably linked to the EMF or UMF. Large numbers of suitable vectors and promoters are known to those of skill in the art and are commercially available for generating the recombinant constructs of the present invention. The following vectors are provided by way of example. Bacterial: pBs, phagescript, PsiX174, pBluescript SK, pBs KS, pNH8a, pNH16a, pNH18a, pNH46a (Stratagene); pTrec99A, pKK223-3, pKK233-3, pDR540, pRIT5 (Pharmacia). Eukaryotic: pWLneo, pSV2cat, pOG44, pXT1, pSG (Stratagene) pSVK3, pBPV, pMSG, pSVL (Pharmacia).

Promoter regions can be selected from any desired gene using CAT (chloramphenicol transferase) vectors or other vectors with selectable markers. Two appropriate vectors are pKK232-8 and pCM7. Particular named bacterial promoters include lacI, lacZ, T3, T7, gpt, lambda P_R, and trc. Eukaryotic promoters include CMV immediate early, HSV thymidine kinase, early and late SV40, LTRs from retrovirus, and mouse metallothionein-I. Selection of the

appropriate vector and promoter is well within the level of ordinary skill in the art.

The present invention further provides host cells containing any one of the isolated fragments (preferably an ORF) of the *M. jannaschii* genome described herein. The host cell can be a higher eukaryotic host cell, such as a mammalian cell, a lower eukaryotic host cell, such as a yeast cell, or the host cell can be a procaryotic cell, such as a bacterial cell. Introduction of the recombinant construct into the host cell can be effected by calcium phosphate transfection, DEAE, dextran mediated transfection, or electroporation (Davis, L. *et al.*, *Basic Methods in Molecular Biology* (1986)). Host cells containing, for example, a *M. jannaschii* ORF can be used conventionally to produce the encoded protein.

Polypeptides and Fragments

The invention further provides an isolated polypeptide encoded by a *M. jannaschii* ORF described in Tables 2(a) or 3, or a peptide or polypeptide comprising a portion of the isolated polypeptide. The terms "peptide" and "oligopeptide" are considered synonymous (as is commonly recognized) and each term can be used interchangeably as the context requires to indicate a chain of at least two amino acids coupled by peptidyl linkages. The word "polypeptide" is used herein for chains containing more than ten amino acid residues.

It will be recognized in the art that some amino acid sequence of the *M. jannaschii* polypeptide can be varied without significant affect of the structure or function of the protein. If such differences in sequence are contemplated, it should be remembered that there will be critical areas on the protein which determine activity. In general, it is possible to replace residues which form the tertiary structure, provided that residues performing a similar function are used. In other instances, the type of residue may be completely unimportant if the alteration occurs at a non-critical region of the protein.

Thus, the invention further includes variations of a *M. jannaschii* protein encoded by an ORF described in Table 2(a) or 3 that show substantial protein

activity. Methods for assaying such "functional polypeptides" for protein activity are described above. Variations include deletions, insertions, inversions, repeats, and type substitutions (for example, substituting one hydrophilic residue for another, but not strongly hydrophilic for strongly hydrophobic as a rule). Small changes or such "neutral" amino acid substitutions will generally have little effect on protein activity.

Typically seen as conservative substitutions are the replacements, one for another, among the aliphatic amino acids Ala, Val, Leu and Ile; interchange of the hydroxyl residues Ser and Thr, exchange of the acidic residues Asp and Glu, substitution between the amide residues Asn and Gln, exchange of the basic residues Lys and Arg and replacements among the aromatic residues Phe, Tyr.

As indicated in detail above, further guidance concerning amino acid changes that are likely to be phenotypically silent (i.e., are not likely to have a significant deleterious effect on function) can be found in Bowie, J.U., *et al.*, "Deciphering the Message in Protein Sequences: Tolerance to Amino Acid Substitutions," *Science* 247:1306-1310 (1990).

The fragment, derivative, variant or analog of a *M. jannaschii* polypeptide encoded by an ORF described in Table 2(a) or 3, may be (i) one in which one or more of the amino acid residues are substituted with a conserved or non-conserved amino acid residue (preferably a conserved amino acid residue) and such substituted amino acid residue may or may not be one encoded by the genetic code, or (ii) one in which one or more of the amino acid residues includes a substituent group, or (iii) one in which the polypeptide is fused with another compound, such as a compound to increase the half-life of the polypeptide (for example, polyethylene glycol), or (iv) one in which the additional amino acids are fused to the polypeptide, such as an IgG Fc fusion region peptide or leader or secretory sequence or a sequence which is employed for purification of the polypeptide or a proprotein sequence. Such fragments, derivatives and analogs are deemed to be within the scope of those skilled in the art from the teachings herein.

Of particular interest are substitutions of charged amino acids with another charged amino acid and with neutral or negatively charged amino acids. The latter results in proteins with reduced positive charge to improve the characteristics of a *M. jannaschii* ORF-encoded protein. The prevention of aggregation is highly desirable. Aggregation of proteins not only results in a loss of activity but can also be problematic when preparing pharmaceutical formulations, because they can be immunogenic. (Pinckard *et al.*, *Clin. Exp. Immunol.* 2:331-340 (1967); Robbins *et al.*, *Diabetes* 36:838-845 (1987); Cleland *et al.* *Crit. Rev. Therapeutic Drug Carrier Systems* 10:307-377 (1993)).

As indicated, changes are preferably of a minor nature, such as conservative amino acid substitutions that do not significantly affect the folding or activity of the protein (see Table 1).

TABLE 1. Conservative Amino Acid Substitutions.

Aromatic	Phenylalanine Tryptophan Tyrosine
Hydrophobic	Leucine Isoleucine Valine
Polar	Glutamine Asparagine
Basic	Arginine Lysine Histidine
Acidic	Aspartic Acid Glutamic Acid
Small	Alanine Serine Threonine Methionine Glycine

Amino acids in a *M. jannaschii* ORF-encoded protein of the present invention that are essential for function can be identified by methods known in the art, such as site-directed mutagenesis or alanine-scanning mutagenesis

(Cunningham and Wells, *Science* 244:1081-1085 (1989)). The latter procedure introduces single alanine mutations at every residue in the molecule.

The polypeptides of the present invention are preferably provided in an isolated form. By "isolated polypeptide" is intended a polypeptide removed from its native environment. Thus, a polypeptide produced and/or contained within a recombinant host cell is considered isolated for purposes of the present invention. Also intended as an "isolated polypeptide" are polypeptides that have been purified, partially or substantially, from a recombinant host cell. For example, a recombinantly produced version of a *M. jannaschii* ORF-encoded protein can be substantially purified by the one-step method described in Smith and Johnson, *Gene* 67:31-40 (1988).

The polypeptides of the present invention include the proteins encoded by (a) an ORF described in Table 2(a) or 3 or (b) an ORF described in Table 2(a) or 3, but minus the codon for the N-terminal methionine residue, if present, as well as polypeptides that have at least 90% similarity, more preferably at least 95% similarity, and still more preferably at least 96%, 97%, 98% or 99% similarity to a *M. jannaschii* ORF-encoded protein. Further polypeptides of the present invention include polypeptides at least 90% identical, more preferably at least 95% identical, still more preferably at least 96%, 97%, 98% or 99% identical to a *M. jannaschii* ORF-encoded protein.

By "% similarity" for two polypeptides is intended a similarity score produced by comparing the amino acid sequences of the two polypeptides using the Bestfit program (Wisconsin Sequence Analysis Package, Version 8 for Unix, Genetics Computer Group, University Research Park, 575 Science Drive, Madison, WI 53711) and the default settings for determining similarity. Bestfit uses the local homology algorithm of Smith and Waterman (*Advances in Applied Mathematics* 2:482-489, 1981) to find the best segment of similarity between two sequences.

By a polypeptide having an amino acid sequence at least, for example, 95% "identical" to a reference amino acid sequence of a *M. jannaschii* ORF-encoded protein is intended that the amino acid sequence of the polypeptide is

identical to the reference sequence except that the polypeptide sequence may include up to five amino acid alterations per each 100 amino acids of the reference sequence. In other words, to obtain a polypeptide having an amino acid sequence at least 95% identical to a reference amino acid sequence, up to 5% of the amino acid residues in the reference sequence may be deleted or substituted with another amino acid, or a number of amino acids up to 5% of the total amino acid residues in the reference sequence may be inserted into the reference sequence. These alterations of the reference sequence may occur at the amino or carboxy terminal positions of the reference amino acid sequence or anywhere between those terminal positions, interspersed either individually among residues in the reference sequence or in one or more contiguous groups within the reference sequence.

As a practical matter, whether any particular polypeptide has an amino acid sequence at least 90%, 95%, 96%, 97%, 98% or 99% identical to the amino acid sequence of a *M. jannaschii* ORF-encoded protein can be determined conventionally using known computer programs such the Bestfit program (Wisconsin Sequence Analysis Package, Version 8 for Unix, Genetics Computer Group, University Research Park, 575 Science Drive, Madison, WI 53711). When using Bestfit or any other sequence alignment program to determine whether a particular sequence is, for instance, 95% identical to a reference sequence according to the present invention, the parameters are set, of course, such that the percentage of identity is calculated over the full length of the reference amino acid sequence and that gaps in homology of up to 5% of the total number of amino acid residues in the reference sequence are allowed.

As described in detail below, the polypeptides of the present invention can also be used to raise polyclonal and monoclonal antibodies, which are useful in assays for detecting *M. jannaschii* protein expression.

In another aspect, the invention provides a peptide or polypeptide comprising an epitope-bearing portion of a polypeptide of the invention. The epitope of this polypeptide portion is an immunogenic or antigenic epitope of a polypeptide of the invention. An "immunogenic epitope" is defined as a part of

-22-

a protein that elicits an antibody response when the whole protein is the immunogen. These immunogenic epitopes are believed to be confined to a few loci on the molecule. On the other hand, a region of a protein molecule to which an antibody can bind is defined as an "antigenic epitope." The number of immunogenic epitopes of a protein generally is less than the number of antigenic epitopes. See, for instance, Geysen *et al.*, *Proc. Natl. Acad. Sci. USA* 81:3998-4002 (1983).

As to the selection of peptides or polypeptides bearing an antigenic epitope (i.e., that contain a region of a protein molecule to which an antibody can bind), it is well known in that art that relatively short synthetic peptides that mimic part of a protein sequence are routinely capable of eliciting an antiserum that reacts with the partially mimicked protein. See, for instance, Sutcliffe, J. G., Shinnick, T. M., Green, N. and Learner, R.A. (1983). Antibodies that react with predetermined sites on proteins are described in *Science* 219:660-666. Peptides capable of eliciting protein-reactive sera are frequently represented in the primary sequence of a protein, can be characterized by a set of simple chemical rules, and are confined neither to immunodominant regions of intact proteins (i.e., immunogenic epitopes) nor to the amino or carboxyl terminals. Peptides that are extremely hydrophobic and those of six or fewer residues generally are ineffective at inducing antibodies that bind to the mimicked protein; longer, peptides, especially those containing proline residues, usually are effective. Sutcliffe *et al.*, *supra*, at 661. For instance, 18 of 20 peptides designed according to these guidelines, containing 8-39 residues covering 75% of the sequence of the influenza virus hemagglutinin HA1 polypeptide chain, induced antibodies that reacted with the HA1 protein or intact virus; and 12/12 peptides from the MuLV polymerase and 18/18 from the rabies glycoprotein induced antibodies that precipitated the respective proteins.

Antigenic epitope-bearing peptides and polypeptides of the invention are therefore useful to raise antibodies, including monoclonal antibodies, that bind specifically to a polypeptide of the invention. Thus, a high proportion of hybridomas obtained by fusion of spleen cells from donors immunized with an

antigen epitope-bearing peptide generally secrete antibody reactive with the native protein. Sutcliffe *et al.*, *supra*, at 663. The antibodies raised by antigenic epitope-bearing peptides or polypeptides are useful to detect the mimicked protein, and antibodies to different peptides may be used for tracking the fate of various regions of a protein precursor which undergoes post-translational processing. The peptides and anti-peptide antibodies may be used in a variety of qualitative or quantitative assays for the mimicked protein, for instance in competition assays since it has been shown that even short peptides (e.g., about 9 amino acids) can bind and displace the larger peptides in immunoprecipitation assays. See, for instance, Wilson *et al.*, *Cell* 37:767-778 (1984) at 777. The anti-peptide antibodies of the invention also are useful for purification of the mimicked protein, for instance, by adsorption chromatography using methods well known in the art.

Antigenic epitope-bearing peptides and polypeptides of the invention designed according to the above guidelines preferably contain a sequence of at least seven, more preferably at least nine and most preferably between about 15 to about 30 amino acids contained within the amino acid sequence of a polypeptide of the invention. However, peptides or polypeptides comprising a larger portion of an amino acid sequence of a polypeptide of the invention, containing about 30 to about 50 amino acids, or any length up to and including the entire amino acid sequence of a polypeptide of the invention, also are considered epitope-bearing peptides or polypeptides of the invention and also are useful for inducing antibodies that react with the mimicked protein. Preferably, the amino acid sequence of the epitope-bearing peptide is selected to provide substantial solubility in aqueous solvents (i.e., the sequence includes relatively hydrophilic residues and highly hydrophobic sequences are preferably avoided); and sequences containing proline residues are particularly preferred.

The epitope-bearing peptides and polypeptides of the invention may be produced by any conventional means for making peptides or polypeptides including recombinant means using nucleic acid molecules of the invention. For instance, a short epitope-bearing amino acid sequence may be fused to a larger

polypeptide which acts as a carrier during recombinant production and purification, as well as during immunization to produce anti-peptide antibodies. Epitope-bearing peptides also may be synthesized using known methods of chemical synthesis. For instance, Houghten has described a simple method for synthesis of large numbers of peptides, such as 10-20 mg of 248 different 13 residue peptides representing single amino acid variants of a segment of the HA1 polypeptide which were prepared and characterized (by ELISA-type binding studies) in less than four weeks. Houghten, R. A. (1985) General method for the rapid solid-phase synthesis of large numbers of peptides: specificity of antigen-antibody interaction at the level of individual amino acids. *Proc. Natl. Acad. Sci. USA* 82:5131-5135. This "Simultaneous Multiple Peptide Synthesis (SMPS)" process is further described in U.S. Patent No. 4,631,211 to Houghten *et al.* (1986). In this procedure the individual resins for the solid-phase synthesis of various peptides are contained in separate solvent-permeable packets, enabling the optimal use of the many identical repetitive steps involved in solid-phase methods. A completely manual procedure allows 500-1000 or more syntheses to be conducted simultaneously. Houghten *et al.*, *supra*, at 5134.

Epitope-bearing peptides and polypeptides of the invention are used to induce antibodies according to methods well known in the art. See, for instance, Sutcliffe *et al.*, *supra*; Wilson *et al.*, *supra*; Chow, M. *et al.*, *Proc. Natl. Acad. Sci. USA* 82:910-914; and Bittle, F. J. *et al.*, *J. Gen. Virol.* 66:2347-2354 (1985). Generally, animals may be immunized with free peptide; however, anti-peptide antibody titer may be boosted by coupling of the peptide to a macromolecular carrier, such as keyhole limpet hemacyanin (KLH) or tetanus toxoid. For instance, peptides containing cysteine may be coupled to carrier using a linker such as m-maleimidobenzoyl-N-hydroxysuccinimide ester (MBS), while other peptides may be coupled to carrier using a more general linking agent such as glutaraldehyde. Animals such as rabbits, rats and mice are immunized with either free or carrier-coupled peptides, for instance, by intraperitoneal and/or intradermal injection of emulsions containing about 100 g peptide or carrier protein and Freund's adjuvant. Several booster injections may be needed, for

instance, at intervals of about two weeks, to provide a useful titer of anti-peptide antibody which can be detected, for example, by ELISA assay using free peptide adsorbed to a solid surface. The titer of anti-peptide antibodies in serum from an immunized animal may be increased by selection of anti-peptide antibodies, for instance, by adsorption to the peptide on a solid support and elution of the selected antibodies according to methods well known in the art.

Immunogenic epitope-bearing peptides of the invention, i.e., those parts of a protein that elicit an antibody response when the whole protein is the immunogen, are identified according to methods known in the art. For instance, Geysen *et al.*, *supra*, discloses a procedure for rapid concurrent synthesis on solid supports of hundreds of peptides of sufficient purity to react in an enzyme-linked immunosorbent assay. Interaction of synthesized peptides with antibodies is then easily detected without removing them from the support. In this manner a peptide bearing an immunogenic epitope of a desired protein may be identified routinely by one of ordinary skill in the art. For instance, the immunologically important epitope in the coat protein of foot-and-mouth disease virus was located by Geysen *et al.* with a resolution of seven amino acids by synthesis of an overlapping set of all 208 possible hexapeptides covering the entire 213 amino acid sequence of the protein. Then, a complete replacement set of peptides in which all 20 amino acids were substituted in turn at every position within the epitope were synthesized, and the particular amino acids conferring specificity for the reaction with antibody were determined. Thus, peptide analogs of the epitope-bearing peptides of the invention can be made routinely by this method. U.S. Patent No. 4,708,781 to Geysen (1987) further describes this method of identifying a peptide bearing an immunogenic epitope of a desired protein.

Further still, U.S. Patent No. 5,194,392 to Geysen (1990) describes a general method of detecting or determining the sequence of monomers (amino acids or other compounds) which is a topological equivalent of the epitope (i.e., a "mimotope") which is complementary to a particular paratope (antigen binding site) of an antibody of interest. More generally, U.S. Patent No. 4,433,092 to Geysen (1989) describes a method of detecting or determining a sequence of

monomers which is a topographical equivalent of a ligand which is complementary to the ligand binding site of a particular receptor of interest. Similarly, U.S. Patent No. 5,480,971 to Houghten, R. A. *et al.* (1996) on Peralkylated Oligopeptide Mixtures discloses linear C₁-C₇-alkyl peralkylated oligopeptides and sets and libraries of such peptides, as well as methods for using such oligopeptide sets and libraries for determining the sequence of a peralkylated oligopeptide that preferentially binds to an acceptor molecule of interest. Thus, non-peptide analogs of the epitope-bearing peptides of the invention also can be made routinely by these methods.

The entire disclosure of each document cited in this section on "Polypeptides and Peptides" is hereby incorporated herein by reference.

As one of skill in the art will appreciate, the polypeptides of the present invention and the epitope-bearing fragments thereof described above can be combined with parts of the constant domain of immunoglobulins (IgG), resulting in chimeric polypeptides. These fusion proteins facilitate purification and show an increased half-life *in vivo*. This has been demonstrated, e.g., for chimeric proteins consisting of the first two domains of the human CD4-polypeptide and various domains of the constant regions of the heavy or light chains of mammalian immunoglobulins (EPA 394,827; Traunecker *et al.*, *Nature* 331:84-86 (1988)). Fusion proteins that have a disulfide-linked dimeric structure due to the IgG part can also be more efficient in binding and neutralizing other molecules than the monomeric protein or protein fragment alone (Fountoulakis *et al.*, *J Biochem* 270:3958-3964 (1995)).

Protein Function

Each ORF described in Table 2(a) was assigned to biological role categories adapted from Riley, M., *Microbiology Reviews* 57(4):862 (1993)). This allows the skilled artisan to determine a function for each identified coding sequence. For example, a partial list of the *M. jannaschii* protein functions provided in Table 2(a) includes: methanogenesis, amino acid biosynthesis, cell

division, detoxification, protein secretion, transformation, central intermediary metabolism, energy metabolism, degradation of DNA, DNA replication, restriction, modification, recombination and repair, transcription, RNA processing, translation, degradation of proteins, peptides and glycopeptides, ribosomal proteins, translation factors, transport, tRNA modification, and drug and analog sensitivity. A more detailed description of several of these functions is provided in Example 1 below.

Diagnostic Assays

The present invention further provides methods to identify the expression of an ORF of the present invention, or homolog thereof, in a test sample, using one of the DFs or antibodies of the present invention. Such methods involve incubating a test sample with one or more of the antibodies or one or more of the DFs of the present invention and assaying for binding of the DFs or antibodies to components within the test sample.

Conditions for incubating a DF or antibody with a test sample vary. Incubation conditions depend on the format employed in the assay, the detection methods employed, and the type and nature of the DF or antibody used in the assay. One skilled in the art will recognize that any one of the commonly available hybridization, amplification or immunological assay formats can readily be adapted to employ the DFs or antibodies of the present invention. Examples of such assays can be found in Chard, T., *An Introduction to Radioimmunoassay and Related Techniques*, Elsevier Science Publishers, Amsterdam, The Netherlands (1986); Bullock, G.R. *et al.*, *Techniques in Immunocytochemistry*, Academic Press, Orlando, FL Vol. 1 (1982), Vol. 2 (1983), Vol. 3 (1985); Tijssen, P., *Practice and Theory of Enzyme Immunoassays: Laboratory Techniques in Biochemistry and Molecular Biology*, Elsevier Science Publishers, Amsterdam, The Netherlands (1985).

The test samples of the present invention include cells, protein or membrane extracts of cells. The test sample used in the above-described method

will vary based on the assay format, nature of the detection method and the cells or extracts used as the sample to be assayed. Methods for preparing protein extracts or membrane extracts of cells are well known in the art and can be readily be adapted in order to obtain a sample which is compatible with the system utilized.

In another embodiment of the present invention, kits are provided which contain the necessary reagents to carry out the assays of the present invention. Specifically, the invention provides a compartmentalized kit to receive, in close confinement, one or more containers including comprising: (a) a first container comprising one of the DFs or antibodies of the present invention; and (b) one or more other containers comprising one or more of the following: wash reagents, reagents capable of detecting presence of a bound DF or antibody.

A compartmentalized kit includes any kit in which reagents are contained in separate containers. Such containers include small glass containers, plastic containers or strips of plastic or paper. Such containers allow one to efficiently transfer reagents from one compartment to another compartment such that the samples and reagents are not cross-contaminated, and the agents or solutions of each container can be added in a quantitative fashion from one compartment to another. Such containers will include a container which will accept the test sample, a container which contains the antibodies used in the assay, containers which contain wash reagents (such as phosphate buffered saline, Tris-buffers, etc.), and containers which contain the reagents used to detect the bound antibody or DF.

Types of detection reagents include labeled nucleic acid probes, labeled secondary antibodies, or in the alternative, if the primary antibody is labeled, the enzymatic, or antibody binding reagents that are capable of reacting with the labeled antibody. One skilled in the art will readily recognize that the disclosed DFs and antibodies of the present invention can be readily incorporated into one of the established kit formats that are well known in the art.

Screening Assay for Binding Agents

Using the isolated proteins described herein, the present invention further provides methods of obtaining and identifying agents that bind to a protein encoded by a *M. jannaschii* ORF or to a fragment thereof.

5 The method involves:

- (a) contacting an agent with an isolated protein encoded by a *M. jannaschii* ORF, or an isolated fragment thereof; and
- (b) determining whether the agent binds to said protein or said fragment.

10 The agents screened in the above assay can be, but are not limited to, peptides, carbohydrates, vitamin derivatives, or other pharmaceutical agents. The agents can be selected and screened at random or rationally selected or designed using protein modeling techniques. For random screening, agents such as peptides, carbohydrates, pharmaceutical agents and the like are selected at
15 random and are assayed for their ability to bind to the protein encoded by an ORF of the present invention.

 Alternatively, agents may be rationally selected or designed. As used herein, an agent is said to be "rationally selected or designed" when the agent is chosen based on the configuration of the particular protein. For example, one
20 skilled in the art can readily adapt currently available procedures to generate peptides, pharmaceutical agents and the like capable of binding to a specific peptide sequence in order to generate rationally designed antipeptide peptides, for example see Hurby *et al.*, Application of Synthetic Peptides: Antisense Peptides, In *Synthetic Peptides, A User's Guide*, W.H. Freeman, NY (1992), pp. 289-307,
25 and Kaspczak *et al.*, *Biochemistry* 28:9230-8 (1989), or pharmaceutical agents, or the like.

 In addition to the foregoing, one class of agents of the present invention, can be used to control gene expression through binding to one of the ORFs or EMFs of the present invention. As described above, such agents can be randomly

-30-

screened or rationally designed and selected. Targeting the ORF or EMF allows a skilled artisan to design sequence specific or element specific agents, modulating the expression of either a single ORF or multiple ORFs that rely on the same EMF for expression control.

5 One class of DNA binding agents are those that contain nucleotide base residues that hybridize or form a triple helix by binding to DNA or RNA. Such agents can be based on the classic phosphodiester, ribonucleic acid backbone, or can be a variety of sulfhydryl or polymeric derivatives having base attachment capacity.

10 Agents suitable for use in these methods usually contain 20 to 40 bases and are designed to be complementary to a region of the gene involved in transcription (triple helix - see Lee *et al.*, *Nucl. Acids Res.* 6:3073 (1979); Cooney *et al.*, *Science* 241:456 (1988); and Dervan *et al.*, *Science* 251: 1360 (1991)) or to the mRNA itself (antisense - Okano, *J. Neurochem.* 56:560 (1991);
15 *Oligodeoxynucleotides as Antisense Inhibitors of Gene Expression*, CRC Press, Boca Raton, FL (1988)). Triple helix-formation optimally results in a shut-off of RNA transcription from DNA, while antisense RNA hybridization blocks translation of an mRNA molecule into polypeptide. Both techniques have been demonstrated to be effective in model systems. Information contained in the
20 sequences of the present invention is necessary for the design of an antisense or triple helix oligonucleotide and other DNA binding agents.

Computer Related Embodiments

The nucleotide sequence provided in SEQ ID NO:1, 2, or 3, a representative fragment thereof, or a nucleotide sequence at least 99.9% identical
25 to the sequence provided in SEQ ID NO:1, 2, or 3, can be "provided" in a variety of mediums to facilitate use thereof. As used herein, provided refers to a manufacture, other than an isolated nucleic acid molecule, that contains a nucleotide sequence of the present invention, i.e., the nucleotide sequence provided in SEQ ID NO:1, 2, or 3, a representative fragment thereof, or a

nucleotide sequence at least 99.9% identical to SEQ ID NO:1, 2, or 3. Such a manufacture provides the *M. jannaschii* genome or a subset thereof (e.g., a *M. jannaschii* open reading frame (ORF)) in a form that allows a skilled artisan to examine the manufacture using means not directly applicable to examining the *M. jannaschii* genome or a subset thereof as it exists in nature or in purified form.

In one application of this embodiment, a nucleotide sequence of the present invention can be recorded on computer readable media. As used herein, "computer readable media" refers to any medium that can be read and accessed directly by a computer. Such media include, but are not limited to: magnetic storage media, such as floppy discs, hard disc storage medium, and magnetic tape; optical storage media such as CD-ROM; electrical storage media such as RAM and ROM; and hybrids of these categories such as magnetic/optical storage media. A skilled artisan can readily appreciate how any of the presently known computer readable mediums can be used to create a manufacture comprising computer readable medium having recorded thereon a nucleotide sequence of the present invention.

As used herein, "recorded" refers to a process for storing information on computer readable medium. A skilled artisan can readily adopt any of the presently know methods for recording information on computer readable medium to generate manufactures comprising the nucleotide sequence information of the present invention. A variety of data storage structures are available to a skilled artisan for creating a computer readable medium having recorded thereon a nucleotide sequence of the present invention. The choice of the data storage structure will generally be based on the means chosen to access the stored information. In addition, a variety of data processor programs and formats can be used to store the nucleotide sequence information of the present invention on computer readable medium. The sequence information can be represented in a word processing text file, formatted in commercially-available software such as WordPerfect and MicroSoft Word, or represented in the form of an ASCII file, stored in a database application, such as DB2, Sybase, Oracle, or the like. A skilled artisan can readily adapt any number of dataprocessor structuring formats

(e.g. text file or database) in order to obtain computer readable medium having recorded thereon the nucleotide sequence information of the present invention.

By providing the nucleotide sequence of SEQ ID NO:1, 2, or 3, a representative fragment thereof, or a nucleotide sequence at least 99.9% identical to SEQ ID NO:1, 2, or 3, in computer readable form, a skilled artisan can routinely access the sequence information for a variety of purposes. Computer software is publicly available which allows a skilled artisan to access sequence information provided in a computer readable medium. The examples which follow demonstrate how software which implements the BLAST (Altschul *et al.*, *J. Mol. Biol.* 215:403-410 (1990)) and BLAZE (Brutlag *et al.*, *Comp. Chem.* 17:203-207 (1993)) search algorithms on a Sybase system can be used to identify open reading frames (ORFs) within the *M. jannaschii* genome that contain homology to ORFs or proteins from other organisms. Such ORFs are protein-encoding fragments within the *M. jannaschii* genome and are useful in producing commercially important proteins such as enzymes used in methanogenesis, amino acid biosynthesis, metabolism, fermentation, transcription, translation, RNA processing, nucleic acid and protein degradation, protein modification, and DNA replication, restriction, modification, recombination, and repair. A comprehensive list of ORFs encoding commercially important *M. jannaschii* proteins is provided in Tables 2(a) and 3.

The present invention further provides systems, particularly computer-based systems, which contain the sequence information described herein. Such systems are designed to identify commercially important fragments of the *M. jannaschii* genome. As used herein, "a computer-based system" refers to the hardware means, software means, and data storage means used to analyze the nucleotide sequence information of the present invention. The minimum hardware means of the computer-based systems of the present invention comprises a central processing unit (CPU), input means, output means, and data storage means. A skilled artisan can readily appreciate that any one of the currently available computer-based system are suitable for use in the present invention.

As indicated above, the computer-based systems of the present invention comprise a data storage means having stored therein a nucleotide sequence of the present invention and the necessary hardware means and software means for supporting and implementing a search means. As used herein, "data storage means" refers to memory that can store nucleotide sequence information of the present invention, or a memory access means which can access manufactures having recorded thereon the nucleotide sequence information of the present invention. As used herein, "search means" refers to one or more programs which are implemented on the computer-based system to compare a target sequence or target structural motif with the sequence information stored within the data storage means. Search means are used to identify fragments or regions of the *M. jannaschii* genome that match a particular target sequence or target motif. A variety of known algorithms are disclosed publicly and a variety of commercially available software for conducting search means are available and can be used in the computer-based systems of the present invention. Examples of such software include, but are not limited to, MacPattern (EMBL), BLASTN and BLASTX (NCBIA). A skilled artisan can readily recognize that any one of the available algorithms or implementing software packages for conducting homology searches can be adapted for use in the present computer-based systems.

As used herein, a "target sequence" can be any DNA or amino acid sequence of six or more nucleotides or two or more amino acids. A skilled artisan can readily recognize that the longer a target sequence is, the less likely a target sequence will be present as a random occurrence in the database. The most preferred sequence length of a target sequence is from about 10 to 100 amino acids or from about 30 to 300 nucleotide residues. However, it is well recognized that during searches for commercially important fragments of the *M. jannaschii* genome, such as sequence fragments involved in gene expression and protein processing, may be of shorter length.

As used herein, "a target structural motif," or "target motif," refers to any rationally selected sequence or combination of sequences in which the sequence(s) are chosen based on a three-dimensional configuration which is

formed upon the folding of the target motif. There are a variety of target motifs known in the art. Protein target motifs include, but are not limited to, enzymic active sites and signal sequences. Nucleic acid target motifs include, but are not limited to, promoter sequences, hairpin structures and inducible expression elements (protein binding sequences).

Thus, the present invention further provides an input means for receiving a target sequence, a data storage means for storing the target sequence and the homologous *M. jannaschii* sequence identified using a search means as described above, and an output means for outputting the identified homologous *M. jannaschii* sequence. A variety of structural formats for the input and output means can be used to input and output information in the computer-based systems of the present invention. A preferred format for an output means ranks fragments of the *M. jannaschii* genome possessing varying degrees of homology to the target sequence or target motif. Such presentation provides a skilled artisan with a ranking of sequences which contain various amounts of the target sequence or target motif and identifies the degree of homology contained in the identified fragment.

A variety of comparing means can be used to compare a target sequence or target motif with the data storage means to identify sequence fragments of the *M. jannaschii* genome. For example, implementing software which implement the BLAST and BLAZE algorithms (Altschul *et al.*, *J. Mol. Biol.* 215:403-410 (1990)) can be used to identify open reading frames within the *M. jannaschii* genome. A skilled artisan can readily recognize that any one of the publicly available homology search programs can be used as the search means for the computer-based systems of the present invention.

One application of this embodiment is provided in Figure 4. Figure 4 provides a block diagram of a computer system 102 that can be used to implement the present invention. The computer system 102 includes a processor 106 connected to a bus 104. Also connected to the bus 104 are a main memory 108 (preferably implemented as random access memory, RAM) and a variety of secondary storage devices 110, such as a hard drive 112 and a removable medium

storage device 114. The removable medium storage device 114 may represent, for example, a floppy disk drive, a CD-ROM drive, a magnetic tape drive, etc. A removable storage medium 116 (such as a floppy disk, a compact disk, a magnetic tape, etc.) containing control logic and/or data recorded therein may be inserted into the removable medium storage device 114. The computer system 102 includes appropriate software for reading the control logic and/or the data from the removable medium storage device 114 once inserted in the removable medium storage device 114.

A nucleotide sequence of the present invention may be stored in a well known manner in the main memory 108, any of the secondary storage devices 110, and/or a removable storage medium 116. Software for accessing and processing the genomic sequence (such as search tools, comparing tools, etc.) reside in main memory 108 during execution.

Having generally described the invention, the same will be more readily understood by reference to the following examples, which are provided by way of illustration and are not intended as limiting.

Experimental

Complete genome sequence of the methanogenic archaeon, Methanococcus jannaschii

Example I

A whole genome random sequencing method (Fleischmann, R.D., *et al.*, *Science* 269:496 (1995); Fraser, C.M., *et al.*, *Science* 270:397 (1995)) was used to obtain the complete genome sequence for *M. jannaschii*. A small insert plasmid library (2.5 Kbp average insert size) and a large insert lambda library (16 Kbp average insert size) were used as substrates for sequencing. The lambda library was used to form a genome scaffold and to verify the orientation and integrity of the contigs formed from the assembly of sequences from the plasmid library. All clones were sequenced from both ends to aid in ordering of contigs during the sequence assembly process. The average length of sequencing reads was 481 bp. A total of 36,718 sequences were assembled by means of the TIGR

Assembler (Fleischmann, R.D., *et al.*, *Science* 269:496 (1995); Fraser, C.M., *et al.*, *Science* 270:397 (1995); Sutton G., *et al.*, *Genome Sci. Tech.* 1:9 (1995)). Sequence and physical gaps were closed using a combination of strategies (Fleischmann, R.D., *et al.*, *Science* 269:496 (1995); Fraser, C.M., *et al.*, *Science* 270:397 (1995)). The colinearity of the *in vivo* genome to the genome sequence was confirmed by comparing restriction fragments from six, rare cutter, restriction enzymes (Aat II, BamHI, Bgl II, Kpn I, Sma I, and Sst II) to those predicted from the sequence data. Additional confidence in the colinearity was provided by the genome scaffold produced by sequence pairs from 339 large-insert lambda clones, which covered 88% of the main chromosome. Open reading frames (ORFs) and predicted protein-coding regions were identified as described (Fleischmann, R.D., *et al.*, *Science* 269:496 (1995); Fraser, C.M., *et al.*, *Science* 270:397 (1995)) with some modification. In particular, the statistical prediction of *M. jannaschii* genes was performed with GeneMark (Borodovsky, M. & McIninch, J. *Comput. Chem.* 17:123 (1993)). Regular GeneMark uses nonhomogeneous Markov models derived from a training set of coding sequences and ordinary Markov models derived from a training set of noncoding sequences. Only a single 16S ribosomal RNA sequence of *M. jannaschii* was available in the public sequence databases before the whole genome sequence described here. Thus, the initial training set to determine parameters of a coding sequence Markov model was chosen as a set of ORFs >1000 nucleotides (nt). As an initial model for non-coding sequences, a zero-order Markov model with genome-specific nucleotide frequencies was used. The initial models were used at the first prediction step. The results of the first prediction were then used to compile a set of putative genes used at the second training step. Alternate rounds of training and predicting were continued until the set of predicted genes stabilized and the parameters of the final fourth-order model of coding sequences were derived. The regions predicted as noncoding were then used as a training set for a final model for noncoding regions. Cross-validation simulations demonstrated that the GeneMark program trained as described above was able to correctly identify coding regions of at least 96 nt in 94% of the cases and noncoding regions of the

same length in 96% of the cases. These values assume that the self-training method produced correct sequence annotation for compiled control sets. Comparison with the results obtained by searches against a nonredundant protein database (Fleischmann, R.D., *et al.*, *Science* 269:496 (1995); Fraser, C.M., *et al.*, *Science* 270:397 (1995)) demonstrated that almost all genes identified by sequence similarity were predicted by the GeneMark program as well. This observation provides additional confidence in genes predicted by GeneMark whose protein translations did not show significant similarity to known protein sequences. The predicted protein-coding regions were search against the Blocks database (Henikoff, S. & Henikoff, J.G., *Genomics* 19:97 (1994)) by means of BLIMPS (Wallace, J.C. & Henikoff, S., *CABIOS* 8:249 (1992)) to verify putative identifications and to identify potential functional motifs in predicted protein-coding regions that had no database match. Genes were assigned to known metabolic pathways. When a gene appeared to be missing from a pathway, the unassigned ORFs and the complete *M. jannaschii* genome sequence were searched with specific query sequences or motifs from the Blocks database. Hydrophobicity plots were performed on all predicted protein-coding regions by means of the Kyte-Doolittle algorithm (Kyte, J. & Doolittle, R.F., *J. Mol. Biol.* 157:105 (1982)) to identify potentially functionally relevant signatures in these sequences.

The *M. jannaschii* genome comprises three physically distinct elements: i) a large circular chromosome of 1,664,976 base pairs (bp) (SEQ ID NO:1), which contains 1682 predicted protein-coding regions and has a G+C content of 31.4%; ii) a large circular extrachromosomal element (ECE) (Zhao, H., *et al.*, *Arch. Microbiol.* 150:178 (1988)) of 58,407 bp (SEQ ID NO:2), which contains 44 predicted protein coding regions and has a G+C content of 28.2%; and iii) a small circular ECE (Zhao, H., *et al.*, *Arch. Microbiol.* 150:178 (1988)) of 16,550 bp (SEQ ID NO:3), which contains 12 predicted protein coding regions, and has a G+C content of 28.8%. With respect to its shape, size, G+C content, and gene density the main chromosome resembles that of *H. influenzae*. However, here the resemblance stops.

Of the 1743 predicted protein-coding regions reported previously for *H. influenzae*, 78% had a match in the public sequence database (Fleischmann, R.D., *et al.*, *Science* 269:496 (1995); Fraser, C.M., *et al.*, *Science* 270:397 (1995)). Of these, 58% were matches to genes with reasonably well defined function, while 20% were matches to genes whose function was undefined. Similar observations were made for the *M. genitalium* genome (Fleischmann, R.D., *et al.*, *Science* 269:496 (1995); Fraser, C.M., *et al.*, *Science* 270:397 (1995)). Eighty-three percent of the predicted protein coding regions from *M. genitalium* have a counterpart in the *H. influenzae* genome. In contrast, only 38% of the predicted protein-coding regions from *M. jannaschii* match a gene in the database that could be assigned a putative cellular role with high confidence; 6% of the predicted protein-coding regions had matches to hypothetical proteins (Tables 2-3). Approximately 100 genes in *M. jannaschii* had marginal similarity to genes or segments of genes from the public sequence databases and could not be assigned a putative cellular role with high confidence. Only 11% of the predicted protein-coding regions from *H. influenzae* and 17% of the predicted protein coding regions from *M. genitalium* matched a predicted protein coding region from *M. jannaschii*. Clearly the *M. jannaschii* genome, and undoubtedly, therefore, all archaeal genomes are remarkably unique, as the phylogenetic position of these organisms would suggest.

Energy production in *M. jannaschii* occurs via the reduction of CO₂ with H₂ to produce methane. Genes for all of the known enzymes and enzyme complexes associated with methanogenesis (DiMarco, A.A., *et al.*, *Ann. Rev. Biochem.* 59:355 (1990)) were identified in *M. jannaschii*, the sequence and order of which are typical of methanogens. *M. jannaschii* appears to use both H₂ and formate as substrates for methanogenesis, but lacks the genes to use methanol or acetate. The ability to fix nitrogen has been demonstrated in a number of methanogens (Belay, N., *et al.*, *Nature* 312:286 (1984)) and all of the genes necessary for this pathway have been identified in *M. jannaschii* (Tables 2-3). In addition to its anabolic pathways, several scavenging molecules have been

identified in *M. jannaschii* that probably play a role in importing small organic compounds, such as amino acids, from the environment (Tables 2-3).

Three different pathways are known for the fixation of CO₂ into organic carbon: the non-cyclic, reductive acetyl-coenzyme A-carbon monoxide dehydrogenase pathway (Ljungdahl-Wood pathway), the reductive trichloroacetic acid (TCA) cycle, and the Calvin cycle. Methanogens fix carbon by the Ljungdahl-Wood pathway (Wood, H.G., *et al.*, *TIBS* 11:14 (1986)), which is facilitated by the carbon monoxide dehydrogenase enzyme complex (CODH) (Blaat, M., *Antonie van Leeuwenhoek* 66:187 (1994)). The complete Ljungdahl-Wood pathway, encoded in the *M. jannaschii* genome, depends on the methyl carbon in methanogenesis; however, methanogenesis can occur independently of carbon fixation.

Although genes encoding two enzymes required for gluconeogenesis (glucopyruvate oxidoreductase and phosphoenolpyruvate synthase) were found in the *M. jannaschii* genome, genes encoding other key intermediates of gluconeogenesis (fructose biphosphatase and fructose 1,6-bisphosphate aldolase) were not been identified. Glucose catabolism by glycolysis also requires the aldolase, as well as phosphofructokinase, an enzyme that also was not found in *M. jannaschii* and has not been detected in any of the Archaea. In addition, genes specific for the Entner-Doudoroff pathway, an alternative pathway used by some microbes for the catabolism of glucose, were not identified in the genomic sequence. The presence of a number of nearly complete metabolic pathways suggests that some key genes are not recognizable at the sequence level, although we cannot exclude the possibility that *M. jannaschii* may use alternative metabolic pathways.

In general, *M. jannaschii* genes that encode proteins involved in the transport of small inorganic ions into the cell are homologs of bacterial genes. The genome includes many representatives of the ABC transporter family, as well as genes for exporting heavy metals (e.g., the chromate-resistance protein) and other toxic compounds (e.g., the norA drug efflux pump locus).

More than 20 predicted protein-coding regions have sequence similarity to polysaccharide biosynthetic enzymes. These genes have only bacterial homologs or are most closely related to their bacterial counterparts. The identified polysaccharide biosynthetic genes in *M. jannaschii* include those for the interconversion of sugars, activation of sugars to nucleotide sugars, and glycosyltransferases for the polymerization of nucleotide sugars into oligo- and polysaccharides that are subsequently incorporated into surface structures (Hartmann, E. and König, H., *Arch. Microbiol.* 151:274 (1989)). In an arrangement reminiscent of bacterial polysaccharide biosynthesis genes, many of the genes for *M. jannaschii* polysaccharide production are clustered together (Tables 2-3). The G+C content in this region is <95% of that in the rest of the *M. jannaschii* genome. A similar observation was made in *Salmonella typhimurium* (Jiang, X.M., *et al.*, *Mol. Microbiol.* 5:695 (1991)) in which the gene cluster for lipopolysaccharide O antigen has a significantly lower G+C ratio than the rest of the genome. In that case, the difference in G+C content was interpreted as meaning that the region originated by lateral transfer from another organism.

Of the three main multicomponent information processing systems (transcription, translation, and replication), translation appears the most universal in its overall makeup in that the basic translation machinery is similar in all three domains of life. *M. jannaschii* has two ribosomal RNA operons, designated A and B, and a separate 5S RNA gene that is associated with several transfer RNAs (tRNAs). Operon A has the organization, 16S - 23S - 5S, whereas operon B lacks the 5S component. An alanine tRNA is situated in the spacer region between the 16S and 23S subunits in both operons. The majority of proteins associated with the ribosomal subunits (especially the small subunit) are present in both Bacteria and Eukaryotes. However, the relatively protein-rich eukaryotic ribosome contains additional ribosomal proteins not found in the bacterial ribosome. A smaller number of bacteria-specific ribosomal proteins exist as well. The *M. jannaschii* genome contains all ribosomal proteins that are common to eukaryotes and bacteria. It shows no homologs of the bacterial-specific ribosomal proteins, but does possess homologs of a number of the eukaryotic-specific ones.

Homologs of all archaea-specific ribosomal proteins that have been reported to date (Lechner, K., *et al.*, *J. Mol. Evol.* 29:20 (1989); Köpke, A.K.E. and Wittmann-Liebold, B., *Can. J. Microbiol.* 35:11 (1989)) are found in *M. jannaschii*.

5 As previously shown for other archaea (Iwabe, N., *et al.*, *Proc. Natl. Acad. Sci. USA* 86:9355 (1989); Gogarten J.P., *et al.*, *Proc. Natl. Acad. Sci. USA* 86:6661 (1989); Brown, J.R. and Doolittle, W.F., *Proc. Natl. Acad. Sci. USA* 92:2441 (1995)), the *Methanococcus* translation elongation factors EF-1 α (EF-Tu in bacteria) and EF-2 (EF-G in bacteria) are most similar to their eukaryotic
10 counterparts. In addition, the *M. jannaschii* genome contains 11 translation initiation factor genes. Three of these genes encode the subunits homologous to those of the eukaryotic IF-2, and are reported here in the Archaea for the first time. A fourth initiation factor gene that encodes a second IF-2 is also found in *M. jannaschii*. This additional IF-2 gene is most closely related to the yeast
15 protein FUN12 which, in turn, appears to be a homolog of the bacterial IF-2. It is not known which of the two IF-2-like initiation factors identified in *M. jannaschii* plays a role in directing the initiator tRNA to the start site of the mRNA. The fifth identified initiation factor gene in *M. jannaschii* encodes IF-1A, which has no bacterial homolog. The sixth gene encodes the hypusine-containing initiation factor eIF-5a. Two subunits of the translation initiation
20 factor eIF-2B were identified in *M. jannaschii*. Finally, three putative adenosine 5'-triphosphate (ATP)-dependent helicases were identified that belong to the eIF-4a family of translation initiation factors.

Thirty-seven tRNA genes were identified in the *M. jannaschii* genome.
25 Almost all amino acids encoded by two codons have a single tRNA, except for glutamic acid, which has two. Both an initiator and an internal methionyl tRNA are present. The two pyrimidine-ending isoleucine codons are covered by a single tRNA, while the third (AUA) seems covered by a related tRNA having a CAU anticodon. A single tRNA appears to cover the three isoleucine codons.
30 Those amino acids encoded by four codons each have two tRNAs, one to cover the Y-, the other the R-ending, codons. Valine has a third tRNA, which is

specific for the GUG codon; and alanine has three tRNAs (two of which are in the spacer regions separating the 16S and 23S subunits in the two ribosomal RNA operons). Leucine, serine and arginine, all of which have six codons, each possess three corresponding tRNAs. The genes for the internal methionine and tryptophan tRNAs contain introns in the region of their anti-codon loops.

A tRNA also exists for selenocysteine (UGA codon). At least four genes in *M. jannaschii* contain internal stop codons that are potential selenocysteine codons: the α chain of formate dehydrogenase, coenzyme F420 reducing hydrognase, β -chain tungsten formyl methanofuran dehydrogenase, and a heterodisulfide reductase. Three genes with a putative role in selenocysteine metabolism were identified by their similarity to the *sel* genes from other organisms (Tables 2-3).

Recognizable homologs for four of the aminoacyl-tRNA synthetases (glutamine, asparagine, lysine, and cysteine) were not identified in the *M. jannaschii* genome. The absence of a glutaminyl-tRNA synthetase is not surprising in that a number of organisms, including at least one archaeon, have none (Wilcox, M., *Eur. J. Biochem.* 11:405 (1969); Martin, N.C., *et al.*, *J. Mol. Biol.* 101:285 (1976); Martin, N.C., *et al.*, *Biochemistry* 16:4672 (1977); Schon, A., *et al.*, *Biochimie* 70:391 (1988); Soll, D. and RajBhandary, U., Eds. *Am. Soc. for Microbiol.* (1995)). In these instances, glutaminyl tRNA charging involves a post-charging conversion mechanism whereby the tRNA is charged by the glutamyl-tRNA synthetase with glutamic acid, which then is enzymatically converted to glutamine. A post-charging conversion is also involved in selenocysteine charging via the seryl-tRNA synthetase. A similar mechanism has been proposed for asparagine charging, but has never been demonstrated (Wilcox, M., *Eur. J. Biochem.* 11:405 (1969); Martin, N.C., *et al.*, *J. Mol. Biol.* 101:285 (1976); Martin, N.C., *et al.*, *Biochemistry* 16:4672 (1977); Schon, A., *et al.*, *Biochimie* 70:391 (1988); Soll, D. and RajBhandary, U., Eds. *Am. Soc. for Microbiol.* (1995)). The inability to find homologs of the lysine and cysteine aminoacyl-tRNA synthetases is surprising because bacterial and eukaryotic versions in each instance show clear homology.

Aminoacyl-tRNA synthetases of *M. jannaschii* and other archaea resemble eukaryotic synthetases more closely than they resemble bacterial forms. The tryptophanyl synthetase is one of the more notable examples, because the *M. jannaschii* and eukaryotic version do not appear to be specifically related to the bacterial version (de Pouplana, R., *et al.*, *Proc. Natl. Acad. Sci., USA* 93:166 (1996)). Two versions of the glycyl synthetase are known in bacteria, one that is very unlike the version found in Archaea and Eukaryote and one that is an obvious homolog of it (Wagner, E.A., *et al.*, *J. Bacteriol.* 177:5179 (1995); Logan, D.T., *et al.*, *EMBO J.* 14:4156 (1995)).

Eleven genes encoding subunits of the DNA-dependent RNA polymerase were identified in the *M. jannaschii* genome. The sequence similarity between the subunits and their homologs in *Sulfolobus acidocaldarius* supports the evolutionary unity of the archaeal polymerase complex (Woese, C.R. and Wolfe, R.S., Eds. *The Bacteria*, vol. VIII (Academic Press, NY, 1985); Langer, D., *et al.*, *Proc. Natl. Acad. Sci.* 92:5768 (1995); Lanzendoerfer, M. *et al.*, *System. Appl. Microbiol.* 16:656 (1994)). All of the subunits found in *M. jannaschii* show greater similarity to their eukaryotic counterparts than to the bacterial homologs. The genes encoding the five largest subunits (A', A'', B', B'', D) have homologs in all organisms. Six genes encode subunits shared only by Archaea and Eukaryotes (E, H, K, L, and N). The *M. jannaschii* homolog of the *S. acidocaldarius* subunit E is split into two genes designated E' and E''. *Sulfolobus acidocaldarius* also contains two additional small subunits of RNA polymerase, designated G and F, that have no counterparts in either Bacteria or Eukaryotes. No homolog of these subunits was identified in *M. jannaschii*.

The archaeal transcription initiation system is essentially the same as that found in Eukaryotes, and is radically different from the bacterial version (Klenk, H.P. and Doolittle, W.F., *Curr. Biol.* 4:920 (1994)). The central molecules in the former systems are the TATA-binding protein (TBP) and transcription factor B (TFIIB and TFIIB in Eukaryotes, or simply TFB). In the eukaryotic systems, TBP and TFB are parts of larger complexes, and additional factors (such as

TFIIA and TFIIIF) are used in the transcription process. However, the *M. jannaschii* genome does not contain obvious homologs of TFIIA and TFIIIF.

Several components of the replication machinery were identified in *M. jannaschii*. The *M. jannaschii* genome appears to encode a single DNA-dependent polymerase that is a member of the B family of polymerases (Bernard, A., *et al.*, *EMBO J.* 6:4219 (1987); Cullman, G., *et al.*, *Molec. Cell Biol.* 15:4661 (1995); Uemori, T., *et al.*, *J. Bacteriol.* 117:2164 (1995); Delarue, M., *et al.*, *Prot. Engineer.* 3:461 (1990); Gavin, K.A., *et al.*, *Science* 270:1667 (1995)). The polymerase shares sequence similarity and three motifs with other family B polymerases, including eukaryotic α , γ , and ϵ polymerases, bacterial polymerase II, and several archaeal polymerases. However, it is not homologous to bacterial polymerase I and has no homologs in *H. influenzae* or *M. genitalium*.

Primer recognition by the polymerase takes place through a structure-specific DNA binding complex, the replication factor complex (rfc) (Bernard, A., *et al.*, *EMBO J.* 6:4219 (1987); Cullman, G., *et al.*, *Molec. Cell Biol.* 15:4661 (1995); Uemori, T., *et al.*, *J. Bacteriol.* 117:2164 (1995); Delarue, M., *et al.*, *Prot. Engineer.* 3:461 (1990); Gavin, K.A., *et al.*, *Science* 270:1667 (1995)). In humans and yeast, the rfc is composed of five proteins: a large subunit and four small subunits that have an associated adenosine triphosphatase (ATPase) activity stimulated by proliferating cell nuclear antigen (PCNA). Two genes in *M. jannaschii* are putative members of a eukaryotic-like replication factor complex. One of the genes in *M. jannaschii* is a putative homolog of the large subunit of the rfc, whereas the second is a putative homolog of one of the small subunits. Among Eukaryotes, the rfc proteins share sequence similarity in eight signature domains (Bernard, A., *et al.*, *EMBO J.* 6:4219 (1987); Cullman, G., *et al.*, *Molec. Cell Biol.* 15:4661 (1995); Uemori, T., *et al.*, *J. Bacteriol.* 117:2164 (1995); Delarue, M., *et al.*, *Prot. Engineer.* 3:461 (1990); Gavin, K.A., *et al.*, *Science* 270:1667 (1995)). Domain I is conserved only in the large subunit among Eukaryotes and is similar in sequence to DNA ligases. This domain is missing in the large-subunit homolog in *M. jannaschii*. The remaining domains in the two *M. jannaschii* genes are well-conserved relative to the eukaryotic homologs. Two

features of the sequence similarity in these domains are of particular interest. First, domain II (an ATPase domain) of the small-subunit homolog is split between two highly conserved amino acids (lysine and threonine) by an intervening sequence of unknown function. Second, the sequence of domain VI has regions that are useful for distinguishing between bacterial and eukaryotic rfc proteins (Bernard, A., *et al.*, *EMBO J.* 6:4219 (1987); Cullman, G., *et al.*, *Molec. Cell Biol.* 15:4661 (1995); Uemori, T., *et al.*, *J. Bacteriol.* 117:2164 (1995); Delarue, M., *et al.*, *Prot. Engineer.* 3:461 (1990); Gavin, K.A., *et al.*, *Science* 270:1667 (1995)); the rfc sequence for *M. jannaschii* shares the characteristic eukaryotic signature in this domain.

We have attempted to identify an origin of replication by searching the *M. jannaschii* genome sequence with a variety of bacterial and eukaryotic replication-origin consensus sequences. Searches with oriC, ColE1, and autonomously replicating sequences from yeast (Bernard, A., *et al.*, *EMBO J.* 6:4219 (1987); Cullman, G., *et al.*, *Molec. Cell Biol.* 15:4661 (1995); Uemori, T., *et al.*, *J. Bacteriol.* 117:2164 (1995); Delarue, M., *et al.*, *Prot. Engineer.* 3:461 (1990); Gavin, K.A., *et al.*, *Science* 270:1667 (1995)) did not identify an origin of replication. With respect to the related cellular processes of replication initiation and cell division, the *M. jannaschii* genome contains two genes that are putative homologs of Cdc54, a yeast protein that belongs to a family of putative DNA replication initiation proteins (Whitbred, L.A. and Dalton, S., *Gene* 155:113 (1995)). A third potential regulator of cell division in *M. jannaschii* is 55% similar at the amino acid level to *pelota*, a *Drosophila* protein involved in the regulation of the early phases of meiotic and mitotic cell division (Eberhart, C.G. and Wasserman, S.A., *Development* 121:3477 (1995)).

In contrast to the putative rfc complex and the initiation of DNA replication, the cell division proteins from *M. jannaschii* most resemble their bacterial counterparts (Rothfield, L.I. and Zhao, C.R., *Cell* 84:183 (1996); Lutkenhaus, J., *Curr. Opp. Gen. Devel.* 3:783 (1993)). Two genes similar to that encoding FtsZ, a ubiquitous bacterial protein, are found in *M. jannaschii*. FtsZ

-46-

is a polymer-forming, guanosine triphosphate (GTP)-hydrolyzing protein with tubulin-like elements; it is localized to the site of septation and forms a constricting ring between the dividing cells. One gene similar to FtsJ, a bacterial cell division protein of undetermined function, also is found in *M. jannaschii*.
5 Three additional genes (MinC, MinD, and MinE) function in concert in Bacteria to determine the site of septation during cell division. In *M. jannaschii*, three MinD-like genes were identified, but none for MinC or MinE. Neither spindle-associated proteins characteristic of eukaryotic cell division nor bacterial mechanochemical enzymes necessary for partitioning the condensed
10 chromosomes were detected in the *M. jannaschii* genome. Taken together, these observations raise the possibility that cell division in *M. jannaschii* might occur via a mechanism specific for the Archaea.

The structural and functional conservation of the signal peptide of secreted proteins in Archaea, Bacteria, and Eukaryotes suggests that the basic
15 mechanisms of membrane targeting and translocation may be similar among all three domains of life. The secretory machinery of *M. jannaschii* appears a rudimentary apparatus relative to that of bacterial and eukaryotic systems and consists of (i) a signal peptidase (SP) that cleaves the signal peptide of translocating proteins, (ii) a preprotein translocase that is the major constituent
20 of the membrane-localized translocation channel, (iii) a ribonucleoprotein complex (signal recognition particle, SRP) that binds to the signal peptide and guides nascent proteins to the cell membrane, and (iv) a docking protein that acts as a receptor for the SRP. The 7S RNA component of the SRP from *M. jannaschii* shows a highly conserved structural domain shared by other Archaea,
25 Bacteria, and Eukaryotes (Kaine, B.P. and Merkel, V.L., *J. Bacteriol.* 171:4261 (1989); Poritz, M.A. *et al.*, *Cell* 55:4 (1988)). However, the predicted secondary structure of the 7S RNA SRP component in Archaea is more like that found in Eukaryotes than in Bacteria (Kaine, B.P. and Merkel, V.L., *J. Bacteriol.* 171:4261 (1989); Poritz, M.A. *et al.*, *Cell* 55:4 (1988)). The SP and docking proteins from
30 *M. jannaschii* are most similar to their eukaryotic counterparts; the translocase is most similar to the SecY translocation-associated protein in *Escherichia coli*.

A second distinct signal peptide is found in the flagellin genes of *M. jannaschii*. Alignment of flagellin genes from *M. voltae* (Faguy, D.M., *et al.*, *Can. J. Microbiol.* 40:67 (1994); Kalmokoff, M.L., *et al.*, *Arch. Microbiol.* 157:481 (1992)) and *M. jannaschii* reveals a highly conserved NH₂-terminus (31 of the first 50 residues are identical in all of the mature flagellins). The peptide sequence of the *M. jannaschii* flagellin indicates that the protein is cleaved after the canonical Gly-12 position, and it is proposed to be similar to type-IV pilins of Bacteria (Faguy, D.M., *et al.*, *Can. J. Microbiol.* 40:67 (1994); Kalmokoff, M.L., *et al.*, *Arch. Microbiol.* 157:481 (1992)).

Five histone genes are present in the *M. jannaschii* genome--three on the main chromosome and two on the large ECE. These genes are homologs of eukaryotic histones (H2a, H2b, H3, and H4) and of the eukaryotic transcription-related CAAT-binding factor CBF-A (Sandman, K., *et al.*, *Proc. Natl. Acad. Sci. USA* 87:5788 (1990)). The similarity between archaeal and eukaryotic histones suggests that the two groups of organisms resemble one another in the roles histones play both in genome supercoiling dynamics and in gene expression. The five *M. jannaschii* histone genes show greatest similarity among themselves even though a histone sequence is available from the closely related species, *Methanococcus voltae*. This intraspecific similarity suggests that the gene duplications that produced the five histone genes occurred on the *M. jannaschii* lineage per se.

Self-splicing portions of a peptide sequence that generally encode a DNA endonuclease activity are called inteins, in analogy to introns (Kane, P.M., *et al.*, *Science* 250:651 (1990); Hirata, R., *et al.*, *J. Biol. Chem.* 265:6726 (1990); Cooper, A. and Stevens, T., *TIBS* 20:351 (1995); Xu, M.Q., *et al.*, *Cell* 75:1371 (1993); Perler *et al.*, *Proc. Natl. Acad. Sci. USA* 89:5577 (1992); Cooper *et al.*, *EMBO J.* 12:2575 (1993); Michel *et al.*, *Biochimie* 64:867 (1992); Pietrokovski S., *Prot. Sci.* 3:2340 (1994). Most inteins in the *M. jannaschii* genome were identified by (i) similarity of the bounding exteins to other proteins, (ii) similarity of the inteins to those previously described, (iii) presence of the dodecapeptide endonuclease motifs, and (iv) canonical intein-extein junction sequences. In two

instances (MJ0832 and MJ0043), the similarity to other database sequences did not unambiguously define the NH₂-terminal extein-intein junction, so it was necessary to rely on consensus sequences to select the putative site. The inteins in MJ1042 and MJ0542 have previously uncharacterized COOH-terminal splice junctions, GNC and FNC, respectively).

The sequences remaining after an intein is excised are called exteins, in analogy to exons. Exteins are spliced together after the excision of one or more inteins to form functional proteins. The biological significance and role of inteins are not clearly understood (Kane, P.M., *et al.*, *Science* 250:651 (1990); Hirata, R., *et al.*, *J. Biol. Chem.* 265:6726 (1990); Cooper, A. and Stevens, T., *TIBS* 20:351 (1995); Xu, M.Q., *et al.*, *Cell* 75:1371 (1993); Perler *et al.*, *Proc. Natl. Acad. Sci. USA* 89:5577 (1992); Cooper *et al.*, *EMBO J.* 12:2575 (1993); Michel *et al.*, *Biochimie* 64:867 (1992); Pietrokovski S., *Prot. Sci.* 3:2340 (1994)). Fourteen genes in the *M. jannaschii* genome contain 18 putative inteins, a significant increase in the approximately 10 intein-containing genes that have been described (Kane, P.M., *et al.*, *Science* 250:651 (1990); Hirata, R., *et al.*, *J. Biol. Chem.* 265:6726 (1990); Cooper, A. and Stevens, T., *TIBS* 20:351 (1995); Xu, M.Q., *et al.*, *Cell* 75:1371 (1993); Perler *et al.*, *Proc. Natl. Acad. Sci. USA* 89:5577 (1992); Cooper *et al.*, *EMBO J.* 12:2575 (1993); Michel *et al.*, *Biochimie* 64:867 (1992); Pietrokovski S., *Prot. Sci.* 3:2340 (1994)) (Table 4). The only previously described inteins in the Archaea are in the DNA polymerase genes of the Thermococcales (Kane, P.M., *et al.*, *Science* 250:651 (1990); Hirata, R., *et al.*, *J. Biol. Chem.* 265:6726 (1990); Cooper, A. and Stevens, T., *TIBS* 20:351 (1995); Xu, M.Q., *et al.*, *Cell* 75:1371 (1993); Perler *et al.*, *Proc. Natl. Acad. Sci. USA* 89:5577 (1992); Cooper *et al.*, *EMBO J.* 12:2575 (1993); Michel *et al.*, *Biochimie* 64:867 (1992); Pietrokovski S., *Prot. Sci.* 3:2340 (1994)). The *M. jannaschii* DNA polymerase gene has two inteins in the same locations as those in *Pyrococcus* sp. strain KOD1. In this case, the exteins exhibit 46% amino acid identity, whereas intein 2 of the two organisms has only 33% identity. This divergence suggests that intein 2 has not been recently (laterally) transferred between the Thermococcales and *M. jannaschii*. In contrast, the intein 1

sequences are 56% identical, more than that of the gene containing them, and comparable to the divergence of inteins within the Thermococcales. This high degree of sequence similarity might be the result of an intein transfer more recent than the splitting of these species. The large number of inteins found in *M. jannaschii* led us to question whether these inteins have been increasing in number by moving within the genome. If this were so, we would expect to find some pairs of inteins that are particularly similar. Comparisons of these and other available intein sequences showed that the closest relationships are those noted above linking the DNA polymerase inteins to correspondingly positioned elements in the Thermococcales. Within *M. jannaschii*, the highest identity observed was 33% for a 380-bp portion of two inteins. This finding suggests that the diversification of the inteins predates the divergence of the *M. jannaschii* and *Pyrococcus* DNA polymerases.

Three families of repeated genetic elements were identified in the *M. jannaschii* genome. Within two of the families, at least two members were identified as ORFs with a limited degree of sequence similarity to bacterial transposases. Members of the first family, designated *ISAMJI*, are repeated 10 times on the main chromosome and once on the large ECE (Fig. 2). There is no sequence similarity between the IS elements in *M. jannaschii* and the *ISMI* mobile element described previously for *Methanobrevibacter smithii* (Hamilton, P.T. et al., *Mol. Gen. Genet.* 200:47 (1985)). Two members of this family were identified as ORFs and are 27% identical (at the amino acid sequence level) to a transposase from *Bacillus thuringiensis* (IS240; GenBank accession number M23741). Relative to these two members, the remaining members of the *ISAMJI* family are missing an internal region of several hundred nucleotides (Fig. 2). With one exception, all members of this family end with 16-bp terminal inverted repeats typical of insertion sequences. One member is missing the terminal repeat at its 5' end. The second family consists of two ORFs that are identical across 928 bp. The ORFs are 23% identical at the amino acid sequence level to the COOH-terminus of a transposase from *Lactococcus lactis* (IS982; GenBank

accession number L34754). Neither of the members of the second family contains terminal inverted repeats.

Eighteen copies of the third family of repeated genetic structures (Fig. 3) are distributed fairly evenly around the *M. jannaschii* genome. Unlike the genetic elements described above, none of the components of this repeat unit appears to have coding potential. The repeat structure is composed of a long segment followed by one to 25 tandem repetitions of a short segment. The short segments are separated by sequence that is unique within and among the complete repeat structure. Three similar types of short segments were identified; however, the type of short repeat is consistent within each repeat structure, except for variation of the last short segment in six repeat structures. Similar tandem repeats of short segments have been observed in Bacteria and other Archaea (Mojica, F.J.M., *et al.*, *Mol. Micro.* 17:85 (1995)) and have been hypothesized to participate in chromosome partitioning during cell division.

The 16-kbp ECE from *M. jannaschii* contains 12 ORFs, none of which had a significant full-length match to any published sequence. The 58-kbp ECE contains 44 predicted protein-coding regions, 5 of which had matches to genes in the database. Two of the genes are putative archaeal histones, one is a sporulation-related protein (SOJ protein), and two are type I restriction modification enzymes. There are several instances in which predicted protein-coding regions or repeated genetic elements on the large ECE have similar counterparts on the main chromosome of *M. jannaschii*. The degree of nucleotide sequence similarity between genes present on both the ECE and the main chromosome ranges from 70 to 90%, suggesting that there has been relatively recent exchange of at least some genetic material between the large ECE and the main chromosome.

All the predicted protein-coding regions from *M. jannaschii* were searched against each other in order to identify families of paralogous genes (genes related by gene duplication, not speciation). The initial criterion for grouping paralogs was >30% amino acid sequence identity over 50 consecutive amino acid residues. Groups of predicted protein-coding regions were then

aligned and inspected individually to ensure that the sequence similarity extended over most of their lengths. This curatorial process resulted in the identification of more than 100 gene families, half of which have no database matches. The largest identified gene family (16 members: MJ0625, MJECL28, MJ1076, MJ1006, MJ1659, MJ0075, MJ1609, MJECL19, MJECL18, MJ0147, MJ0801, MJ1301, MJ0632, MJ1010, MJ0074, and MJ0439) contains almost 1% of the total predicted protein-coding regions in *M. jannaschii*.

Despite the availability for comparison of two complete bacterial genomes and several hundred megabase pairs of eukaryotic sequence data, the majority of genes in *M. jannaschii* cannot be identified on the basis of sequence similarity. Previous evidence for the shared common ancestry of the Archaeal and Eukaryotic was based on a small set gene sequences (Iwabe, N., *et al.*, *Proc. Natl. Acad. Sci. USA* 86:9355 (1989); Gogarten J.P., *et al.*, *Proc. Natl. Acad. Sci. USA* 86:6661 (1989); Brown, J.R. and Doolittle, W.F., *Proc. Natl. Acad. Sci. USA* 92:2441 (1995)). The complete genome of *M. jannaschii* allows us to move beyond a "gene by gene" approach to one that encompasses the larger picture of metabolic capacity and cellular systems. The anabolic genes of *M. jannaschii* (especially those related to energy production and nitrogen fixation) reveal an ancient metabolic world shared largely by Bacteria and Archaea. That many basic autotrophic pathways appear to have a common evolutionary origin suggests that the most recent universal common ancestor to all three domains of extant life had the capacity for autotrophy. The Archaea and Bacteria also share structural and organizational features that the most recent universal prokaryotic ancestors also likely possessed, such as circular genomes and genes organized as operons. In contrast, the cellular information-processing and secretion systems in *M. jannaschii* demonstrate the common ancestry of Eukaryotes and Archaea. Although there are components of these systems are present in all three domains, their apparent refinement over time—especially transcription and translation—indicate that the Archaea and Eukaryotes share a common evolutionary trajectory independent of the lineage of Bacteria.

Example 2

Preparation of PCR Primers and Amplification of DNA

Various fragments of the *Methanococcus jannaschii* genome, such as those disclosed in Tables 2(a), 2(b) and 3 can be used, in accordance with the present invention, to prepare PCR primers. The PCR primers are preferably at least 15 bases, and more preferably at least 18 bases in length. When selecting a primer sequence, it is preferred that the primer pairs have approximately the same G/C ratio, so that melting temperatures are approximately the same. The PCR primers are useful during PCR cloning of the ORFs described herein.

Example 3

Gene expression from DNA Sequences Corresponding to ORFs

A fragment of the *Methanococcus jannaschii* genome (preferably, a protein-encoding sequence) provided in Tables 2(a), 2(b) or 3 is introduced into an expression vector using conventional technology (techniques to transfer cloned sequences into expression vectors that direct protein translation in mammalian, yeast, insect or bacterial expression systems are well known in the art). Commercially available vectors and expression systems are available from a variety of suppliers including Stratagene (La Jolla, California), Promega (Madison, Wisconsin), and Invitrogen (San Diego, California). If desired, to enhance expression and facilitate proper protein folding, the codon context and codon pairing of the sequence may be optimized for the particular expression organism, as explained by Hatfield *et al.*, U.S. Pat. No. 5,082,767, which is hereby incorporated by reference.

The following is provided as one exemplary method to generate polypeptide(s) from a cloned ORF of the *Methanococcus* genome whose sequence is provided in SEQ ID NOS: 1, 2 and 3. A poly A sequence can be

added to the construct by, for example, splicing out the poly A sequence from pSG5 (Stratagene) using *Bgl*I and *Sal*I restriction endonuclease enzymes and incorporating it into the mammalian expression vector pXT1 (Stratagene) for use in eukaryotic expression systems. pXT1 contains the LTRs and a portion of the gag gene from Moloney Murine Leukemia Virus. The position of the LTRs in the construct allow efficient stable transfection. The vector includes the Herpes Simplex thymidine kinase promoter and the selectable neomycin gene. The *Methanococcus* DNA is obtained by PCR from the bacterial vector using oligonucleotide primers complementary to the *Methanococcus* DNA and containing restriction endonuclease sequences for *Pst*I incorporated into the 5' primer and *Bgl*II at the 5' end of the corresponding *Methanococcus* DNA 3' primer, taking care to ensure that the *Methanococcus* DNA is positioned such that its followed with the poly A sequence. The purified fragment obtained from the resulting PCR reaction is digested with *Pst*I, blunt ended with an exonuclease, digested with *Bgl*II, purified and ligated to pXT1, now containing a poly A sequence and digested *Bgl*II.

The ligated product is transfected into mouse NIH 3T3 cells using Lipofectin (Life Technologies, Inc., Grand Island, New York) under conditions outlined in the product specification. Positive transfectants are selected after growing the transfected cells in 600 ug/ml G418 (Sigma, St. Louis, Missouri). The protein is preferably released into the supernatant. However if the protein has membrane binding domains, the protein may additionally be retained within the cell or expression may be restricted to the cell surface.

Since it may be necessary to purify and locate the transfected product, synthetic 15-mer peptides synthesized from the predicted *Methanococcus* DNA sequence are injected into mice to generate antibody to the polypeptide encoded by the *Methanococcus* DNA.

If antibody production is not possible, the *Methanococcus* DNA sequence is additionally incorporated into eukaryotic expression vectors and expressed as a chimeric with, for example, β -globin. Antibody to β -globin is used to purify the chimeric. Corresponding protease cleavage sites engineered between the β -globin

gene and the *Methanococcus* DNA are then used to separate the two polypeptide fragments from one another after translation. One useful expression vector for generating β -globin chimerics is pSG5 (Stratagene). This vector encodes rabbit β -globin. Intron II of the rabbit β -globin gene facilitates splicing of the expressed transcript, and the polyadenylation signal incorporated into the construct increases the level of expression. These techniques as described are well known to those skilled in the art of molecular biology. Standard methods are available from the technical assistance representatives from Stratagene, Life Technologies, Inc., or Promega. Polypeptides may additionally be produced from either construct using in vitro translation systems such as In vitro Express™ Translation Kit (Stratagene).

Example 4

***E. coli* Expression of a *M. jannaschii* ORF and protein purification**

A *M. jannaschii* ORF described in Table 2(a), 2(b), or 3 is selected and amplified using PCR oligonucleotide primers designed from the nucleotide sequences flanking the selected ORF and/or from portions of the ORF's NH₂- or COOH-terminus. Additional nucleotides containing restriction sites to facilitate cloning are added to the 5' and 3' sequences, respectively.

The restriction sites are selected to be convenient to restriction sites in the bacterial expression vector pD10 (pQE9), which is used for bacterial expression. (Qiagen, Inc. 9259 Eton Avenue, Chatsworth, CA, 91311). [pD10]pQE9 encodes ampicillin antibiotic resistance ("Amp") and contains a bacterial origin of replication ("ori"), an IPTG inducible promoter, a ribosome binding site ("RBS"), a 6-His tag and restriction enzyme sites.

The amplified *M. jannaschii* DNA and the vector pQE9 both are digested with Sall and XbaI and the digested DNAs are then ligated together. Insertion of the *M. jannaschii* DNA into the restricted pQE9 vector places the *M. jannaschii* coding region downstream of and operably linked to the vector's IPTG-inducible

promoter and in-frame with an initiating AUG appropriately positioned for translation of the *M. jannaschii* protein.

The ligation mixture is transformed into competent *E. coli* cells using standard procedures. Such procedures are described in Sambrook *et al.*,
5 Molecular Cloning: a Laboratory Manual, 2nd Ed.; Cold Spring Harbor Laboratory Press, Cold Spring Harbor, N.Y. (1989). *E. coli* strain M15/rep4, containing multiple copies of the plasmid pREP4, which expresses lac repressor and confers kanamycin resistance ("Kan"), is used in carrying out the illustrative example described herein. This strain, which is only one of many that are
10 suitable for expressing *M. jannaschii* protein, is available commercially from Qiagen.

Transformants are identified by their ability to grow on LB plates in the presence of ampicillin and kanamycin. Plasmid DNA is isolated from resistant colonies and the identity of the cloned DNA confirmed by restriction analysis.
15 Clones containing the desired constructs are grown overnight ("O/N") in liquid culture in LB media supplemented with both ampicillin (100 µg/ml) and kanamycin (25 µg/ml).

The O/N culture is used to inoculate a large culture, at a dilution of approximately 1:100 to 1:250. The cells are grown to an optical density at 600nm
20 ("OD600") of between 0.4 and 0.6. Isopropyl-B-D-thiogalactopyranoside ("IPTG") is then added to a final concentration of 1 mM to induce transcription from *lac* repressor sensitive promoters, by inactivating the *lacI* repressor. Cells subsequently are incubated further for 3 to 4 hours. Cells then are harvested by centrifugation and disrupted, by standard methods. Inclusion bodies are purified
25 from the disrupted cells using routine collection techniques, and protein is solubilized from the inclusion bodies into 8M urea. The 8M urea solution containing the solubilized protein is passed over a PD-10 column in 2X phosphate-buffered saline ("PBS"), thereby removing the urea, exchanging the buffer and refolding the protein. The protein is purified by a further step of chromatography to remove endotoxin followed by sterile filtration. The sterile
30 filtered protein preparation is stored in 2X PBS at a concentration of 95 µ/ml.

Example 5

Cloning and Expression of a M. jannaschii protein in a Baculovirus Expression System

A *M. jannaschii* ORF described in Table 2(a), 2(b), or 3 is selected and amplified as above. The amplified DNA is isolated from a 1% agarose gel using a commercially available kit ("GeneClean," BIO 101 Inc., La Jolla, Ca.). The DNA then is digested with XbaI and again purified on a 1% agarose gel. This DNA is designated herein as F2.

The vector pA2-GP is used to express the *M. jannaschii* protein in the baculovirus expression system as described in Summers *et al.*, A Manual of Methods for Baculovirus Vectors and Insect Cell Culture Procedures, Texas Agricultural Experimental Station Bulletin No. 1555 (1987). The pA2-GP expression vector contains the strong polyhedrin promoter of the *Autographa californica* nuclear polyhedrosis virus (AcMNPV) followed by convenient restriction sites. The signal peptide of AcMNPV gp67, including the N-terminal methionine, is located just upstream of a BamHI site. The polyadenylation site from the simian virus 40 ("SV40") is used for efficient polyadenylation. For an easy selection of recombinant virus, the beta-galactosidase gene from *E. coli* is inserted in the same orientation as the polyhedrin promoter and is followed by the polyadenylation signal of the polyhedrin gene. The polyhedrin sequences are flanked at both sides by viral sequences for cell-mediated homologous recombination with wild-type viral DNA to generate viable virus that express the cloned polynucleotide.

Many other baculovirus vectors could be used in place of pA2-GP, such as pAc373, pVL941 and pAcIM1 provided, as those of skill readily will appreciate, that construction provides appropriately located signals for transcription, translation, trafficking and the like, such as an in-frame AUG and a signal peptide, as required. Such vectors are described in Luckow *et al.*, *Virology* 170: 31-39, among others.

The plasmid is digested with the restriction enzyme XbaI and then is dephosphorylated using calf intestinal phosphatase, using routine procedures known in the art. The DNA is then isolated from a 1% agarose gel using a commercially available kit ("GeneClean" BIO 101 Inc., La Jolla, Ca.). This vector DNA is designated herein "V".

Fragment F2 and the dephosphorylated plasmid V2 are ligated together with T4 DNA ligase. *E. coli* HB101 cells are transformed with ligation mix and spread on culture plates. Bacteria are identified that contain the plasmid with the *M. jannaschii* gene by digesting DNA from individual colonies using XbaI and then analyzing the digestion product by gel electrophoresis. The sequence of the cloned fragment is confirmed by DNA sequencing. This plasmid is designated herein pBac*M. jannaschii*.

5 µg of the plasmid pBac*M. jannaschii* is co-transfected with 1.0 µg of a commercially available linearized baculovirus DNA ("BaculoGold™ baculovirus DNA", Pharmingen, San Diego, CA.), using the lipofection method described by Felgner *et al.*, Proc. Natl. Acad. Sci. USA 84: 7413-7417 (1987). 1 µg of BaculoGold™ virus DNA and 5 µg of the plasmid pBac*M. jannaschii* are mixed in a sterile well of a microtiter plate containing 50 µl of serum-free Grace's medium (Life Technologies Inc., Gaithersburg, MD). Afterwards 10 µl Lipofectin plus 90 µl Grace's medium are added, mixed and incubated for 15 minutes at room temperature. Then the transfection mixture is added drop-wise to Sf9 insect cells (ATCC CRL 1711) seeded in a 35 mm tissue culture plate with 1 ml Grace's medium without serum. The plate is rocked back and forth to mix the newly added solution. The plate is then incubated for 5 hours at 27°C. After 5 hours the transfection solution is removed from the plate and 1 ml of Grace's insect medium supplemented with 10% fetal calf serum is added. The plate is put back into an incubator and cultivation is continued at 27°C for four days.

After four days the supernatant is collected and a plaque assay is performed, as described by Summers and Smith, cited above. An agarose gel with "Blue Gal" (Life Technologies Inc., Gaithersburg) is used to allow easy identification and isolation of gal-expressing clones, which produce blue-stained

-58-

plaques. (A detailed description of a "plaque assay" of this type can also be found in the user's guide for insect cell culture and baculovirology distributed by Life Technologies Inc., Gaithersburg, page 9-10).

5 Four days after serial dilution, the virus is added to the cells. After appropriate incubation, blue stained plaques are picked with the tip of an Eppendorf pipette. The agar containing the recombinant viruses is then resuspended in an Eppendorf tube containing 200 μ l of Grace's medium. The agar is removed by a brief centrifugation and the supernatant containing the recombinant baculovirus is used to infect Sf9 cells seeded in 35 mm dishes. Four
10 days later the supernatants of these culture dishes are harvested and then they are stored at 4°C. A clone containing properly inserted hESSB I, II and III is identified by DNA analysis including restriction mapping and sequencing. This is designated herein as *V-M. jannaschii*.

15 Sf9 cells are grown in Grace's medium supplemented with 10% heat-inactivated FBS. The cells are infected with the recombinant baculovirus *V-M. jannaschii* at a multiplicity of infection ("MOI") of about 2 (about 1 to about 3). Six hours later the medium is removed and is replaced with SF900 II medium minus methionine and cysteine (available from Life Technologies Inc., Gaithersburg). 42 hours later, 5 μ Ci of 35 S-methionine and 5 μ Ci 35 S-cysteine
20 (available from Amersham) are added. The cells are further incubated for 16 hours and then they are harvested by centrifugation, lysed and the labeled proteins are visualized by SDS-PAGE and autoradiography.

Example 6

Cloning and Expression in Mammalian Cells

25 Most of the vectors used for the transient expression of a *M. jannaschii* gene in mammalian cells should carry the SV40 origin of replication. This allows the replication of the vector to high copy numbers in cells (e.g., COS cells) which

express the T antigen required for the initiation of viral DNA synthesis. Any other mammalian cell line can also be utilized for this purpose.

A typical mammalian expression vector contains the promoter element, which mediates the initiation of transcription of mRNA, the protein-coding sequence, and signals required for the termination of transcription and polyadenylation of the transcript. Additional elements include enhancers, Kozak sequences and intervening sequences flanked by donor and acceptor sites for RNA splicing. Highly efficient transcription can be achieved with the early and late promoters from SV40, the long terminal repeats (LTRs) from Retroviruses, e.g., RSV, HTLV, HIV and the early promoter of the cytomegalovirus (CMV). However, cellular signals can also be used (e.g., human actin promoter). Suitable expression vectors for use in practicing the present invention include, for example, vectors such as pSVL and pMSG (Pharmacia, Uppsala, Sweden), pRSVcat (ATCC 37152), pSV2dhfr (ATCC 37146) and pBC12MI (ATCC 67109). Mammalian host cells that could be used include, human HeLa, 283, H9 and Jurkat cells, mouse NIH3T3 and C127 cells, Cos 1, Cos 7 and CV1, African green monkey cells, quail QCI-3 cells, mouse L cells and Chinese hamster ovary cells.

Alternatively, the gene can be expressed in stable cell lines that contain the gene integrated into a chromosome. The co-transfection with a selectable marker such as dhfr, gpt, neomycin, hygromycin allows the identification and isolation of the transfected cells.

The transfected gene can also be amplified to express large amounts of the encoded protein. The DHFR (dihydrofolate reductase) is a useful marker to develop cell lines that carry several hundred or even several thousand copies of the gene of interest. Another useful selection marker is the enzyme glutamine synthase (GS) (Murphy *et al.*, *Biochem J.* 227:277-279 (1991); Bebbington *et al.*, *Bio/Technology* 10:169-175 (1992)). Using these markers, the mammalian cells are grown in selective medium and the cells with the highest resistance are selected. These cell lines contain the amplified gene(s) integrated into a

-60-

chromosome. Chinese hamster ovary (CHO) cells are often used for the production of proteins.

The expression vectors pC1 and pC4 contain the strong promoter (LTR) of the Rous Sarcoma Virus (Cullen *et al.*, *Molecular and Cellular Biology*, 438-447 (March, 1985)) plus a fragment of the CMV-enhancer (Boshart *et al.*, *Cell* 41:521-530 (1985)). Multiple cloning sites, e.g., with the restriction enzyme cleavage sites BamHI, XbaI and Asp718, facilitate the cloning of the gene of interest. The vectors contain in addition the 3' intron, the polyadenylation and termination signal of the rat preproinsulin gene.

Example 6(a): Cloning and Expression in COS Cells

The expression plasmid, pM. *jannaschii* HA, is made by cloning a cDNA encoding a *M. jannaschii* protein into the expression vector pcDNA1/Amp (which can be obtained from Invitrogen, Inc.).

The expression vector pcDNA1/amp contains: (1) an *E. coli* origin of replication effective for propagation in *E. coli* and other prokaryotic cells; (2) an ampicillin resistance gene for selection of plasmid-containing prokaryotic cells; (3) an SV40 origin of replication for propagation in eukaryotic cells; (4) a CMV promoter, a polylinker, an SV40 intron, and a polyadenylation signal arranged so that a cDNA conveniently can be placed under expression control of the CMV promoter and operably linked to the SV40 intron and the polyadenylation signal by means of restriction sites in the polylinker.

A DNA fragment encoding the *M. jannaschii* protein and an HA tag fused in frame to its 3' end is cloned into the polylinker region of the vector so that recombinant protein expression is directed by the CMV promoter. The HA tag corresponds to an epitope derived from the influenza hemagglutinin protein described by Wilson *et al.*, *Cell* 37:767 (1984). The fusion of the HA tag to the target protein allows easy detection of the recombinant protein with an antibody that recognizes the HA epitope.

The PCR amplified DNA fragment (generated as described above) and the vector, pcDNAI/Amp, are digested with HindIII and XhoI and then ligated. The ligation mixture is transformed into *E. coli* strain SURE (available from Stratagene Cloning Systems, 11099 North Torrey Pines Road, La Jolla, CA 92037), and the transformed culture is plated on ampicillin media plates which then are incubated to allow growth of ampicillin resistant colonies. Plasmid DNA is isolated from resistant colonies and examined by restriction analysis and gel sizing for the presence of the *M. jannaschii* protein-encoding fragment.

For expression of recombinant *M. jannaschii*, COS cells are transfected with an expression vector, as described above, using DEAE-DEXTRAN, as described, for instance, in Sambrook *et al.*, Molecular Cloning: a Laboratory Manual, Cold Spring Laboratory Press, Cold Spring Harbor, New York (1989). Cells are incubated under conditions for expression of *M. jannaschii* protein by the vector.

Expression of the *M. jannaschii* HA fusion protein is detected by radiolabelling and immunoprecipitation, using methods described in, for example Harlow *et al.*, Antibodies: A Laboratory Manual, 2nd Ed.; Cold Spring Harbor Laboratory Press, Cold Spring Harbor, New York (1988). To this end, two days after transfection, the cells are labeled by incubation in media containing ³⁵S-cysteine for 8 hours. The cells and the media are collected, and the cells are washed and the lysed with detergent-containing RIPA buffer: 150 mM NaCl, 1% NP-40, 0.1% SDS, 1% NP-40, 0.5% DOC, 50 mM TRIS, pH 7.5, as described by Wilson *et al.* cited above. Proteins are precipitated from the cell lysate and from the culture media using an HA-specific monoclonal antibody. The precipitated proteins then are analyzed by SDS-PAGE gels and autoradiography. An expression product of the expected size is seen in the cell lysate, which is not seen in negative controls.

Example 6(b): Cloning and Expression in CHO Cells

The vector pC1 is used for the expression of a *M. jannaschii* protein. Plasmid pC1 is a derivative of the plasmid pSV2-dhfr [ATCC Accession No. 37146]. Both plasmids contain the mouse DHFR gene under control of the SV40 early promoter. Chinese hamster ovary- or other cells lacking dihydrofolate activity that are transfected with these plasmids can be selected by growing the cells in a selective medium (alpha minus MEM, Life Technologies) supplemented with the chemotherapeutic agent methotrexate. The amplification of the DHFR genes in cells resistant to methotrexate (MTX) has been well documented (see, e.g., Alt, F.W., Kellems, R.M., Bertino, J.R., and Schimke, R.T., 1978, *J. Biol. Chem.* 253:1357-1370, Hamlin, J.L. and Ma, C. 1990, *Biochem. et Biophys. Acta*, 1097:107-143, Page, M.J. and Sydenham, M.A. 1991, *Biotechnology Vol.* 9:64-68). Cells grown in increasing concentrations of MTX develop resistance to the drug by overproducing the target enzyme, DHFR, as a result of amplification of the DHFR gene. If a second gene is linked to the DHFR gene it is usually co-amplified and over-expressed. It is state of the art to develop cell lines carrying more than 1,000 copies of the genes. Subsequently, when the methotrexate is withdrawn, cell lines contain the amplified gene integrated into the chromosome(s).

Plasmid pC1 contains for the expression of the gene of interest a strong promoter of the long terminal repeat (LTR) of the Rouse Sarcoma Virus (Cullen, *et al.*, *Molecular and Cellular Biology*, March 1985:438-4470) plus a fragment isolated from the enhancer of the immediate early gene of human cytomegalovirus (CMV) (Boshart *et al.*, *Cell* 41:521-530, 1985). Downstream of the promoter are the following single restriction enzyme cleavage sites that allow the integration of the genes: BamHI, PvuII, and NruI. Behind these cloning sites the plasmid contains translational stop codons in all three reading frames followed by the 3' intron and the polyadenylation site of the rat preproinsulin gene. Other high efficient promoters can also be used for the expression, e.g., the human β -actin promoter, the SV40 early or late promoters or the long terminal

repeats from other retroviruses, e.g., HIV and HTLV. For the polyadenylation of the mRNA other signals, e.g., from the human growth hormone or globin genes can be used as well.

5 Stable cell lines carrying the gene of interest integrated into the chromosomes can also be selected upon co-transfection with a selectable marker such as gpt, G418 or hygromycin. It is advantageous to use more than one selectable marker in the beginning, e.g., G418 plus methotrexate.

10 The plasmid pC1 is digested with the restriction enzyme BamHI and then dephosphorylated using calf intestinal phosphates by procedures known in the art. The vector is then isolated from a 1% agarose gel.

15 The *M. jannaschii* protein-encoding sequence is amplified using PCR oligonucleotide primers as described above. An efficient signal for initiation of translation in eukaryotic cells, as described by Kozak, M., J. Mol. Biol. 196:947-950 (1987) is appropriately located in the vector portion of the construct. The amplified fragments are isolated from a 1% agarose gel as described above and then digested with the endonucleases BamHI and Asp718 and then purified again on a 1% agarose gel.

20 The isolated fragment and the dephosphorylated vector are then ligated with T4 DNA ligase. *E. coli* HB101 cells are then transformed and bacteria identified that contained the plasmid pC1 inserted in the correct orientation using the restriction enzyme BamHI. The sequence of the inserted gene is confirmed by DNA sequencing.

Transfection of CHO-DHFR-cells

25 Chinese hamster ovary cells lacking an active DHFR enzyme are used for transfection. 5 µg of the expression plasmid C1 are cotransfected with 0.5 µg of the plasmid pSVneo using the lipofecting method (Felgner *et al.*, *supra*). The plasmid pSV2-neo contains a dominant selectable marker, the gene neo from Tn5 encoding an enzyme that confers resistance to a group of antibiotics including G418. The cells are seeded in alpha minus MEM supplemented with 1 mg/ml

-64-

G418. After 2 days, the cells are trypsinized and seeded in hybridoma cloning plates (Greiner, Germany) and cultivated from 10-14 days. After this period, single clones are trypsinized and then seeded in 6-well petri dishes using different concentrations of methotrexate (25 nM, 50 nM, 100 nM, 200 nM, 400 nM).
5 Clones growing at the highest concentrations of methotrexate are then transferred to new 6-well plates containing even higher concentrations of methotrexate (500 nM, 1 μ M, 2 μ M, 5 μ M). The same procedure is repeated until clones grow at a concentration of 100 μ M.

The expression of the desired gene product is analyzed by Western blot
10 analysis and SDS-PAGE.

Example 7

Production of an Antibody to a Methanococcus jannaschii Protein

Substantially pure *M. jannaschii* protein or polypeptide is isolated from the transfected or transformed cells described above using an art-known method.
15 The protein can also be chemically synthesized. Concentration of protein in the final preparation is adjusted, for example, by concentration on an Amicon filter device, to the level of a few micrograms/ml. Monoclonal or polyclonal antibody to the protein can then be prepared as follows:

Monoclonal Antibody Production by Hybridoma Fusion

20 Monoclonal antibody to epitopes of any of the peptides identified and isolated as described can be prepared from murine hybridomas according to the classical method of Kohler, G. and Milstein, C., *Nature* 256:495 (1975) or modifications of the methods thereof. Briefly, a mouse is repetitively inoculated with a few micrograms of the selected protein over a period of a few weeks. The
25 mouse is then sacrificed, and the antibody producing cells of the spleen isolated. The spleen cells are fused by means of polyethylene glycol with mouse myeloma

cells, and the excess unfused cells destroyed by growth of the system on selective media comprising aminopterin (HAT media). The successfully fused cells are diluted and aliquots of the dilution placed in wells of a microtiter plate where growth of the culture is continued. Antibody-producing clones are identified by
5 detection of antibody in the supernatant fluid of the wells by immunoassay procedures, such as ELISA, as originally described by Engvall, E., *Meth. Enzymol.* 70:419 (1980), and modified methods thereof. Selected positive clones can be expanded and their monoclonal antibody product harvested for use. Detailed procedures for monoclonal antibody production are described in Davis,
10 L. *et al.* Basic Methods in Molecular Biology Elsevier, New York. Section 21-2 (1989).

Polyclonal Antibody Production by Immunization

Polyclonal antiserum containing antibodies to heterogenous epitopes of a single protein can be prepared by immunizing suitable animals with the
15 expressed protein described above, which can be unmodified or modified to enhance immunogenicity. Effective polyclonal antibody production is affected by many factors related both to the antigen and the host species. For example, small molecules tend to be less immunogenic than other molecules and may require the use of carriers and adjuvant. Also, host animals vary in response to
20 site of inoculations and dose, with both inadequate or excessive doses of antigen resulting in low titer antisera. Small doses (ng level) of antigen administered at multiple intradermal sites appears to be most reliable. An effective immunization protocol for rabbits can be found in Vaitukaitis, J. *et al.*, *J. Clin. Endocrinol. Metab.* 33:988-991 (1971).

25 Booster injections can be given at regular intervals, and antiserum harvested when antibody titer thereof, as determined semi-quantitatively, for example, by double immunodiffusion in agar against known concentrations of the antigen, begins to fall (See Ouchterlony, O. *et al.*, Chap. 19 in: *Handbook of Experimental Immunology*, Wier, D., ed, Blackwell (1973)). Plateau

-66-

concentration of antibody is usually in the range of 0.1 to 0.2 mg/ml of serum (about 12 μ M). Affinity of the antisera for the antigen is determined by preparing competitive binding curves, as described, for example, by Fisher, D., Chap. 42 in: *Manual of Clinical Immunology*, second edition, Rose and Friedman, (eds.), Amer. Soc. For Microbio., Washington, D.C. (1980).

5

Antibody preparations prepared according to either protocol are useful in quantitative immunoassays which determine concentrations of antigen-bearing substances in biological samples; they are also used semi-quantitatively or qualitatively to identify the presence of antigen in a biological sample.

Table 2A

Amino acid biosynthesis							
Aromatic amino acid family							
MJ1454	47830	48390	3-dehydroquinase dehydratase {Escherichia coli}	32.6	54.0	561	
MJ0502	1029204	1027915	5-enolpyruvylshikimate 3-phosphate synthase {Haemophilus influenzae}	38.2	60.0	1290	
MJ1075	456842	458158	anthranilate synthase, subunit I {Clostridium thermocellum}	52.7	72.1	1317	
MJ0234	1247181	1246243	anthranilate synthase, subunit II' {Thermotoga maritima}	44.1	64.3	939	
MJ0238	1242410	1241916	anthranilate synthase, subunit II'' {Thermotoga maritima}	52.6	75.0	495	
MJ0246	1238364	1238660	chorismate mutase subunit A {Erwinia herbicola}	37.4	59.4	297	
MJ0612	929781	928723	chorismate mutase subunit B {Escherichia coli}	33.2	56.2	1059	
MJ1175	357469	358572	chorismate synthase {Synechocystis sp}	48.8	66.5	1104	
MJ0918	621924	622682	indole-3-glycerol phosphate synthase {Halobacterium volcanii}	42.7	67.7	759	
MJ0451	1068501	1067845	N-phosphoribosyl anthranilate isomerase {Haloflex volcanii}	41.9	62.5	657	
MJ0637	904569	905264	prephenate dehydratase {Lactococcus lactis}	39.3	61.7	696	
MJ1084	449533	448757	shikimate 5-dehydrogenase {Escherichia coli}	38.9	57.4	777	
MJ1038	502619	501777	tryptophan synthase, subunit alpha {Methanobacterium thermoautotrophicum}	49.8	69.3	843	
MJ1037	503929	502808	tryptophan synthase, subunit beta {Acinetobacter calcoaceticus}	62.2	78.7	1122	

Aspartate family						
MJ1116	414120	415679	asparagine synthetase {Escherichia coli}	34.0	54.3	1560
MJ1056	476613	476170	asparagine synthetase {Bacillus subtilis}	33.0	54.6	444
MJ1391	132691	133833	aspartate aminotransferase {Sulfolobus solfataricus}	31.0	52.2	1143
MJ0684	859565	860632	aspartate aminotransferase {Sulfolobus solfataricus}	37.8	63.7	1068
MJ0001	1469369	1470142	aspartate aminotransferase {Sulfolobus solfataricus}	39.2	63.8	774
MJ0205	1273947	1274951	aspartate-semialdehyde dehydrogenase {Leptospira interrogans}	50.4	67.2	1005
MJ0571	963902	962544	aspartokinase I {Serratia marcescens}	37.0	56.7	1359
MJ1473	26812	27558	cobalamin-independent methionine synthase {Methanobacterium thermoautotrophicum}	47.7	65.3	747
MJ1097	433957	435159	diaminopimelate decarboxylase {Haemophilus influenzae}	43.2	66.6	1203
MJ1119	412913	412029	diaminopimelate epimerase {Haemophilus influenzae}	36.2	56.6	885
MJ0422	1090629	1091441	dihydrodipicolinate reductase {Haemophilus influenzae}	45.0	64.4	813
MJ0244	1239093	1239776	dihydrodipicolinate synthase {Haemophilus influenzae}	46.6	64.4	684
MJ1003	540278	539106	homocysteine synthase {Saccharomyces cerevisiae}	35.7	56.9	1173
MJ1602	1563296	1562289	homoserine dehydrogenase {Bacillus subtilis}	40.4	63.2	1008
MJ1104	427241	428128	homoserine kinase {Haemophilus influenzae}	30.1	53.9	888
MJ0020	1450056	1451210	L-asparaginase I {Haemophilus influenzae}	34.8	53.1	1155

MJ0457	1064285	1063176	succinyl-diaminopimelate desuccinylase {Haemophilus influenzae}	27.0	45.8	1110
MJ1465	36982	38157	threonine synthase {Bacillus subtilis}	51.2	71.1	1176
Glutamate family						
MJ0069	1406333	1405455	acetylglutamate kinase {Bacillus stearothermophilus}	44.4	65.7	879
MJ0791	757315	758637	argininosuccinate lyase {Campylobacter jejuni}	41.3	65.6	1323
MJ0429	1087105	1086023	argininosuccinate synthase {Methanococcus vannielii}	70.2	86.8	1083
MJ0186	1287178	1288140	glutamate N-acetyltransferase {Bacillus stearothermophilus}	47.4	63.1	963
MJ1351	172535	174007	glutamate synthase (NADPH), subunit alpha {Escherichia coli}	40.5	54.0	1473
MJ1346	179417	178068	glutamine synthetase {Methanococcus voltae}	70.5	84.7	1350
MJ1096	435486	436508	N-acetyl-gamma-glutamyl-phosphate reductase {Bacillus subtilis}	40.4	63.6	1023
MJ0721	817148	816045	N-acetylornithine aminotransferase {Anabaena sp.}	46.7	67.0	1104
MJ0881	664952	665845	ornithine carbamoyltransferase {Halobacterium halobium}	43.0	69.6	894
Pyruvate family						
MJ0503	1027812	1026610	2-isopropylmalate synthase {Lactococcus lactis}	44.4	61.1	1203
MJ1392	131826	130633	2-isopropylmalate synthase {Anabaena sp.}	43.0	63.1	1194
MJ1271	256614	256216	3-isopropylmalate dehydratase {Salmonella typhimurium}	44.1	62.0	399
MJ1277	249421	249807	3-isopropylmalate dehydratase {Clostridium pasteurianum}	49.5	70.2	387
MJ0663	884580	883129	acetolactate synthase, large subunit {Porphyra umbilicalis}	34.5	54.6	1452
MJ0277	1207735	1209507	acetolactate synthase, large subunit {Bacillus subtilis}	50.2	69.7	1773

- 70 -

MJ0161	1307199	1307702	acetolactate synthase, small subunit { <i>Bacillus subtilis</i> }	49.4	74.1	504
MJ1008	533323	534132	branched-chain amino acid aminotransferase { <i>Escherichia coli</i> }	42.6	59.0	810
MJ1276	250052	251710	dihydroxy-acid dehydratase { <i>Lactococcus lactis</i> }	44.6	65.1	1659
MJ1195	333450	335003	isopropylmalate synthase { <i>Haemophilus influenzae</i> }	42.9	63.7	1554
MJ1543	1615932	1614931	ketol-acid reductoisomerase { <i>Bacillus subtilis</i> }	53.7	77.0	1002
Serine family						
MJ1597	1568671	1567445	glycine hydroxymethyltransferase { <i>Methanobacterium thermoautotrophicum</i> }	69.8	80.7	1227
MJ1018	523454	524806	phosphoglycerate dehydrogenase { <i>Bacillus subtilis</i> }	42.7	65.4	1353
MJ1594	1571545	1571039	phosphoserine phosphatase { <i>Haemophilus influenzae</i> }	40.4	62.7	507
MJ0959	580672	581778	serine aminotransferase { <i>Methanobacterium thermoformicum</i> }	54.5	74.9	1107
Histidine family						
MJ1204	324063	324878	ATP phosphoribosyltransferase { <i>Escherichia coli</i> }	34.0	57.3	816
MJ1456	46532	45354	histidinol dehydrogenase { <i>Lactococcus lactis</i> }	47.6	67.5	1179
MJ0955	586179	585073	histidinol-phosphate aminotransferase { <i>Bacillus subtilis</i> }	37.7	60.8	1107
MJ0698	848921	848364	imidazoleglycerol-phosphate dehydrogenase { <i>Methanobacterium thermoautotrophicum</i> }	51.7	71.2	558
MJ0506	1024803	1025237	imidazoleglycerol-phosphate synthase (amidotransferase) { <i>Lactococcus lactis</i> }	45.6	62.1	435
MJ0411	1101451	1100636	imidazoleglycerol-phosphate synthase (cyclase) { <i>Azospirillum brasilense</i> }	61.5	78.8	816
MJ1430	71328	71047	phosphoribosyl-AMP cyclohydrolase { <i>Methanococcus vannielii</i> }	70.0	86.3	282

MJ0302	1186990	1187208	phosphoribosyl-ATP pyrophosphohydrolase {Azotobacter chroococcum}	54.1	68.9	219
MJ1532	1628155	1627745	phosphoribosylformimino-5-aminoimidazole carboxamide ribotide isomerase {Methanococcus thermolithotrophicus}	51.9	81.1	411
Biosynthesis of cofactors, prosthetic groups, and carriers						
MJ0603	937289	938566	glutamate-1-semialdehyde aminotransferase {Bacillus subtilis}	51.7	70.6	1278
MJ0569	966316	967137	porphobilinogen deaminase {Bacillus subtilis}	41.2	61.4	822
MJ0493	1035991	1036839	quinolinate phosphoribosyltransferase {Escherichia coli}	39.3	61.6	849
MJ0407	1105699	1104965	quinolinate synthetase {Cyanophora paradoxa}	37.2	58.8	735
MJ1388	136484	135309	S-adenosylhomocysteine hydrolase {Sulfolobus solfataricus}	61.7	78.5	1176
Biotin						
MJ1297	227704	227021	6-carboxyhexanoate-CoA ligase {Bacillus sphaericus}	42.2	62.2	684
MJ1298	227005	225890	8-amino-7-oxononanoate synthase {Bacillus sphaericus}	44.4	64.8	1116
MJ1300	225025	223709	adenosylmethionine-8-amino-7-oxononanoate aminotransferase {Bacillus sphaericus}	39.9	64.2	1317
MJ1619	1543130	1543552	bifunctional protein {Haemophilus influenzae}	25.7	54.9	423
MJ1296	228286	228843	biotin synthetase {Bacillus sphaericus}	38.2	62.5	558
MJ1299	225741	225100	dethiobiotin synthetase {Bacillus sphaericus}	37.0	59.0	642

Heme and porphyrin						
MJ1438	66330	65833	cobalamin (5'-phosphate) synthase {Escherichia coli}	26.1	48.7	498
MJ0552	983686	984417	cobalamin biosynthesis J protein {Salmonella typhimurium}	26.7	51.2	732
MJ1314	212528	211842	cobalamin biosynthesis protein D {Pseudomonas denitrificans}	38.0	61.0	687
MJ0022	1448163	1447273	cobalamin biosynthesis protein D {Salmonella typhimurium}	35.5	61.1	891
MJ1569	1592308	1591700	cobalamin biosynthesis protein M {Salmonella typhimurium}	29.5	54.7	609
MJ1091	442661	443239	cobalamin biosynthesis protein M {Salmonella typhimurium}	53.7	74.4	579
MJ0908	635150	631647	cobalamin biosynthesis protein N {Pseudomonas denitrificans}	37.5	57.6	3504
MJ0484	1046784	1045324	cobyrinic acid synthase {Methanococcus voltae}	73.7	89.8	1461
MJ1421	85381	86352	cobyrinic acid a,c-diamide synthase {Salmonella typhimurium}	32.1	55.0	972
MJ0143	1332080	1330965	glutamyl-tRNA reductase {Methanobacterium thermoautotrophicum}	47.8	66.9	1116
MJ0643	899800	898910	porphobilinogen synthase {Methanothermus sociabilis}	62.5	79.9	891
MJ0930	612059	611430	precorrin isomerase {Salmonella typhimurium}	38.7	62.0	630
MJ0771	780420	779932	precorrin-2 methyltransferase {Salmonella typhimurium}	30.4	55.9	489
MJ0813	734876	735547	precorrin-3 methylase {Salmonella typhimurium}	44.2	68.4	672
MJ1578	1583277	1582501	precorrin-3 methylase {Salmonella typhimurium}	54.6	76.5	777
MJ1522	1637017	1636385	precorrin-6Y methylase {Salmonella typhimurium}	30.6	52.3	633
MJ0391	1116729	1117202	precorrin-8W decarboxylase {Salmonella typhimurium}	23.9	49.1	474

MJ0965	573234	572509	uroporphyrin-III C-methyltransferase {Bacillus megaterium}	54.7	72.5	726
MJ0994	549022	549444	uroporphyrinogen III synthase {Bacillus subtilis}	27.8	49.4	423
Menaquinone and ubiquinone						
MJ1645	1509624	1508923	coenzyme PQQ synthesis protein III {Haemophilus influenzae}	32.2	53.3	702
Molybdopterin						
MJ0824	725986	726762	molybdenum cofactor biosynthesis moaA protein {Haemophilus influenzae}	30.0	57.3	777
MJ0167	1301836	1302162	molybdenum cofactor biosynthesis moaB protein {Escherichia coli}	46.4	69.6	327
MJ1135	396359	396781	molybdenum cofactor biosynthesis moaC protein {Haemophilus influenzae}	49.2	70.9	423
MJ0886	654158	656017	molybdenum cofactor biosynthesis moeA protein {Escherichia coli}	34.5	55.2	1860
MJ0666	879771	880943	molybdenum cofactor biosynthesis moeA protein {Haemophilus influenzae}	33.6	56.4	1173
MJ1663	1491265	1490831	molybdopterin-guanine dinucleotide biosynthesis protein A {Escherichia coli}	27.7	48.0	435
MJ1324	197777	197076	molybdopterin-guanine dinucleotide biosynthesis protein B {Escherichia coli}	32.2	57.7	702
Pantothenate						
MJ0913	626982	627779	pantothenate metabolism flavoprotein {Haemophilus influenzae}	34.1	55.7	798

Riboflavin						
MJ0055	1416688	1417278	GTP cyclohydrolase II {Bacillus subtilis}	35.8	56.0	591
MJ0671	874773	875396	riboflavin-specific deaminase {Actinobacillus pleuropneumoniae}	43.0	65.3	624
Thioredoxin, glutaredoxin, and glutathione						
MJ1536	1622694	1623533	thioredoxin reductase {Mycoplasma genitalium}	38.5	58.0	840
MJ0530	1005917	1005420	thioredoxin-2 {Saccharomyces cerevisiae}	33.0	63.3	498
MJ0307	1184114	1184332	thioredoxin/glutaredoxin {Methanobacterium thermoautotrophicum}	48.7	69.5	219
Thiamine						
MJ1026	514172	515440	thiamine biosynthesis protein {Bacillus subtilis}	45.0	66.1	1269
MJ0601	940113	939400	thiamine biosynthetic enzyme {Zea mays}	35.1	53.0	714
Pyridine nucleotides						
MJ1352	170567	171163	NH(3)-dependent NAD+ synthetase {Mycoplasma genitalium}	47.5	63.8	597
Cell envelope						
Membranes, lipoproteins, and porins						
MJ0544	989805	990443	dolichyl-phosphate mannosyl synthase {Trypanosoma brucei}	35.1	57.1	639
MJ1057	475508	474981	glycosyl transferase {Neisseria gonorrhoeae}	25.8	50.0	528
MJ0611	931098	930679	membrane protein {Saccharum sp.}	50.0	57.2	420
MJ0827	724322	723900	membrane protein {Homo sapiens}	44.9	67.0	423

Murein sacculus and peptidoglycan						
MJ1160	371691	370390	amidase {Moraxella catarrhalis}	24.6	36.1	1302
MJ0204	1276277	1275219	amidophosphoribosyltransferase {Bacillus subtilis}	52.0	72.9	1059
Surface polysaccharides, lipopolysaccharides and antigens						
MJ0924	617598	618035	capsular polysaccharide biosynthesis protein {Staphylococcus aureus}	31.3	46.9	438
MJ1061	469649	470293	capsular polysaccharide biosynthesis protein D {Staphylococcus aureus}	56.3	72.2	645
MJ1055	478643	477735	capsular polysaccharide biosynthesis protein I {Staphylococcus aureus}	50.7	74.4	909
MJ1059	472326	471904	capsular polysaccharide biosynthesis protein M {Staphylococcus aureus}	34.4	55.0	423
MJ1607	1555624	1554455	LPS biosynthesis related rfbu-protein {Haemophilus influenzae}	33.4	57.6	1170
MJ1113	417528	418352	N-acetylglucosamine-1-phosphate transferase {Sulfolobus acidocaldarius}	29.9	57.9	825
MJ0399	1110873	1112204	phosphomannomutase {Vibrio cholerae}	37.0	57.8	1332
MJ1068	462901	464265	putative O-antigen transporter {Shigella flexneri}	24.5	46.6	1365
MJ1066	464369	465430	spore coat polysaccharide biosynthesis protein C {Bacillus subtilis}	55.3	75.8	1062
MJ1065	465444	466454	spore coat polysaccharide biosynthesis protein E {Bacillus subtilis}	37.9	59.0	1011
MJ1063	467331	467828	spore coat polysaccharide biosynthesis protein F {Bacillus subtilis}	36.0	55.4	498
MJ1062	467870	469279	spore coat polysaccharide biosynthesis protein G {Bacillus subtilis}	32.0	54.5	1410
MJ0211	1269601	1268732	UDP-glucose 4-epimerase {Streptococcus thermophilus}	35.1	54.8	870
MJ1054	481027	478712	UDP-glucose dehydrogenase {Xanthomonas campestris}	42.8	63.4	2316
MJ0428	1087456	1088655	UDP-N-acetyl-D-mannosaminuronic acid dehydrogenase {Escherichia coli}	45.1	68.2	1200

Surface structures						
MJ0891	650616	650005	flagellin B1 {Methanococcus voltae}	55.4	71.6	612
MJ0892	649880	649269	flagellin B2 {Methanococcus voltae}	61.1	78.4	612
MJ0893	649163	648516	flagellin B3 {Methanococcus voltae}	59.1	78.7	648
Cellular processes						
Cell division						
MJ1489	10595	8721	cell division control protein {Saccharomyces cerevisiae}	34.8	57.7	1875
MJ0363	1142460	1140220	cell division control protein 21 {Schizosaccharomyces pombe}	30.0	51.4	2241
MJ1156	375317	377947	cell division control protein CDC48 {Saccharomyces cerevisiae}	51.9	71.7	2631
MJ0169	1300988	1300329	cell division inhibitor {Bacillus subtilis}	28.8	51.2	660
MJ0579	957291	958088	cell division inhibitor {Bacillus subtilis}	31.8	53.2	798
MJ0547	988025	988732	cell division inhibitor {Bacillus subtilis}	32.8	57.7	708
MJ0084	1393471	1392869	cell division inhibitor minD {Escherichia coli}	32.1	50.4	603
MJ0174	1295971	1294976	cell division protein {Drosophila melanogaster}	28.4	54.6	996
MJ0370	1135876	1134956	cell division protein ftsZ {Anabaena 7120}	50.7	71.7	921
MJ1376	147975	147343	cell division protein J {Haemophilus influenzae}	39.8	58.5	633
MJ0622	920029	921168	cell division protein Z {Haloflex volcanii}	51.0	71.7	1140
MJ0148	1326798	1327538	centromere/microtubule-binding protein {Saccharomyces cerevisiae}	42.7	64.7	741

MJ1647	1508164	1507907	DNA binding protein {Methanococcus voltae}	54.7	80.3	258
MJ1643	1513857	1510351	P115 protein {Mycoplasma hyorhinis}	30.3	55.4	3507
Chaperones						
MJ0999	543921	545471	chaperonin {Methanopyrus kandleri}	73.5	87.6	1551
MJ0285	1202058	1202459	heat shock protein {Clostridium acetobutylicum}	29.0	44.6	402
MJ0278	1207276	1207548	rotamase, peptidyl-prolyl cis-trans isomerase {Haemophilus influenzae}	40.7	60.5	273
MJ0825	725091	725765	rotamase, peptidyl-prolyl cis-trans isomerase {Pseudomonas fluorescens}	31.8	60.8	675
Detoxification						
MJ0736	804803	805453	alkyl hydroperoxide reductase {Sulfolobus solfataricus}	66.1	84.8	651
MJ1541	1618786	1619868	N-ethylmaleimide chlorohydrolase {Rhodococcus rubropertinctus}	29.2	56.3	1083
Protein and peptide secretion						
MJ0478	1051985	1050678	preprotein translocase secY {Methanococcus vannielii}	70.9	88.8	1308
MJ0111	1365253	1364216	protein-export membrane protein {Streptomyces coelicolor}	25.9	51.7	1038
MJ1253	276673	277377	protein-export membrane protein {Escherichia coli}	30.5	57.0	705
MJ0260	1226090	1226644	signal peptidase {Canis familiaris}	32.6	54.5	555
MJ0101	1376106	1377308	signal recognition particle protein {Haemophilus influenzae}	42.0	61.6	1203
MJ0291	1198470	1197244	signal recognition particle protein {Sulfolobus acidocaldarius}	48.3	69.4	1227

Transformation					
MJ0781	768702	770798	k1bA protein {Plasmid RK2}	34.6	54.9
MJ0940	602402	601929	transformation sensitive protein {Homo sapiens}	35.0	53.9
Cellular processes					
MJEC17	20110	19889	archaeal histone {Pyrococcus sp.}	58.8	81.0
MJEC29	36456	26220	archaeal histone {Pyrococcus sp.}	64.2	83.6
MJ1258	271686	271486	archaeal histone {Pyrococcus sp.}	71.7	83.6
MJ0168	1301348	1301548	archaeal histone {Pyrococcus sp.}	67.2	86.6
MJ0932	610153	609953	archaeal histone {Pyrococcus sp.}	67.2	86.6
Central intermediary metabolism					
Amino sugars					
MJ1420	90244	86939	glutamine--fructose-6-phosphate transaminase {Escherichia coli}	41.2	61.5
Degradation of polysaccharides					
MJ1611	1550816	1549542	alpha-amylase {Pyrococcus furiosus}	27.0	50.5
MJ0555	981500	980529	endoglucanase {Homo sapiens}	44.1	66.8
MJ1610	1551992	1550967	glucoamylase {Clostridium sp}	28.0	49.2

Other						
MJ1656	1498675	1497965	2-hydroxyhepta-2,4-diene-1,7-dioate isomerase {Escherichia coli}	40.2	61.6	711
MJ0406	1106800	1105907	ribokinase {Escherichia coli}	23.2	46.3	894
MJ0309	1182259	1183077	ureohydrolase {Methanothermus fervidus}	40.9	60.7	819
Phosphorus compounds						
MJ0963	575418	577049	N-methylhydantoinase {Arthrobacter sp.}	32.6	53.0	1632
MJ0964	573516	575345	N-methylhydantoinase {Arthrobacter sp.}	37.7	56.4	1830
Polyamine biosynthesis						
MJ0535	1001006	1002031	acetyl/polyamine aminohydrolase {D01044 Mycoplasma}	33.3	48.6	1026
MJ0313	1179250	1179801	spermidine synthase {Homo sapiens}	32.3	57.7	552
Polysaccharides-(cytoplasmic)						
MJ1606	1555858	1557354	glycogen synthase {Hordeum vulgare}	33.7	58.3	1497
Nitrogen metabolism						
MJ1187	345237	344335	ADP-ribosylglycohydrolase (draG) {Rhodospirillum rubrum}	29.8	50.8	903
MJ0713	824113	826278	hydrogenase accessory protein {Azotobacter chroococcum}	33.8	54.8	2166
MJ0214	1267658	1267314	hydrogenase accessory protein {Azotobacter chroococcum}	30.7	56.5	345
MJ0676	869311	870276	hydrogenase expression/formation protein {Rhizobium leguminosarum}	46.1	65.3	966
MJ0442	1075480	1076028	hydrogenase expression/formation protein B {Rhizobium leguminosarum}	44.6	64.0	549
MJ0200	1279494	1279739	hydrogenase expression/formation protein C {Azotobacter vinelandii}	40.0	68.8	246

MJ0993	549539	550525	hydrogenase expression/formation protein D {Alcaligenes eutrophus}	44.7	63.5	987
MJ0631	914544	914089	hydrogenase maturation protease {Escherichia coli}	33.9	58.9	456
MJ1093	441468	440584	nifB protein {Anabaena sp}	43.1	67.2	885
MJ0879	667622	666984	nitrogenase reductase {Methanococcus voltae}	77.2	89.1	639
MJ0685	859442	858696	nitrogenase reductase related protein {Clostridium pasteurianum}	31.7	49.6	747
MJ1051	483344	484411	nodulation factor production protein {Bradyrhizobium japonicum}	32.1	51.1	1068
MJ1058	473947	473141	nodulation factor production protein {Bradyrhizobium japonicum}	37.7	58.0	807
Carbon Fixation						
MJ0152	1325036	1322820	carbon monoxide dehydrogenase, alpha subunit {Clostridium thermoaceticum}	42.1	65.6	2217
MJ0153	1322553	1320256	carbon monoxide dehydrogenase, alpha subunit {Methanotherix soehngenii}	47.9	67.3	2298
MJ0156	1319256	1317883	carbon monoxide dehydrogenase, alpha subunit {Clostridium thermoaceticum}	47.8	69.5	1374
MJ0728	809951	811783	carbon monoxide dehydrogenase, beta subunit {Rhodospirillum rubrum}	35.9	55.0	1833
MJ0112	1362285	1363667	corrinoid/iron-sulfur protein, large subunit {Clostridium thermoaceticum}	32.9	55.1	1383
MJ0113	1361128	1362030	corrinoid/iron-sulfur protein, small subunit {Clostridium thermoaceticum}	37.7	58.8	903
MJ1235	292453	293673	ribulose biphosphate carboxylase, large subunit {Synechococcus sp}	42.4	60.3	1221

Energy metabolism						
Aerobic						
MJ0649	896262	894919	NADH oxidase {Enterococcus faecalis}	28.0	50.4	1344
MJ0520	1011104	1011892	NADH-ubiquinone oxidoreductase, subunit 1 {Paracentrotus lividus}	29.5	53.9	789
Anaerobic						
MJ0092	1385748	1384282	fumarate reductase {Thermoplasma acidophilum}	40.2	57.0	1467
ATP-proton motive force interconversion						
MJ0217	1263468	1265171	ATP synthase, subunit A {Enterococcus hirae}	60.3	76.6	1704
MJ0216	1265356	1266615	ATP synthase, subunit B {Methanosarcina barkeri}	69.4	84.5	1260
MJ0219	1261985	1263040	ATP synthase, subunit C {Haloflex volcanii}	28.1	50.0	1056
MJ0615	926124	926663	ATP synthase, subunit D {Enterococcus hirae}	34.8	56.8	540
MJ0220	1261297	1261737	ATP synthase, subunit E {Methanosarcina mazei}	29.0	50.0	441
MJ0218	1263054	1263347	ATP synthase, subunit F {Haloflex volcanii}	21.5	52.1	294
MJ0222	1258252	1260294	ATP synthase, subunit I {Enterococcus hirae}	27.6	52.2	2043
MJ0221	1260641	1261060	ATP synthase, subunit K {Enterococcus hirae}	34.6	59.8	420

Electron transport						
MJ1446	57416	56646	cytochrome-c3 hydrogenase, gamma chain {Pyrococcus furiosus}	40.1	52.4	771
MJ0741	803000	803320	desulfoferredoxin {Desulfovibrio vulgaris}	44.0	59.4	321
MJ0578	958094	958900	ferredoxin {Clostridium sticklandii}	49.1	56.9	807
MJ0061	1411998	1411759	ferredoxin {Methanococcus thermolithotrophicus}	42.9	59.0	240
MJ0722	815808	816038	ferredoxin {Methanobacterium thermoautotrophicum}	42.3	60.6	231
MJ0099	1379076	1379456	ferredoxin {Desulfovibrio desulfuricans}	40.0	62.0	381
MJ0199	1279976	1279791	ferredoxin {Methanococcus thermolithotrophicus}	74.6	84.8	186
MJ0533	1003408	1003575	ferredoxin 2[4Fe-4S] homolog {Methanosarcina thermophila}	36.9	54.4	168
MJ0624	918981	918808	ferredoxin 2[4Fe-4S] {Methanosarcina thermophila}	48.0	68.0	174
MJ0267	1217567	1218463	ferredoxin oxidoreductase, alpha subunit {Klebsiella pneumoniae}	29.4	50.2	897
MJ0276	1209645	1210727	ferredoxin oxidoreductase, alpha subunit {Halobacterium halobium}	44.5	63.0	1083
MJ0266	1218644	1219387	ferredoxin oxidoreductase, beta subunit {Klebsiella pneumoniae}	32.6	51.0	744
MJ0537	998693	999424	ferredoxin oxidoreductase, beta subunit {Halobacterium halobium}	41.3	61.1	732
MJ0268	1217015	1217272	ferredoxin oxidoreductase, delta subunit {Pyrococcus furiosus}	58.9	71.8	258
MJ0536	999441	999980	ferredoxin oxidoreductase, gamma subunit {Pyrococcus furiosus}	32.0	50.9	540
MJ0269	1216601	1216993	ferredoxin oxidoreductase, gamma subunit {Pyrococcus furiosus}	55.6	74.7	393
MJ0732	806970	808100	flavoprotein {Methanobacterium thermoautotrophicum}	40.4	62.3	1131
MJ1192	339066	338095	methylviologen-reducing hydrogenase, alpha chain {Methanococcus voltae}	75.0	88.6	972

- 83 -

MJ1191	340221	339385		methylenetetrahydrogen-reducing hydrogenase, gamma chain {Methanococcus voltae}	71.5	83.3	837
MJ1362	160414	161055		NADH dehydrogenase, subunit 1 {Mitochondrion Oncofynchus}	23.1	50.0	642
MJ0514	1016474	1017223		polyferredoxin {Methanococcus voltae}	36.7	52.5	750
MJ0934	608147	607521		polyferredoxin {Methanothermobacter fervidus}	40.9	54.3	627
MJ1303	220214	221701		polyferredoxin {Methanobacterium thermoautotrophicum}	39.5	56.1	1488
MJ1193	337655	336591		polyferredoxin {Methanococcus voltae}	61.7	74.5	1065
MJ1227	301853	301257		pyruvate formate-lyase activating enzyme {Clostridium pasteurianum}	31.4	50.0	597
MJ0735	805546	805785		rubredoxin {Clostridium thermosaccharolyticum}	59.7	77.0	240
MJ0740	803522	803659		rubredoxin {Clostridium thermosaccharolyticum}	64.5	84.5	138
Fermentation							
MJ0007	1463447	1462359		2-hydroxyglutaryl-CoA dehydratase, subunit beta {Acidaminococcus fermentans}	22.6	48.2	1089
Gluconeogenesis							
MJ1479	22527	21358		alanine aminotransferase 2 {Panicum miliaceum}	30.1	50.0	1170
MJ0542	991264	994794		phosphoenolpyruvate synthase {Pyrococcus furiosus}	60.3	78.3	3531

Glycolysis						
MJ1482	18946	18044	2-phosphoglycerate kinase {Methanothermus fervidus}	47.1	70.9	903
MJ0641	901393	902325	3-phosphoglycerate kinase {Methanothermus fervidus}	58.2	78.1	933
MJ0232	1248239	1249432	enolase {Bacillus subtilis}	57.7	78.2	1194
MJ1605	1557395	1558597	glucose-6-phosphate isomerase {Bacillus stearothermophilus}	32.3	54.6	1203
MJ1146	386093	387055	glyceraldehyde 3-phosphate dehydrogenase {Methanothermus fervidus}	59.5	77.6	963
MJ0490	1038560	1037697	lactate dehydrogenase {Thermotoga maritima}	39.9	63.2	864
MJ1411	100555	99167	NADP-dependent glyceraldehyde-3-phosphate dehydrogenase {L15191 Streptococcus}	39.2	59.6	1389
MJ0108	1367951	1366716	pyruvate kinase {Bacillus stearothermophilus}	39.1	60.5	1236
MJ1528	1631071	1631589	triosephosphate isomerase {Mycoplasma genitalium}	29.0	49.1	519
Pentose phosphate pathway						
MJ0680	865484	866083	pentose-5-phosphate-3-epimerase {Solanum tuberosum}	44.2	62.5	600
MJ1603	1560724	1560047	ribose 5-phosphate isomerase {Mus musculus}	42.0	63.4	678
MJ0960	580121	580576	transaldolase {Bacillus subtilis}	60.7	79.5	456
MJ0681	864603	865355	transketolase' {Homo sapiens}	43.7	58.5	753
MJ0679	866375	867073	transketolase" {Homo sapiens}	36.0	61.3	699

Pyruvate dehydrogenase						
MJ0636	906464	905292	dihydrolipoamide dehydrogenase {Haloferax volcanii}	28.9	51.0	1173
Sugars						
MJ1418	91211	90669	fucose-1-phosphate aldolase {Haemophilus influenzae}	29.1	48.7	543
TCA cycle						
MJ0499	1031331	1032530	aconitase {Saccharomyces cerevisiae}	29.7	49.8	1200
MJ1294	229770	230381	fumarate hydratase, class I' {Bacillus stearothermophilus}	35.1	55.7	612
MJ0617	925239	924778	fumarate hydratase, class I'' {Bacillus stearothermophilus}	43.8	66.0	462
MJ1596	1568967	1569998	isocitrate dehydrogenase {Thermus aquaticus}	42.9	61.4	1032
MJ0720	817433	818431	isocitrate dehydrogenase (NADP) {Thermus aquaticus}	48.0	64.7	999
MJ1425	77051	76299	malate dehydrogenase {Methanothermus fervidus}	61.3	77.6	753
MJ0033	1438609	1437116	succinate dehydrogenase, flavoprotein subunit {Escherichia coli}	41.8	58.1	1494
MJ1246	282664	283449	succinyl-CoA synthetase, alpha subunit {Escherichia coli}	59.6	74.8	786
MJ0210	1271318	1270227	succinyl-CoA synthetase, beta subunit {Thermus aquaticus}	48.8	68.7	1092

Methanogenesis						
MJ0253	1232773	1232405	8-hydroxy-5-deazaflavin-reducing hydrogenase, delta subunit {Methanobacterium thermoautotrophicum}	47.1	71.0	369
MJ1035	505234	506022	coenzyme F420-dependent N5,N10-methylene-tetrahydromethanopterin dehydrogenase {Methanobacterium thermoautotrophicum}	66.5	79.8	789
MJ0727	811895	812725	coenzyme F420-reducing hydrogenase, alpha subunit {Methanobacterium thermoautotrophicum}	26.8	45.8	831
MJ0029	1442517	1441279	coenzyme F420-reducing hydrogenase, alpha subunit {Methanococcus voltae}	50.3	66.1	1239
MJ0030	1441022	1440558	coenzyme F420-reducing hydrogenase, alpha subunit {Methanococcus voltae}	66.5	83.3	465
MJ1349	175566	176222	coenzyme F420-reducing hydrogenase, beta subunit {Methanococcus voltae}	36.6	55.7	657
MJ0725	813779	814453	coenzyme F420-reducing hydrogenase, beta subunit {Methanobacterium thermoautotrophicum}	41.0	62.0	675
MJ0870	677657	679372	coenzyme F420-reducing hydrogenase, beta subunit {Methanobacterium thermoautotrophicum}	42.7	63.2	1716
MJ0032	1439835	1438990	coenzyme F420-reducing hydrogenase, beta subunit {Methanococcus voltae}	72.0	85.5	846
MJ0726	812987	813499	coenzyme F420-reducing hydrogenase, gamma subunit {Methanococcus voltae}	42.7	59.4	513
MJ0031	1440505	1439873	coenzyme F420-reducing hydrogenase, gamma subunit {Methanococcus voltae}	75.5	87.3	633
MJ0295	1192687	1193304	formate dehydrogenase (fdhD) {Wolinella succinogenes}	35.6	57.7	618
MJ0006	1463887	1465020	formate dehydrogenase, alpha subunit {Methanobacterium formicicum}	41.6	61.1	1134
MJ1353	168767	170344	formate dehydrogenase, alpha subunit {Methanobacterium formicicum}	54.2	70.9	1578
MJ0005	1465405	1466247	formate dehydrogenase, beta subunit {Methanobacterium formicicum}	49.5	72.1	843

MJ0155	1319767	1319315	formate dehydrogenase, iron-sulfur subunit {Wolinella succinogenes}	41.7	56.9	453
MJ0264	1220122	1220433	formate hydrogenlyase, subunit 2 {Escherichia coli}	42.9	59.8	312
MJ0265	1219502	1219930	formate hydrogenlyase, subunit 2 {Escherichia coli}	45.5	61.0	429
MJ0515	1013710	1014735	formate hydrogenlyase, subunit 5 {Escherichia coli}	31.0	51.1	1026
MJ1027	514001	512871	formate hydrogenlyase, subunit 5 {Escherichia coli}	34.3	53.3	1131
MJ1363	159614	160018	formate hydrogenlyase, subunit 7 {Escherichia coli}	38.4	60.9	405
MJ0516	1013157	1013600	formate hydrogenlyase, subunit 7 {Escherichia coli}	48.8	65.6	444
MJ0318	1175065	1175823	formylmethanofuran:tetrahydromethanopterin formyltransferase {Methanobacterium thermoautotrophicum}	68.6	84.5	759
MJ1338	185930	185007	H(2)-dependent methylenetetrahydromethanopterin dehydrogenase related protein {Methanobacterium thermoautotrophicum}	29.1	50.5	924
MJ0715	823334	822423	H2-forming N5,N10-methylene-tetrahydromethanopterin dehydrogenase-related protein {Methanococcus voltae}	29.9	52.5	912
MJ0784	765279	764272	H2-forming N5,N10-methylene-tetrahydromethanopterin dehydrogenase {Methanococcus voltae}	73.6	85.5	1008
MJ1190	342199	341003	heterodisulfide reductase, subunit A {Methanobacterium thermoautotrophicum}	58.0	75.2	1197
MJ0743	801736	802422	heterodisulfide reductase, subunit B {Methanobacterium thermoautotrophicum}	59.3	79.0	687
MJ0863	684944	685798	heterodisulfide reductase, subunit B {Methanobacterium thermoautotrophicum}	63.2	80.2	855
MJ0744	801103	801489	heterodisulfide reductase, subunit C {Methanobacterium thermoautotrophicum}	53.4	68.4	387
MJ0864	684283	684840	heterodisulfide reductase, subunit C {Methanobacterium thermoautotrophicum}	52.6	69.9	558
MJ0118	1357167	1356667	methyl coenzyme M reductase II operon, protein D {Methanothermobacter ferrireducens}	53.2	77.5	501

MJ0083	1395319	1393880	methyl coenzyme M reductase II, alpha subunit {Methanothermus fervidus}	89.8	95.5	1440
MJ0081	1397700	1396351	methyl coenzyme M reductase II, beta subunit {Methanothermus fervidus}	79.7	89.4	1350
MJ0082	1396335	1395538	methyl coenzyme M reductase II, gamma subunit {Methanothermus fervidus}	83.0	92.1	798
MJ0844	702037	701465	methyl coenzyme M reductase operon, protein C {Methanococcus vannielii}	82.5	92.6	573
MJ0843	702395	702069	methyl coenzyme M reductase operon, protein D {Methanococcus voltae}	58.0	81.4	327
MJ1662	1491537	1493201	methyl coenzyme M reductase system, component A2 {Methanobacterium thermoautotrophicum}	37.1	60.1	1665
MJ1242	284878	286338	methyl coenzyme M reductase system, component A2 {Methanobacterium thermoautotrophicum}	60.9	77.8	1461
MJ0846	700322	698880	methyl coenzyme M reductase, alpha subunit {Methanococcus voltae}	86.1	92.1	1443
MJ0842	703907	702576	methyl coenzyme M reductase, beta subunit {Methanococcus vannielii}	75.3	87.4	1332
MJ0845	701389	700673	methyl coenzyme M reductase, gamma subunit {Methanococcus vannielii}	78.7	91.3	717
MJ1636	1520054	1519128	N5,N10-methenyl-tetrahydromethanopterin cyclohydrolase {Methanobacterium thermoautotrophicum}	69.6	82.3	927
MJ1534	1625526	1624534	N5,N10-methylene tetrahydromethanopterin reductase {Methanobacterium thermoautotrophicum}	66.2	79.7	993
MJ0850	696203	695895	N5-methyl-tetrahydromethanopterin:coenzyme M methyltransferase {Methanobacterium thermoautotrophicum}	36.6	59.8	309
MJ0849	696884	696216	N5-methyl-tetrahydromethanopterin:coenzyme M methyltransferase {Methanobacterium thermoautotrophicum}	41.8	62.3	669
MJ0852	695117	694914	N5-methyl-tetrahydromethanopterin:coenzyme M methyltransferase {Methanobacterium thermoautotrophicum}	37.1	64.6	204

MJ0851	695866	695138	N5-methyl-tetrahydromethanopterin:coenzyme M methyltransferase {Methanobacterium thermoautotrophicum}	55.2	73.5	729
MJ0847	698519	697749	N5-methyl-tetrahydromethanopterin:coenzyme M methyltransferase {Methanobacterium thermoautotrophicum}	58.3	76.4	771
MJ0854	694607	693651	N5-methyl-tetrahydromethanopterin:coenzyme M methyltransferase {Methanobacterium thermoautotrophicum}	62.1	77.5	957
MJ0848	697696	697043	N5-methyl-tetrahydromethanopterin:coenzyme M methyltransferase {Methanobacterium thermoautotrophicum}	63.5	77.8	654
MJ0853	694857	694639	N5-methyl-tetrahydromethanopterin:coenzyme M methyltransferase G {Methanobacterium thermoautotrophicum}	51.1	76.6	219
MJ1169	363822	362122	tungsten formylmethanofuran dehydrogenase, subunit A {Methanobacterium thermoautotrophicum}	69.4	81.5	1701
MJ1194	336096	335260	tungsten formylmethanofuran dehydrogenase, subunit B {Methanobacterium thermoautotrophicum}	71.1	84.0	837
MJ1171	361740	360973	tungsten formylmethanofuran dehydrogenase, subunit C {Methanobacterium thermoautotrophicum}	52.7	67.7	768
MJ0658	887575	886886	tungsten formylmethanofuran dehydrogenase, subunit C related protein {Methanobacterium thermoautotrophicum}	35.4	53.4	690
MJ1168	364202	363852	tungsten formylmethanofuran dehydrogenase, subunit D {Methanobacterium thermoautotrophicum}	55.2	74.8	351
MJ1165	366038	365637	tungsten formylmethanofuran dehydrogenase, subunit E {Methanobacterium thermoautotrophicum}	38.3	61.1	402
MJ1166	365484	364567	tungsten formylmethanofuran dehydrogenase, subunit F {Methanobacterium thermoautotrophicum}	47.6	67.4	918

MJ1167	364516	364271	tungsten formylmethanofuran dehydrogenase, subunit G {Methanobacterium thermoautotrophicum}	43.1	58.5	246
Fatty acid and phospholipid metabolism						
MJ0705	840072	838927	3-hydroxy-3-methylglutaryl coenzyme A reductase {Haloferrax volcanii}	49.8	67.3	1146
MJ1546	1612371	1611697	acyl carrier protein synthase {Pyrococcus furiosus}	63.1	78.0	675
MJ0860	688696	689499	bifunctional short chain isoprenyl diphosphate synthase {Methanobacterium thermoautotrophicum}	49.5	71.7	804
MJ1229	299478	300644	biotin carboxylase {Anabaena sp}	58.9	76.2	1167
MJ1212	316229	316786	CDP-diacylglycerol--serine O-phosphatidyltransferase {Bacillus subtilis}	45.5	63.7	558
MJ1504	1661217	1662188	lipopolysaccharide biosynthesis protein (bpID) {Bordetella pertussis}	44.3	63.1	972
MJ1087	446091	445231	melvalonate kinase {Schizosaccharomyces pombe}	31.5	53.7	861
MJ1549	1610772	1609735	nonspecific lipid-transfer protein {Pyrococcus furiosus}	46.9	66.0	1038
Purines, pyrimidines, nucleosides, and nucleotides						
2'-Deoxyribonucleotide metabolism						
MJ0832	719820	714604	anaerobic ribonucleoside-triphosphate reductase {Escherichia coli}	28.1	49.9	5217
MJ0430	1085497	1086009	deoxycytidine triphosphate deaminase {Desulfurolobus ambivalens}	40.4	61.5	513
MJ1102	429115	428648	deoxycytidine triphosphate deaminase, putative {Desulfurolobus ambivalens}	32.1	53.2	468
MJ0511	1019410	1020075	deoxyuridylate hydroxymethylase {Methanobacterium thermoautotrophicum}	39.4	59.6	666
MJ0937	606252	604921	glycinamide ribonucleotide synthetase {Homo sapiens}	37.1	55.0	1332

Purine ribonucleotide biosynthesis						
MJ0929	613484	612135	adenylosuccinate lyase {Bacillus subtilis}	42.6	67.4	1350
MJ0561	976592	975741	adenylosuccinate synthetase {Haemophilus influenzae}	41.0	59.1	852
MJ1575	1586386	1585823	GMP synthetase {Borrelia burgdorferi}	41.4	66.7	564
MJ1131	399509	400264	GMP synthetase {Haemophilus influenzae}	52.0	72.3	756
MJ1616	1545605	1544271	inosine-5'-monophosphate dehydrogenase {Pyrococcus furiosus}	61.8	80.4	1335
MJ1265	262116	262436	nucleoside diphosphate kinase {Haemophilus influenzae}	51.5	68.3	321
MJ0616	925486	925941	phosphoribosylaminoimidazole carboxylase {Methanobrevibacter smithii}	56.3	76.2	456
MJ1592	1572482	1572009	phosphoribosylaminoimidazole succinocarboxamide synthase {Bacillus subtilis}	51.0	69.1	474
MJ0203	1277597	1276734	phosphoribosylformylglycinamide cyclo-ligase {Bacillus subtilis}	42.7	64.4	864
MJ1648	1507541	1507071	phosphoribosylformylglycinamide synthase I {Bacillus subtilis}	52.9	71.5	471
MJ1264	262585	264714	phosphoribosylformylglycinamide synthase II {Bacillus subtilis}	43.3	65.1	2130
MJ1486	13611	14633	phosphoribosylglycinamide formyltransferase 2 {Bacillus subtilis}	61.8	75.9	1023
MJ1366	155580	156431	ribose-phosphate pyrophosphokinase {Haemophilus influenzae}	34.1	55.5	852

Pyrimidine ribonucleotide biosynthesis							
MJ1581	1581578	1580661	aspartate carbamoyltransferase catalytic chain {Escherichia coli}	50.0	70.7	918	
MJ1406	104548	104183	aspartate carbamoyltransferase regulatory chain {Escherichia coli}	39.1	65.1	366	
MJ1378	145461	144037	carbamoyl-phosphate synthase, large chain {Bacillus subtilis}	59.7	80.0	1425	
MJ1381	143097	141328	carbamoyl-phosphate synthase, pyrimidine-specific, large subunit {Bacillus caldolyticus}	54.7	75.7	1770	
MJ1019	523003	522041	carbamoyl-phosphate synthase, small chain {Bacillus subtilis}	49.6	69.1	963	
MJ1174	358774	360279	CTP synthase {Haemophilus influenzae}	56.7	74.0	1506	
MJ0656	888785	888306	cytidylate kinase {Bacillus subtilis}	31.9	59.5	480	
MJ1490	8032	6764	dihydroorotase {Bacillus caldolyticus}	34.5	56.3	1269	
MJ0654	889442	890284	dihydroorotase dehydrogenase {Bacillus subtilis}	43.1	66.6	843	
MJ0293	1196756	1196196	thymidylate kinase {Schizosaccharomyces pombe}	31.2	58.7	561	
MJ1109	421875	421348	uridine 5'-monophosphate synthase {Dictyostelium discoideum}	38.4	64.6	528	
MJ1259	271220	270543	uridylate kinase {Haemophilus influenzae}	27.5	48.7	678	

Salvage of nucleosides and nucleotides						
MJ1459	43987	42413	adenine deaminase {Bacillus subtilis}	35.9	61.7	1575
MJ1655	1499440	1499075	adenine phosphoribosyltransferase {Haemophilus influenzae}	35.8	62.5	366
MJ0060	1412894	1412139	methylthioadenosine phosphorylase {Homo sapiens}	41.3	63.2	756
MJ0667	879550	878150	thymidine phosphorylase {Mycoplasma genitalium}	30.5	52.2	1401
Sugar-nucleotide biosynthesis and conversions						
MJ1101	430386	429235	glucose-1-phosphate thymidyltransferase {Streptomyces griseus}	32.0	56.0	1152
MJ1334	188314	189084	UDP-glucose pyrophosphorylase {Mycoplasma genitalium}	42.7	63.6	771
Regulatory functions						
MJ0800	748410	747352	activator of (R)-2-hydroxyglutaryl-CoA dehydratase {Acidaminococcus fermentans}	31.8	51.2	1059
MJ0004	1466944	1466255	activator of (R)-2-hydroxyglutaryl-CoA dehydratase {Acidaminococcus fermentans}	39.0	61.1	690
MJ1344	180975	181229	nitrogen regulatory protein P-II {Haemophilus influenzae}	56.5	73.0	255
MJ0059	1413301	1413047	nitrogen regulatory protein P-II {Haemophilus influenzae}	56.5	75.3	255
MJ0300	1188832	1188194	putative transcriptional regulator {Bacillus subtilis}	27.8	50.3	639
MJ0151	1325766	1325323	putative transcriptional regulator {Pyrococcus furiosus}	51.0	65.0	444
MJ0723	815573	815190	putative transcriptional regulator {Pyrococcus furiosus}	51.2	82.3	384

Replication						
Degradation of DNA						
MJ1434	68536	68048	endonuclease III {Bacillus subtilis}	28.7	58.1	489
MJ0613	927393	928424	endonuclease III {Bacillus subtilis}	41.3	66.3	1032
MJ1439	65786	65208	thermonuclease precursor {Staphylococcus hyicus}	36.8	64.1	579
DNA replication, restriction, modification, recombination, and repair						
MJ1029	510633	509875	dimethyladenosine transferase {Bacillus subtilis}	38.4	58.8	759
MJ0104	1373055	1371130	DNA helicase, putative {Homo sapiens}	35.2	56.7	1926
MJ0171	1297428	1299053	DNA ligase {Desulfohalobus ambivalens}	35.8	62.4	1626
MJ0869	680404	679445	DNA repair protein {Saccharomyces cerevisiae}	44.6	62.2	960
MJ1444	58945	58052	DNA repair protein RAD2 {Homo sapiens}	37.3	63.5	894
MJ0254	1232179	1231757	DNA repair protein RAD51 {Homo sapiens}	32.5	58.4	423
MJ0961	579580	577424	DNA replication initiator protein {Xenopus laevis}	28.1	40.0	2157
MJ1652	1503610	1501559	DNA topoisomerase I {Mycoplasma genitalium}	34.0	55.0	2052
MJ0885	656470	660960	DNA-dependent DNA polymerase family B {Pyrococcus sp.}	47.3	68.0	4491
MJ1529	1630880	1630413	methylated DNA protein cysteine methyltransferase {Haemophilus influenzae}	35.9	66.4	468
MJ1498	1548	715	modification methylase {Haemophilus parainfluenzae}	31.6	52.2	834
MJ0598	942522	941860	modification methylase {Haemophilus influenzae}	32.4	53.8	663
MJ1328	193775	192987	modification methylase {Haemophilus influenzae}	31.1	56.1	789

MJ0563	974521	975309	modification methylase {Methanobacterium thermoformicicum}	34.7	56.2	789
MJ1200	326214	327248	modification methylase {Desulfovibrio desulfuricans}	39.7	56.7	1035
MJ0985	555045	555896	modification methylase {Methanobacterium thermoformicicum}	54.5	73.0	852
MJ1149	383742	384248	mutator mutT protein {Escherichia coli}	40.3	63.9	507
MJ0942	600802	598916	probable ATP-dependent helicase {Haemophilus influenzae}	31.9	54.7	1887
MJ0247	1237945	1237322	proliferating-cell nuclear antigen {Saccharomyces cerevisiae}	31.5	54.3	624
MJ0026	1444598	1445224	proliferating-cell nucleolar antigen, 120 kDa {Homo sapiens}	48.1	66.1	627
MJ1422	79304	84727	replication factor C {Homo sapiens}	45.2	64.6	5424
MJ0884	662042	660969	replication factor C, large subunit {Homo sapiens}	32.5	49.2	1074
MJ1220	308420	310102	restriction modification enzyme, subunit M1 {Mycoplasma pulmonis}	32.9	54.4	1683
MJ0132	1345009	1345548	restriction modification enzyme, subunit M1 {Mycoplasma pulmonis}	37.3	61.1	540
MJ0130	1346511	1347179	restriction modification system S subunit {Spiroplasma citri}	29.3	59.2	669
MJ1512	1653580	1648742	reverse gyrase {Sulfolobus acidocaldarius}	41.8	62.4	4839
MJ0135	1341301	1341939	ribonuclease HII (mhB) {Escherichia coli}	45.2	64.6	639
MJECL42	55944	54271	type I restriction enzyme ECOR124/3 I M protein {Haemophilus influenzae}	39.7	61.4	1673
MJ0124	1349371	1352847	type I restriction enzyme {Haemophilus influenzae}	31.1	52.2	3477
MJ1214	313714	315828	type I restriction enzyme {Haemophilus influenzae}	29.5	52.2	2115
MJECL40	52581	49456	type I restriction enzyme {Haemophilus influenzae}	36.2	59.9	3125
MJ1531	1629137	1628493	type I restriction enzyme CfrI, specificity subunit {Citrobacter freundii}	38.4	57.9	645

MJ1218	310547	311776	type I restriction-modification enzyme, S subunit { <i>Escherichia coli</i> }	29.7	49.7	1230
MJ0984	556397	555909	type II restriction enzyme { <i>Methanobacterium thermoformicum</i> }	45.9	67.2	489
MJ0600	940932	940315	type II restriction enzyme DPNII { <i>Streptococcus pneumoniae</i> }	46.0	67.4	618
Transcription						
DNA-dependent RNA polymerases						
MJ1042	497715	493732	DNA-dependent RNA polymerase, subunit A' { <i>Methanococcus vannielii</i> }	74.5	88.1	3984
MJ1043	493546	491078	DNA-dependent RNA polymerase, subunit A" { <i>Methanococcus vannielii</i> }	66.7	83.5	2469
MJ1041	499305	497866	DNA-dependent RNA polymerase, subunit B' { <i>Methanococcus vannielii</i> }	76.3	91.3	1440
MJ1040	501124	499862	DNA-dependent RNA polymerase, subunit B" { <i>Methanococcus vannielii</i> }	72.7	87.4	1263
MJ0192	1283621	1283148	DNA-dependent RNA polymerase, subunit D { <i>Arabidopsis thaliana</i> }	39.5	58.6	474
MJ0397	1113901	1114371	DNA-dependent RNA polymerase, subunit E' { <i>Sulfolobus acidocaldarius</i> }	47.9	70.8	471
MJ0396	1114384	1114560	DNA-dependent RNA polymerase, subunit E" { <i>Sulfolobus acidocaldarius</i> }	35.9	62.3	177
MJ1039	501599	501366	DNA-dependent RNA polymerase, subunit H { <i>Methanococcus vannielii</i> }	49.4	78.7	234
MJ1390	134111	134350	DNA-dependent RNA polymerase, subunit I { <i>Sulfolobus acidocaldarius</i> }	-0.9	-0.9	240
MJ0197	1281417	1281247	DNA-dependent RNA polymerase, subunit K { <i>Haloarcula marismortui</i> }	43.5	65.3	171
MJ0387	1119216	1119512	DNA-dependent RNA polymerase, subunit L { <i>Sulfolobus acidocaldarius</i> }	35.6	63.4	297
MJ0196	1281779	1281561	DNA-dependent RNA polymerase, subunit N { <i>Haloarcula marismortui</i> }	53.8	83.4	219

-97-

Transcription factors					
MJ0941	601867	600923	putative transcription initiation factor IIIC {Saccharomyces cerevisiae}	20.1	44.1
MJ1045	490363	489848	putative transcription termination-antitermination factor nusA {Methanococcus vannielii}	47.9	73.7
MJ0372	1134509	1134123	putative transcription termination-antitermination factor nusG {Homo sapiens}	38.6	63.8
MJ0507	1024170	1024631	TATA-binding transcription initiation factor {Thermococcus celer}	51.4	74.0
MJ0782	766586	768592	transcription initiation factor IIB {Pyrococcus woesei}	63.8	77.6
MJ1148	384277	384567	transcription-associated protein, ('TFIIS') {Thermococcus celer}	56.4	69.0
RNA processing					
MJ0697	849814	849125	fibrillar-like pre-rRNA processing protein {Methanococcus vannielii}	75.3	88.3
Translation					
MJ0160	1308036	1309265	PET112 protein {Saccharomyces cerevisiae}	32.3	53.7
Amino acyl tRNA synthetases					
MJ0564	971657	974149	alanyl-tRNA synthetase (alaRS) {Haemophilus influenzae}	28.0	53.1
MJ0237	1244137	1242641	arginyl-tRNA synthetase {Mycobacterium leprae}	31.3	52.7
MJ1555	1605935	1604679	aspartyl-tRNA synthetase {Pyrococcus sp.}	57.8	75.6
MJ1377	145796	147325	glutamyl-tRNA synthetase {Methanobacterium thermoautotrophicum}	51.7	73.6
MJ0228	1253254	1251524	glycyl-tRNA synthetase {Schizosaccharomyces pombe}	45.8	65.2
MJ1000	543634	542396	histidyl-tRNA synthetase {Streptococcus equisimilis}	35.5	56.3

- 98 -

MJ0947	591914	594817	isoleucyl-tRNA synthetase {Methanobacterium thermoautotrophicum}	52.1	70.0	2904
MJ0633	912642	910015	leucyl-tRNA synthetase {Saccharomyces cerevisiae}	34.4	54.9	2628
MJ1263	266697	264745	methionyl-tRNA synthetase {Haemophilus influenzae}	35.6	56.0	1953
MJ0487	1041343	1039994	phenylalanyl-tRNA synthetase, subunit alpha {Saccharomyces cerevisiae}	41.0	64.0	1350
MJ1108	423555	425198	phenylalanyl-tRNA synthetase, subunit beta {Saccharomyces cerevisiae}	31.6	55.4	1644
MJ1238	287985	289172	prolyl-tRNA synthetase {Homo sapiens}	39.3	59.5	1188
MJ1197	332116	330257	threonyl-tRNA synthetase {Synechocystis sp.}	29.1	52.1	1860
MJ1415	96418	95369	tryptophanyl-tRNA synthetase {Schizosaccharomyces pombe}	30.5	55.3	1050
MJ0389	1118380	1117616	tyrosyl-tRNA synthetase {Homo sapiens}	39.9	63.7	765
MJ1007	536642	534186	valyl-tRNA synthetase {Bacillus stearothermophilus}	36.1	56.6	2457
Degradation of proteins, peptides, and glycopeptides						
MJ1176	356300	357370	ATP-dependent 26S protease regulatory subunit 4 {Homo sapiens}	51.0	74.1	1071
MJ1494	4302	5123	ATP-dependent 26S protease regulatory subunit 8 {Methanobacterium thermoautotrophicum}	58.6	78.2	822
MJ1417	93716	91932	ATP-dependent protease La {Bacillus brevis}	32.8	54.3	1785
MJ0090	1387867	1386755	collagenase {Porphyromonas gingivalis}	32.6	55.2	1113
MJ1130	400455	401969	O-sialoglycoprotein endopeptidase {Saccharomyces cerevisiae}	50.6	67.9	1515
MJ0651	891988	892842	protease IV {Haemophilus influenzae}	35.0	56.2	855
MJ0591	947601	946861	proteasome, subunit alpha {Methanosarcina thermophila}	57.5	78.8	741

-99-

MJ1237	289440	289967	protease, subunit beta {Methanosarcina thermophila}	47.5	68.2	528
MJ0806	742381	743364	xaa-pro dipeptidase {Lactobacillus delbrueckii}	36.1	65.2	984
MJ0996	547987	546635	Zn protease {Haemophilus influenzae}	33.9	55.0	1353
Protein modification						
MJ0814	733804	734793	deoxyhypusine synthase {Homo sapiens}	50.0	70.7	990
MJ1274	253925	254653	diphthine synthase {Saccharomyces cerevisiae}	40.7	61.5	729
MJ0172	1296723	1297175	L-isoaspartyl protein carboxyl methyltransferase {Escherichia coli}	47.6	59.4	453
MJ1329	192979	192098	methionine aminopeptidase {Saccharomyces cerevisiae}	36.2	55.1	882
MJ1530	1630123	1629764	N-terminal acetyltransferase complex, subunit ARD1 {Homo sapiens}	39.7	55.7	360
MJ1591	1573833	1573072	selenium donor protein {Homo sapiens}	34.3	57.1	762
Ribosomal proteins: synthesis and modification						
MJ0509	1022576	1023502	acidic ribosomal protein P0 (L10E) {Methanococcus vannielii}	63.2	82.1	927
MJ0242	1240163	1240228	ribosomal protein HG12 {Catus (cat)}	63.7	81.9	66
MJ1203	325110	325460	ribosomal protein HS6-type {Halorcula marismortui}	47.0	71.4	351
MJ0510	1021912	1022460	ribosomal protein L1 {Methanococcus vannielii}	64.5	80.3	549
MJ0373	1133926	1133540	ribosomal protein L11 {Sulfolobus solfataricus}	47.2	72.4	387
MJ0508	1023632	1023937	ribosomal protein L12 {Methanococcus vannielii}	72.8	80.9	306
MJ0194	1282568	1282260	ribosomal protein L13 {Halorcula marismortui}	44.9	66.4	309
MJ0466	1058694	1058452	ribosomal protein L14 {Methanococcus vannielii}	78.8	92.5	243

MJ0657	888216	887977	ribosomal protein L14B {Saccharomyces cerevisiae}	36.4	59.8	240
MJ0477	1052625	1052302	ribosomal protein L15 {Methanococcus vannielii}	62.7	79.5	324
MJ0983	556982	557290	ribosomal protein L15B {Thermoplasma acidophilum}	62.3	78.6	309
MJ0474	1054523	1053939	ribosomal protein L18 {Methanococcus vannielii}	73.3	84.3	585
MJ0473	1054978	1054559	ribosomal protein L19 {Methanococcus vannielii}	67.0	86.4	420
MJ0179	1291786	1291052	ribosomal protein L2 {Methanococcus vannielii}	74.0	87.0	735
MJ0040	1431958	1432260	ribosomal protein L21 {Haloarcula marismortui}	54.5	62.3	303
MJ0460	1061493	1061089	ribosomal protein L22 {Haloarcula marismortui}	40.7	61.7	405
MJ0178	1292097	1291840	ribosomal protein L23 {Methanococcus vannielii}	69.8	91.9	258
MJ0467	1058340	1058062	ribosomal protein L24 {Methanococcus vannielii}	70.5	83.0	279
MJ1201	325929	326078	ribosomal protein L24E {Haloarcula marismortui}	54.6	66.7	150
MJ0462	1060388	1060212	ribosomal protein L29 {Halo bacterium halobium}	51.0	69.9	177
MJ0193	1283076	1282705	ribosomal protein L29E {Haloarcula marismortui}	48.7	68.7	372
MJ0176	1293794	1292934	ribosomal protein L3 {Haloarcula marismortui}	45.2	63.9	861
MJ1044	490704	490399	ribosomal protein L30 {Methanococcus vannielii}	63.9	84.1	306
MJ0049	1421907	1422152	ribosomal protein L31 {Nicotiana glutinosa}	40.9	66.2	246
MJ0472	1055464	1055063	ribosomal protein L32 {Methanococcus vannielii}	58.0	77.4	402
MJ0655	889197	888931	ribosomal protein L34 {Aedes albopictus}	36.8	58.3	267
MJ0098	1380525	1380686	ribosomal protein L37 {Leishmania infantum.}	50.0	67.4	162

-101-

MJ0593	945958	945683	ribosomal protein L37a {Homo sapiens}	44.6	58.7	276
MJ0177	1292889	1292134	ribosomal protein L4 {human} {Haloarcula marismortui}	49.4	66.3	756
MJ0707	838122	838229	ribosomal protein L40 {Saccharomyces cerevisiae}	57.6	66.7	108
MJ0249	1236729	1236448	ribosomal protein L44 {Haloarcula marismortui}	38.8	58.1	282
MJ0689	854995	855150	ribosomal protein L46 {Sulfolobus solfataricus}	52.0	70.0	156
MJ0469	1057259	1056723	ribosomal protein L5 {Methanococcus vannielii}	72.5	84.5	537
MJ0471	1056071	1055526	ribosomal protein L6 {Methanococcus vannielii}	66.5	82.5	546
MJ0476	1053137	1052745	ribosomal protein L7 {Methanococcus vannielii}	70.3	88.6	393
MJ0595	944670	944473	ribosomal protein LX {Sulfolobus acidocaldarius}	38.9	66.7	198
MJ0322	1172916	1173218	ribosomal protein S10 {Pyrococcus woesei}	67.0	91.0	303
MJ0191	1283956	1283735	ribosomal protein S11 {Haloarcula marismortui}	67.2	80.0	222
MJ1046	489559	489260	ribosomal protein S12 {Methanococcus vannielii}	87.0	96.0	300
MJ0036	1434801	1434352	ribosomal protein S13 {Brugia pahangi}	49.4	71.0	450
MJ1474	26554	26054	ribosomal protein S15A {Brassica napus}	21.7	48.2	501
MJ0465	1059233	1058883	ribosomal protein S17 {Methanococcus vannielii}	71.6	82.4	351
MJ0245	1238750	1238896	ribosomal protein S17B {Saccharomyces cerevisiae}	55.4	80.9	147
MJ0189	1285220	1284771	ribosomal protein S18 {Arabidopsis thaliana}	42.3	68.5	450
MJ0180	1290861	1290508	ribosomal protein S19 {Haloarcula marismortui}	56.9	73.3	354
MJ0692	853669	854046	ribosomal protein S19S {Ascaris suum}	49.6	67.0	378

-102-

MJ0394	1115064	1115366	ribosomal protein S24 {Haloarcula marismortui}	42.6	64.4	303
MJ0250	1236377	1236192	ribosomal protein S27 {Saccharomyces cerevisiae}	42.6	53.8	186
MJ0393	1115369	1115548	ribosomal protein S27A {Caenorhabditis elegans}	58.4	68.8	180
MJ0461	1061060	1060437	ribosomal protein S3 {Haloarcula marismortui}	49.1	72.1	624
MJ1202	325575	325808	ribosomal protein S33 {Kluyveromyces lactis}	62.1	81.1	234
MJ0980	558761	559252	ribosomal protein S3a {Catharanthus roseus}	29.8	52.1	492
MJ0190	1284710	1284150	ribosomal protein S4 {Sulfolobus acidocaldarius}	51.3	68.4	561
MJ0468	1057935	1057318	ribosomal protein S4E {Methanococcus vannielii}	70.9	84.5	618
MJ0475	1053877	1053275	ribosomal protein S5 {Methanococcus vannielii}	75.7	88.6	603
MJ1260	270075	269683	ribosomal protein S6 {Homo sapiens}	36.2	58.0	393
MJ0620	922671	921799	ribosomal protein S6 modification protein {Haemophilus influenzae}	34.4	57.3	873
MJ1001	542227	541487	ribosomal protein S6 modification protein II {Haemophilus influenzae}	24.8	47.4	741
MJ1047	489046	488627	ribosomal protein S7 {Methanococcus vannielii}	65.8	83.6	420
MJ0470	1056445	1056113	ribosomal protein S8 {Methanococcus vannielii}	71.2	89.2	333
MJ0673	873106	872720	ribosomal protein S8E {Haloarcula marismortui}	50.0	69.7	387
MJ0195	1282118	1281840	ribosomal protein S9 {Haloarcula marismortui}	50.0	75.0	279

-103-

tRNA modification						
MJ0946	595006	596040	N2,N2-dimethylguanosine tRNA methyltransferase {Saccharomyces cerevisiae}	31.6	56.0	1035
MJ1675	1478684	1477755	pseudouridylylate synthase I {Haemophilus influenzae}	33.5	57.2	930
MJ0436	1081116	1082732	queuine tRNA ribosyltransferase {Escherichia coli}	30.4	47.6	1617
Translation factors						
MJ0829	723534	722260	peptide chain release factor, eRF, subunit 1 {Xenopus laevis}	33.0	57.3	1275
MJ1505	1659133	1661085	putative ATP-dependent RNA helicase, eIF-4A family {Saccharomyces cerevisiae}	30.8	51.9	1953
MJ1574	1587062	1588927	putative ATP-dependent RNA helicase, eIF-4A family {Bacillus subtilis}	33.1	56.0	1866
MJ0669	876636	877637	putative ATP-dependent RNA helicase, eIF-4A family {Bacillus subtilis}	44.5	65.8	1002
MJ0495	1035432	1034044	putative translation factor, EF-TU/t alpha family {Thermus aquaticus}	36.9	55.9	1389
MJ0262	1225060	1221653	putative translation initiation factor, FUN12/bIF-2 family {Saccharomyces cerevisiae}	39.3	61.5	3408
MJ0324	1171724	1172830	translation elongation factor, EF-1 alpha {Methanococcus vannielii}	78.9	90.8	1107
MJ1048	488471	486336	translation elongation factor, EF-2 {Methanococcus vannielii}	74.8	88.5	2136
MJ0445	1073262	1073483	translation initiation factor, eIF-1A {Thermoplasma acidophilum}	52.8	70.3	222
MJ0117	1357516	1358196	translation initiation factor, eIF-2, subunit alpha {Saccharomyces cerevisiae}	32.2	56.5	681
MJ0097	1380885	1381313	translation initiation factor, eIF-2, subunit beta {Drosophila melanogaster}	32.1	60.4	429
MJ1261	269396	268164	translation initiation factor, eIF-2, subunit gamma {Homo sapiens}	52.6	71.9	1233
MJ0454	1066217	1067065	translation initiation factor, eIF-2B, subunit alpha {Saccharomyces cerevisiae}	37.9	56.4	849

-104-

MJ0122	1353264	1354127	translation initiation factor, eIF-2B, subunit delta {Mus musculus}	29.4	54.6	864
MJ1228	300895	301236	translation initiation factor, eIF-5a {Sulfolobus acidocaldarius}	50.0	69.7	342
Transport and binding proteins						
MJ0719	818577	820289	ABC transporter ATP-binding protein {Saccharomyces cerevisiae}	49.6	66.9	1713
MJ1023	518606	517821	ABC transporter ATP-binding protein {Bacillus firmus}	49.2	72.4	786
MJ1572	1590114	1589518	ABC transporter ATP-binding protein {Mycoplasma genitalium}	50.0	87.5	597
MJ0035	1435236	1435829	ABC transporter subunit {Cyanelle Cyanophora}	33.9	58.1	594
MJ1508	1656015	1655446	ABC transporter, probable ATP-binding subunit {Haemophilus influenzae}	45.7	68.3	570
MJ1332	189987	191117	GTP-binding protein {Saccharomyces cerevisiae}	38.7	59.8	1131
MJ1326	196392	195292	GTP-binding protein {Schizosaccharomyces pombe}	51.4	71.5	1101
MJ1408	103449	102430	GTP-binding protein, GTP1/OBG-family {Saccharomyces cerevisiae}	30.5	58.4	1020
MJ1464	39865	38858	hypothetical GTP-binding protein (SP:P40010) {Saccharomyces cerevisiae}	32.0	55.5	1008
MJ1033	507274	506324	magnesium and cobalt transport protein {Haemophilus influenzae}	42.2	57.9	951
MJ0091	1386551	1385751	Na ⁺ /Ca ²⁺ exchanger protein {Escherichia coli}	32.3	58.6	801
MJ0283	1204330	1203563	nucleotide-binding protein {Homo sapiens}	47.5	68.0	768

- 105 -

Amino acids, peptides and amines						
MJ0609	933328	934587	amino acid transporter {Arabidopsis thaliana}	21.9	48.7	1260
MJ1343	181359	182519	ammonium transport protein AMT1 {Arabidopsis thaliana}	35.6	53.3	1161
MJ0058	1413598	1414770	ammonium transporter {Escherichia coli}	34.2	52.2	1173
MJ1269	258901	257993	branched-chain amino acid transport protein livH {Escherichia coli}	30.8	54.6	909
MJ1266	261404	260577	branched-chain amino acid transport protein livJ {Escherichia coli}	28.8	55.2	828
MJ1270	257896	256934	branched-chain amino acid transport protein livM {Escherichia coli}	28.7	52.2	963
MJ1196	332430	333311	cationic amino acid transporter MCAT-2 {Mus musculus}	24.6	50.6	882
MJ0304	1185908	1186333	ferrityochelin binding protein {Pseudomonas aeruginosa}	55.6	74.7	426
MJ0796	752786	752118	glutamine transport ATP-binding protein Q {Escherichia coli}	47.9	67.2	669
MJ1267	260465	259707	high-affinity branched-chain amino acid transport ATP-binding protein {Pseudomonas aeruginosa}	34.2	60.8	759
MJ1268	259458	258973	high-affinity branched-chain amino acid transport ATP-binding protein {Salmonella typhimurium}	40.4	68.6	486
Anions						
MJ0412	1099862	1100608	nitrate transport ATP-binding protein {Synechococcus sp}	44.6	70.1	747
MJ0413	1099077	1099826	nitrate transport permease protein {Synechococcus sp}	34.2	59.4	750
MJ1012	529685	530431	phosphate transport system ATP-binding protein {Escherichia coli}	60.9	80.7	747
MJ1013	528941	529642	phosphate transport system permease protein A {Haemophilus influenzae}	39.6	60.5	702
MJ1014	528397	528810	phosphate transport system permease protein C {Haemophilus influenzae}	40.0	66.5	414

MJ1009	532458	533165	phosphate transport system regulatory protein {Escherichia coli}	28.5	54.6	708
MJ1015	526871	527698	phosphate-binding protein {Xanthomonas oryzae}	45.8	60.2	828
Carbohydrates, organic alcohols, and acids						
MJ0576	960439	959399	malic acid transport protein {Schizosaccharomyces pombe}	23.8	47.9	1041
MJ0762	786703	787524	malic acid transport protein {Schizosaccharomyces pombe}	26.5	49.3	822
MJ0121	1354728	1355291	SN-glycerol-3-phosphate transport ATP-binding protein {Escherichia coli}	33.4	51.7	564
MJ1319	206861	205926	sodium-dependent noradrenaline transporter {Haemophilus influenzae}	37.8	61.0	936
Cations						
MJ1088	444480	445223	cobalt transport ATP-binding protein O {Salmonella typhimurium}	46.1	66.6	744
MJ1090	443372	443527	cobalt transport protein N {Salmonella typhimurium}	59.1	79.6	156
MJ1089	443778	444374	cobalt transport protein Q {Salmonella typhimurium}	28.9	55.6	597
MJ0089	1388820	1388059	ferric enterobactin transport ATP-binding protein {Escherichia coli}	33.1	59.6	762
MJ0873	674824	674123	ferric enterobactin transport ATP-binding protein {Escherichia coli}	31.5	60.3	702
MJ0566	967842	969857	ferrous iron transport protein B {Escherichia coli}	35.8	61.2	2016
MJ0877	670239	670442	hemin permease {Haemophilus influenzae}	27.9	62.3	204
MJ0087	1390284	1389385	hemin permease {Yersinia enterocolitica}	40.6	67.7	900
MJ0085	1392668	1391613	iron transport system binding protein {Bacillus subtilis}	32.9	53.3	1056
MJ0876	670677	671498	iron(III) dicitrate transport system permease protein {Escherichia coli}	30.8	52.8	822
MJ1441	64080	60403	magnesium chelatase subunit {Arabidopsis thaliana}	35.3	57.3	3678

-107-

MJ0911	628932	629972	magnesium-chelatase subunit { <i>Euglena gracilis</i> }	54.9	73.4	1041
MJ1275	253661	252597	NA(+)/H(+) antiporter { <i>Enterococcus hirae</i> }	29.8	59.9	1065
MJ0672	873748	874665	Na ⁺ transporter { <i>Haemophilus influenzae</i> }	39.3	63.1	918
MJ1231	297233	298873	oxaloacetate decarboxylase, alpha subunit { <i>Salmonella typhimurium</i> }	52.0	68.7	1641
MJ1357	164247	165065	putative potassium channel protein { <i>Bacillus cereus</i> }	42.9	66.7	819
MJ1367	154669	155559	sulfate permease (cysA) { <i>Synechococcus</i> sp}	38.5	64.5	891
MJ1368	153995	154666	sulfate/thiosulfate transport protein { <i>Escherichia coli</i> }	30.9	59.4	672
MJ1485	16909	15713	TRK system potassium uptake protein { <i>Escherichia coli</i> }	29.5	58.5	1197
MJ1105	426702	427217	TRK system potassium uptake protein A { <i>Methanosarcina mazei</i> }	39.3	57.6	516
Other						
MJ1142	390844	389885	arsenical pump-driving ATPase { <i>Escherichia coli</i> }	34.7	55.9	960
MJ0822	727897	729522	ATPase, vanadate-sensitive { <i>Methanococcus voltae</i> }	48.1	69.0	1626
MJ0718	820399	821523	chromate resistance protein A { <i>Alcaligenes eutrophus</i> }	27.9	52.4	1125
MJ1226	304219	301988	H ⁺ -transporting ATPase { <i>Arabidopsis thaliana</i> }	45.1	63.7	2232
MJ1560	1600958	1601974	quinolone resistance norA protein protein { <i>Staphylococcus aureus</i> }	28.8	51.1	1017

Other categories						
MJ1365	157333	156458	pheromone shutdown protein {Enterococcus faecalis}	31.2	57.2	876
MJEL24	28069	28845	SOJ protein {Bacillus subtilis}	34.0	62.1	776
Drug and analog sensitivity						
MJ1538	1621434	1620691	K. lactis toxin sensitivity protein KTI12 {Saccharomyces cerevisiae}	28.4	48.8	744
MJ0102	1375563	1375859	phenylacrylic acid decarboxylase {Saccharomyces cerevisiae}	50.0	74.0	297
Phage-related functions and prophages						
MJ0630	915023	914598	sodium-dependent phosphate transporter {Cricetulus griseus}	32.6	60.8	426
Transposon-related functions						
MJ0367	1138754	1138080	integrase {Weeksella zoohelcum}	30.9	54.4	675
MJ0017	1455555	1454946	transposase {Bacillus thuringiensis}	29.5	55.0	610
Other						
MJ1064	466505	467095	acetyltransferase {Escherichia coli}	47.0	62.4	591
MJ1612	1549430	1548297	BcpC phosphonopyruvate decarboxylase {Streptomyces hygroscopicus}	31.1	48.9	1134
MJ0677	868213	869160	ethylene-inducible protein homolog {Hevea brasiliensis}	68.3	81.0	948
MJ0534	1003199	1002072	flavoprotein {Methanobacterium thermoautotrophicum}	34.6	57.2	1128
MJ0748	797504	798673	flavoprotein {Methanobacterium thermoautotrophicum}	67.0	82.6	1170
MJ0256	1230191	1229760	fom2 phosphonopyruvate decarboxylase {Streptomyces wedmorensis}	36.7	58.5	432
MJ1682	1472535	1473320	heat shock protein X {Haemophilus influenzae}	30.4	55.5	786

MJ0866	682753	682367	HIT protein, member of the HIT-family {Saccharomyces cerevisiae}	39.4	64.8	387
MJ0294	1193529	1195817	large helicase related protein, LHR {Escherichia coli}	31.4	53.6	2289
MJ0010	1460660	1459497	phosphonopyruvate decarboxylase {Streptomyces hygroscopicus}	28.0	47.2	1164
MJ0734	805855	806439	rubrerythrin {Clostridium perfringens}	48.9	69.2	585
MJ0559	978287	977490	surE survival protein {Escherichia coli}	34.7	55.6	798
MJ1100	431754	430489	urease operon protein {Mycobacterium leprae}	33.2	55.0	1266
MJ0543	990687	991100	Wilm's tumor suppressor homolog {Arabidopsis thaliana}	45.6	64.9	414
MJ0765	784011	785549	[6Fe-6S] prismane-containing protein {Desulfovibrio desulfuricans}	60.2	72.8	1539
Hypothetical						
MJ0458	1063165	1062518	hypothetical protein {Sulfolobus acidocaldarius}	-0.9	-0.9	648
MJ0483	1047280	1048250	hypothetical protein {Saccharomyces cerevisiae}	27.7	48.7	971
MJ0920	620866	621357	hypothetical protein {Mycoplasma genitalium}	28.3	51.3	492
MJ0443	1074680	1075348	hypothetical protein {Saccharomyces cerevisiae}	27.8	52.8	669
MJ0144	1330246	1330962	hypothetical protein {Methanobacterium thermoautotrophicum}	33.4	58.6	717
MJ0044	1426552	1427241	hypothetical protein (GP:D38561_6) {Streptomyces wedmorensis}	24.1	49.8	690
MJ0868	680710	681000	hypothetical protein (GP:D63999_31) {Synechocystis sp.}	42.2	65.0	291
MJ1502	1662923	1663714	hypothetical protein (GP:D64001_24) {Synechocystis sp.}	36.4	60.1	792
MJ1129	402152	402382	hypothetical protein (GP:D64001_53) {Synechocystis sp.}	37.5	57.9	231
MJ0057	1414899	1416176	hypothetical protein (GP:D64003_36) {Synechocystis sp.}	28.4	53.2	1278

MJ1335	187757	187593	hypothetical protein (GP:D64004_11) {Synechocystis sp.}	46.2	63.5	165
MJ0640	902502	903458	hypothetical protein (GP:D64005_53) {Synechocystis sp.}	33.9	58.8	957
MJ1347	177726	177280	hypothetical protein (GP:D64006_36) {Synechocystis sp.}	32.1	58.6	447
MJ0392	1116428	1115556	hypothetical protein (GP:D64006_95) {Synechocystis sp.}	29.1	54.3	873
MJ0590	950234	948222	hypothetical protein (GP:D64044_18) {Escherichia coli}	30.6	52.6	2013
MJ1178	355642	355956	hypothetical protein (GP:L47709_14) {Bacillus subtilis}	27.1	55.3	315
MJ0438	1080099	1079128	hypothetical protein (GP:L47838_15) {Bacillus subtilis}	29.6	55.8	972
MJ0644	898810	898223	hypothetical protein (GP:M18279_1) {Pseudomonas sp.}	28.3	53.4	588
MJ0828	723763	723668	hypothetical protein (GP:M35130_5) {M71467 M71468}	58.1	87.1	96
MJ1526	1632280	1632810	hypothetical protein (GP:M36534_1) {Methanobrevibacter smithii}	42.6	66.5	531
MJ0888	652964	653473	hypothetical protein (GP:U00011_3) {Mycobacterium leprae}	29.5	51.4	510
MJ0729	809665	809321	hypothetical protein (GP:U18744_1) {Bacillus firmus}	29.4	56.9	345
MJ0787	761402	760077	hypothetical protein (GP:U19363_11) {Methanobacterium thermoautotrophicum}	49.9	71.9	1326
MJ0693	852445	853059	hypothetical protein (GP:U19363_2) {Methanobacterium thermoautotrophicum}	42.8	61.9	615
MJ0489	1039414	1038686	hypothetical protein (GP:U19363_4) {Methanobacterium thermoautotrophicum}	41.3	57.5	729
MJ0446	1072662	1071784	hypothetical protein (GP:U19363_5) {Methanobacterium thermoautotrophicum}	29.8	50.7	879
MJ0076	1400741	1400403	hypothetical protein (GP:U19364_10) {Methanobacterium thermoautotrophicum}	25.3	56.1	339
MJ0034	1435995	1436921	hypothetical protein (GP:U19364_2) {Methanobacterium thermoautotrophicum}	23.9	49.7	927

MJ1251	277892	277392	hypothetical protein (GP:U19364_4) {Methanobacterium thermoautotrophicum}	37.8	61.0	501
MJ0927	615224	615694	hypothetical protein (GP:U19364_6) {Methanobacterium thermoautotrophicum}	37.9	57.2	471
MJ0785	763999	762923	hypothetical protein (GP:U19364_8) {Methanobacterium thermoautotrophicum}	57.5	76.6	1077
MJ0746	799630	799935	hypothetical protein (GP:U21086_2) {Methanobacterium thermoautotrophicum}	60.3	76.4	306
MJ1155	378926	380485	hypothetical protein (GP:U28377_114) {Escherichia coli}	40.0	63.7	1560
MJ0653	890904	890359	hypothetical protein (GP:U31567_2) {Methanopyrus kandleri}	42.2	64.8	546
MJ0532	1003608	1004750	hypothetical protein (GP:U32666_1) {Methanosarcina barkeri}	39.3	59.5	1143
MJ0674	872153	871623	hypothetical protein (GP:X83963_2) {Thermococcus litoralis}	58.3	76.7	531
MJ1552	1608984	1608592	hypothetical protein (GP:X85250_3) {Pyrococcus furiosus}	48.5	68.0	393
MJ0709	837195	835996	hypothetical protein (GP:X91006_2) {Pyrococcus sp.}	25.1	50.5	1200
MJ0226	1255943	1255389	hypothetical protein (GP:Z49569_1) {Saccharomyces cerevisiae}	39.0	60.6	555
MJ1476	25468	24851	hypothetical protein (H10380) {Haemophilus influenzae}	39.7	62.6	618
MJ0441	1076859	1076125	hypothetical protein (H10902) {Haemophilus influenzae}	29.2	51.1	735
MJ1372	151434	150760	hypothetical protein (H10920) {Haemophilus influenzae}	46.7	67.5	675
MJ0931	611416	610298	hypothetical protein (MG372) {Mycoplasma genitalium}	34.9	59.9	1119
MJ0861	687240	688532	hypothetical protein (MG423) {Mycoplasma genitalium}	33.9	53.9	1293
MJ1252	277977	278609	hypothetical protein (PIR:B48653) {Lactococcus lactis}	32.5	47.2	633
MJ0279	1206983	1206147	hypothetical protein (PIR:S01072) {Desulfurococcus mobilis}	29.2	53.4	837
MJ0299	1189620	1190600	hypothetical protein (PIR:S11602) {Thermoplasma acidophilum}	62.1	76.6	981

MJ1208	320842	319766	hypothetical protein (PIR:S21569) {Methanobacterium thermoautotrophicum}	55.4	74.8	1077
MJ1533	1625982	1627727	hypothetical protein (PIR:S28724) {Methanococcus vannielii}	67.3	83.3	1746
MJ0323	1172727	1172257	hypothetical protein (PIR:S38467) {Desulfurococcus mobilis}	60.7	71.7	471
MJ1162	368773	369060	hypothetical protein (PIR:S41581) {Methanothermus fervidus}	48.3	67.9	288
MJ0922	619284	619598	hypothetical protein (PIR:S41583) {Methanothermus fervidus}	48.6	73.4	315
MJ0867	681124	682371	hypothetical protein (PIR:S49379) {Pseudomonas aeruginosa}	28.7	55.2	1248
MJ0047	1423924	1424988	hypothetical protein (PIR:S51413) {Saccharomyces cerevisiae}	26.9	49.9	1065
MJ1236	290570	292111	hypothetical protein (PIR:S51413) {Saccharomyces cerevisiae}	33.9	54.6	1542
MJ0162	1306782	1305562	hypothetical protein (PIR:S51413) {Saccharomyces cerevisiae}	32.4	56.4	1221
MJ0928	614493	614957	hypothetical protein (PIR:S51868) {Saccharomyces cerevisiae}	38.4	61.7	465
MJ1625	1535098	1533113	hypothetical protein (PIR:S52522) {Saccharomyces cerevisiae}	27.6	50.4	1986
MJ0862	686185	687054	hypothetical protein (PIR:S52979) {Erwinia herbicola}	35.5	59.2	870
MJ1432	69872	69453	hypothetical protein (PIR:S53543) {Saccharomyces cerevisiae}	38.5	66.0	420
MJ0710	835912	834914	hypothetical protein (SP:P05409) {Methanococcus thermolithotrophicus}	59.2	79.9	999
MJ0170	1299322	1300185	hypothetical protein (SP:P11666) {Escherichia coli}	30.1	54.8	864
MJ1593	1571988	1571740	hypothetical protein (SP:P12049) {Bacillus subtilis}	40.3	69.6	249
MJ0463	1060127	1059819	hypothetical protein (SP:P14021) {Methanococcus vannielii}	78.5	92.2	309
MJ0464	1059719	1059435	hypothetical protein (SP:P14022) {Methanococcus vannielii}	58.8	79.4	285
MJ0136	1340892	1340105	hypothetical protein (SP:P14027) {Methanococcus vannielii}	63.4	87.8	788

MJ0388	1118696	1119244	hypothetical protein (SP:P15886) {Methanococcus vannielii}	46.9	66.3	549
MJ1225	305183	304425	hypothetical protein (SP:P15889) {Thermophilum pendens}	24.1	53.9	759
MJ1133	398771	397509	hypothetical protein (SP:P22349) {Methanobrevibacter smithii}	45.9	67.4	1263
MJ1273	255725	254676	hypothetical protein (SP:P25125) {Thermus aquaticus}	41.4	60.2	1050
MJ1426	76255	75812	hypothetical protein (SP:P25768) {Methanobacterium ivanovii}	47.3	69.3	444
MJ0549	986782	986360	hypothetical protein (SP:P28910) {Escherichia coli}	33.9	59.3	423
MJ0982	557497	558078	hypothetical protein (SP:P29202) {Haloarcula marismortui}	55.9	75.4	582
MJ0990	552446	552658	hypothetical protein (SP:P31065) {Escherichia coli}	39.2	62.4	213
MJ0326	1170026	1168809	hypothetical protein (SP:P31466) {Escherichia coli}	45.6	71.7	1218
MJ0812	736053	736679	hypothetical protein (SP:P31473) {Escherichia coli}	25.8	54.3	627
MJ0079	1398567	1399694	hypothetical protein (SP:P31473) {Escherichia coli}	38.0	63.3	1128
MJ1586	1578078	1576645	hypothetical protein (SP:P31806) {Escherichia coli}	32.4	52.1	1434
MJ1124	409920	406336	hypothetical protein (SP:P32639) {Saccharomyces cerevisiae}	26.9	51.5	3585
MJ1081	451124	450726	hypothetical protein (SP:P32698) {Escherichia coli}	38.2	62.8	399
MJ1413	97390	97629	hypothetical protein (SP:P33382) {Listeria monocytogenes}	40.0	60.0	240
MJ1170	362086	361820	hypothetical protein (SP:P33382) {Listeria monocytogenes}	42.2	63.9	267
MJ0051	1419978	1419670	hypothetical protein (SP:P34222) {Saccharomyces cerevisiae}	38.5	55.8	309
MJ1523	1636316	1635945	hypothetical protein (SP:P37002) {Escherichia coli}	43.0	65.0	372

-114-

MJ0608	934974	935750	hypothetical protein (SP:P37487) {Bacillus subtilis}	44.3	71.4	777
MJ1661	1493414	1493809	hypothetical protein (SP:P37528) {Bacillus subtilis}	47.0	72.6	396
MJ1582	1580646	1579909	hypothetical protein (SP:P37545) {Bacillus subtilis}	35.4	60.6	738
MJ1375	148221	149408	hypothetical protein (SP:P37555) {Bacillus subtilis}	25.0	48.6	1188
MJ0231	1249786	1250814	hypothetical protein (SP:P37869) {Bacillus subtilis}	40.0	44.0	1029
MJ0882	664582	663910	hypothetical protein (SP:P37872) {Bacillus subtilis}	44.0	68.7	673
MJ0043	1429606	1427252	hypothetical protein (SP:P38423) {Bacillus subtilis} {Bacillus subtilis}	45.5	58.4	2355
MJ0048	1422159	1422842	hypothetical protein (SP:P38619) {Sulfolobus acidocaldarius}	36.6	59.1	684
MJ0989	552670	553011	hypothetical protein (SP:P39164) {Escherichia coli}	29.0	51.8	342
MJ1115	415733	416479	hypothetical protein (SP:P39364) {Escherichia coli}	27.1	48.3	747
MJ1649	1506277	1507068	hypothetical protein (SP:P39587) {Bacillus subtilis}	28.9	48.5	792
MJ0577	959388	958903	hypothetical protein (SP:P42297) {Bacillus subtilis}	31.6	56.4	486
MJ0531	1004977	1004759	hypothetical protein (SP:P42297) {Bacillus subtilis}	43.3	68.7	219
MJ1247	282030	281677	hypothetical protein (SP:P42404) {Bacillus subtilis}	38.4	60.0	354
MJ0486	1041905	1042681	hypothetical protein (SP:P45476) {Escherichia coli}	30.6	55.7	777
MJ0449	1070080	1069565	hypothetical protein (SP:P46348) {Bacillus subtilis}	31.8	60.7	516
MJ0682	861537	864374	hypothetical protein (SP:P46850) {Escherichia coli}	33.4	53.9	2838
MJ1677	1476726	1476376	hypothetical protein (SP:P46851) {Escherichia coli}	40.3	62.0	351
MJ0588	951068	952243	hypothetical protein GP:L07942_2 {Escherichia coli}	31.1	55.0	1176

- 115 -

MJ0225	1256840	1256121	hypothetical protein GP:U00014_23 {Mycobacterium leprae}	27.4	49.0	720
MJ0134	1342043	1342792	hypothetical protein GP:U00017_21 {Mycobacterium leprae}	32.2	52.7	750
MJ0376	1130650	1129130	hypothetical protein GP:U29579_58 {Escherichia coli}	30.1	51.5	1521
MJ0028	1443023	1443844	hypothetical protein HI1305 {Haemophilus influenzae}	27.0	50.0	822
MJ1136	395844	394486	hypothetical protein Lpg22p (GP:U43281_22) {Saccharomyces cerevisiae}	46.2	63.8	1359
MJ0952	588063	588479	hypothetical protein PIR:S49633 {Saccharomyces cerevisiae}	26.8	55.0	417
MJ0403	1109067	1108276	hypothetical protein PIR:S55196 {Saccharomyces cerevisiae}	27.6	48.2	792
MJ1031	509420	508506	hypothetical protein SP:P45869 {Bacillus subtilis}	26.8	51.1	915

- 116 -

Table 2B

MJ0479	1,050,508	1,049,948	adenylate kinase {Methanococcus jannaschii}	100.0%	100.0%	585
--------	-----------	-----------	---	--------	--------	-----

Table 3

MJ0002	4071	3343
MJ0003	4911	5378
MJ0008	10075	10734
MJ0009	10743	11570
MJ0011	12983	13459
MJ0012	13927	13427
MJ0013	14836	14351
MJ0014	15455	14820
MJ0015	15514	15804
MJ0016	16416	15866
MJ0018	17658	19229
MJ0019	21121	19232
MJ0021	22762	23886
MJ0023	25284	25637
MJ0024	26105	25689
MJ0025	27122	26109
MJ0027	28572	28021
MJ0037	38073	38786
MJ0038	39443	38793
MJ0039	39974	39654
MJ0041	41838	40477
MJ0042	42527	41883
MJ0045	46506	45907
MJ0046	47351	46569
MJ0050	52237	51050
MJ0052	53374	52709
MJ0053	54068	53388
MJ0054	55001	54159

MJ0056	56154	55759
MJ0062	60618	61238
MJ0063	61322	61855
MJ0064	61897	62454
MJ0065	63551	62463
MJ0066	65078	63657
MJ0067	65160	65468
MJ0068	65861	65517
MJ0070	66966	67211
MJ0071	67211	67480
MJ0072	67562	67693
MJ0073	67729	68007
MJ0074	69089	68016
MJ0075	70324	69236
MJ0077	71539	70394
MJ0078	72674	72054
MJ0080	74182	73802
MJ0086	80788	81903
MJ0088	83019	83537
MJ0093	88517	88092
MJ0094	89481	88564
MJ0095	89828	89568
MJ0096	90752	89967
MJ0100	94823	93297
MJ0103	97958	99256
MJ0105	101649	101239
MJ0106	102541	101840
MJ0107	102733	104295
MJ0109	106419	105664
MJ0110	106880	106614

MJ0114	111874	112782
MJ0115	113249	112785
MJ0116	113931	113257
MJ0119	116397	115726
MJ0120	117070	116372
MJ0123	119524	119195
MJ0125	123378	123031
MJ0126	123685	123392
MJ0127	124034	123672
MJ0128	124341	124048
MJ0129	124487	124996
MJ0131	126783	126475
MJ0133	129427	128609
MJ0137	134976	134119
MJ0138	136566	135121
MJ0139	136616	138244
MJ0140	139150	139539
MJ0141	139529	139825
MJ0142	139797	140237
MJ0145	142991	142188
MJ0146	143409	143203
MJ0147	144813	143701
MJ0149	146003	145830
MJ0150	146069	146587
MJ0154	152143	152589
MJ0157	159807	160085
MJ0158	160155	161276
MJ0159	163046	161430
MJ0163	167378	166818
MJ0164	168614	167430

-120-

MJ0165	169394	168627
MJ0166	170194	169430
MJ0173	175871	176341
MJ0175	178089	177475
MJ0181	182625	181918
MJ0182	183311	182730
MJ0183	183491	183348
MJ0184	183606	183827
MJ0185	183886	184032
MJ0187	185874	185440
MJ0188	186674	185880
MJ0198	191384	192259
MJ0201	193486	193007
MJ0202	193687	194454
MJ0206	198871	198467
MJ0207	198967	199419
MJ0208	200166	199429
MJ0209	200956	200159
MJ0212	203759	204019
MJ0213	204137	204583
MJ0215	205636	205190
MJ0223	214474	214163
MJ0224	215072	214566
MJ0227	218176	219099
MJ0229	221136	220852
MJ0230	221386	221144
MJ0233	224281	225111
MJ0235	226124	226369
MJ0236	226362	227639
MJ0239	230506	230988

MJ0240	231618	231094
MJ0241	232062	231628
MJ0243	232563	232318
MJ0248	235142	235651
MJ0251	238728	238288
MJ0252	238849	239487
MJ0255	241359	240607
MJ0257	242764	243696
MJ0258	245039	243840
MJ0259	245717	245112
MJ0261	247082	246423
MJ0263	251686	250727
MJ0270	256421	256188
MJ0271	256902	257441
MJ0272	257452	257649
MJ0273	258107	258412
MJ0274	260378	258819
MJ0275	261121	260516
MJ0280	266375	266758
MJ0281	267291	266761
MJ0282	267341	267787
MJ0284	269902	269174
MJ0286	270849	270499
MJ0287	271160	270870
MJ0288	271755	271222
MJ0289	272805	271801
MJ0290	273753	273121
MJ0292	275409	275137
MJ0296	279767	280360
MJ0297	281155	280406

-122-

MJ0298	281290	281739
MJ0301	285101	284220
MJ0303	285971	285558
MJ0305	286594	287778
MJ0306	287997	287818
MJ0308	289084	288386
MJ0310	290609	290268
MJ0311	290981	290652
MJ0312	291845	291228
MJ0314	293767	294369
MJ0315	294826	294455
MJ0316	295458	294964
MJ0317	296374	295733
MJ0319	297675	297902
MJ0320	298001	298645
MJ0321	298675	299040
MJ0325	302095	301172
MJ0327	303625	303927
MJ0328	304755	304318
MJ0329	306607	304760
MJ0330	308266	306620
MJ0331	308670	308266
MJ0332	308995	308678
MJ0333	309670	309410
MJ0334	309816	310112
MJ0335	310179	310919
MJ0336	310932	311288
MJ0337	311299	312084
MJ0338	312100	312402
MJ0339	312374	312694

MJ0340	312697	313398
MJ0341	313411	313770
MJ0342	313918	314286
MJ0343	314270	316807
MJ0344	316820	317359
MJ0345	317314	318264
MJ0346	318277	318579
MJ0347	318593	319045
MJ0348	319620	321995
MJ0349	322367	322053
MJ0350	322681	322418
MJ0351	323154	322705
MJ0352	323901	323185
MJ0353	324142	323891
MJ0354	324296	324123
MJ0355	324661	324374
MJ0356	324957	324697
MJ0357	326407	325943
MJ0358	326796	326413
MJ0359	327449	326808
MJ0360	328174	327770
MJ0361	329502	329182
MJ0362	329659	329847
MJ0364	332163	332495
MJ0365	332503	333030
MJ0366	333033	333308
MJ0368	334581	334886
MJ0369	336040	334934
MJ0371	337418	337639
MJ0374	339873	338884

-124-

MJ0375	339920	340681
MJ0377	343243	343752
MJ0378	343921	344886
MJ0379	345500	344889
MJ0380	345657	345974
MJ0381	345977	346936
MJ0382	346955	347683
MJ0383	347677	349518
MJ0384	349546	350259
MJ0385	350252	351304
MJ0386	351648	351307
MJ0390	355149	354760
MJ0395	357787	357314
MJ0398	359111	359923
MJ0400	361593	362411
MJ0401	362717	362520
MJ0402	363046	362729
MJ0404	364804	364355
MJ0405	365385	365002
MJ0408	367518	367880
MJ0409	367946	370054
MJ0410	370074	370865
MJ0414	374603	373419
MJ0415	374712	375197
MJ0416	375222	375791
MJ0417	376510	375800
MJ0418	376627	377388
MJ0419	377369	378430
MJ0420	378394	379533
MJ0421	379640	380719

MJ0423	381855	382031
MJ0424	382046	382336
MJ0425	382317	382712
MJ0426	383243	382704
MJ0427	383719	383243
MJ0431	387350	387135
MJ0432	388127	387852
MJ0433	388663	388139
MJ0434	389342	388677
MJ0435	389620	389342
MJ0437	391903	391667
MJ0439	394280	393234
MJ0440	394492	395292
MJ0444	398609	397740
MJ0447	401037	400555
MJ0448	401168	401935
MJ0450	403277	403834
MJ0452	404962	404519
MJ0453	405287	404967
MJ0455	406863	406285
MJ0456	406888	407943
MJ0459	410088	410354
MJ0480	422470	423063
MJ0481	423792	424085
MJ0482	423793	423074
MJ0485	427056	428102
MJ0488	432390	432854
MJ0491	434681	435106
MJ0492	435385	435101
MJ0494	436499	436891

-126-

MJ0496	438482	438823
MJ0497	439219	438821
MJ0498	439679	439212
MJ0500	442304	441537
MJ0501	442990	442394
MJ0504	445785	446372
MJ0505	446365	447117
MJ0512	453993	453292
MJ0513	454868	454149
MJ0517	459731	459321
MJ0518	460018	459737
MJ0519	460275	460033
MJ0521	461746	461549
MJ0522	462422	461769
MJ0523	463226	462534
MJ0524	463697	463239
MJ0525	463997	463839
MJ0526	464308	464123
MJ0527	465146	464655
MJ0528	465442	465149
MJ0529	466215	465520
MJ0538	474805	474026
MJ0539	476422	474833
MJ0540	476947	476693
MJ0541	477507	476971
MJ0545	483451	482711
MJ0546	483623	483456
MJ0548	485032	484589
MJ0550	487106	486012
MJ0551	487918	487106

MJ0553	489383	488925
MJ0554	490365	489910
MJ0556	492396	491875
MJ0557	493186	492572
MJ0558	493984	493202
MJ0560	495301	494891
MJ0562	496903	496691
MJ0565	502486	502046
MJ0567	504742	504497
MJ0568	504847	505221
MJ0570	506837	506112
MJ0572	509860	510117
MJ0573	510262	510828
MJ0574	510865	511143
MJ0575	511121	511807
MJ0580	515428	515075
MJ0581	515692	515937
MJ0582	515940	516323
MJ0583	516393	516563
MJ0584	516563	517657
MJ0585	517680	518294
MJ0586	518563	519057
MJ0587	519994	519536
MJ0589	521451	521768
MJ0592	525620	526357
MJ0594	526886	527392
MJ0596	528074	528475
MJ0597	528539	529612
MJ0599	530524	531120
MJ0602	533752	532970

MJ0604	535443	535144
MJ0605	535634	535443
MJ0606	536194	535922
MJ0607	536435	536199
MJ0610	540394	539093
MJ0614	545444	545061
MJ0618	547877	547584
MJ0619	549378	547861
MJ0621	551088	550573
MJ0623	552787	553362
MJ0625	553606	554613
MJ0626	554709	555335
MJ0627	555369	555719
MJ0628	555715	556203
MJ0629	556208	556849
MJ0632	558292	559380
MJ0634	562682	564565
MJ0635	564797	565636
MJ0638	568586	567912
MJ0639	568870	568586
MJ0642	571462	572451
MJ0645	574498	574743
MJ0646	574757	575248
MJ0647	575457	575296
MJ0648	575881	575441
MJ0650	577458	579521
MJ0652	580869	580471
MJ0659	585626	586039
MJ0660	586366	586136
MJ0661	587014	586496

MJ0662	587657	587007
MJ0664	589291	590163
MJ0665	590629	590180
MJ0668	594556	594314
MJ0670	596945	595887
MJ0675	601925	600753
MJ0678	605240	604263
MJ0683	611696	610920
MJ0686	615407	613668
MJ0687	616482	615478
MJ0688	616670	617110
MJ0690	617965	617375
MJ0691	618300	617974
MJ0694	620244	621365
MJ0695	621809	621486
MJ0696	622409	621933
MJ0699	625837	624698
MJ0700	625851	626822
MJ0701	626831	628063
MJ0702	628050	629831
MJ0703	629859	630536
MJ0704	631069	632199
MJ0706	633440	634081
MJ0708	634868	634425
MJ0711	643995	644960
MJ0712	645967	644963
MJ0714	648530	648880
MJ0716	650013	650270
MJ0717	650815	650459
MJ0724	657809	657189

-130-

MJ0730	663605	663048
MJ0731	664213	663620
MJ0733	665883	665521
MJ0737	667834	667652
MJ0738	668149	667877
MJ0739	668627	668175
MJ0742	669819	669496
MJ0745	672208	671675
MJ0747	673416	672961
MJ0749	675903	675151
MJ0750	676710	675997
MJ0751	677628	676795
MJ0752	677942	677715
MJ0753	678766	678146
MJ0754	679347	678775
MJ0755	680644	679619
MJ0756	681296	680889
MJ0757	682155	681424
MJ0758	682653	682213
MJ0759	683029	682700
MJ0760	683871	683047
MJ0761	684833	684072
MJ0763	686251	685889
MJ0764	686611	686264
MJ0766	688821	688729
MJ0767	689531	689100
MJ0768	689589	690335
MJ0769	690987	690481
MJ0770	691651	690983
MJ0772	692429	693487

-131-

MJ0773	694540	694016
MJ0774	695228	696454
MJ0775	696438	697379
MJ0776	697375	698523
MJ0777	698474	699046
MJ0778	699097	699603
MJ0779	700509	699613
MJ0780	701537	700533
MJ0783	706171	706737
MJ0786	710078	710620
MJ0788	712303	712539
MJ0789	712625	712972
MJ0790	713001	713696
MJ0792	715511	715777
MJ0793	716398	716931
MJ0794	716992	717405
MJ0795	717488	718999
MJ0797	720647	721759
MJ0798	721779	722780
MJ0799	722786	723667
MJ0801	725037	726173
MJ0802	726398	726961
MJ0803	726984	727499
MJ0804	727530	728387
MJ0805	728332	728994
MJ0807	730149	730670
MJ0808	730806	731804
MJ0809	733025	733525
MJ0810	733584	734255
MJ0811	735675	734359

-132-

MJ0815	739584	738697
MJ0816	740542	739652
MJ0817	741119	740502
MJ0818	741733	741125
MJ0819	742225	741899
MJ0820	742295	742191
MJ0821	742765	742598
MJ0823	744830	745600
MJ0826	747462	747875
MJ0830	750568	750101
MJ0831	750950	752245
MJ0833	758976	758239
MJ0834	759796	759083
MJ0835	760901	759822
MJ0836	762786	762430
MJ0837	762860	763606
MJ0838	764466	764816
MJ0839	765906	764857
MJ0840	765992	766972
MJ0841	768225	766981
MJ0856	780538	779996
MJ0857	781920	781099
MJ0858	782318	781980
MJ0859	782837	782355
MJ0865	788311	789585
MJ0871	795055	795975
MJ0872	797236	796022
MJ0874	798213	798491
MJ0875	798611	800854
MJ0878	803147	804388

MJ0880	805402	806325
MJ0883	808397	809404
MJ0887	818880	818209
MJ0889	819606	821000
MJ0890	821429	821019
MJ0894	824064	824486
MJ0895	824467	825492
MJ0896	825552	825953
MJ0897	825946	826362
MJ0898	826495	826932
MJ0899	826954	827643
MJ0900	827668	829308
MJ0901	829430	830998
MJ0902	831028	831729
MJ0903	831942	833855
MJ0904	834299	834547
MJ0905	834622	834954
MJ0906	834959	836056
MJ0907	836917	836072
MJ0909	840933	841220
MJ0910	841954	841433
MJ0912	843688	844416
MJ0914	845908	845783
MJ0915	847507	846707
MJ0916	847875	847609
MJ0917	847950	849671
MJ0919	850996	850550
MJ0921	852470	851571
MJ0923	853368	854258
MJ0925	855529	855212

MJ0926	856378	856638
MJ0933	862692	863390
MJ0935	864824	865447
MJ0936	865545	866042
MJ0938	868207	867473
MJ0939	868278	869102
MJ0943	875111	873870
MJ0944	875300	875659
MJ0945	876358	875687
MJ0948	881231	880668
MJ0949	881637	881269
MJ0950	882370	881684
MJ0951	883634	882570
MJ0953	884488	884787
MJ0954	886106	884802
MJ0956	887437	888216
MJ0957	888219	889268
MJ0958	889276	890553
MJ0962	894937	895320
MJ0966	899875	901197
MJ0967	901940	901326
MJ0968	901996	902814
MJ0969	903935	903126
MJ0970	904627	904199
MJ0971	904756	905844
MJ0972	905808	906488
MJ0973	907728	906496
MJ0974	908172	907741
MJ0975	908365	908162
MJ0976	908463	909560

MJ0977	909594	911000
MJ0978	911359	911688
MJ0979	912309	911719
MJ0981	914246	913641
MJ0986	917606	917373
MJ0987	917909	918247
MJ0988	918361	919347
MJ0991	920189	920608
MJ0992	920924	921142
MJ0995	924316	923636
MJ0997	925109	925719
MJ0998	926425	926012
MJ1002	930965	931891
MJ1004	933349	933990
MJ1005	933994	934386
MJ1006	934412	935437
MJ1010	941079	939958
MJ1011	941860	941471
MJ1016	946060	946941
MJ1017	946934	947542
MJ1020	950418	951194
MJ1021	951732	951244
MJ1022	953674	951968
MJ1024	954536	955744
MJ1025	956917	955751
MJ1028	959569	961611
MJ1030	962492	962932
MJ1032	963985	965082
MJ1034	966050	966310
MJ1036	967587	968276

-136-

MJ1049	986885	987367
MJ1050	987438	987968
MJ1052	989793	989503
MJ1053	990349	989861
MJ1060	1000457	1002067
MJ1067	1008238	1008681
MJ1069	1010805	1009630
MJ1070	1011399	1010929
MJ1071	1012337	1011399
MJ1072	1012709	1012362
MJ1073	1013688	1012879
MJ1074	1014135	1013800
MJ1076	1016646	1015636
MJ1077	1018245	1016683
MJ1078	1019039	1018338
MJ1079	1020506	1019316
MJ1080	1021091	1020687
MJ1082	1021657	1022016
MJ1083	1022089	1022667
MJ1085	1023633	1025159
MJ1086	1025159	1026178
MJ1092	1030102	1030743
MJ1094	1033051	1031897
MJ1095	1034350	1033088
MJ1098	1039265	1038627
MJ1099	1040323	1039619
MJ1103	1043990	1043727
MJ1106	1046606	1046052
MJ1107	1047073	1046627
MJ1110	1052574	1051117

MJ1111	1053691	1052540
MJ1112	1053818	1053645
MJ1114	1055795	1055220
MJ1117	1058450	1059037
MJ1118	1059065	1059331
MJ1120	1060339	1061175
MJ1121	1061532	1061251
MJ1122	1061729	1061508
MJ1123	1061809	1062423
MJ1125	1066578	1066399
MJ1126	1067325	1068140
MJ1127	1068204	1069043
MJ1128	1069964	1069050
MJ1132	1073401	1073048
MJ1134	1075567	1074881
MJ1137	1078625	1078035
MJ1138	1078694	1079215
MJ1139	1080031	1079336
MJ1140	1080732	1080049
MJ1141	1080810	1081406
MJ1143	1082498	1083604
MJ1144	1084575	1083607
MJ1145	1085112	1084918
MJ1147	1086431	1087786
MJ1150	1088688	1089230
MJ1151	1089352	1089681
MJ1152	1089693	1089902
MJ1153	1089902	1090087
MJ1154	1091598	1090246
MJ1157	1097614	1098636

MJ1158	1097631	1097245
MJ1159	1098676	1100610
MJ1161	1102129	1102629
MJ1163	1104052	1104747
MJ1164	1106045	1105095
MJ1172	1111539	1111781
MJ1173	1111785	1112066
MJ1177	1117451	1118467
MJ1179	1118839	1119285
MJ1180	1119545	1119979
MJ1181	1120081	1120677
MJ1182	1121087	1122184
MJ1183	1122200	1122670
MJ1184	1122741	1123160
MJ1185	1125032	1123167
MJ1186	1125194	1126231
MJ1188	1127047	1126238
MJ1189	1128908	1128060
MJ1198	1142323	1144605
MJ1199	1145059	1144631
MJ1205	1148679	1148371
MJ1206	1149937	1148675
MJ1207	1150577	1151254
MJ1209	1154047	1152613
MJ1210	1154918	1154148
MJ1211	1155290	1154943
MJ1213	1156520	1156191
MJ1215	1159884	1159639
MJ1216	1160233	1159871
MJ1217	1160540	1160247

-139-

MJ1219	1162177	1161875
MJ1221	1164080	1164958
MJ1222	1165703	1164984
MJ1223	1165956	1165681
MJ1224	1167016	1166600
MJ1230	1173450	1173235
MJ1232	1176334	1175447
MJ1233	1176475	1177311
MJ1234	1178669	1177947
MJ1239	1184644	1185318
MJ1240	1185617	1185327
MJ1241	1185877	1185644
MJ1243	1187992	1187624
MJ1244	1188410	1188087
MJ1245	1188760	1188425
MJ1248	1191184	1190723
MJ1249	1191367	1192449
MJ1250	1192973	1193731
MJ1254	1197164	1197400
MJ1255	1197430	1198611
MJ1256	1198911	1199543
MJ1257	1199543	1200589
MJ1262	1204364	1205530
MJ1272	1216145	1216633
MJ1278	1223720	1223184
MJ1279	1224266	1223724
MJ1280	1224460	1224930
MJ1281	1224854	1227994
MJ1282	1228714	1229769
MJ1283	1231676	1231017

MJ1284	1232029	1231667
MJ1285	1232580	1232029
MJ1286	1234269	1232587
MJ1287	1235086	1234319
MJ1288	1235901	1235155
MJ1289	1236778	1236284
MJ1290	1237713	1236778
MJ1291	1238448	1237729
MJ1292	1238662	1241124
MJ1293	1241174	1241866
MJ1295	1243251	1242847
MJ1301	1250120	1248921
MJ1302	1250541	1250149
MJ1304	1252617	1252162
MJ1305	1253036	1252596
MJ1306	1253300	1253052
MJ1307	1254110	1253325
MJ1308	1254426	1254115
MJ1309	1255877	1254459
MJ1310	1256325	1255942
MJ1311	1256457	1257287
MJ1312	1257321	1258283
MJ1313	1258388	1259596
MJ1315	1260519	1261589
MJ1316	1261606	1261833
MJ1317	1263015	1261822
MJ1318	1264868	1263063
MJ1320	1268194	1267802
MJ1321	1270356	1268218
MJ1322	1273392	1270378

MJ1323	1274489	1273392
MJ1325	1275428	1275694
MJ1327	1277081	1277815
MJ1330	1280424	1280792
MJ1331	1281220	1280801
MJ1333	1282515	1282766
MJ1336	1284800	1285282
MJ1337	1285743	1286216
MJ1339	1287389	1287850
MJ1340	1287925	1288266
MJ1341	1289221	1288286
MJ1342	1289457	1289798
MJ1345	1291918	1292841
MJ1348	1295149	1296126
MJ1350	1298227	1297454
MJ1354	1304338	1304772
MJ1355	1304858	1306531
MJ1356	1306729	1307295
MJ1358	1309040	1308648
MJ1359	1309889	1309164
MJ1360	1310249	1309953
MJ1361	1310355	1311230
MJ1364	1313354	1314619
MJ1369	1318564	1319028
MJ1370	1319061	1320044
MJ1371	1320053	1320775
MJ1373	1321601	1322086
MJ1374	1322262	1322954
MJ1379	1328524	1328823
MJ1380	1328819	1329052

-142-

MJ1382	1331473	1331036
MJ1383	1332364	1331597
MJ1384	1333177	1332596
MJ1385	1333741	1333205
MJ1386	1333877	1334008
MJ1387	1335433	1334297
MJ1389	1337813	1337412
MJ1393	1341979	1343802
MJ1394	1343895	1346852
MJ1395	1347176	1347571
MJ1396	1347707	1356388
MJ1397	1356457	1357905
MJ1398	1358183	1359355
MJ1399	1359929	1359339
MJ1400	1360142	1359942
MJ1401	1360259	1362682
MJ1402	1364357	1363320
MJ1403	1365794	1364673
MJ1404	1366111	1367364
MJ1405	1367427	1367639
MJ1407	1368408	1368794
MJ1409	1370733	1369939
MJ1410	1371310	1370834
MJ1412	1373210	1374703
MJ1414	1375807	1375094
MJ1416	1378350	1376995
MJ1419	1382016	1381714
MJ1423	1394263	1393208
MJ1424	1394481	1395002
MJ1427	1396680	1397633

-143-

MJ1428	1397643	1399343
MJ1429	1399343	1400842
MJ1431	1401322	1402398
MJ1433	1402914	1403654
MJ1435	1404402	1404614
MJ1436	1404758	1405048
MJ1437	1405055	1405738
MJ1440	1407288	1408133
MJ1442	1412130	1412735
MJ1443	1412784	1413104
MJ1445	1414331	1414858
MJ1447	1415840	1416982
MJ1448	1416982	1418571
MJ1449	1418577	1419686
MJ1450	1419699	1420811
MJ1451	1420869	1422320
MJ1452	1422616	1423392
MJ1453	1423398	1423973
MJ1455	1425643	1424729
MJ1457	1427021	1427422
MJ1458	1427487	1428140
MJ1460	1430419	1429943
MJ1461	1431156	1430560
MJ1462	1431506	1431258
MJ1463	1432201	1431530
MJ1466	1436397	1435756
MJ1467	1436562	1437008
MJ1468	1437029	1440055
MJ1469	1440055	1440279
MJ1470	1440747	1442618

-144-

MJ1471	1442618	1443151
MJ1472	1443165	1444796
MJ1475	1446447	1446821
MJ1477	1447530	1448537
MJ1478	1449448	1448540
MJ1480	1451452	1452720
MJ1481	1452735	1453373
MJ1483	1454337	1454783
MJ1484	1454768	1455217
MJ1487	1459016	1460293
MJ1488	1460315	1461493
MJ1491	1465684	1466055
MJ1492	1466067	1466534
MJ1493	1466552	1467235
MJ1495	1468532	1469377
MJ1496	1469370	1469711
MJ1497	1469711	1470748
MJ1499	1472128	1471649
MJ1500	1472920	1472363
MJ1501	1473615	1472947
MJ1503	1474982	1474587
MJ1506	1479963	1478767
MJ1507	1480030	1481214
MJ1509	1482024	1482482
MJ1510	1483084	1482506
MJ1511	1483234	1483572
MJ1513	1489601	1488606
MJ1514	1489692	1490078
MJ1515	1490084	1491148
MJ1516	1491173	1491466

MJ1517	1492030	1492863
MJ1518	1492917	1493975
MJ1519	1494094	1497618
MJ1520	1498588	1497656
MJ1521	1498905	1500170
MJ1524	1501404	1501727
MJ1525	1501702	1504500
MJ1527	1505607	1505281
MJ1535	1512870	1513766
MJ1537	1515742	1514714
MJ1539	1516728	1517042
MJ1540	1517209	1517466
MJ1542	1521169	1518746
MJ1544	1523759	1522470
MJ1545	1523900	1524592
MJ1547	1525820	1526005
MJ1548	1526062	1526427
MJ1550	1527849	1528031
MJ1551	1528046	1528216
MJ1553	1528749	1529240
MJ1554	1529326	1531191
MJ1556	1532701	1533636
MJ1557	1533644	1534390
MJ1558	1534666	1534397
MJ1559	1534699	1535262
MJ1561	1538168	1536510
MJ1562	1539331	1538168
MJ1563	1539812	1539345
MJ1564	1540186	1540695
MJ1565	1540699	1542237

MJ1566	1543572	1542232
MJ1567	1544072	1543557
MJ1568	1544632	1544078
MJ1570	1545637	1545981
MJ1571	1546111	1546986
MJ1573	1548452	1548270
MJ1576	1551559	1552164
MJ1577	1552197	1553990
MJ1579	1555146	1554937
MJ1580	1555498	1555127
MJ1583	1557431	1557808
MJ1584	1558268	1557816
MJ1585	1559172	1558255
MJ1587	1560732	1561265
MJ1588	1561285	1561620
MJ1589	1561657	1562379
MJ1590	1562770	1563084
MJ1595	1567357	1566332
MJ1598	1572075	1571026
MJ1599	1572924	1572094
MJ1600	1573002	1573532
MJ1601	1573539	1574018
MJ1604	1578693	1577308
MJ1608	1582917	1583126
MJ1609	1583168	1584289
MJ1613	1589822	1589058
MJ1614	1590582	1589830
MJ1615	1591350	1590586
MJ1617	1593103	1593381
MJ1618	1593786	1593397

MJ1620	1594531	1596084
MJ1621	1596297	1596127
MJ1622	1597169	1597719
MJ1623	1597939	1599474
MJ1624	1599991	1599602
MJ1626	1602381	1600087
MJ1627	1604683	1604231
MJ1628	1606127	1604784
MJ1629	1607293	1606418
MJ1630	1610737	1607330
MJ1631	1611184	1612740
MJ1632	1612697	1613446
MJ1633	1614897	1613467
MJ1634	1615733	1615011
MJ1635	1615933	1617174
MJ1637	1618268	1619686
MJ1638	1620457	1619678
MJ1639	1620605	1621036
MJ1640	1621671	1621057
MJ1641	1622664	1621804
MJ1642	1623032	1623514
MJ1644	1627146	1627667
MJ1646	1628442	1629074
MJ1650	1632586	1631435
MJ1651	1633407	1632631
MJ1653	1635797	1636951
MJ1654	1637097	1637693
MJ1657	1639687	1640427
MJ1658	1640511	1640783
MJ1659	1640800	1641870

-148-

MJ1660	1641857	1643503
MJ1664	1646502	1647179
MJ1665	1648555	1647182
MJ1666	1650080	1648686
MJ1667	1651336	1650083
MJ1668	1652321	1651194
MJ1669	1653119	1652376
MJ1670	1653547	1653149
MJ1671	1653684	1653550
MJ1672	1656206	1653807
MJ1673	1656630	1656244
MJ1674	1658539	1656638
MJ1676	1659621	1660334
MJ1678	1660939	1662126
MJ1679	1662142	1662432
MJ1680	1662411	1662866
MJ1681	1663887	1662862
MJECS01	1268	432
MJECS02	4814	1272
MJECS03	5192	4851
MJECS04	5884	5459
MJECS05	6365	6814
MJECS06	7443	7009
MJECS07	8765	7428
MJECS08	11950	8738
MJECS09	12641	11925
MJECS10	14062	13181
MJECS11	14404	15030
MJECS12	16547	15411
MJECL01	275	1048

MJECL02	1474	1085
MJECL03	1700	1377
MJECL04	1865	3250
MJECL05	3235	3450
MJECL06	4170	3787
MJECL07	5844	4561
MJECL08	7415	5832
MJECL09	7780	8103
MJECL10	8107	8784
MJECL11	8788	9159
MJECL12	9150	9887
MJECL13	10678	12483
MJECL14	14468	15427
MJECL15	15420	16541
MJECL16	16599	16811
MJECL18	20873	21505
MJECL19	21456	22019
MJECL20	22829	23290
MJECL21	24596	23298
MJECL22	25120	24854
MJECL23	27628	25136
MJECL25	28835	29167
MJECL26	30215	29178
MJECL27	31077	30571
MJECL28	35352	31534
MJECL30	37621	37151
MJECL31	37811	37599
MJECL32	40153	38828
MJECL33	41381	40125
MJECL34	43121	42231

-150-

MJECL35	45007	43115
MJECL36	45921	45394
MJECL37	46065	46865
MJECL38	47997	47197
MJECL39	49387	48329
MJECL41	53908	52613
MJECL43	57371	56187
MJECL44	58339	57341

Table 4

Genes of <i>M. jannaschii</i> that contain inteins.		
Gene No.	Putative identification	No. of inteins
MJ0043	Hypothetical protein (<i>Bacillus subtilis</i>)	1
MJ0262	Putative translation initiation factor, FUN12/IF-2 family	1
MJ0542	Phosphoenolpyruvate synthase	1
MJ0682	Hypothetical protein (<i>Escherichia coli</i>)	1
MJ0782	Transcription initiation factor IIB	1
MJ0832	Anaerobic ribonucleoside-triphosphate reductase	2
MJ0885	DNA-dependent DNA polymerase, family B	2
MJ1042	DNA-dependent RNA polymerase, subunit A'	1
MJ1043	DNA-dependent RNA polymerase, subunit A''	1
MJ1054	UDP-glucose dehydrogenase	1
MJ1124	Hypothetical protein (<i>Saccharomyces cerevisiae</i>)	1
MJ1420	Glutamine-fructose-6-phosphate transaminase	1
MJ1422	Replication factor C, 37-kD subunit	3
MJ1512	Reverse gyrase	1

The 1,664,976 *M. jannaschii* circular chromosome (SEQ ID NO:1) has the following sequence:

```
5  GGATTATTATGCTACTGGTTTTAAATAAATTGACTTATCTAAACTAAAAGGAGGAATTAA
   GAGAGAGTTTAAACGCATCTAATAGAGAATTATATAAAAAGGATTTGATTATTTATGAAAA
   GGATTTAAATAAATAAATTGCTTATCTTCTCTTCAATTTTATTACTCATAAAAATTA
   ATTTATGTATTTATTTATATATTAATGTTAAATAAAGTAAGTAGGGGGAAATATGTCAAA
   GTCTGGGAATAAAAACCAAAATGCCCCAAATGTAATAACAGCCCATGGATACAAAGAGC
   AAATAATTTTATTGCTCAAAATCAAATGTTCAAACAGGTACTAAGGAATATTATCAAGT
10  TGAAGCAGTAAAGTACTTATTAATAATGGACATTGTGGGATAGATTGTAGGGCAAAAT
   TAGCGATATTATAAAGGGAATAAATTATCCCAAAATAGGGAAGCTTTCCAACATGAAGT
   GTTGATACCACTAAAACAGTATGGCATCATAGCAACATTGGTTTATCCAGGACGTAAAGG
   AGGCGTATTTATCCCATGTAATAATGATGAAATAAAAAAGTGGCAAAACAAGTGTTTTAA
   GAGGATAGAAAGTGAATTAGAAAATTTAGAAGGTTCTGCGACAGGAGTTCAAAATATAAA
   AAATTTAGCAAAATCTCTAAAACGACTGTTTACAATCTTAAGAACACTATTTAAATAAA
15  TGATCAAGAGTAAATTATGTTTTTGTGTTTTTACATTATCAAATTTTCCATCTGTTTTAA
   AAGTTCTTTTTTATCCTCTCCTCTGCAACTCTGCAATAGTATTATCAATCTCAAAGCC
   AATATAATCAATCCCTAACCTAATACATGCTATTGCTGTGCTTCCAATTCCCATAAATGG
   GTCTAAAACAAGATTTGCTTTTTTAACACCATGCAATTAATACACATCTCCGGAAGTTT
   TGGAGGAAATGTTGCAGGATGAGGTCTTTCTTTTCTTTTGATTGGATTGTTTCATAAGG
20  GATAAACACAGTATTTCCCTATCTCTTAAATCTCCTTTTCTGTTAAATCTCTTTATATT
   GCTTTTATCCTGTAAGGAACCAATGCTAATTTGTCTAACTTAACGTTCCCATTTTTT
   TGTGAAGTGGAAAATATATTCATGCATTATACTTAAAAATCTATCACTGTTTATGGCTT
   GTAATGTCCAACAGCAATATCTCCAATAATATTTGGGTAATTTCCAACATCTTCTTTTG
   TATTGCAATTGATTTTACCAATGTATAGTATTTTGTAAATTTAAATGTTTTCTTATAAC
25  ATTAGCAACATCAAAGGCAATCCACGGGTCTTTTGCAGTATAGCCAACATTTATAAAAAA
   TGAGCCGTCATCTTTAATACTCTCTTTATTTCTTTGACAACTTCTTCAATCCAATTTAA
   ATAATCTTCTCTACTTAAATTATCAGAGTATTTGTTGATTTTATGCCAATATTATAGGG
   TGGAGACGTAACAACAACATCAACTGCTTATCTTTTAACTGTTTCATTCCCTCTAAACA
   ATCCATACAGTAGATTTTATTTATCTCCATTTTAAATCCCCATCATTATTTATCTATCA
30  TCAATTCGCAAGCTTCTCTACTTCTTTAATTCCCTATCAAATCATTAAAGTTAAAT
   ATTCTTCTTTAGAATGGGCAAGCTCTAATTTGCCAACACCATAAATAATAGTATCTGCC
   TTAATAAATTTGTTGAAGTAATATGCTTCGCAAGTAGCATTAAAAATGATATTTAAAGT
   GCTTAGACAACCTATTTATTAACCTTTTATTTTCAAGCATGTAGAAATTAGCATAATGTC
   TTTTCAAGATTTAATGAGCTTTTATATGCTTTGAATAATTTTTTGGAGATAAAAGTCGT
35  CTATCTTTTTTATATATCTTTTTCAACACTTCTAACATCAAATAAGACATAAGCAATAA
   CTGGAATGATATTGCTTTGAATTCCTCCTTTTATTATGGTTGGAGTTATTGAAGAACTGT
   AGATTTTATCAACCTTAATCTTTTCCAAGGAAGATTTTAAATCTAAAATAACTCTGC
   TTAAGATTTCTATTGGATTTAGGCCTTGAGATGAGGCATGCCTCGCCTCCCCAAACCTT
   CAACAATATACTCAAATCTTCCTTTATGTCCAATACAAACATTTAAGTCAGTAGGCTCTC
40  CAACTATGCATTTAATACCTCTTTGAATTTTATTTTATTTCTTAAATATTGGCAAAAT
   TGTAAATACCATTTGATTCTGTTTTCTTCATCAGGAGATATAACTAATAGAGATTATTGC
   TATTTAAAAAAGCATGAATCATTAAACCACATTCCTTTAGCATCTATAACTCCAGTCC
   CATAAAATGTTATCATCTTTTTTAAATTTGATTGAATCTTTACAGTGTCTATATGTG
   AATTTAATATCAAATCAAAGTTTTCTTTTTCTTTATATGCTACAAAGCATCCTTCAATGA
45  TAGTATTTTTTATTCTTAAGTTATTGAAAAGATTAGATAAATATTTAAATGCCTTTTAA
   CACCAATTCATTATCCGTCCTAATTTTACCACAAATCCTCTAAGATTTTAAATAATCCA
   TAATTATCATCTATAAATCTACTTTTTCTCCAATAATTTCAATTTAAATCAATATCACT
   ACATTTAAATTCAGCATTGCTGTTGAGTAATTTTACATTTGTAGGTTTTCCATGGCTT
   TAATCTTACAGCTTCGACAACCTATTTTTATCAATAAAAAATTATATCAATAGGATAAAG
50  CATAAAGAATGTATGCATAGCTATCTTTCTCTTTTGTATAGGAAAAGCATAGCTTTATC
   TCCAATATCTCTAAGCATTAAACCAAAAGCTCTTTTAAATAAATTATCTGCCAATACAC
   TTCAATTCATAAATTTCCAACCTTAACTTTTTTAAATTTCTTATTTTGCATTTTTTCAC
   TTTCTTTTTTGTGCTGATGGGACAGGGATGTAATAAACTGAAGGTTTGGCTCCCATTGGT
   GTGGATAAAGCTCTAATAACTCATAAACCTTTCTTGAACATTTGTATTAACTCAATAC
55  CTAATTCCTTTTAAATTTACTAAGCTTAAAGGTAATCATGTGTCCATGTTCTCGATGTTA
   GTTTTTTGGGATTTCTTTAGCTTTTTTCACTCCATATTTATCTTTCAACAACCTCATAAA
   CAAATTCCTCCATCTGTTTAAATAGCTTTTTTAGATATATCAACCAATATTAATGTCTCAT
   CACTTACTTTTTCTCCCTTCTATAGTATGCCTTAAGATGATGCAGCAGGATACTGCC
   CAATCTGTGGATCTACTGGCCCCATTACAGCGTTTTTATCCATAATTATTTCACTGCGAG
60  CTAAGGCAATTAACCTTCTCCACTCATCGCATAATGTGGAATTATAACTGTTGTTTTG
   CCTTATGTTCTTTTAAAGCTAAGGCTATCTGCTCACTCGCTAAAGCTAAACCTCCAGGAG
   TATGAATGATTAATCAATAGGCATATCTTCTGGTGTAATCTAATAGCCCTCAAAATCT
   CTTCACTATCTTCAATAGTGATAAATTTATATATTGGTATCCCTAAGAATGTTAATGCTT
   CTTGTCTATGTATCATAGCTATAACTCTTGTCCCTCTGTCTTTCAATCTCCCTTATAC
65  ATCTCAACCTTTTCATTATCTATATCTCATCATCTCTGGATAAATAAATAATAGAA
```

ATATGAATAAGAAGAAAAACATATCCATCGATGTCATTTCATCCCCATTATTTTGTAA
GGTAAATTATTAATCACTTCATGAATATAAATATAGTTGCCTTATTAATAGGACTTTC
GCAGGAAAAATATTTTATTGAATATTGACACTCTTTGAGTGTCTAAGCTCCAAATTTAT
ACATAAACTGCGAAAGTCTATTTATCATCACTTAACTGGTGATTGACTATGAGTAAAA
5 TTGGATTAAATCCAATAAAAAATAAATCTTTTCAAAGATTAAAACTTACGATGATACAT
TACCATCATTAAAGTAGCTGTATTAGAGCCTGCGGGATTCCCAATCAGGGTTAGTAGCG
AGAACGTTAAAGTTTCTACTGATGATCCTATATTATCAACATCTATGCGAGAGACCAGT
GGATTGGCGAGATTGTTAAAGAGGGAGATTACTATTTGATAACTCAATCCTTCCAGATT
10 ATGCTTTCAAGGTTATTTCAACTTATCCAAAAGAGGGAGGAATGATTACAAGCGAGACTG
TCTTTAAATTACAACTCCTAAAAAAGTTCTTAGAACACAGTTTAAAAAAGCTAAGTTCA
GCGAGATTATTGGGCAGGAAGAGGCCAAGAAGAAGTGTAAGAATTATTATGAAGTATTAG
AGAATCCAAAGCTCTTTGGAGAATGGGCTCCAAAGAATGTGTTGTTCTATGGTCTCCAG
GAACTGGAAAGACATTGATGGCAAGAGCTTTAGCTACAGAGACAACTCCTCATTATAT
15 TGGTGAAAGCTCCAGAGCTTATTGGAGAGCATGTTGGAGATGCTTCTAAATGATTAGGG
AGTTGTATCAAAGAGCATCTGAGAGTGCTCCATGTATAGTGTTTATTGATGAATTGGACG
CTATAGGATTAAGTAGGGAATATCAATCATTGAGAGGAGATGTTTCTGAAGTAGTTAATG
CACTATTAACTGAATTAGATGGAATTAAAGAAAATGAGGGAGTTGTAACATAGCAGCGA
CAAACAACCCAGCGATGTTAGACCCAGCAATTAGAAGTAGGTTTGAGGAAGAGATTGAGT
20 TTAAGTTACCAAATGATGAGGAGAGATTGAAGATTATGGAGCTTTATGCTAAAAAATGC
CACTTCCAGTTAAAGCTAAGTTGAAGGAGTTTGTAAGAAAACAAAAGGATTTAGCGGTA
GAGATATCAAAGAGAAATTCCTAAAGCCAGCGTTACATAGAGCAATATTGGAAGACAGGG
ATTACGTTAGCAAGGAAGATTAGAATGGGCGTTGAAGAAAATATTAGGCAATAGAAGAG
AAGCTCCACAACACCTCTATCTCTAATCCTCATAATCAAAGTAATTATCATAATACTCTA
25 TTAATAATCTCCAACAATCCATAATTCTTTTTATGCTTTCTATATAAAATTTATAAGCT
TTTTTATTGCTTCTTTATTTCTCTCTAAATATTTCTGCTAATATTATGGTTAATGCCT
CAATAATATCAGAATTATTAATAATCCAAATCTGCCCTTATCATCTCATCAATAACCTTTA
TCAACTCCTCATCATCAGCATTTTTAACAACCTGATTTCTTAAAAATGATTTAAATGTAT
AAATATTTTTCTCTCTAATGGAATTAGTTTTATTAAGCCAATGGCTTTATTTAATAAAC
30 TGTCTGTATTTAAAACTCATCCCATAGATAATATTTAACAACCAAAATTTTTAAAAATTT
TTAAATCTCTTCTTTAGGTTTATCTTCTATTCTTTTAAATATTTCTTCTGCATCCACAT
AGTTGTTGTTTTTATAAGCTTCAATTAAAGCATAGGCATGTTTGCAGTTGTATTGTATT
GGCAGGTGCATAATCCAAAATAGTTATTATCTAAATCAACTTTAACTTTATAAGTATCTG
AGCCAACAACCTCCCCAAATAAAAAATTTTTGTATTTTATGCAGTATTTGACTAAATTG
35 TTCTATAATATAGCTTTCCCTCTTTCTATTATTTTTGGGTCGTAGTTTCATGGTTATCACA
AAATATTTAAATTTTTTATAAATCATTTCAAAAAATATCGGCAGAAATATAAAAACTAC
AGTAAATCCAGCAATAAAGCCAGTTATAAACCTCAACTCATTAAAACTTTCTCTCAATCC
AATTAGTTGAGTGGTTCCATCAACTGCCATAGGAATTAATGCAATTATTAAATACCATTT
ATTAGGGATTTTAAAAATCATCTAATTTCTTAATAAATGGATAAATAATCATCCCTACTAA
40 AACCCCTGTATAAATCCAAAACATCTTGCACACACGGCCATTTTATGTCCAAAGATAAA
AAAGCTTCTTTGTGGCATTGATGGCATATAAGGGAATAAACAGCGTATAAACATATTGA
AATAAACTTCCAAAATTTGATGTTTCTCCCAAATATGCAAAATAAGGTGCTAAAAAAT
ACTCAAATAAAAAATAAGAAAAGAAATAAGGACTATTAAATAATATTTTTTCATAACCCC
ACTTATCTATTCTTTATAACAACATATATAAATCCACCAACAGCCCCGAGTATTGCTCCA
45 AAGATGATTGCTGTAATAAATCCAATAATGAATGAGGCCCCAGTAACATCGCGCTTTT
AATCCAAGCGCTGATAGGTATGCAGACATAAATAAAAAGCTTAGAATTGAAGCGATAACT
CCCCCTATAACTCCGGATATTGCTCCAATAATCCACAGTTTTCATAATCGCAAATACCT
CCAGCATTAACATAGAGATGAGCGGCAACAGCACCACCAATAACATAACACAACAACAA
ATAGCCCCCAATATACCGTTTATAAATCCCTCCAATTACCGCTGGTTTTAACATTCTTTCC
50 TGGTCAAAACTTACCATATATTTACCGAGTTTATTTTTAATTATAATTACATTAAATTT
TTTATTTTTTTGATTTTATATATTTTTTCTATTTTATATTATTAACATTACATCCATAAG
CTTCATACAAAGTTCCATTAACTACTGTATAGATTGGAAATCCCTTAACTTCCCATCCGT
CAAATGGACTAAATTTTGCTTTGATTTAAACAGTTTACGATGATTTTTCTTCTTTTTT
TTAAATCAATAATTGTTAGATTGCTAAATTGCTTCTTCAATTTTGTGTTTATGTTAA
55 ATATCTTAGCAGGATTTTTGATAAAACCCCTTATAGCATCAAACAACTTATTAATCCTT
TATTAACATAAATTTAAGGTTAAAGGAACTATCGTCTCAATTCCTGGAAATCCCCGAAGGGC
AGTTTTTGACATTTTAAAGTTTATCTCTAATAAATGTGGGGCGTGGTCAGAGGCAATAA
TATCAACATCTTTATTAACAATTCCTTTAATTAAAGCGATATTATCATCTTTTCTCTTA
ATGGAGGGTTAACTTGCCAAAACCCCTTAACTCTTACGCCATGTCTTTATTTAAATAAA
TATGATGGGGAGTAACTTCAACAGTTATTTTTATATTTTTTAACTCTTGTCTTACTTTTT
60 TTATTAATATAGAGCTTCTTTAGTTGAAATATGGCAAAATGGACATGTGGTTTTTTAT
TACTCTGCCTATCAATAATCTTTAAGTTTTTTATAACTTCTTAACTGCTTCAACTTCTG
ATTTTTCATCCCTAATTTTACAATGGTCTATCCAGCTGTTAATTGATATTTCTTTAGAT
TTTCATTTATTACATCTTTGTGTTGATGATGAGAAAGCTTATTTTGATTTAAAA
TATCTTTTAAATTTTGAATAATCCTCTATAACAATCTCCAACAGATTTAACCATAAATA

TCTTGTATGCTTTTGCATCTTCTACAGTTCCAAGGTAATTATTTTCAGTAACTCCAAAAT
TCAAAAACACATTTATCTTACTATCCTTTTTACAATCTTCAAGTTTTTATAAAATAGTT
CTTTTGTAGTTATTGGAGGTTTATTATTAGGCATGTCTATGGCAAAGCAAACCTCCTCCAT
5 TTATCCAGCTAAGCTACCACCTAAAAAATCTTCTTCTTTTCTCTCCCCATCTAAAT
GAACATGTGCATCAATACTCCCGGAATAACTAAGGAGTTTTTATATCTATTATTTCAT
CATCTACTTTAATATCTTTGGCTATCTTTTGTATTCTACCATTTTCATCAATTAAATAT
CTCCTTCAATGATTTTGTGTCTTTTATTATTCTACAGTTTTTAATAGCATGGTATCAC
ATCTTAATTTATTAAACAAAACATAATAAAATAAAAAGTATTAAATAAAATATTAACC
10 ATCTTTAAGAGTTTAGAGGCTGGTAGTTATGCAATTGGGAAATGCAGAAGTATTTTATAT
AGCTATGGGAATTTATCTATTTTATTATTGCTATTGCATTTATGACTTATAGATGGGT
TAATAAAGAAGTAAAAACCAGCTAAACATAACTTCAAACCTTTTTTAATTAGCTTACCTC
CTAAATCCAAAATATAACTATGCTAATGGCAATATAAAGCATAATCTAATAGTAATGG
CTTTTTTATACACAAATAAGTTAAATGTGCTTAGTAATAGACCATAATAGCTATGTTCAA
15 CTAACACATTAAATATTTTCCAACCTACATAGTTACGAAATGCTATTCTATCCTTTATTG
TTATTTGCCTATGCATTTCAAACCCATAACCCAAATATGAATTGAAAAGCAAACAACAAAC
CTAATCCAACAATAACCATAAATATAATGCATGGAAATAGTAGGATACTGCAGAGGCTGAA
ACATTATACCAATAGCTATAAGCAAATAAGTTATTAAGTTATTAAGTTAGCTTTATTAT
TGATACTGCATTATCTATGTAATATATTATTTTATCGTTTCATGAGCATCACAATGGTTT
20 TTTGACTAGAATTAATTTATAACAATCTATACCTCCCTGGTTTTGGTTTCATCTATATCT
CCATATTTAATTAATTTTTTAATAATATTTTCCAACCTCATCCTCTTTAATACCTTTCTTT
TTTGCTTCTTCAGCTATATCTTCATGTTCAACAAGTTCTGATTTTTTCAGATAACTCCTTA
ATTATCTCATAGACGGTTGTTAATTTGTCTCTCTCTTTCTTAGACACCCCTAAAAATTTTA
25 TCAACATCAAAATATCCAGTCTCTGGGTCATAGGCAATTTCTTTTAAGCATTCAAGTTATT
ATATTTATGGCTCCTTTGCATCTTCTCATCAACAACATCCTTTAACTTTGCCTTTTGCA
TGAGCTTCAGCAATCCTTATAGCAGCCTCTAACTGCCTTGCAAGTTATCTGATGTTTTTTT
CTCATCTCTACATAATAATTAACAATAATTCCTTAGCCTTTTCACTAATTATCGGCTTT
TTCTGTCTTGCGTAGTAGATATATTTTATTATAAATTCCTTGCTATTTTAACTCCATCA
ACCTCAAGGTAATCTAAACCCATCTCCCTGTTATTTTCTCATCTAAATATGCTCTATGC
30 AAATCTACAATGTATTACGCGATATCTTTATCCTTATCCTTATCAGAAACATCTCTAATT
GGAAATATTAGGTCAAATCTACTCAATATGGGGCTGGAATATTTATCTGCTCAGCTACA
GAAACCTCTGGGTTGAATCTTCCCCATCTTGGATTGCAAGCGGCTAAAATTGCACATTCA
GCTGGAAGTTTTGCATTTATTCCTCCTTTACTAATATGGATTGTCTGACTCTCCATAGCC
TCCAAAACATAGCTCTGCAGTTCTTTATTAACAGTTAGCTCATCTATACATGCAGTTCTCT
35 TTGTGGGCTTTAACTAACAACCTGGCTTAATAACCCATGTATCTTACCAATCTCTGTC
TTCTCCCTAACAACAGCGGCAGTTAGCCCAACACCAGTGGCGGTAGTAACAGAACCGTAT
AAATTTCTGGGATTTACAGCAATCTTCTTAGTATGACTGTTTTTCCAATTCCTGGGTCT
GTGATTAAATATATATGAATATCAGCCCTCTTTCCAGGTTTTTAACTCCCTTTATCTGT
TGTAAGTAAAGACAGCCTTCTTTATTGCAGAATGCCCTTAATCTCTGGAATTAATCTCT
40 GCAAGTATATTAACAACATCTTTCTTTTAGCTATTTTTTAAATATTTTCAATATCTGAA
TTTGTTAATTTAATTTTTACTTCCCCATCCAAAACCTCACAGTGTAGGGCTTTAACATGT
ATGTCATAGATTGGTAGCTTTTACTCTTCTTAACTTTTATTGGGATGCCAGTTATCTTC
ACCTTCCAGCATATATTCAGGACTGTTTTCTAAGAACACAGTTATGTATTTTGGCGGC
TCTTCAGGATTTTCCATTAAATCCAATGGCTGTTGAACCTTAATCTCTTGAAGTCAGTA
45 TATATTGATTTTATGCTCAATTAGGTTTAACTCAGCTCCACATTACAAAACAGCTTTTTCA
GAGTCAGTGTTTAAGATATCTATTTCTCTAACAACCTCTCTTCCACATTTTGGACATATA
TAATAAGCTTTTTTAAAGCATGGTCTTATTTTTGATGCCATAACAATGATTCCTTCAAT
TCAACTAATTTTCCATAAGTTTTGCTCCTAATATCCTCTATTGTGAAAATTTTCCCTTTT
CTTGTAGTTTTTAAATTTTTTGGGAGATTTTTTACAGCAATTATTACGTTTGTGGATAT
50 TCATTTCTTAAGGTGTAATAAGCATCGTTGTAGCACTCTTTATAAAATCAATCCCTTTT
TGTGGATTATTTTATAAAATTTTACAAATTCATTAAATCCGTAATTGTAGAGTTGATTT
AAATCAACTACAACCTCTTCATTGTCTAAGATAATATCTTCTGATGAATATTTCTTAAA
TAGGCAGTTAAATAATCCCTAACTTCTCTAAAATTAAGTCTTCATCTCTCAATTCCATA
TCTACATCCCCATACGAAGAAATCAAATTTTAGAGAAATTTAAAACGAAAAATAGTTGA
55 AATTTTGTCTTTTAACTTAAATATATTTTAGTAGTTGTTCTATTTATCTATTCTGTCA
TTTATTATAAATATTTATATAATTAACAACCTTTAAACTCCCATGGCTATTCTCTCAA
CCTCAATTCACCCCTTCTTTAGCTCCATCTCCAACCTAAATAAAATCTATCATTAAACAA
TATTGTCAATATCAGTTCCATTAGATGCATGATTTACAGGCCAATCATCCCTATATGACT
GAATATGCAATATTTTGTAGTCTTTTCTTTAAAGAGGTTTTCAATATCCTCTAATCCCA
AATCAATTTCTTTTACATTGTTGGTTAGCTGTGTTGATGAGTCATAACTAAATGCC
60 ATCCTTCAGGAGCTAAGGATTTATCTACATTAGTTACTTGGTTTAAAGCCGTTTATCCTCT
CACATTCTGGGGTAAAGAGAACACCACCATGTTTTATAATTCCTTCTTTTGTGGCTATGC
TTATCTTTATCCTTTAGATGGCTTTGGCTTTGATTTCAAAAATTTTATATTGCATATTT
TCTGGGTTTCAATTGGAGAGATGTTGCTTATAACAACATCGAATTCATAGTCATCAATAT
AAGCTTTTTCATCAATCTCAATCCTTTTAACTTCATATTCCTTAATAATTTTCCATTGT

TCTTTTTAATAATCCTCGAAAGTTCATCAGTAACTGCCTTACATCCACCTATTGGTATTC
CAGGTCCTCCAAATTTGTGGTAGTTTTTAGCTATCTCTATAATTTCACTCATAGGTGTTT
CATAAGCTGTTAAACTCAAAGCCCATCCAGTAAATGCATTTCCAACCTTTAAAGCTAAAT
CAATCTCTTTCTAAAACTCTCCAAATGAGATATTTTATCAACTTTTCCCACTTTAATT
5 TTGTAGCTAATTTAAATGCTTTTGCCTTTTCTTTAAACCTAAGAGTGAAAACAGCTCTT
TATATAAATACTCCTTCCCATTAAATAAAAATGTTCCATCTGGTTTTGAGTTTATTATTT
TTACATTAGCTCCAGCCTTTCTTAAAGCTTGGGCTAAATAGCCATCATTTCGGTGTGGTA
TCATGTGTAAGCTCCTGTTGTTAGTTGAAAGCCCTCATACCTCAAGTTTGTAAATCTCC
10 CTCTAAGAATGGAAGTTTTTCAAATACAACAACCTTCATGATTCTTAGATAACAATGCTC
CAGCTAATAATCCACCTAATCCGGCTCCAACAATACCAATTCTCATAATATCTCCCTTAT
TTGTTTATAATTTCCAGTTTTTAAATATTTTGATATCTTTTGAGCAATTATTTCCGTAT
TATGCCATGTTCCGTGAAATATACCCCTAGGAATCTCATACCTCATAGCTCTTATTATCT
TTTTATCAACTTTCCAGGATTTGCCTTAGCAAAGGGTGTGTTGTGGTAAAGGCATAAAAG
15 TATGAGCATGTATTTTAGCACCCATTTTATTAAATCCTTCATAACCTTTATTGTCTTTT
CTACATCTTCTCAGTTTCTCCAGGCAAACCAAAAATAAATCTACATCTACTCCAAGTC
CAGCTTTTCTCGCTACTCTTACAGCGTTATAGACATCTTCAACCGTATGTCCCCTATGGC
ATAGTTCTAATACTTTTCACTACCAGATTGAGCACCATAACTAAATCTTATTATCAG
CATATCTTAAATTAATCTACCGTCTCAATATTCACATGCTCTGGTCTAACTTCAGAGG
20 GAAATGTTCCAAAAATATCCTTCCATTATTACCTAAAATTTCTCTAATACTTTCTAATA
GTTTTCAATTTTATCAATATTTAATGTTTTTCCGTCTTTAGAACCATAGCCAAAGGCAT
TTGGAGTTATAAACCTTATATCTTTCAAATTCCTTTAGCCATTATTTCAACATATTTAT
ATATATTTTCAACATCCCTATGCCTTATCTTTTTTCCAAAGATTCTTGGTGTGTTGACAGA
AATAGCATTGTGAAGGACAACCTCTCGTTATCTCTATATGTCCAAATTTATTATGCTTTA
25 CAGGAAATGGTGGTACTTTATTTAAATCAACAGGTTTTCTTCTCCAGTGTAATAAAT
CATTATCATTTAAATAGGCAATACCTTTAACTTTTTTATAATCCTCATCTTCAATACCG
CCTTTATAAATTTCTGGAAACGTCTCTTCTCCCTCTCCAATGCAACAACATCAAATCCCA
ATTTTAACGTTCCTTTTGGGTACCTGTTGGATGAGGTCTCCAGCTAAATAAATAATTT
TATTCCTATAACTTTGATATTTAGCTTTTAAATTCATTAATTAATTCATAAGTTTCCAGA
30 GTTCAGTTGTAAAGAAAGATATGGCAATAACAACCTTGTCATATTTTTTAAACTTCCT
TTAAATTAATAATATCTTTTTATTGGCAAAATATATTGGGAGGTTATCAAAATATTCAT
CAATCTCTAAAGCTCCAATCAATGCATTGAAACTGTTTTTATGTAGTTTTGTATAATAA
CTACCAAAGCGGTGTTTTCTCCATATTGCTCCCTAAACAATATTTATCTCAAATGAGAT
AATTAACAAAAAATCTATTAATGATTCCCTTTAAAGCTAAAGTATAGAATAAAATTTTA
35 ATGCTAAAAATTTTTGGTGAAATTTATGGCAATTGGGACACCTCTTTTGAAAGGAAGTA
TAAATTTTTGTTGTTAGGAAGTGGAGAGTTAGGGAAGAAGTTGTTATTGAAGCTCAGA
GATTGGGAATTGAGTGATAGCTGTTGATAGGTATCAAAACGCCCCAGCTATGCAGGTTG
CTCACAAGAGCTATGTTATTGATATGAAAGATTACGATGCATTGATGGCAATTATTGAGA
GGGAAGAGCCAGATTATATTGTTCTGAAATGAAGCAATAAATACAGATGCATTAAATAG
40 ATGCTGAAAAATGGGTTATACTGTTATTCCTACAGCTGAAGCTACAAAGATAACTATGA
ATAGGGAGTTAATAAGAAGATTGGCAGCTGAAAAATTAGGATTAAAAACTGCTAAGTATG
AATTTGCAGATTCCTTTAGAAGAGTTGAGAGATGCCGTAGAAAACTTGGCTTGCCTTGTG
TAGTTAAGCCAATTATGCTTTCATCTGGAAGGGGCGAGGTGTAGTTAGAAGTGAAGAGG
ATATAGAGAAAGCTTGAAGATAGCTAAAGAAGGAGCAAGAGGAATAGGAAATAGGGTTA
45 TTGTTGAAGAATTTATAAACTTTGATTATGAGATAACCTTATTAACCGCAAGAAGCTG
AAGGAATAAGTTTTGTGAGCCAATAGGTCATGTCCAATAGATGGAGATTATCATGAAA
GCTGGCAACCTCATAATATGTCTGCTGAATTAAGAACAAGCTCAAGATATAGCTAAGA
AGGTTACCGATGCTTTAGGTGGTTATGGAATCTTTGGTGTGAGTTGTTGTTAAAGGGG
ATGAGGTTATATTTAGTGAAGTTTCAACAAGACCTCATGATACAGGAATGGTTACAATGA
50 TAACTCAAGAAATGAGTGAGTTTGAATTCATGTTAGGGCTATTTAGGTTTGCCAGTAT
CAACAAAATTTATTCACCCAGGGGCAAGCCATGTAATAAAGGCAGAGATAAATAAATATG
CTCCAAAGTATCATATAGAGGATGCTTTAAAGTTCCAAATCTAAGTTGAGATTGTTTG
GAAAGCCAAATGCAAGGTTGGTAGAAGATGGGAGTTGCTTTAGCTTATGCCGATTCTG
TAGAGAAGGCAAGGGAATTGGCTGAAAAATGTGCTCATGCAGTTAGAATTGAATGATTGG
ATATTTAGATAATATTTGCTTGTGTTGAAAAATTTAAATCTATGTTTAAATTAGCTTATAA
55 AATCTATTTCTTCATTTGAGAATTTTTATTATTAATTTCTAAGGGTTTGCTGGTTGATTA
TTTGAATATTTGAGTTTTATTAAATTTATTTAGATTTTTAAAAATTTGAGATTAATTAGGTA
AGTAAATAAGATTTCTCTAACTAATAAGTTAAATTTTTGAATTTAAGGAGATAAAAAATGC
TTAGTTTTAGTAAAGAGATAAAATTTTAAATACTAAAAGGTTTATATTGTAAGATGGTTA
TTTATCCTTAGAAAAATATGCTATAGAAAAGCTTAAATATTAAGAGTGATGAAATATATT
60 ATGTTGTGAATGATTGCCCTGTTAAATCAGACCTCTTGGAGGATGGAAATTTAAATGCT
TTTACTAAATATTTGTTAAATAATTCGTGTTAAATCAGACCTCTTGGAGGATGGAAAT
ACAAGTATATTATAAGTGATTGGTAGTATATAAATTTTGTAAATCAGACCTCTTGG
AGGATGGAAATCTGTTTATCAATTTTTTCAGCTTCACTGGTGTATTATGAATAATGTT
AAAATCAGACCTCTTGGAGGATGGAAATCTGCCCGCTCTACCTTTACGGCAATATAAG

CATTAAACGGTTAAATCAGACCTCTTGGAGGATGGAAACGTTAAACAATCTGCTATGAT
AATCATAACTAAATTCATTGTTAAATCAGACCTCTTGGAGGATGGAAACGAAGTATCT
TCATTACTATTACTAATTGATAACCTTGTGCATCTTTAGTTAAATCAGACCTCTTGGG
5 GGATGGAACTTATCTCCTCCATTTTATCTGTAAAAATTTATTAAATTAATAATT
AAAATAAGACCGTTTCGGAATGGAATATAATTTAACTAAAACTTGTATGCAACTGCAA
CGTCATTTATTATTAAATAAGACCGTTTCGGAATGGAGATTAGCAGTTTGTGAGCTAT
TCATATATAAAATAAAAACTTTTGAAGATTTAGACTTAAACATTTAGTTTATTTTTTTA
AAAGTCTCAGAGTTTAAAAATACAAAGTAGCAAATAAAACAAGCACTGGGATAATTTCCA
10 ATCTACCAATCCACATTGCTATAATTCAGCTATTTTCCAATTACTGGAGTTTTTAAAG
TAACTACCCCTAAAGATATGCCTATATTTGAGGTAAAGAAACAGCATCAAATATTGAAT
CGTAAGGGTTATAACCTAAAGCTATAAATATTAAAGCTGTTAAGAACGAAGATAAACAGT
ATAAAAGAATACAACTAATGCTTCCCTAATTATCTATAATTTAAGTCCATATCATCAA
GATGTTTCATGAATCACTGCTGATTTTGGATAAATAATTTCTTTTATTTTCATATAAAGTG
15 CCTTCAGTATAACTAAAAATCTAATTATCTTAACCCCTCCAGTTGTTGCTCCCTGCCCTC
CACCAATTAGCATTAAAAAATTATCAAAAATAGGGATAAGGATGAGAGATTACCTACAT
TTATAGTTGTGAATCCAGTTGATGTCATTGCTGAAACTACTGTAAAGAGAGAATCTATTA
TTGGAACCTTTATCCTTTATTGAGATGATAATTGAAATAAAGGCAGTAACAATTAATGCAT
ACTTTGTTTGAATGTCATTAAAAACTTGGCCGTTAGTAATTTGTGATGTATTGAAATG
20 ACATAACTCCTCCAACCATCATTATGCCAATCATAACAATTTTGCAAAATCGTTGTATG
GAAAGCTATAATTGCTTATACTCATTCCCTCCAGTAGATATTCCAGTCATGGTTAAATTTA
AAGCATCCCAAACTTAATCCAGATAAATAACAAAAGAACCCCTAAAAATAGTGATA
AAATATAAATCCAGATAATAGTTTTTATTGTTCTATAGCACTTGGCATTATCCTCTCTT
GTCTCGCCTCAGATGTATATAAAGATAAGCAACAGTTCCAGACCTTGCTAAGACAAGAG
25 CTGATAAAACCAATATCCAACTCCACCAATCCACTGCTGAAAACCTCCTCCAAAATAAAA
TAGATTTTGCTAAACCTCAACATTAGGAATAAGAGTCATTCCAGTTGTTGTCAGGCAG
ACATGCTTTCATAAAGTGCATCAACATAAGAAAAATAATCTATAGATAAATAAAGGAA
TGGCCCTATAAATGAAGCTATAAGCCAAGCCAATGCAGAGGCAACCATGGTATGATGTA
GTTTTAAATTTTTTGGTTTAGTAGCTCTCTTAAACAAATCCAAAAATAGAAAAAATA
AACCCTGGAATAAAAAATTTAAAGGTGTTTTTCATTGTAATAAAGTACACTATACATG
30 GAATTAATGTAATATTTCCAAATTTGTATAATCCCCCTAAAAATATGTAATTCCTT
CAATGTCTTTTTTTTGTAACTACAGATTCCCATATTTCTTAACCCATAGAAACATTTA
CCTCGAAAAGTTTAATATCTTTTGTATGCTCCTTAATTAACCAACATCCTTATCATACA
TTTCTACCGAATAGTTTATTATCTCAGACATATTATAATTTTAAGCTTTGGATTTTTAT
CAATGTAAGATTTGTTTCCATATCTTTGAGCATTTTGTTATAAACTTATCTGCTAAAC
35 TTTCAATTTTTAAATATCCAAAAATTGGTTATAATTACTTCATTTTTACCAAAATATTTTT
TGCACCTCTCCTTTAAATATATGCTGTTGTTATTAATATAATCAACACGTGAAATTCCTCC
CTATTCTAAAAAATCCGTTGCTATTGGACTCATAAATACTCTTGTATTCTCCTTAAGTA
TTTTATAAACCTTATCTCTCAAGGTTTTATTGGAAAATAAGGATGCATTATATTTTTATG
TAAATATCTCCATCTAATCCCAAGAAATATCATTGCTTTAATTATTAAAGTTATTTCCAAC
40 AATAATATATCTGTGAGAGAGTGCTTTTTTCATTTTTGTAATAATAACGCCCTACAAC
TTCAACAGAGTAGCCATTTTCTATAAGTTCTTTTAAGATTTCTGTTTCAATGAAATCTCC
TTTTTCTATTACTACTGCATCACTACCTATTATAACAGTTTCTATATTGTTGATGTTCCG
TTCCAATCAAATCCGCTTTTTTCATAATAGAATCTATCACAACCTTCTGGAACAAAAGT
45 TAATATATTTTCTATCTCCAAAGTCATTTATTGTGCTTTTGTATCTCTACCTTTTTAAA
ACTAAAATTTGATGAGCTAAAGTAGATTCCAAAAATTATAATTAAGAAATCAAAAAAC
AATAACCGAAAGAGTTTGTCCATATTAATCAACTCCAGCCTATAATCCCTCTTCTAACA
TATCTTCTCACTCAGCCCTTCTAACTCAATCATCGTTTTCAATCTTTGCGTAATTATAT
TCAAACATTTATCAACAGTCTCACTAATCTTTATATTCTCAACCACTGGAATTCCTTCT
50 TTTTTCAGTTTCAACCATGTAATCGTTTATCATTCTAATGATTTTAAAGTATTTTAAAT
ACCTCTCAGTAGGTCTGCTTGAACTCTTCCCTTGGCTAGAAATCTCATTTTATGCAACT
CTTCATTGTAGATTGTAGCATAATAAAAACTACATGGGAATTTCTAAATATTTATCTT
TTAAAGTGTGGGACTAAGTGAGTTTCTCGATAATTACACTCTGCCCTCAACTAAGC
ATCTATCTATAACTCTTCCACTCCAGTTAATACTGCCTCAGAAATGCCTCTCAACCCCTT
55 TAATGTATTTATTGCCCTCATCATCTCTCAAAACCTCCAAGCTGTATAACTTGATTCGT
AAAGTGTAGGGATTAAATCTCTTGATATAACCTTTCTCATAACTTCCCTTATAGAATCAG
TTCCAATAACGCTTGAATACCAATCTTGAAGCTATCTCAAAGGCAATAGTTGAAGTTC
CAACACCCTCGCTCCCACTAATAAGATACTATCGGTCTTCTCTAAACCATTTCTCC
ATAGTAGATATTTTTAGCAACTTCATCGTAATTTTTTGAATTAAGTAATAATAAACTC
60 TCCTCTCAATCAGCCTTATCTATAACTCTGATATTTTCTTTTTTAAACATCTCGTATA
TATCCCAGGCTATTCTATAGGCAATACTTGGTTTTAATCCAGCGGCTGTTAAAGACCTTG
CCAAATACCTTTGAAATGGCATCTCATAGGATTTTCCCTCACAATAATATCATTCT
GCAATCCATTATCCACCGAAATTTAATCTAAAATTTTCATCAGCATCCAATTTTTCAGC
ATTATAAGATTTTAGCCCTCAAATAGAGAAGTTTCATCTTTATCATCTCTCAACACAAC
AAAAATTTTTCTGGTTTGTATTTTTCTATAAATCTCTCAACATCTTTCGTGCTATCTC

5 AACCTTTTCTTTAATCCTTCTAATGCTTTTCTGGAACGCCATAGCTCTCATATCTTC
AATATCTAACATTCCCTCAGTGCATACAACTTTTAAATTAGGATTTTGTGTTTTAAGCTT
TTTAAATAACTTTTTATTGAGACAATGTATAATGCACCTTCATCTATTTCTTTTCTTC
AAATTCAAACCCAAAGTTAGCTAAGATTTTATTTAAATGTTCTTGGCATTTTATAATCAA
10 TTACAGAACTCTTTAGCTTCTCTTCATTCAACTCATGCTTTGGGGCTTTTTATATAA
GAAGTCATCTGCCTCAATCAACAAATAAATAGCTTTTTTAAATTCATTGACATCTATCTT
CCCTGGCTTTGCATCTTTGTAGGATATTTTTTATCATCCTTTTCTACTCTTATTTTAGC
TTTTTTTAGTTGGGAAATAGTTGAAATCCCTTTCTTATCAATCCCTTTGAATATTCAAC
TCTCATCTTCTCCTCCTCTATTTCTCTCTTTTTCAGATTTTCTCTTTCTTTCTCTAAT
15 TTTTCCAACCTCCTCAACAAGCATTTGGTAAAAAGACACCAACATCAGTAACATACCCCAA
GCTTGTGATGTCCCTCTATCCATTAACTTTGTTACAACCGCTGGATTIATATCAACGCAG
ATGGTTTTTAACCCATGAAGGTAATAAATTACCTGTAGCTATTGAGTGTAGCATAGTAGAA
AGCATTAGAACCATATCCTTTTCTTTTAAAGCTCTCTCATTTTTTCTGAGCTTTAACA
ACATCTGTAATAACATCTGGTAATGGGCCATCATCCCTGATACTTCCAGCTAAAACATAA
20 GGAATGTTGTTTTTTATACACTCATACATAACTCCTTCTTTTAAATTCCTTGCTCTACA
GCATCTTTTATGCTTCCAGCCTCATTATTGTATTATAGCCCTTAAATGATGACTATGC
CCTCCTGGAACGCTCTTTCCAGTCTTTAAATCAACTCCTAAAGATGTCCCATATAAAACG
CTCTCTATGTCATGAGTAGCTAAGGCATTTCCAGCAAATAGTGCTTGAACATACCCCATC
CTAATAAGCTTAGCTAAAGCCCATCCAGCTCCAGTGTGAATTATAGCCGGACCTCCAACA
ACTACAATTCCTCCTTTACCTGTCTTTCTATATTTTTCTCTAATCTCATACATCTCCTTA
25 GCTATCTTCTAATAATTGTTTCTTTAGGCTTTTCTGAGGAGGCATCTGATTTCTATAAAC
TCAAATAACCCCTCCTTCTCTTGGTTTTTCTGGAGGGATGACTCTAACCCCTTTATGC
CCAACAACAATAAATCTCCTTTTTTGTATTTCTTATTGCTTTTACTTCAGCCCTCATT
TCATCTGGATAAACAACGATAGCTCCGTCCATTTTTTGGTTTTCAACCTCTATCCATTG
CCTTTGAACCTAATAAATGTTTTATGATTGGTTGTTGAATAAAAGCCCTCTGGTAAGACC
ATATCCTTCTCAGCTGGCTGTAACCTCAACCTCTCAATCTCTGGAATCTCAGCTCCTAAA
30 TCCCTCAACTCATTCAATATTTCTCTACATGCCTTTCTCTCTACCAATAACCAATATC
TTGCATAACTTGGGTCTGTTTTCTCTTCCCAATCTCAAACTCTAAAACCTTTATAATCT
CCGCCCATATCTAAGATTTTTATCAAAACCTTAGGCAGGATTAAGCTGTCAATAATATGC
CCTCTCAATTCAATTTCTCTCATGAACATAAAATCCCCCAATAAATGTTATCTTAGGAT
TAATTAACGATGATGAAGTATTTAACAATTGTCTCAAAACCTTTATATACTATTTTGAC
AGTTTTTAATCCAATTTTTATCTACTTTACAAAGAGGGATAATTTGCATACATTAAAGATT
35 TAAAAAAGATAGAGCGATAAAAAATAAGTGAAGAGCTATTTCTGATGAGTTATGTGAGAG
ATGTGGAAGATGTTGCATTTTACACGCTTACAAAACCTGAAGATGGAATTAACAATATA
TTGTGAGCATTTAGACCCAGAAACAAATTTAGCTGGTGTTTTTCCAAAAGACTGCCCTTA
TAGATGCTTAAGTGAATGGAAGGAATCTTAGCTGGTGTTTTTCCAAAAGACTGCCCTTA
TGTTAAAAATTTAAAAATTTATGAAGAGCCATGGTTTTATAGGCATTTGAGAGATTAGGT
40 CTTTAAAAATTCATCTATTTTTTCTAGCTAATGTGTCAAATATCCATTCAAACCTTTTCGTC
ATCTCTCTCTAACAATGTAACCTCTAAATCCGTTAAGTTGAGAGCAGAATGAGGTTAGAGG
AACTACACAGATTCCAGTAGATGCTAAGAGATAATAACAAATTTCTTATCTATAGATGC
ATCTTTTATTGGTGTCTATAAATTCCTTCAATTTCTCATTCTCTATTTTATGGAATT
GTTTCCATTTAAATAGTTATCTTCAAATACACAGACATATAGAAAGCTCCATTGGCTTT
45 ATTTGCTATAACACCATCTAAATCTTTTAGTTTTTTGTAGGCTGTGTTGACCTTTTTTC
AAAGAACCTATTCTCTCTCTAAGTATTTTTGTAAATTTCTATGCCCATAAATCTTTGG
AATAGCCATTTGTGGCAATGTAGTGGAGCAAACCTCTATCAATTTGGCTTTATAAATACT
CTCAACGTATTTTTTAAATCTTCTATCCTTATCGGCATTGTAAATTTCAATCCATCCACA
TCTTGCCCTGGCCATGGAAGTTCTTTTGATATACCCTTTAAAGATAAACCGCAGACATC
50 ATCTATAACCTCACATAGTAAATGCTGTTTTTCCCATATATACTAAGTTACAGTATAT
TTCATCACAAATAATAAATAAATCATATTCATTGGCTAAATCAACAATCTCATTTAAGAT
TTTTTTTGGATATACTGCTCCAGTTGGGTGTGTCAGGATTTATAACCAAAATCCACTAAC
TGCTGGGTGTGATTTAATCCTCTTCTCAAATCATCAATGTCTGGATACCAGTAGTTGTA
AGGGTCTAAGAAGTAAGTTACTGGAGGAGAGCCAGCATGGGATGCCTCTGCAGAAGAATG
55 GGTGAGTATGATGGGATGGGTTTATAACTCTAACCTGCCTCTTCAATAAACCATAAAT
CTTGCAATGGCATCTCCTAAGCCGTTAAAGAATATGATGTCTTACAGAGTTATCTGAAC
TCTCCTCTTTTATTTACTTTGTTCTCGGCTAAAAATCTCGTGTCTTAATAAACCTTTAGT
AGGACAGTAGGCATAAGAACAGTCGTTTTTAAACAATCTCTGCTATAATATCTTTAATCCA
ATCTGGAATTTTTTCCCTTTAGCCACTGGGTCTCCTATGTTTTCCCATGTTATGTTTAT
TCCAAACTCTTCTATTTTTTATAGCTACATCTACAATCTCCCTAATTTCACTAATCAATTC
60 TTAGCCCTACATCTATATAGGATTCCTCATGTTTTCATCTCAAAATGGAACCTCTATT
TTGATGACACTTTTGTGTAATTTACCATTATCCAGTAGTATATAAATTTACTCTTAA
AATAGAGTTCTATTTTTTATATGTTTGAAGTGTATATATCGAATCTTATAGTGCCTT
ACAAAAAATTTACTATAGAAAAGGCATTATAAAACCAAGACTTTTATATTCTTACCTT
AAAAATTGCAGTTAATTTGAAAAGCAGGATAAACGATAATTCCTAAATATATGGTGAA
ACAATGAAATGCAAAATTTTGTGATAAAAGAGTTATATAAAGCTCAAATCACCAGAT

-158-

5
10
15
20
25
30
35
40
45
50
55
60

GTATCTATGCAAAGAGCATTGTTGTAATATTTGAAAATAAGGTTAAAAATCAATAGA
TAAGTATAAAATGCTAAGTAAAGATGAAAAATCTTAGTTGCTGTTCTGGAGGTAAGGA
TGGGCATGCAGCTGCATGGGTTTTGAAAAAAGCTCGGCTATAATATTGAGTTATCCACAT
AAATTTAGGGATTGAGGGATTTCTGAAGAATCTTTAAAGGCTGTAAAGGAGTTGGCTGA
AAAATTGGAAGTTCCCTTTCATGTTGTTAATTTAAAGACATTACTGGAAAGACAATGGA
GGATATTAGAGGTAAGAAATGCTCTATATGTGGAACAATAAGATATTTAATGAACAA
GTTTGGTTATGAAAATGGATTGATGTCATCGTTACTGGGCATAATTTGGATGATGAAGT
TTCTTTATTTTAAACAACCTTATCAATTGGAATATTAGATATTTAGCTAAGCATGAGCC
AGTTCTTCCAGCTCATGATAAATTTTAAAGAAGGTTAAGATATTTCTTGAATTTGAGGA
AGAGTTAATTTTAAAGTATGCTGAAGCTGAAGAAATCCCATATACAACCGTTGAATGCAA
ATATGCTGAGAGAGCTATAACCTTAAAGCATAGAGCTTATTTAAATGAGTTAGAAAAGGA
AAGGCCAGGTAAAGTATCAATTCCTATCTGGCTATATGAAAAATAGCGATCTGTTTTAA
AGTTGAGGAAGAGGATTTCCAATTTAGAGAGTGTGAGGTTTGTGGAATGACATCTGCTGG
AAAAATCTGCTCATTCTGTAGAGTTTGAAGCTCTATAAGAAAAAGAAAGAAAATAGAAA
TTAATTTATCAATTTTAGCCACCATGTATTTAGTTCTGCTAATTTCTCTATCGGATTTAGC
AACATAGGGGACATACCCTTTATCTAAGCTTTTATTAATAAAATCTTCAACTCTCTTCAA
ATTTTCATTTGTTTTGTTCCATCATCAACATAATCAACCACTAAAACAACTTTCCAGA
ATCTTTTACTTTATCCAACAATTTATCTTTTCATTTATCTCTTCTCTGCTTTTTGCTC
TACACCATCATAAAACAATCTTCAACAGCCCATCCAGAACTGTATTTAATAAATTTCC
ATGTTTATCGTACTCCAATAATCTTTCACCATTTTGTGGAATTTATATAAGCTGTTGTT
AGTTTGTCTTCTGCAGTAGTTTGATATCTCAACAATAAATTTAATCATCTCTTTGCTGT
AAAATCTTCATCATAGCCATTTCTGCCCAGTATTCGAACCTCATCAACCTTATCTAAATA
AACTCCACAGAATCCTTGCTGAATAATTTATCTAAATAGCTAAAAATTTATTTCTTCCA
TTCTGGATGCCAATATTTACAGCATAACAGCCCTCCCATTCTGGGTTTTCATCTCCTAA
CCACTTTGGAGGATTTTTTAGCCATTCATTGTCCCAATAGAACCTATAATCTTCAGCCTC
TCCAATGCTGATATAGGCAATAGGTATTTTCCAGCTTTTTTAAGCTTTCTATCTCTTC
TTCACTATATTTTCCATTTTCAGTCCCATCTTTTGAATAATCTATAACAATTAAGTAAA
GTTTGAGTTTGCTATTTTCATCAATATCTGCATTTTGAAGTTGATATGCCCATAAAAATTT
TAAATTGTTAGAATTTTGTGATATTTGTAAGGTTTTCCGCATTTCTAATATTATTTT
AGATTAGACATCATTTTAGGGTTATCTAAAAAGTACTATCAATGAAATAAAAAATCC
TACAATTAATAATGCAAAATTTATTTCTTAAATATGGCTTTTCTTCATGTTCTTTCC
CCTAATTTTATTTAATGCACCTCATTAACGTCCATGCCTCCTTTCCACTTATAAAAGCCC
TATTAACCAATCTCTTAAAGATTATTTGCAGAGTTCTTTTTTATGCTCTGGGATTTTTT
CATTCTTGTCAATAAACTCATTAAATTTCTTATCAATAGCTCTTGTCTCTTTTGATG
CCTCTCTCATATTTATATCTAAAAATTTATTTCTAATTTTTTGTATAAATCTCATATA
AAATAACTGCAACAGCATGAGATAGGTTTATAATTGGATACCTTTTCAGATGTTGGTATTG
AAACTAACAAATCACATTTATCTCTTCTTCTTCAATCCATCATCTTCCCTAGCAA
AGACAATCCCAATGTTTCCCTTAACCTCTAAGATTTTATCTGCCAATCTTTTGCTGTTA
TTGGAATCTCTTTAATTTCTATCTCTCTCTTGTCTGCTGAAGTGGCAATAACAAAT
CTAAATCCCTATAGCTTCATCAAAGGTGTTGTAGAATTTGGCATTGTCTAAATCTCTC
TTGCATGGACTGCCATCATATAGGCTTCATTATTTATTATGCTTTTATCTCCAATATTC
TAAGCTCTTCAAATCCAAATTCATCATAACCTTGTCTATACTACCAACATTTCCACTGT
ATTTTGGATTAACTAAGATGACAGAAATCATTATTATCACTGTTTTCTCTTTTTTCCAG
CTTATAAATAGGTACTCAACGGTTTTTATATTAATCCAGTAATTTTCAGTATTTCTTT
AGGTTTTTTATCTAAATACTTTTTAATAATCTTATCTACATTCGTAGGTCTTCCAGTCTT
TGCTTTTATTGGAATAACTTCGACATCAACTCCTTCCAAAGCCTTTATAATCTTTTTTGA
GCTTCTTTTATATTTTGTATTTGGTAAATATATCTTCTTTGGCTCACAATTTCCAATAA
AGCAATAGCTACATCCCTATCTAATCTAAGTTTATATAAATCTCTTCTTCAATTTTACA
TTCTTTAATTTTTTCAATCAATCTCTCTTTGTTTTGCTATTAAATTTTTTCAATAACA
ATCACTTACTTATTTTTCTCTCTTTCTCTTTAACCTCGATTAAACCATCTTCTCTC
CATAGGGCTTCGCTTATTTGGTATACCCGGGATGCACTGCCTCGTTTCACTCGGCAGTGC
CTCTTATAAGTTATTTTTCTCTCTTTCTCTTTAATCTCGATTAAACCATCTTCTCT
TTAAAGGGCTACCACAAATCTCACATATATCTTCTTCAATCTACTGGATAAAGTTTTT
TACAACCTTCACAAATCTTCTCCAAATAAATCTTTATTTGTGGTTCAAAAGCTATTC
CCCTAATCTCAATATTTAATTTTTTAGCTACATTTTGAATGCCATAATCGTCAGTATATA
ATATGGCGTTTTAAATTTAGAGCTAAAGCTAAGACACCAATATCTTGTGAGACAAATTTAT
CTCCAGTTTTTTTTTAACAACCTTCTTCAACCTTTTTTATATACTCCCTATTAGGACTCATT
TTTTTAATTTTTCCAAATCTAATGCTTGTTCACAATAATTTTTTTTGATTCTATCTCTT
CCAAACTTCTGGGGTTGTGTAATGTTCCCCCTCTCTATAATGGGTTGTATCCATGAA
TAATAGCTGAAGCATCCAACACCTTAACCTTCATGATTCCTCTCTATAAATGTTAAATA
ACTGATAAGGAGATTTATTAATAATCCATAATTTATAAAATCTGGTGGTGGCAATGATA
ACAATGTAGTTGGTAGTTATCCAGTAGTTAAAAAGGAAGAAACATTCTTAGATAAGGTA
AAAAAGGTATTTGGCTTGATGATGAATATAAATATGCCATAGAGAGGGCTGTTAAAGAC
CAGGTTAAAGCTGGAGTTAATATTATAAGTGATGGACAGGTTAGAGGAGATATGGTTGAG

ATTTTCACAAACAACATGTATGGCTTTGATGGGAAGAGAGTTGTTGGTAGAGTGGAGTTT
ATAAAACCAATAACACTAAAAGATATTTTATACGCTAAAAGTATAGCCAAAAAAGTCAAT
CCTAATGTTGAAATTAAGGAATTATTACAGGGCCTTGCACTATAGCTTCATCTGTTAGA
5 GTTGAGAGTTGTTATTTCAGACAATAGAGATGAGAATCTAATTTATGATATTGCTAAAGCC
CTTAGAAAGGAAGTTGAAGCATTAAGGATGTCCTCAATAATACAGATTGATGAGCCG
ATACTATCAACTGGTATGTATGATTTTGTATGTTGCAAGGAAGGCTATTGATATAATAGTT
GATGGATTAAATATTAATTTGCCATGCATGTTTGTGGGAATGTTTATAATATTATTGAT
GAGTTAAATAAGTTTAAATGTGGATATTTTAGACCATGAATTTGCTTCAAATAAAAAAAT
10 TTGGTGATTTTAGAAAGTATGGAAGAGATAAAAGCTTGATAGAAGAGGGAATTGAAATATTA
AAGAAAGTTGAAAGTGTGAAGAGATAAAAGCTTGATAGAAGAGGGAATTGAAATATTA
AAAAACAATGAAAAATTGAATAAAAAATTTGTCTGATAATATTTTAAATAGACCCGATTGT
GGAATGAGGTTATTGCCAATAGACGTCGCTTTTAATAAGTTAAAGAATATGGTTGAAGCA
ACTAAATTAATAAAAAATATAATTAATTTTCTCTATAAGTGGTTTATATCTGGCATATT
15 TGGATAAAGCCAGTAGTCAGTTTTGTTAGTATATAATCCAATGATAGAATACGTACTATT
ATAGACCAATATATATTTCCCTGGTTCTCCATAGTATATAGTCCAGTAAATGTTTTTGG
TTTTCTTCTTTATAGTCGAGATTGGATATTCATCAACACCTATTGGAGGGACGGTAGT
TGTAATATCATTTATATCTTTTAAAAATATCCAATCCACTGTAACATTAGTATTTAAATT
TATAAGAGCAGTTATTGAAATTGGATAGTTATTTCCCTTATTTCCATTAGTAAATGAGTT
20 GCTATATTCAATATCCAAAGTGTCAATTAATATTGTAAAGTTTAAAGTCAGTGGTTGAAAT
TCTTTTTAAATCATAAATATAAAATTTATTTAAGTATTTATTTGAATTAGGAACATAATC
CCCAATATCACTTCCACTGTATCCAACCTCTCATATAAAGTTCTGGATTATTTCCAGTCCA
ATCATACATATCCCAACCCACTCCATCGTTATCGCTTAATTGTGTAAAGAATCCTATAGT
TTGGGCATGGGATGGAGTAAAGTTGCTCTAAATATTAATTCATATCTAGTTCCATAAGT
25 TTGTTTTGTATATACGCTTGAGCCTGCTGCTGCAATTACCGTTATTTTACTATTATnnAT
GATAAAGTATCCAACAGAATCCCATTTATCTGGGTTAAAGTAAATTGAATCATCAAAGAA
TATAAATGTGTGTCTGGGCTCTGTCTATCTACCGGAGTAGTTGAATTGTAGAGTATGTA
TATATACCCCTGCCCATTTATTGTAGTTGTAAATTTTCAATTTTTATTGCTCTAACCCAAAT
TACTGATACATCGTTATTTCTCTCTCCAGGTTTGAACCCAGTAAGGTAAAGAATAAT
30 TTTGTTACTTACTGAATCCAGCCAATTACTCTCAGCTCTGTTGGAGATTGAGGGTTATG
CATTTCACTATAGTTAAAGTTACTACTATTTAATATTATACAGAAAGTACGGTTGTAGTT
ATCATTTGGAAAATTATATATATTTATCTTTTTTTCATAACCCAGGTGTAGTAAATTT
ATTTAAATAGACATATGGGTCAGGAATTCCTTGATAATTTTATGTCTCTGTTGATGACTAT
TGGCTTTAATGCGATTAACTCACCATTATTTAATTTTTTGAATATTTTATGTCAATTTT
35 ACAATATAAATGTACTACTAATGGGTCGTATGTAGGTGAAATTTTAAACAGAACTAATGTT
ATAGGATATATTTGAGTAGCCATAATTCACATTATTTAGTGATTCTTTTGGTTTCATTTT
TATAGCTGGTTATATACGCAACTGCCTCACTGAAGCTGTAAAAAATTTTCTCTTTT
CATTTATTTTATAGCTTGCAATTTACAAAGGCATCTCTACAATTTTATCTATATTTCTATC
TATAGTATTTTATTAATTTTTTTCATATAAACTTACTTCTTTTATTTTTTATTTCTCTC
40 TACTTCTTTTGTGTAATCAATTGTTGCATAAAACACTGCAGATATCACAACATTAG
CATAACTAAAAATATCGCATTTTGAGAGAAATACATGGCAATCCCCTTAATTTCTTAATA
TATATAATTCAACCCTTGAAGAGGATACATTTTTTGAAAGATACACAGGCATATGTATAT
CGTAGTTTCTATATTTTAGATAAATTATAGGCGTCATCATAGTCAAGAAACCTCTCTTGG
ATATATTTACAAAGTCCTCATTTCATAAATTACATACCACCCTTCACTTCTGTTTAAAG
45 TTAACACTGTTAAATATATACACTATTACTATTATTAACCCATTGGATTATTTATTA
GAAGGTTATATCTATATAAAGAAGATAATGTTTAAAGTGAATTTCTTCTCTAAAGTT
TTTTGAATCATTAACCTATCAAAATAATATAAAGAAGACAGCATCTTGCAAAGTTCCAT
CCTCTGATAGATGTTCCATAGTGCTTATTCCTTTATCAAAAATATAATCAGATTTTACAA
TATCCACATAATTGTTGTTATGTTTCGACAATAGATACTGTCCAAATATGCCATCCCTATGA
50 GAAGAATGGCAGTTCCAATTGCTAAATCAACGCTATTAATCATGGTTTTACCACAATGGT
GACATTGTTAGGTGATAGTGTAAATAGTAAATCAGTGTTCATTTGTTTAAATTA
AAACTCTACTGGAAGAGGTGAGCTTAAATCCTTATTTTCAATTAATCCCAATTTAAATT
TGGAGTTATATCTATATTGTCAAATACTGATTTTAAATGGTTTTTGTATATATATCCATT
TACTGTAAAAATGACATCAGAAGATAGAAGCGTTACTGTTGGTTCTGGTTCTACATACTT
55 TCTAACAAATACCCAATCAATGCTAATATTTCCGTTTTGTTGCTCTTGAGGAACAGGATA
GTAACCATATTTTGTGAATAATCATATTTTCTTGATAGAATGAAATTGGTAAATCTCC
AGTATATATGTTTTGAATATATGGTTTTATATATGGCATCATCTATTATGAAATTCAGTGA
ACTACCTCCATCTCTTTGAATCTCATAAGTGTGCCAATTATCGTATAAATCTGGGCTTG
TAAGATAATGTAACATCGTAATCTTGATTTAATACAGAAGATTCAAGCTCTTAGCCATC
60 TCTCCCAAGTGATAGTTAGTTATAACCTCTCTGTTATAGTCATTTCCATTTATGTTTAT
ATAAAATCCGCCCCACTCTCATATTTCTTATGGAAATTTGCATGGAATCTTACAGAAGT
ATTTGGATAGTATGTAATGGAGGAATATGCGTATTATTAATATCATAAATAATGTA
ATTATGATTATTTACAAATAATGGATTATTAAGTTGTAAGTCCATTTTGTATTATCCAA
ATAAGTGTCAATTTACAAATAATGGATTATTAAGTTGTAAGTCCATTTTGTATTATCCAA
ATTACCTTTAGAAAAATCATCAAAGAATAGGGGGAAGGTATTATCTCCATTGTCAGTCGT

-160-

5 TGTAGCTGTTGGATTTC CATATAAGCATATATATTAGCTTATGTTTCATTGGAGCTAAAT
TACCTTAACCCAGGCGACAGTATGCGGAGTATCTATTGTATTGGCTCTATCCAATAACT
TAATGGATTACCATCTTCATCAACAAACCTTACATCTCCACAATCTGTTCTCATCTCTCC
10 AGAATTTATATAACTTTGAGAATCAAAAACAATTTTACATCATAATCATTTAAATTTTG
ATTTAGGTTGTTTATTATTAATATTGGAGTAGCATACCTCCAATTCGCCAAGTAATAAA
TGGATTACCATTTATTTGTAACAACCTCGCAGATGCTGAAATAATTCGCTATTGACTTT
AAAGTAAATGTGGTCTCCATTACAGCCATATAGATTTATAGAATCTCCATATTTTCATTCC
AGTAATTTTGGAAATATATACATTTCTTTAAAGTAAATTAATCCATCCACTTATACT
15 TAGGTTGGCGTTGTTAAATGTAGTATTTACATTTGAATAAATTTTAAATGTGTTGCTACT
GAAATTATATGTTATAGCCTGAAGTCCATCATTTGCACAAATTCGCTCGAAATGTTGTC
AAGTCTTCATCATATATGTTTGGATAAATATAAAACGAATCAATCCCTTATATTCACT
AAAATTATTAATAAGTCGAAAGTTTTCCTTTAATATCTAATTCATTGTAAATATC
CAATATGTTTTGTTATAAACTTTCCAGGAAATTTATTATTCCTTAAAAAATATCTTT
20 TAGTAACAAAGCTTTATGAAATTTTTCAGTATCCTTCTTTTCTCTAATGCTGTGAGCAT
ATTATGACTATAAACCATATACCTATATAAAAAACACTCAAGAAAATGAAGGCAATTAC
TATTGCCTCATAGTAAATATATACCTCTTTTGAACAAATTTTCTAAACATATGCCA
TCCCTCATTTAAACATAATTATTTTTTTCATTTTAAATAATATATCCAAACAGTTCA
GGAACAAAGCTATTGGGAAGATAATAAACTTATGACATCATGAACATACATTATAATTTA
25 TCATTTTGAATAATTTATTATTTATCTCCTCAAAATTTTGAGATAGTAATAATTG
AAAGTCCAAATACTGAATATGAGATTTTATATTTAATAGGAACATCAGGACTCCCAAGA
TATAACCTAAAAATAAGCCATTTCTAATGAACATGTGCATGGTGAGCTAATCTCTATAA
TATTTTTGCCAACTATAATTCATTCTTGTAATTTCAAATTTAAAGTTTAGATAGGG
TTATTGTTAATAAGTCCATATGTTTCTTCTAACATTTTAAATGTAATAAAATATAA
30 AAAAATATATTAATACTAAGTATGTATATAGCATTTTATGCCCCATTTAAGGCCCTC
TTCACTTTGTATATATTGTCCAATGCTTTATTCTTTCAGCTAAGGTTATATTTTTGAA
ATACTTTCTGCTGTAGAGGTCCCTCTCGTAACTGATTTTAGATAATAGAATCCAACATA
GATGCTGCAACTACAAGAGCACCTAACAAATAGCCAATTCATATGATATTTGAGCTTTA
TTAGATATTTATTTTTTAGGTTTCATTTTAAATCCCTTATAATTTGGAAGAAACAGAATA
35 TTGTTGAAATAACTATCAATATCTCAATATATGGCGGTATTGGAACGCTATGTATAAATG
ATTCTCCTATATTTATTAACCTTAGTTCCTGAATCTGAAAGATTATCATTATCTATAACTG
TCAAGGTAACCTGGATAAACCCTCTTTTTATATTTGTGTATTATAATTGGATTTGTG
TTGATTGTTGCTGTTGTTCCATCTCCAAAGTCCAGATATAATTTAATATATCCACTT
CATCGTATGATAAATTAGCGTTAAACTCTACAGTAGTTCCATTTATTACTTTATACGTAA
40 AGTCAGCAACTGGAGGATATTTTGGAGGTGGAGAAATATAACAATCTTGTACACTAT
CCGTTAAGTTTGTATCGCTTTAACAGTTAAGGTTACAAAGTATGCCCCCTCTTGCTGT
AAGTATGGATAGGATTTTgTCTGTGATGTGCTGCCATCTCCAAAGTCCAGTGCCAAC
TAATTATTTTCCAGGGGCCAACTGATGTATCTTCAAATCTTACAGTATTTTCATTTA
TTATTTTCATATGTAAAGTTAGCTAATATACCCCCAACTACTATTTGTTTGTATATTGAAC
45 TACTTGCGTTATATTTGTCAAATACTGTTAAGGTAAGTGTATAGTAGCCTGGTCTTTTCAT
ATTTGTGATGAACATATCGTATCTGTTGTATTGATAACGGTCCCATCTCCAAATTCCAA
TGTAATATGCAATTTACCCCTCGGGTCATAAGACTGGGAAACGAATTCATACCTCAT
TAGGTTTCAGGTTTATCTGGATAGTATATAAATTGAGCCACAGGAGGTCTATTTATCACAC
TAAACTTAACAGTTGTTGAATTAACCTCCTCCATTCCTCCAAACTACCAATTTAGCAG
50 TGTAATCCCCTATAGGAAAACCTTTGGATATAATAGTTAATTCATTTGATGAGTAATTC
ATGCAACATTTCCATTAGAATCATAAAGTGTAAAGTTAAATCCATATATTCTTGCCATGG
GTGAGTTTGGAGATATAGGATAATACCCTATTAAAGGTGCCGTAGTAATTATACCTGGA
TCATTCTATTAGCATCTGGGTATAACTATTTATTGGACTAAAGGAAATGTATCTTTAT
AACTTGCAAGATTGGATAAATATAGAGTTTGGCTATTGGGTTTTATTGTCTATTACAT
55 ATACTGTTTTCATATTTTCTGCAGTATAAATTTTCATATATATTGGATAAACCCTTCTG
AAGTGTATGTATGTGAAAGTATATGGCGATTTTTTGGGTTTTATCCAAACACTGCCAC
CATCTCCGAAATATATATGATGCCAATACCAAGTCCACGATGCCGGCTCTACTATTGTTA
TATTTATTGGATAGTAAGTAGGGGCTATTGTAGGAGAAGCATAAATTTGAGGATAAAGT
TGTATCCTCCAACTCCAATTTGGTGGTGAATTCCAACCTCTATATTTCCATTATCATCTA
60 TAACGAATACATGAGGATAGTATAGTCCACTGAAGAATATCTATGAGTAGGGCTTTTTT
CAAATGAACATGTCCCATCTCCAAACACACATTATAAATATTGGATTTCCATAAGGCG
AACAATCAAATCTAACGTTTTTCAATTTACACTAAGTTGAGTTTTGTGAGGTTGCTGTTA
TATCTATATAAATCCATCTCTCAATTTTACATTAAATTTTGGAGTCGAAATTACATCTG
AATAGTAGTATAAATTAACCGTATGTTTTCTTTATTATATTATATCATAGTAAGTTT
TATCATGAGCAGATGAAGGGTAAAAATTATATCTTGTGTTTTCTACATCGTCAACTACTA
TAAAGTTGAGGGTATCTGATTTCCACCAACTACCCCAACCATAACTCATCCAGAAGAACG
GCCACATAAATGGAACTTATATTGATGATATGATGGAGTAAAGTAAGACTTATATGTAT
AAGGAGTTTTCTGTTCCATCTCCAAATCCCACTTCCAAATTTCTCCCAAGCTCCACTCA
TTTCAAATTTTATAGTGTCAATTAACCTTTATAGGTTATTTTATATGGGTCAGTGTATGCAT
TTCCATTATTATTATGTCATCTCCAGAGCTATTATATACATAAGTGTATGCCCTCCAT

-161-

CATAGTGACTTGGTCTGTAAACCCAGTAAATATACCCCCCTCTTGCTCTTTTACTTCAA
TTCCCTTCATCCAAATATCCAACCATACCCCTCCAGAATCATCAACAACATAAACTCTTG
GATAATAAAGCCCTGACTTTGTATATGTATGTTCTGGAAATTTTCAAAGGAAAAAGTTC
CATCTCCAAAACCTCCATACACAGAATATTATTTCTACTAACTGAAAAATTAATTTAA
5 CAGTATCTCCTTCTACAATTTTCATCTCTGCTAACATTTACAGTTACTGAAGTTGTATCAA
CACTTAAACCATTAAACTCCCTATCAACAGGGGTTTCTGAGTAATATTTATTATAACAG
TATTATTTGTGCTATTATAATAGACCTCCCAACTTGTCTTTGAATTCACGGACTGCCAT
TAAATACATACTTAGTATTTGCTACATCTCCAACAACAAGCCAGTTGTAAGTTAAAGCTT
10 TCGAATAGCCAGTATTATTAGATAACCGCACCATGCTACTGGATAAGGAAATGGAAATG
TATATGTATGGGTGGTTGGTTCTATAATTCCCATAAATCAGTCTCAGTTAAGTCACCAAAAT
CCCATTTAACAACCTCCATTATCTAATATATCCTGAGCTACAGAATCGGGGGCTAAAGCTT
CAAATGTTATCGTGTCAATTTACATTGTATGCAATGATATTGGGGTCTGTGTTATAAACTC
CAGAACTGTTAGTTATGTTTCATAGTGTAGGATGTATCACAATAACATATCCATTTACTA
15 TTGAAATTATACCAAGAATGATTAATGGCATTAAATCTTTAAAGTTTCATAATAACCC
ACCAAAATTTTAAAGTTATATTTATTGTCAATTTCTTACATATTGTTATATTATTTTATC
AATGATCAGCTTATGCTTATATTTTCCAATATCAACTGGGGCAGTTTCTATATTGCT
TCCAGAAATTATGACACCGTTATCTGTTGGGGTAAATACGATAAGGGTTTTTATACAC
ATTAATAATTTTATTCGAGACATGTATTACATACCCCAATCTCCAATAGGTTTTAATTT
20 CAAAACATTGTTTCATTTTGTATATGAAAGGATTGCATAGTTCTCAAATGTATCGGC
TATACTGTACATCCTATCCACTATCAAAGCATCCGTAGTGTATTTGTAAATGTAAGTGC
ATTGTAATAAATAAACAGTGAAACCAACATTAAAAATAATATTGCAAGTACAAAATCAAC
AGATAACTGTCCCTTTTTTTTTATTTTGTGTTTTCATATTAACCTCTTTTTTCTAA
TTTTACATTATCTTTTATGCTGAAATTAATCTATAATCATATAATAATATAGTATTATT
25 CTTTCTTAATTTATATTTTCCACTAAAATTGGAGACTGTCAAGTTAAGTTTTTATCAA
ATATTGATAAAAAATAATAAATATGAGGCTCACGATAGAAGTTATAAAGGAGAGAATCG
TAGAGAGGAAGCTTTTAAAGGAATAGGAATCGATAGAGGTTAAATCTTAGCAGGGC
TTTTGTATTACCTCGGATTATCGTTAAGGAAGGTAAGTTTATTCCTTTCCCAATTCGAAG
ACATAAGCCACGAATCGGTTAGAATTTATTATCACAAGATTAAAGAAGTTTTAAACGAGC
30 CAGAAAGAAAGGAAAGAACTTAATTGCAATCGATGAGACTAAACTAAAGTTGGAGACA
AATATATTTATGCTGGTCTGCCATCGATGTAGAAACGAAAGAATGCTTAGGAGTTTATA
TATCGAAGACAAGAAATTACCTCGATACTATATTATTGTTAAGAGTATATTAAATTTT
GCTCGAATAAGCCAAAGATTTTAGTTGACGGTGGAAAGTGGTATCCGTGGGCGTTGCGAA
AATTAGGCTTAGAATTCGAAAGAGTCAATTCGGACTAAGAAATTGCGTAGAAAGCTTCT
35 TCTCAGTGCTCAAACGAAGAATAAGTATTCTACAATAGATTTCCAAATAATAGTAAAT
TCGATACGGTTATTAGCTGGATAAAAAGCTTCATGATGTTCTACAACCTGGATGAAATCGT
TAACCTTGACAACCTCGATGGGAACCTAATAAGGTTTAAAGATAACATCTCGTGTACTCT
ATTTATAGATTCTAAATTTTAAATGCTAAATATTAGGTATTGCTATAAATATTAAATGCA
TAAAGATTTAATAATACATGGTTACATAGTGGCATGTTAATAATATGTAGCATTTTTCA
40 AAACTTAATAAAATTTTAAAGAATTAATATAAGCCTAAAAGTGCCTAATAGGACTTTTCG
CAAGAATACAATTCTAATTGAATGATAACACCGTTAGATATCAAGTAACCTTAACAAATC
TATAAAGTCAAAAGTCTTATCAATGTTATGAGGTGGCATAATGTTACAAAGATGTATT
AAATGTGGAAAACTTACGATGTGGATGAGATAATCTACACCTGCGAATGTGGTGGCTTA
TTGGAGATTATTTATGATTATGAAGAGATTAAAGATAAAGTTTCAGAAGAAAACTAAGA
45 AAGAGAGAAATTGGAGTCTGGAGATATTTGGAATACTTACCAGTAAAAGACGAAAGTAAA
ATTGTAAGTCTATGTGAAGGAGGAACCTCATTATATAGATGTAACAACCTTGAAAAAGAG
CTTGGAAATTAAGAAGTCTATGTAAAAATGAAGGGGCTAATCCAACCTGGAAGCTTTAAA
GATAGGGGGATGACTGTTGGAGTAACAAGGGCAAATGAGTTGGGTGTTGAGGTTGTTGGC
TGTGCTTCAACAGGAAATACATCCGCTTCTTTAGCCGCTTACTCAGCAAGAAGTGGAAAG
50 AAATGTATTGTTCTATTACCAGAGGAAAGTTGCCTTAGGAAAGTTAGCTCAAGCAATG
TTCTATGGAGCTAAGGTTATTCAAGTCAAAGGGAACCTTGATGATGCATTAGATAGTT
AAACAATTAGCAAAAGAGAAGTTGATTTATTTATTAATTAATAAATCCATTTAGATTA
GAGGGACAGAAAACCATAGCATTGAAATATGTGACCAATTAACCTGGCAAGTCCCAGAT
AGAGTTATTGTTCCAGTTGGAAATGCTGGAAACATCTCAGCTATATGGAAAGGATTTAAA
GAATTTGAAATTACTGGCATTATAGATGAACTCCCAAAATGACCGGAATTCAGGCAGAT
55 GGAGCTAAGCCAATTGTTGAAGCATTAGAAAGAGAGCTAAAGACATCATCCCATATAAA
AATCCAGAGACAATTGCAACAGCTATAAAGGATTGGAAATCCAGTAAATGCCCAAGGCT
TTAGATGCCATATACTCCTCTGGAGGTTATGCTGAAGCAGTTACTGATGAAGAGATTGTT
GAAGCTCAAAAGCTATTGGCAAGAAAAGAGGGAATTTTGTGAACAGCTTCAGCTTCA
TCAATAGCTGGGCTTAAAGGTTATTAGAAGAAGGAATTATTGATAGAGATGAAGAATT
60 GTTTGTATAACAACAGGGCATGGGTGAAAGACCCAGATGCAGCTATAAGGGCAAGTGAA
GAGCCGATAAAGATTGAATGTGATATGAATGTTTTAAAAAGAAATTTGAAAGAGTTATAA
ACAATAATTTTTATTATATTTTTTATGTCTCTAAAATAACTTCAAATAACTCCAT
AGAAATCATAAATCTATATATAAATCTATATACCGCTTTTAGAAAAGTTATTAAATC
AATATGGAATATTTAAACGCTTCCAAAAGGAGGGTTCGAAACAGTTTTTAAATTTCTAT

5 AACTTACAGTAGCATATCATAATAAACAATATCACAATATAAATATTGTTTTTTTATTAA
AATAGTAAATATGTATTGTTATATCATAATGTTAATGAGGAGGCTTTGCCTTCGAGACGAA
ATGTTGATACTAAATATTAACGAAGTTTGGATTTTGGGGCTGTATCTGTTCAGTCCTAAG
TCTGATGAACCTATAGTGAAGGGAATGGTGTCCCGATGAAGCTATGGGCTGAGGACAAC
10 CCATTTCCATAGCTTACCGATTCTGTATAGTAAGTTATTAATGCTATGGTAAGCTATGGA
AACGGGAAACGGTTAAATAGATCTTGGATTATATTAACATTATCTAATTATTGAGATTT
CTTCTTAATCTTTTAAAGGTTTTAATCATGTATTAAGAAAATTTGGATAAAAAATAGAAAG
CTATATATAGGAGTTTAGGTATAAAATAAGAGCAAAAGTAAGGGTTTAAATCGATAGTC
CATTAAAAACAAGGATAAACTCTAAAAAGCAAGATTATTCTTTAACTCTTTACCAACAG
CTACGTATATGTTGTTAGCTCCAATTTTATCTCCAAATTTGGATAAAACCTCTATATTTT
15 TCTCTACACAGATTTTCTACCTTCTCTACAAGCATCTTTTGTCTCTCCCAAAAG
ATACAACAATATATTTCCATCTATTTCCCTCAGAACCTAAGACAGGTTTTTTTATCTTTT
TGTATAACCCATCAAAGTCCCTTTAAATGTGTCAATCATTTTAGCATCTTCAATAATG
GAAAGTCCCTTTAAATACTTGGTTATAAATGATATATCCCTTTCTCTATCTTGCCCACT
TCTTTAAATCTACTTTGTAGTAGTTGAGTTTTCCATCTGATATTCTTTTATAATTGTCT
TAGCTGTTCTAACTAAATCAACTTCTCCACCTTTGGTTAAATAACTCCTTTTATTTCCAA
TCTTTTTTAATAACTCTTCATCAACCTCTTCATAATCAACTCCAAAGTATTCTTTTATTA
20 TTGAGTTATCAAAGTTATTTATCTACTTAAATCTTTAAAGCTGGAGGAATAGGGTTTT
CTACTTTTTCCAATCTCAAAGCTCCACTTATAACCAATCATCTCTCATCTCCCA
AAACTCCAGGAGTGTCCATAAGCTTAATATTTTTAGTTAATCTAACCCACTGCTCTCCTT
TGGTTAAACCAGCTACACTTCCAGTTAAAGCTTTTCTTTTCCAGTTAATGCGTTAATAA
TGGATGATTTTCCAACGTTTGGATAACCAACAATTCCAACCTTTCTTTTACCCA
TTTCTTTTAAAGGATTGTTTTATCATCTCTCTCAAATTTTTGTTCCTCAATCTTCTCTTAG
25 CAGATACAAATACTGTATTTTCCCAAAAACCTTCTTTCCATTTTTCTAAAATATCTTTTG
GAATAAATCAGCCTTATTTAATACATAGATTAGCTTTTTACCTTTTGCTTTGATTTTTT
TCTCCAATCTCTGTTTCTGTCTCTCTGGGTCTCTTGATCTAATACCAATAAGATGA
CATCACATTATCAATAATTTTATTAATATTTTTTAACTGGTACTTTCTTGTATCTCA
TAACTCTCACCATCAAAAAATGTTATATTTCTCTCATTTATATTTTTTATCAATGAATA
30 TGACAAAATAAATTTATAAATTTATCGATTATAGAAAATTTTTTATAGAATTCAAACAC
ATTTACAAATAGTTAAATTTTCAATAAAAAATATGAATAAAAAGGTGATATTGTGGTTGT
AGATGCAAAAGAAGTAGAGATGATAAATACCTTAGTTTTGAGACATTAGGAAATCCAGA
GAAGGAGAGAGAATTTAAGTTAAATCATTGAAGAGATGGGGATTGACTTAATATTTGG
TAAAGTAGATGGAAAAGAAACATATTTCACTGTTGAATTAGATGAAAGAAAAGCTGGAGA
35 TAAGTTTTCAAAGGATGGAAGGAGTATGAAGTTATCGAAGTTCTTCAAGAATTGCCAAA
AAACACTGAGCTCTATGCACACATAGAAATGGAGATGGGTAAAGCATATATTGTCTGTCA
ATTAAGAGATGAAGATGGAAGAAAACACAGAAGTTTAAAGAGTTCCAGCAGCTACTTTATT
GTTAGCTTTCTTTAAAAAGAATAAATTAGCAAAACATAATAAAGCAATAAAGAACGTTGG
AATTAGTTTTAGAACTTTCCATTGCAGAAATGGTGTGGAGGAAAGCCATTATCTTATGAAGA
40 ATTGCCAAACGTTGCAAGAAGGTTTTATAAGAAGTGCAAGAAGGTTGAGAAAGAACTGG
TTTTGGAAGGTTGTCATTTGCATACTATGGAGAAAACAAAGATGGAGAACCAAGCTGATAG
ATTTAGCTGGCTTTGCCAACAAATTGCCTTATTTGACTTAGATATAGCTAAAAAAGTAGA
ACAAACCTTGGGAATCTTAAAGGTTTCTGAATAAATAAATTTTTTGGAGGTGAGATGATG
ATTTATGGGATTTTGTAAATATTTCCAGAAAAACATGCTACAAAGTATGAGGATTTAATT
45 AGGAGAATAATTGGAGAAGGAATAGCAAGAGGAGATATCTTATCATTTACAGAGGCAAGA
TACAAAGGAGATGTCGCTTTTGTCTGCTTGAAGGTCAAGGAGAGCGGCTGAGAAAGTT
TATCAGCAACTTAAAGAGCATCCAATCCATGTAAAGGTTATAGAGATTGAAGGAAAGGA
GATTAATAGTTCATAATTTGTGAAAAAAATTTCTTAATATTTTTTATACCATAATTTATAT
TTTTTATATGTGAAGTATTTTATTATCTGTGTAAGAGGGGAGAAATATGGAGCAATTTGATT
50 TTGATAGCATCTTCAATAATGCAGTAGGTAATATGAAATATTTTATTAAAAAGTTAAAA
AATACGAAGAGATTAAGGATGAAGATATATTAAGGATTTTATTAAACGCTGTAA
ATGTGTTTATAGAGAGGTTTAAATAATCCATGCATCTGCAAAAAATAGGAATAATCACA
GTAGTTGCACCACAAACGCTGTGGGGAGATAGAAAATCGCATGAAAACTGGGTTGAGA
AGTTATTTGAATATAGTGATGATGAAGAAAAATTAATGAATTTTTTAAATATATAGCAA
55 AAGATGCAATGAAATTTGTTGAGTTGGATTTGAACCGTTGTATATTTTATGTGGATTGG
AGGAAATAAGAGAGACGGCAGAAAGAAATTAAGAGGAACTACCACTGAAGAGTATT
TAAAGTTATGGAAGAGTTTGTGATTTAATTGAAGAATGCTTTGGTTGCCACAGCTG
TTTATATGGAGTTTGAAGATAGGGTTTTTGAAGAATGGGCATAAACAAAACTTAAAT
ATAATATATCAAGTTGGGATTGAAAAGATGAATATTAATTAATAAAAAATTAATAATA
60 ATACCTATTTTTTAATATTTATTTATTAACAAAGTTTATATATTTTGTTTTACATAGATGT
TATTGATTAGGTCATAACACTAAATAATTAATAAATAATTAATAAAGGAGGCTTT
TATGGAATAAATCTTTCCAGACATTTTGAAGCAATAAGAAATGAAGAGATAATAAAGA
AAGTAAAAAATTCCTATGCCATATTTTGGGTTGTTTGCATTGGTAATATTTGATAAAGT
TAAAGAACTTGGTTCAGAAACCTCATTATATGAATTTGGTGAAGAATTTGGAATAATGTT
ATCTCTAAAAATATTGAAGAATTGAAAAAATATTCAAATTAATGAATTTTGGAGATT

GGAGATTGACGAAAATAAAATACTTCTCAAAAATCCACCATATAAAATAAAGCTATCTAA
TCCTCCATACCAATGGGTATCTAAAGAAGAACCAATTCATGATTTTATAGCTGGAATCTT
AGCTGGATGTTTAGAAGAGATATTTAAAAAGAAATTTGTTGTTAATGAGGTTGAATGTGT
5 TTCTCAAGGAAAAGATAAAATGTGTGTTGAAGTTAAGGAAGTTGATGAGCTAAATAAATA
AATCAACCAACTGCATATCTTTAACCACCACTTTATCAGTTATTTTAGCTCAGGAATCA
CAGGGAGAGAGAAAAGCTCATACTTAAAAATGGGTTCTCAAAAGAACTCCAACCTTCTA
TTTTTTTATACAAAGCATTAAATCTTCTCAGCTATGTATTTTCCATCATCTCCATTATCC
CTCCAACCTGGTAGAGGAAGATATTCAACCACTTCCCCATCCTTAGCAGCTATAAATCCTC
10 CACCAATATCTTTTAATTTATTTACAGCTAAGGCTAAATCTTTCTCATTATTTTCTATGG
CTATTACATTATGAGAATCGTGAGCATAGGAAGAGGCTAAAGCTCCCTCCTCCAAGAAGT
TGTATATTAACCCCTTTCCAATATTTCCAGTATTTTATGCCTCTCTATAACGAAGATT
TATTTATAGCATTTTTCATTCAGTAATATTTTATTTCTTCAGTGCTAAATATTAGCTCTT
CAGITATTAGAGAATCTTTAATGGTTTTATTACTCTAATAAATCCATCTCTCTCCTTAT
15 AATCAATCCCTTTAATTAAAAAATCACCTTCGTTTTTGTATTGGTATTTTAAAGTATTCA
TGAGCTTTTCGGGAATTTTCTTTTTTTATTTTTATTTAGTTCAATTTAAACATCATCTA
AGAACTCTCCTTTTATGACAATGTTATAAACTTTAAATTTGTCTAAATCTTCAAGATTA
CAAACTTGCCTCATTTCCAGCTTTAATTCCTACATCAAACCCAAAATAATTTGTCTGGAT
TTATTGTAACCATTGAATAGCTTCAATTGGAGAAACATAGTTTGTGGCTTTTCTTAAAA
20 TATTTAACATGTAGCCGTCTAAATCTTTAATACAGACGTCATCACTAACCAACATTATAT
TCCTAAATCTTTTATCTTTTTCATATATTAAGCAAATAGATGTTTTTGTGCTGTCTC
CTTCTCTAATCATTAATTTTAAATCCCAATCTAAGCTTTTCTAATGCCTCATCTTCATCAA
CACTCTCATGGTCGCTCATTATTCATGAGATATATATTTGTTTAACTCCCAACCTTTTAA
25 ATTTTGGACAATGCCCATCTATCAATTTATGTTATTTTATAGCTACTTCTATCTTTTTTA
ACATCTCTTCATCTTCATTTATTACTGCAGGATAGTTTATAACCTCTCCTAAACCTAAGA
CATTATCTAAAAGAAATGAGTTCTTCAATATTCTCTGCTGTAATCTCAGCTCCACTTGTTT
CTAAGTTGTAGCTGGAACACAGGAAGGAAGCATAACATAGACATCTAAAATTTTGGCAT
CATTCAACATAAAACAAAATTCCTTCTTTCCAGCAATATTGCTATTTCTATGCGGGTCTA
TAACTACTTTGCTAACTCCGCTTTTAAATACAAATTTCTCAAACCTCTGATGGGATGAGAT
30 GGAAGATTCTATATGTATATGCCATCTATAAATGTTGGAGATAAATATTTTCTTTTAA
AGTCAATAACTTTAACATCTCTCTTATTTTTCATTTATCTTATCAATTTTCATCATTTA
AATCCACAAAGGATATTTTATCCCTCTCAACTGCAACATTTCTTTAACAACCTCTCCAG
TATATACATCAATAATCTTTGTATTTTGAAGACAATCATAGAGCTCTCCCTTTAACCTT
ATTTATGTTAAAGAACTTTTATAGGAGAAAATTAATAGGAAAAATTAATGAAATCAT
35 GGAGTTTCATAACCCAAAGCTAACGCTTCGGTTTTCTATCAAAAATTTATTAATTTATCTTTA
TAGCACCTTACCTTTAACCTTATTTATATCAAAATTTGCTGTTTCAGCAATAGCCATAAC
AGCTAAAACCCCTGCCTGCAATGGGTCTCCAACAACCAATCAGCAACCTTAGGAACAGA
GCCAAACATCTTTAAGCTTATCACGGGAATGCCAGTCTTTTCTTTAATTCTTTAAGTGC
40 TTAGTTATCTTTCCCTCCCATTAAGAGCCAGCTAAAACCTAAAATTCCTACTCGTGGGAG
AGTTGCTACAGCTTTAACAGCTCATATAAATTTTCTTACCAACTATTGGAAGAGTATC
TAGCTAATTTCTCTCCCTCTTATATTATGCCTGTCTGCCTCACTTATCGCCCTCTCGC
AACTTCAGCAACTTGTGCCCCCTCCACCAATAATAAATCTCTTACCATAAATCTTTTTT
45 TAATGAGCTGTGAATTTCAAAGCTCTTTACACACTCACAACCTCTCCATTCTCTCTTTAG
CTCCATCAATATCTTTAATCCCTTCAACTTCCATATAAATAAATCCAATTTTACCATCATC
TTTAATGAATTTGTTGAGTATAGGTTATATTCCTCCCAATTCAGAAAGAATTCCTTAAG
TTTGTGCAAACTCTACTTTATTTTCTGCCTCTATGCTGATTCCAATTTCCATGTTCTC
ACATTAAATTTATTTAATATTGATGAAATCATCAAAAATAATATTATTTAAAAATTTAAA
AGAAGCTATCGCTATATCATTGGTAATGTTATCTATTTTCATCAGTTATGCTCTCAATTA
50 CATTATCTACTCCCTGTCAATTTCTTCTATTGTGCTTCTATTGTTGTTTCTATTCTCT
CAGAATTATACCCATCAGCTTCGTTATTTTCTGTTATTTATTTATCAGATCTTCTATTGCAT
CAGTTATCAACTCTCCAGCTATAAATCCACAGCAACAGCTGCAGCAGTTCTTAATAAAT
TGCTACTATCTCTCAACTACAACCTGTTCTATTGGCTGTTCCATTTACAGTCTTATTCT
TTCTACTAAATATTAATATCCAGTATCAATCCAAAACCAACTAAAATAAATGCTAATC
55 CAAAAATAAATAAATAAGGTTAGTGCTGTCATAACCATCACATAAATAATTTTAAAT
CTTCTTCTAACAGCTTCAGCATGCCCAACCAACCTTCAGCTTCAGCTAATGTGATAACA
ATATCAGCAATATTTTAAAGCTTTCTTATCCAATTTTGTATGTTATTTCTTTTAAA
AATGCTCTCATATTCAAACAGAACTCATTTCTCGCAAACTGTGAAGTTGGCAGAACATGA
TTAGTTCCAGAAGCATAATCTCCAACAGGAAGTGGGCTATACTCTCTTAAAAATACACTT
CCAGCATGTTTAAATTTTATTTAAACTTCTCTGGATTTTATGTTAATATTTCAAGATGT
60 TCTGGGGCATATTTATTTGAGAATTAATACACTCTTCTAAATCACCATTAATATGGCA
GAGTTTCTAAGGCTTTTAAATAATCTCCTTTCTTTTCAGCTTTTCTATCTCTTCAAAT
ATCTTGTTTTTAAATCTCCTCTGCCTTCTTTTCAGATGTTGTTGTTATTACACAAGAGGCG
TTAGGGTCTGTTTCAGCTTGGGCAATAAATCTAAGGCAACAACTCTGCATTAGCTGTT
TCATCAGCAATAATTAACCTCTGAAGGACCTGCTAAGAAATCTATGGCAACTTCTCCA
TAAACCATCTTTTATAGCTGTTGTTACATATATATTTCCAGGCCCTACAATAATATCAACC

TTTGGGATAGTCTCTGTTCCATAGGCTAATGCCCTATAGCTTGAACCTCTCCAACCTTA
 TAAATAGCTGAAACTCCAACAATATCTCCTGCTATTAAGGTAGCTGGATTTCCTTTCCCA
 TCTTTTGTAGGTGGGGAGGTTATATATATCTCTTCACATCCAGCAACCTTTGCAGGAATT
 5 GTTGTCAATTAACAGTTGAAGGATAAAATGCCCTTCTCCAGGAACATAGCATCCAACCT
 TTTTCTATTGCTCTAACAACCTGTCTTAAATTTATCCATTATTTCAACATTTAAATCT
 TTTATTTGCTCCATCTGCTTTTATGGAAGAAATAAATGTTTTCTTAGCTCTCTCAATA
 GCTTCAACAACCTTTATAATCAACTGAGTTATAAGCTTCTCTATCTCCTCATCTGTAAC
 TTAATATCTTCTATTTCTACACCATCGAACCTTTTTGTATAATATTTAATGCTTCATCC
 10 CCTTTTCTTTAATCATCTTCAAAATCTCCATTACGTTGGCAATATTTCTCAAAGTTT
 GCTTTATCTCTATTAATTTCTCTCTCTCTCTCTTTGTTAATTTCTTTAATTTTTTTA
 ATTATCTTCCAGTCACCATAGATTTTAAATTGACAAAGTTTATATATAGTCAGTGCTTA
 TATTATTTACTGTATAAGAAAAATCAAGGTGAGAAAATGATACTCTTCGAGTGGGGAAC
 TTATAACGCTTTATCAACATTAAAAACAGGCAGCATTATTGGGGACAAGAATTACAGAAAT
 15 TCCACCAGCAGTGTTATCAAGAAGATTGCCATCCGGATACTATGAGAGTTATAAAAAGTT
 AGGTGGGGAGTATTTACATCAATCTTAGCTCATGGGCCTTATTATAGCTTATCATCAGA
 GAAGGGATTGAAGGTCATCTTTCAGCCATAGAAAAAGCTACACTATGTGGAGCTGAGAT
 ATACAACCTACCCTTGGAAAAAGAGTGGGGGATGAPTTAACTACCACTTAGAAGTCTT
 AAAAAAATTCAGTGAAGTTAATAATGAGATGATTTACTCTCCAGAGCCAGCAACAATAT
 20 TGGAGAGTTTGGAACATTAGATGAGCTTGAAGAGTTAATAAAGCGGCTAAAGAGGAAGA
 TATaAAAATTATTCCATCATTACAGTTAGAAAACATATTCTTAAATGAATTGGGAGTTTA
 TGAGAAGGATGATTTAGATGAAGCAGCTGAAAAGGCAGATGTTGATTGGTGGCTAAAGAT
 TTTTCAAGAAGTGGATAAAATATCAGATTATATAATGCATTTTCAGATTTTCACAGGTTAT
 TGGGCTTAAATATGGAAGAGATTCTATAAGAAGAGAGTTTCTTTAGGAAAAGGGTATCC
 25 ACCAGTTGAGCCATTAAGTGAAGCTTTAGCTACATACTTAGTAGATAACGCTACAAGAGG
 GGGATTTAAGAAAGTTCTATTGTCTATACCGGATTGCCAGAGGTTAAGTATAGGGATT
 AATTGACTTGTATGCAATGATTATGAAGAAATCCATCGACAAGTTGATGAGTAGAGAGAG
 CCAGGTTGAATATGGCGATTTCTATAAAGTTATGAGTTCAGAAGAGGAAGAATAAATTTT
 CTATTTTTTAGCTTAATTTTATATTGCATTAAATTTAAAATATTTTGCTTTTTAATTTT
 30 AATTAAATAAACTTTTAAGGGGAGAGAATATGATATGTTTGCCAGTAGTTGAAGATAGT
 GTAGAAAAAGCAATAAAAAACAGCTGAAAAGTATTTAGAAATAGCAGATATTGTTGAATTT
 AGGATAGATATGCTTAAAGAAGTTAGTGAAGAAGATATAGAGAAATTTGCTAAGTATCCT
 TGCATAATAACTGTAGAGCAGATTGGGAGGGTGGTTATTGGAAGGGAAATAATGAGGAA
 AGATTAACTTAATAAAAAAGGCAATTGAATGCAATGCCAAATTTGTTGATATTGAATTG
 35 AGAGAGGAGAAAAATAAAGAACTTGTAAATTTAGAGATGAAATTTGGTTCAAAAACAAAA
 ATTATAATTTCTTATCATGATTTTGAAGAACTCTCTTCTAAGGAAAAATTGGTAGAGATT
 GTTGAAGAAAGCTCTTAGCATTGGAGATATAGCAAAATTTGCAACAATGGCAATAGTAAA
 GAAGATGCTCTCAATATCTTAGAAGTGATAAATAAATATCTTGGAAAGATTATTGGTATT
 40 GGAATGGGCGAGAAAGGGAACCTAACAAGAACTCTTAGGGGTTTATTTTGGCTCAATATTA
 ACGTTTGGCTCATATAAAGGGGAAAAGTTCTGCCCTGGGCAGGTTGATATTGATACATTA
 AAAGAAATCTGGAGACTAATGGATTTAAAGTAAATTTAAATTTCTTAGCATAATTTTCAGC
 TAATTGTTTATGTTCTCTACCTCCAACCTTTTAAATTATTGAGAAATATTTTCTAATGTC
 ATTTATCATCTCTTTTTTGTCTCTTCATTAATTTTATATTTTGTGGCTAATCTTGA
 45 GTAGATAACTGCTATCTCCACCAATAAGCCGTCTGCCCTATTGTATGGCTTTGGGATGTT
 GTTTAAATATATCCTCTTTTATTTCTCTCCCTCTAAATCATCAATCTGTTTTTCCAAA
 TTTATCTTCCCTATCAACAACTTTCTTCGATAACTTTGTAAATATAGCATAAATAAGA
 GCTTTTTAGATAAGGAATGTCATTATAATAAGATAATCATCTCATCATCTAAAACCTGC
 CTTTGCTATCTCAATTGGTGGAAACCACATTAAGTAAAAATAATCTTCAGTTAAAGATT
 50 TTCATAAGTATGAGAGCCAGAAAAAGATGCATAATAACTTTTTTATCTTTAAATAAAC
 ACCAATTGGGGCTTTATTGTCTCTATTATTTTTCTTGTGTTACAACCACTTCACTTAT
 CATGGTTATCCCAAATTTACTTTTATGCTCTCTAAATCTCTCTCTCTCTGTATGATAAA
 TTTATCTTAACTCTTCCCTTATCTACCTTTTATTTAATGGAATTACCAATGGAGGATT
 55 AGCATTGATGTTTGTCCAGCTACATGTTTATCATCCAATATTGTATAGGTTCTCAGCTTT
 ATTCTAAGTTTTTACAGCTTTTTTCAAGCTCTAATCTATATTATAGCTTACTTCAATA
 GGATTTGTCTTATGAAATCAACTCTCTATAAATAACCTCTTCAGAACTTCTCTGAT
 TTAATATCTTCATCATAATAGATATGGCTCATTTTTGCTCTACAGTTGTATAGTTGAT
 ATTGCCCTAGCTGGGATTATTTAATCTCTTTTTTAAAAAACCTCTTCTATTATTGAA
 60 TTTCAACTTTAATCTGTGGTTCAATAATTAAGCAGTGTCTAAAGCTCAGCTATAACC
 ACATCAGCCTTCTTTAAAGTTGAAGTTGAGGCATCTCCTTCAATAATCTCAATGTTA
 TTAATCCATTAATTTTATATTCTTTAGCATAATCATAAGTAAAGGGTCAACTCA
 ATGGCATAAATTTTTTGTCTTTTGCAGCAATCATTGCTAAAAATCCACTACCTGTT
 CCCAAATCAAAGACAACGTCATCTCATCTACAACCTCTCTATGGCGTTTTTAAAGATA
 GCCAATCTCTCATAGTCAGTTAATAAGAGTAATGCCATTGTGGAACCTTTAGTCTTAAT
 TTCATGTTATCCCGTCATTTCATATTTTATAAACGCAATAAATTTATAGATTGAAAT
 GCGTAACCTATATGCATCAATTTTCATATTTTCAAAAATGAAAAATATATATAGGGG

5

10

15

20

25

30

35

40

45

50

55

60

ATAAGTTAATAATATTATCCTGTGGGGGAATAATACGAAATGTTTTGCTATTTTATCATA
AAGTTTGGAGATATGGCTTAATTAGATAATGTTAAACATAAGGGGAGGGGTTTTACGCCTA
AAACCATATTTATATAACATTTTACAGACATAATTTAAAAATATAATTTTGGTATTTA
ATCTCTTATCATACCCCTTTCTTTTGGCCATTTTCTCCTTAAACCTAATATACACCCCTCC
TCCCCTAAGCTCCTCAATAGGCCTTGAGGAGTTCCCAAACAGTTCATACATCTTGGCAT
AACTGAAGCACCTAAAGCTAAGCCATCCTCAACAAACACAACATTTTCTCAACTTTATC
CCAAATTTCTAAAGTTTAAAGCTTCTCAATAATTAATTCTGGCTTCTGCCAGTAATCCC
AGCCCTTCTGTAAATTCCTACAGCTGACTTTTCTACTAATTAATCCTTTTTTATAAGCTAA
CTCTACCAACCTTCTAACAACCTCACTCATAACATAGTCTAAACAGCACATCAACGTTGG
AATATCACTCTTTTCAACTAATCCCTCCCCAATTCTTCCAATTTTATCAAATCACTACC
ATTCTTACCAACATCAGTCCAAATTAATGTAGTTCCAGCCCTTTTCCAGCGACTTTGGGTC
TACTGGGACAGTTCCAAATCTATCAACATCTTTTGGGACTTCTTAAATAATTATATATTT
GTGCATTTCTTCCAGCATATCTCTAGCTAATTCTTCATTTGGCTTCTCTTTTATATTTGC
TAAATCTAAAGCCGCTCCAGTCTTCTCATCTATTTTCCAGAACCCCTTGCAATTGCATC
AGCTATAGCTCCAGCTAAACCCGATAAATTACCAATAACCTTTGCATAAGGTAAAGTGTC
ATTAGTTATTCTTACCAGCCAAGGTTGTTCCAAAGTCAATACTCATACAAGGATTTCTGAA
ATCTACATCTGTCCATTTACTTCCAACCTTTTATCTCGAGTTACAAGCTCTCCTTCCAT
CTCGTTAGCTACAACCTCCTTTCTGTAGGAGGCAGAACTCCAGTAACCGCTCCATCAAA
TATAATCTTATCTAAAAAGAATATTTATCAAACGGCTTTGGTATCTGTTCTTGTAGTCAT
TGCTGGAGTCATCTTGGCTGGAGGAAGTCCAGCTTTCATACATCCTTGAGCTAAGGCAAT
AATCATCTCTCCAACCTCTTCTGGAGATGCAAAACCTGCAGTAAGTCCAGTACTTCTAAC
AACAAAGTGTAAGTCATCAACAGTTAGTCCAGCTTTTTTAAACTCTCCAACAAAACCTC
TTTAACCATATCTGCAACTGCCTCTCTGTTAAATCAACCCCCATAGTGTCTCTCCAAA
AACTTCTTCTCCTTTCTTTGGCTTTCTGACATCCCTTGTCTATCTTCAAGTGTCTGTAAAC
AATGTAGGTTTTACCAGTATCCATATTTGTTGCTGTTATGATGGATTTTGTGTTGTATT
TCCTAACTCAACTGATGCCACTATATAGTAAGGATTTCTTTTTAACTCAATCAAATCTAC
ACTTTGTGACTTTGCATAGGCAATTTTTGGCTTCTTTTTAAACAGTCTTGAGATGACATC
AAAGATTTCCCATGCTACCCCTCTCTACAAAAATATTGCAATAAAATATTATCTCTGGCT
TATGGTTTATAAAATCTCCCTTACAAATTTTTAGATAGTGCAATAATTGAAACTATTGG
CGGAAGTCCCAAGGCTTCTTTAAATAAAGAGGCATCGCAACATACAAACCCCTCTTAAC
CTCAAACTCATCAACAACCTAAGCTTAAACTCCCCCTGGATGAGAACCCCTTGGTATAGT
TGTGTATATATCATCAACACCCAACTTGATAAAATATTTTGTGCTTACATATACCTCT
TGCAAGAGTTTTGAAATCTTCTTAGTTATCTCTTTTTTAAACGTCGTATCTAAAACAC
TCCATTGTTTTCATCTTAACTCTTATCATAATCCCCACAATATCTTCTCTTTCACATC
CTTATAATCTTTTTTATTTCTGTTAATTAGTAGTTTTGAATAATGAGTTGCCAGCATGAA
ATTTTTGTATTTCTTATAAACAAGCATGGAGATGCTTTTATTTAGATAGCTATCTTCTAA
AATCCCAACACAGTAACAAAGGTATCTATAAATAAGTTTTTCCAATATTCTCATCTGC
AATCATTTTTTTTAGAATCTTGGAGAATTAATGCCTCCAGCAGAGATTATGAGATTTTT
AGCTTTAATCTTTCTACCTTTATCATCTAAGATTTCTGTAATAATTGCTATAATTTATTGC
TTTTATGTTAAATTCAGTGATTATATTTGCATTTGATTCTTTTAGATAATTTAAAGGCGT
CCATTTAGCTTTGCATATCTTTCTGACACTCTCCACATTTATTGCATCTATCAAAATC
TATAAAGCTTCTCCATCTTTTCAAAGCCAAGTTCAATAAAGGCTTTATCAATATCATTTAA
AAAATCATCTTTTGGAGCTTTAATTTTTAATTCTTCCCAAATTTCTTTATAGATATCTTT
GTCTATTTTGTAGCCCTTAATTTCTGTTTTTATGGCATTTCCTCAAGGAATAAAGTCCACT
CCCTCCCAAGCCATAGACATAATTTATTTCTACATCTTTCTCTGAGCATAACTTGG
CTTTTTTCCCTTTTCTATTACTGCCACTTTATACCTATATCTCAATTCCTTGGCTAAGGT
GGCTCCAGCCACTCCAGAGCCGATAATGGCAAAATCATACATGGCTAATCCCTATTTTTG
CATATATTTATTGTATAATTTCTAATATTTTCATCTTCTTATTTTCTATTATCTGTTGTT
ATTACTAAACATTGAGTTATTAATCAATCTTTCAAAGTCTTCTATCTCTTGAAGATAA
TTTTAATAAACTCAGCTCTTTTACAGCTTTTGCACATTCAATTTTCAAGATAAAGTCTCCA
TTCTTGAAGGATATCCATATATTTTTTGAATTTTTGTTTCATCAATAGCATCTTTGGTGTA
TAATCTATCTTGATTAATGAATGGAAATGTATTTATAAAATCAAACCTTTCTTTAAATC
AGGTTTTGCTATTGAATTAATAATATCCAATATTTTTTTCATAGTATTTTCTCTCCAGA
TAAAAAATCCCAATCTTCTGCAATTAACCTCTCTTTTATCAAAATACTTGGAAAA
TTCTATTAACTACTCATGAATCTATCTTTATCATATCCACAAGGATTTTCTGGATTTTC
AGTAGGTCATAGGGAAAGCCAATAAATAAAGTCTTTTTTATTTGGTTTTGTTTCCAT
CATATAGGCTTTTCCATAAAGAATTTTTTGTTTTTTCTCTCTCATTTTCTCCAGCATAGG
TCTAACAGTTTTTAACTCAATCATTACAACCTTTATCTTTATCTTCAAATAAATCATCTGC
AGTAAATTTCTAACCCATTTACATATTCAGAAATTTTTTGAAGTAGCTTCTTAAATCTTT
ATTTTCTTTTTCCACATTTGGCAATCTTCTCCACTTTTTTAAATCATTTATAATCTCCGA
TATTTGTCTCTAACACTTCTTTAATTTTATAGTTTTTAAATGTCCTTTTTTACCCTT
AGATAAAATATGAGCAATATTTTCAAAGTAGCTCTGCCCCAATGTTGTGCTTAATCCATG
AAACCACTGTGATAAGTTAAAACTTTAATGCTTCAGTATCATCGTTTATCCCAATCTT
CCCATAAAAAGCCCTTAAAAAGCCATATGGAATGGCATGTTTCTTATTTTTATGTCTTC

-166-

ATCTGATATTGTATCAAATCTTGATTTTAATACTCTTATTGTCTCAATGCTAATTTTTTC
TATAACATTTTTACTTAGTGGCATAGCTATTCCTCCATTTTTAATTCAAAGATGCTTTCA
TAGTATGGGTTTCTATCTCTTCTGTTCTATTTAAGACCGGTCTTTTAACTCTCTAACT
5 AAAATAAGCCCACCTTTCTCAAAAATCTCTTATATAGGTTCTTTTATCATTAACATA
ATGAAAATCTTTGCGTCTTCATTTAAAAATCTTTTCATGTTGATTAAAAACATCGGATATG
CCTTCAATATACTCTTTTGTGCTTTTTTGAACACCTTTAAATTTAGGTCCTATCTCC
AACTCATCCAATCTTGGAATGTCAAAAAGCTCATAAGCATAGGCATGCTGCTCATGATAA
TCAATCTGCCCTAAATAAGGAGGAGATGTA AAAATACCATCAATTTTTTGT TTTTATAA
10 AGTTCATAAAAGTTTGGGTGTTTTTTAGTTCCTTCTCAATATCAACAGTCCTTGAATCT
CCATTAATGATTAAATAATATGCATCTTTCCTAATCTTTGAAAATCTTCTATTCTACTA
ATTACATCATTTGTATATTCTTCTAAGTGTCTTAAATTTGTTTGAACGGTCTGCAAAAT
TTTTATGCTTTATAGCAATAGTATGGGTCAAAAACCTGGCTCTTTTAGTGTGGCTAAATCA
AAATGAGTAGTTCTCTAACAGACCTTGCCGTTCTACTCAAAATTATCATTGCCATTTT
15 TTTATTGTTTCATCTCTGCAGTCTTTAATTAAATTTAAATAAAAGTTAATTCTGCCCTA
ATTCTTGGAGAATACCACTTATATAAAAATGGCTTATCTTTAAAAATGTCATCAAACTCA
TCATCATTTTTTGCAGTATTTTTCTTAAAGTTTTTATACCTAAATAAAACATTTCCATG
ATTTTTTCGGAATAGCTATCTTCATCAATTTCTTTTTTGATAATTTCTTTTATATTCT
AAGGTAAAGTATTTTTTGTGATTTCTCAATTAATTTATCCATTTCTTTAACAATTTCA
20 TCATCTCCTAAATTTTTGAAAATTCCTTTGTTTTATTTAGCATATCTAATAAAATTTTC
TTTAATTTTTGAATATCATATTTCTGCAATTTAACTTCAGCAATTAACAGTTAAATGGT
GATATATCAATGCCAATAGAAATTAATGCCCATCTCCATACATTGCACTAATGTTGTTCCA
GAACCCATAAACGGGTCTATTATAATATCTCCAACGTTAAAAATGCCTCTTTAAAAATAC
TCTACCAATTTGTGGAATAAACTTCTTTGTATGGGTGAATTCATGAACATGTTTAGTT
CTCTCCTTCTCAGATAACAAATCAATGCTAAATCCCAATCCAATTTAAATCCCAATTTT
25 TCTTCCCATTTCTTTCTTTTTTCAAAAATAATTTTTATAATAGTTTTCAACCTCATCA
ATATCTACATAAACCCCTATTTTTGATTTTATACTTATTGACTCTTCCATACTGCCTAAA
TATGAATATTATGCTCTTAAATTTCTTACCAAACTTTTTTGTTAATATTCTTGATGCC
TCTTTTATTGTGTAAAGTTTTTTTGTGCTGTATATCTAACCATGCATCCAGATTCTATA
ATTCTCCCTATATCCTCATCCTCATCAAAATAAAGCCTATAAGTGTCTATATCATAAAC
30 CCATCTTGTTTATAAACATCCTAATTACTCTTCTGGGTCTTTGATTTTGAATTTGCTC
TACCAACGATTAAATTTGATATTCTTTTAAAGCTCTTCAACATTTCTCCACACCACTC
CTCCAGCAATTGCTAATAAGCAGTTTTCTTAAATTTCCATTCTTTTAAATTTCCAAATG
TCTCCTCATCAATCCCTCTATGCAAGATAACAACATCTGGCTTTAATTTTAAATGAATCAT
ATAATTTTTGAGGTTCAGAGACGTTTCATCATATCCAAATAGCTGATTAAACCACATTTTT
35 GACATTCTGTGGATAGCTTTAATTATTGTTGATTTTGGTGCTACTCCACTTATTGCCACTG
CATTAGCTGTTGCTTCAAATGCCAATCTTACCTCAACCTTCCAGTGTCTAAGGTTTTTA
AATCAGCAACAAATAAGCCATCAAAATATTCTCTCATTTTCAATAACCTCTAAACCAA
ACTTTTTAATTAGTGTGTTTCCAGCTCTAAGATGATGTGGTCTGCTATTGGAATTGTTT
GTAACAAAATTTCCAAATTTCTCCATAGTTGGGACATCCAAAGCAATTTGTAGATATGGAG
40 GATACTCCAATCTAACATCCCTAAATCCAACCTAATGGATGCAAAGCTCTATATTTCTCTT
TCTTTACCTTCTCTTTGAAGGATATTTCATTTAAAGCTCTGTTTATAGCTAACTTTGCTG
AGGCATAGAAGTATTGGAAGAGTTTTCTTTTATTTAAATTTGTTATTGGAACCTCTGGGA
CATTACAGAGACAACAACCTTTAAATCTTCATCTAAATCTAAATCAGCAACTGCCCTTGG
45 CAACCTGCATCTGAATACTCCCTGAAATAGCTCATCTGATCTCACTCTCTATATTAT
GCCTTGGAACTAAGGTTAATGGTTTAACTATTAAATTTAGGCTTTAAATTTGGCAAAAA
CACAATTTCTCTTGTAAAGCATTGTAAAGGTATTCTCAATTAACCTCTCTTTCCCTA
ATGCAACATTAACCTATTGCCTTAATTTTCATTTCCCAAACTGCTTCTCCAAATTTTATCA
TATTAATCCCTTGATAGCTATTTTATTTAAATTTAACAATTTTCCACTCGCATCTCTATA
50 TACTCCCCGAACAACCTTTTTAGAAAAGGTTGATCAAAACTAAATATCAATACCTTATAA
TGTTAATAATAAATCTTCTTACCGCTTGCATCTCTCTTATACTTCCCAATTTCTCTAATA
AATTTCAACTTATCTCCCCAAAATACCTGGCCCATCTTACAAACACAAAGTCCCTCATCA
TCTACACAACACTGCCACAAATACCTATACCACACTTCATATACCTCTCCATTGAAACC
TGAACCTGGAATATTATATTCAATTTGCTATTTCTACAACCTTTTTCTCATTTATTCTGGC
55 CCACAAGTTATAATTAAATCAAATTTCTCTTCTTTAAGGACTTCTTTTCAATTTTTCAGTT
GTAAACCTTTAAATCCAAACTACCATCATCTGTGCAAATCTCTAATCTGCTAACTTTT
TCAAATCTATCCAAAATAATACTCTTCTTTAGTTCCTGCCCCCTAATATGGTTGTTATT
TCAATTTCCCTGCTTTGAAAATTTCTTCACTGCTGTTATAATTTGGTGCAGCTCCAATACCT
CCAGCAACTGCCAAAACCTTATCTCCTATTGGCTCAAAATATGTTCCATAAGGCCCTCTA
ACTCCTATTATATCTCCTTCTTTTAGTTCATGCATTTTTTTGGTAAATTTCTCCAACCTCT
60 GCAACACTAAAACCTATTTTTAGAAGAAAAACCAATGGTTTTTCATCAACTCCCGGAAGC
CAAAGCAATTGCAAACTGTCCCGGCTTAAATCAAATCTTTATCTACTACAAATGTTTTT
ACTGTTGGGCTTTCTTCTATTATTTCTTTTATTCTACATATAACTGGTTTTTCCATAATA
TCACCTGAATTATAAAATTTCTATTAAAACTAAAAATAAAATAAAAACTAAAAAC
TTAAATTTATTAAATACTTTTACAAATCATTTATTGTTCTAACGACTTTTCTTTTCTA

5 TCAATTTTACGATTAAATCTAAGCTAACTGGTTTATAATTAATAACTTCTACAGAAACAT
TAATACTCTTCCTTTTGGGATTAATAAATGGATATTCATCTAAATGGTTTGGCTGATGAT
GCCCATGAATTATCCAACCATCGAAGTTTAAAGTATAAGAGCTGTCTGGATTATGAATTA
GCATGAATTTATAGCCGTTATATTCAATAACTCTAAACTTCTCACCAAACTTGTCTATGAT
10 TTCTCTTTATAAAAAACAATCTCCCCATTTAACAACCTCTAAAAGTTCTCTTGCTTTCTTG
CCTTATTTTTTGCTTAAATCAAGTCCCCTAAAAATAAACAATATCCTTATCCCTAACCA
CATTATTTCCAATTTTTTATTAGAGTTTTATTTCATCTCCTCAACATTTGAAAAAGGTCTAT
TGCAGTATTTTATAATATTTGCATGGTTAAATGCGTATCAGAGATGAGGTAAATTTTTTC
TCATAGACATCCCAAAAATTATATAAATTATTTAAACCATGCATCTAATGTTTTTTGCT
TAGTTTTGTTTGCATTAAGTTATAGAGTTTATCAACATGCTTTTTTAACCCATCATATAAT
TAAAGTCATTTTCATCAACTAAGAATTTTATAATTCCTCTTTATCTGGCAATTTTAGGC
TTAATGAATAGTTATCGGTAACCTTTGGCTCTTTAAATATCCTCTTAATCTCATGTAAT
ATTCACCTCTTTTTTCAAACATCCTTAGCTACACCACTTCTAACCAATTCATAAGCCC
15 TTTTAAATCCTATTCCTTTAACTCCTCCTGGATTATAGTCAGTTCCCATAAATATGGCTA
TATCTATAAATCATCCAAAGAAATCTTAAATCCTCTAAAACCTCATTTAATTCATAATA
GTTCTGGCATCTCCTTTGTAGTTTAAATTTCTAACAACCTCTCGGAGCTCCATATAACA
AGGCATCATAATCTTGACTTACAACCTGCCAAACATCTCCCTCTTTGCCATATAGCTTG
CTTGTCCTCTCCCTCAGAGGGAGCTTCAACATACGGAATGCCCATCAAACCTAACAAT
ATTTGCAGTTTTCAACCATTTTCGGAGTTAGATAGCTAACCCCTCTTGCATACCTTAGCAG
20 CTCTCTCAAATCCTCCTTTTTAATTCCTCTTTTCATCTTAAGTTCAGCTTTCTCTTTCA
TCTCTCTCCTAATTTCTCTGTTTTCTCTCTTTAATTTGGTGGCTCACCATCAAAAACCC
AGATTGGAGTTATATCATTCTCTAACAATGTATGGTTTTATAAAAAACTCCGTTATATG
CTGAGGTTATCTCTCCTTTCTATTTCTCAATGGAGAACCATCTCTCAAACGTATAGATG
TTAAAAACTGATATAATGCATTCATTCCATCAATAGCTACTTTTTTCCCTTTTAAATCTT
25 CAAAGGAGATAATATTTTTTGAATAAAATCACCAAACTGCACTCCCATGTTATCCCTTA
CATTTAATCTTAACTAAAAATTATAGTGTTTTTTCAAATTAATAAAATTTATTGATAAAG
ATTTGAACGCCTTCCAAAGAAGGAGTTCAATTAATACCTTAGTTATTTAAGAAGTTTGAAA
AACACTATATAACTGCATAAAAGATATTTATAAAAAACGGTTAATTTTTTAAATTTCTA
30 TAGAAATCCATAAAAAATAGACAAAAGTTAAAAATTATTGTGAATACTGCTCTGCTATATC
TCCAATTACTGGAAGCTTAACTTCTCTCCTTTGTATGCCTTATACATACACACAATCCA
CAAAATAAAAGCTGCCAAATTTACCAGACCCTTAGCATCCATCCATAGGGTATAAATGC
CAATATTATTGATAAAACCCAAAGTCTCCGAATAGTATTATGGATTGAAGTGCATGAAA
TTTAAACAAATTTACTTTCTTTTCTAATATATAGAACAATATTCAGTTATTACTCCAAA
TAGATAACATAACGCTCCTTCAATATTTTCATCTAAACCGAGTGAAGTTTTTCCATAAA
35 TATCACCTATATATACGTAAATTTTTATAAAAAAGGATGAATTTTATTGTGAAGAGTATAT
CTTACCTTTGTAGTATCCAACAAGATTTCATTTGTATCTGGATATAAAATTTATTGTAT
TGCAGATTTATTGTCTTTTGAACATACCATAAACACCATTCCTTCTCCAGATTGCCCTCC
TCCTGCTATTCTCCACTACTTTCAAATATCCAGATTTTTTTTATTGCCTCATTCCAGCTT
40 TTCAAATCATTAGTGGTTATTTTTCTCTTTGGAACATAAGTCAATACAATAGACTCTCC
TTCATTTTGCTTTCTGTTGAAACATATTCCATTAAATTTAACTTCTCCAAACACTTCATT
TAATATTGGTCTAATTTTCTCATCAGCTTCTTTTGCAGTTCTTATGGCTGGACATCCCT
TATTGAATTGTAATCAACCCCTTCATCTTCATTTTGATATTCTTCTCGGTTTTTCATTTTG
45 TTGTTGTGTGCAATCTGTTCTTGCATATTTTGAATCTCTTCAACATTCTTCTCTCAAT
GCATCCGCTAATGGTTATGCCACATCCTAAAACACTCAAAAAATATTAAAAATATTAAAA
TTTCTCATAGTCCCACCGTAGAATTTATAAAAAATCTTATGCTTGTATGCTTTATATA
AATTTTCTATCTTTACAATTTTAAATTTGGCTATGGAAATTTATTGATAATAATACAAAT
TGTGAAAATATTATCCAGCTAAAAATATTATAAATAAGTAATTTAATTTTTTAAAGTTATA
TAAAAGGTAAAAATTTTACAAAAATAAAATAGTCCAATTTATCTCCCATTAATCATAG
50 CTTTTCTTCCAAATCATGTCAATATCTACACTACCTCCTTGGAATTCACCAATATCTGC
TATACTACTATAGGTTTCTTCAATATCTCCCTCAATCTCTAAATAAGCCCTTTTTAGCTC
CTCTATATTTCCCTTCAGTTGTTTTCCACAATCCTCTTTGATAAGCCTCCAACAATCTCCT
TGCAATCTCTTCTAAGGCATAGATGTTGTGTTCCCTTAAAGAACTTTCTATTCTCTTCATT
TTTCACGAACGTATTAAATATCTCATCAAAATATCCAATTCACACCTCTTTTGTGTAGC
55 ACTCCAGCCATAAACTCTGCCAATTTCTTGGCTATATCTCCAGCTCCTTTGTAGCCATG
CCTCTTTCATTCCCTCAATCCACTTTGGATTAAAGAGTTTTGTAAAGCTAACTCTCTCAAT
TTCTTCTTTTAAAGTTCTTACTTCAACATTGTTTGGATTCTTGTATCTCCATAATATGC
CTTAACCTCTTCTCCTTTTAAACCCCTTGCGGCATTTGTTAAACCTCCATGCGTTCCAAA
GTAGCAACAACATCCAAATAAATCATACTCATCTGTAACAACCTTTATTAAATGTTAAATC
AACTGTCTTTAATATATTTTCAAATGCATTAATCGCCTTCTTTCCATAGACATCCTTTCC
60 ATAGGCATAGGAGTTCCAGTAGATAAATGCATCTTTTAAATCTTCATCATTTTCCCATGC
ACTTGCATACACTGCATATTTAACACCATTTCCATAAGTGCCAGGAGGAGAGCAGAAGAT
TCTAAATGTTGATTCTCTAAATGATAGGCCTTTATTTAAGTTCTCAACAACATGCTTCTT
TACAAAGTTTCATCTCCAATGGCTCATCTAAGTTAGCACTTTTATTATTGCCTCATCAAC
AAGCTCTATGCAGTTTGGGAACATATCCCTTGTTATTCCACTAACTCTAATGGTTACATC

-168-

AATCCTTGGTCTTCCCAACTCCTCCAATGGAATAACTTCTAAGCCAACAACCTCTCCCTCC
TCTATAAACTGGCTTAACACCCAATAGATATAAAATCATCCCCATTCCTTCCCCATCAGC
CCACATTATATCAGATGCCATCCAATATAGAGCTATGTTTTCAGGATACCTTCCCTCCTC
CTCTAAATATCTATTAATTAATTTTTTCAGCTAATAAAACCCCTACTCTATAAGCAGATT
5 CGTAGGAATTCGGTATGGGTCTAATGAGTAAAAGTTCCTTCTGTTGGTAAGATATCATA
GTTTCCTCTTGTATCAGCCCAGAAGGCCCTGGCTCTATATATTTGGCATCAATGCCTCT
CAACAAAGAGCCAATCTCATCTGATTTTTCAATTCTCTCATTGATATCCTTAATCTTCTC
CTCTAATTTTTTATCTTCTATACTCTTTCCATTTAATACATCTGAAACTTTCTTCTTTAG
10 GTTTTTATCTTTATACTCAAACCTCCATAGGGGGAAGCCCCCTATTGGGATACCCCGGATG
CATTGCCTCGCTTCGCTCGGCAATGCCTCTCCTTTTACTATTTCATAGTATTATTCTGGAT
GAATATCGCCTCTAAAATACTCTTTATAAACTCAACTCTCTTCTCTCCACTTGGGAAGTTC
TCCAAAGATTGCATTCCATCATTGCACCTTCGAGTTCTTTATCATCTCTAAGATATCTCT
TAGCTCATCAAAATATCTCTTTAAAGTTCTCATGGATTTTCCCTCTTTTTCAATCTTCTC
15 AATTTTTCTTTAATTTTCAATAAATGGTTTTTTAACTTCCTCAACTATCAAATGCTC
TAACTGATGCCTTCTGAAGCATCCATCTCCTTTAAATACTCCTCTATATAGCTATCTAA
TGTCTCCAACCTCTCATAAAATGCATCAACCATAACTGTTTGCATGTGATCAATAAATAGT
TGCATAGCTTCTTCTTTGCTATAGTTCCCTCTGGTGGATTATCTGAATTATAAATATA
GAGATGAGGAATATCTCCAATACAGATGTCTGGATAGCATTGTTAGATAAACCACGTT
20 TTTTCCAGGTAAAAATTCCAAAGTTCCATGAGTACCAACGTGGATTATTATGTCACGAT
GTCATTAAAAATATTTATATGATGCTATATATTGATGAGTTGGTGGGCAATAAGGGTCGTG
TAATATCTTACAAACTCTTCCATCACATCTTGCCCCAGCACATCCTCTTTTTGGTTGAAC
ACAAACATAGACATTCCCAAACTTTAAACCAGTTATAACTATCTTATTTTTTCCATTAACT
TTTATAAATCATTCCTGCTGGGATGTCTTTACCATTTAAATCTCCCCATGTTTCTAAAAAT
25 TTTATTTTTTACATTCTCTGGCAGTGTGTTGAAGTATTCATAATACTCTTCTTCATCCAT
TAAGTATAGATATCCTCCTTTAGCTATAATCTCATTACGCTAGTCCATCTAACTCTGA
AATTGCCTTCTCTGCATAATTAGCTGAGCTAACTCCTCTCCATTTTCTGGAATATTTTC
TACATAGTAGCCCTCTTCTTCAACTTCTTCATTATGTTTATAACACTTTGAAAGCTGTC
TAAATGGGCAGCACTTCCCACAGTTGCCTCAACAGATGCACATGCATTGTTATGCAATAT
30 AAATATAACCTTTCTATCTTTCTTAGGTTTGATTTTAGCTCAATCCATCTCTTATTCT
TCTAACAACCTTTGTCTATCCTTTCTCAATACCAAACCTTCTTCTTAAGCCGTTCTCATT
TTCAGTAGTTCCAATGATAATCGGTTCTATAACCCCTTCAAACCTCTGGCAAGGCTATAGT
CCAACCAATATCTGCAGATAAAACCTTGCTCATCTTTTCCAATCCTCATAGCTTTTATA
ATAACTCATTATTGGATGAAATACTGGCACATCTAACTTTTTAAGTATCTCTACTCCAGA
35 GATTTTGTTTAAATTAGCCTTATCTTTTACAGTTCCCAATGGAAATGACAGTAGATTGAT
TAAGGCGTCTATTATTGGCTTATCATCTTTAAGGAAGTATTTTAAACACTCTCTCCACT
ACCTAAGGCATTTAAATCCTCACACTTAGCTCCATAGGAAAATACTGGAATTACATTGAA
TTCTTTGTCCAATCTATTTAATAGCTTCTCAATAACATCCATATCATCTTAACATAAATA
40 ATGCCCTTGAGAATAAAATCCCCACGTATATTTTATTAACTCAACGTCTTTTAAAAA
TTCTTCTAATTTTATATAAATTTTGCCTCTATAATAGATACCTTGAATGGATGCTTTAC
AACATCTTTATCTTTACCCATTAGATATAAAACCATATTTTGAAGTTATCTAAACCTCC
ATAAGTTATAAATAAATAACATTTAGCAGATTTTTCAGAAATCCAAAAGTTGGGTCTTG
GGCAACAACTATAACGTTTTTCAATGAACCTCTTATCTTCTCTAAATCAATATCATCTGA
TGATGTTCTATAAATAAAACTAAATCATAATCTTTTGCATCCTCTAAAAACTCATCATC
45 AATTGGATTCTGTTAGAATATATTTTATATTCAACATCTACTCCTTCTTTTAAAGCTC
ATCCAACGCTTTTAAATATTAGCAATAAGATGCCACATATAAATGTGATTTTCAT
AACACCACCGTAATATTAATAACTTATAATAACTACTTTAGTGCTAATTTTTGTAGATT
TTATTACTACATTATTACAATTTTAGTATTTATAATTTGTCTATTAATAATCATGATAAAT
TTCATAAAAAATAAAAAATTAAATTTAGTAAATAGAAGCTCCATCATTGTTGGTTTAGT
50 TAAAAATAACCTTTCCATACCTATTTAATTTTTCTTTTACCTTTTCAACATTTTCATCTTC
AACCATGGCTATATAACTTGGACCTGTTCCAGATAAACCGGCTGTTATTGCCCCAGCATC
TAATGCCGTCTATTGCTATGTTTGTGGAAAGTTTAAAGCTGATGCATAAAGAATTCCATT
TAAAAATAAAGCTTTGAAATAGTTTCCATTTATAGCCTCATTAAAGGCAATTTCAACATA
ATCCTTTATTAGCTTCATTCTATTTACATCAACATTCTTTTCTAAATTTGGAATTAATAT
55 TAAGACGTTTAAATCATCTCTCATCTTATCTCTTTTAAATTTTTCTTTCTATATTGTC
AGTTATTGTTATTCCCCCATAGTATGATGCAGTAGCATCATCATAAGCTCCAGTAACAGT
TAATTTTTTCATCAAACTTGATTTTTATCCCTAAATTTAATATTAGCTCATCATCTATTTT
TTCCCTAATGCATCAAACTGTTGCCAAAACAACCTGCGTTAGAAGTGGCTGAACACTACT
CAATCCAGATTTTATAGGAATTTCTGTCTTTGTTTCAACATAGGCAGAGTAATTCAGCCC
60 AAAATAATCTAAAGTATTTTTGACACATCTTACTATTAAATTTGGCTTAATGTTTGGATT
ATCTAAAACCTTTACCTCTATTTTGTTTTTTCCATCATCTATAAGTTTAACTTTGGCATA
AACCTTTAAATCTAATCCAAAAGCTGAACCCCTTACCTGTTGCTATAGCGTTTATTATTGT
CCCAGATGCTAATGCATAGGCTTTTCTTCCATAAAAAATCACTCCATTACTTTTGTAGC
TATAAATAAAGTGGAGCTGAACGAAGTGAAGCCCCACTCATTTTGATGAACCTTTATTAA
AGGTTTCATGATAATGCATAAGTTCTCCCTTCCATAAAACTCCCTTAGTTATTGCTCCAA

5 TTCCATAAAACCCACTCTATTTTCTTTAGCTTCCCTCTCAACATTTAAGAATTCATCCTTT
AACTCAAATTAATTATATAAACCCCTTGCATATCCATACTTTAAAGCTCTTCATTGAAG
TTTATTAAATTATTACTATTATTTATAAAGATGTATGCTAAATATCTCCCATATTTATCT
TTCTTTGGGGCTTCATTATCAAAGACAATTATAACTGTTTTATTTTAAAGTCTTTTTCT
10 GCAAAATGCTTAGCTTTATAGCCCCATTCTTTAAGTATTTTGTATCTGTTATCGGTGTT
CCATTTAATAAATAATATTCATACGGGTGTTTCTCTTGTGAATTTCTGGAGTATCTACC
CCTAAAGCCTAATCTTCCATAATTCCCCATTAACTTCAACATAAACAGTGTCTCCATCT
ACAACCTTAACAACCTTTCCGTAGTAGTGTTCATGAGTATCTACAAAAGAAGTGTAATTA
15 TTATAACTCCAACATCATGATAATAACCGTTAGAATTAGAGGATGAGAAATCAACACAG
CCACATAGAGTTGTGAAGATTAAACATAGATAGTATTAGGAATTTTCTCATAATCCTCCCT
CTAATCATTTTTAACCTAATAAATATATACTAAATACTTTAATACTTGCTATAATGATAA
TAAACAACAACCTCTTGTTATTTCAATTTGAAGCTCTTAAACATCTCCATTAACCTCTCC
AAAATGTCTTTTGGCTATTTTAGCCATACATAAGCCAGTAATTATTGTCGTTATTATGGC
20 AATAATAACTATCTTCTTTCAATCCCACTGAATATTAAAGTAATGGGAGAGATAAAAT
AATTAAATTTGTTAAAAATTTTTCATCTGCCTTTTAAACAAAGTATCTCCAGTTCCTTC
AATTAAAGGATTTCCAAAGGTTGAACAGCTTAGCATTCCAAGCTTTGCACAAACCTCTCC
AACCAATAGATATAGGATATTAATGTCTAAATATAAGATAATGATATGACTGCCATTAA
ATTAATAAATATTGCAAAAACCTACTCTCCACAGCCAATATATCTATCTTTTCATAGCCAT
25 TAATTTCTTTCTCTTATCTCCAACAGCCATCCACCCATCTCCAAAGTCAATTAACCATC
TATATGGTGGAATCCGTTTAAATATTCAATAAAAAACAAAATTAAACAGCAGATAAAAA
ATTGGGGAGCAAAAACCTAAAAATATAACCTAATATCAAACTAAAAATTCCAAACACATA
TCCAATTAAAAATAATCAGATAAAAAATAGTTGGCAATGTTTTCAAAATCAAAATCTTCTAC
ATAGATTGGAATCCTTGTA AAAAATGACAACAGTGTCTTAAATTCCTTAAACATTGTTAT
30 CCCCCAAAAATTTTATATTTTAACTCTTTTAAATTTTAAACAATATCTACAAGCTCTT
GAAGGGAGTTTATGTGTAATCGCTATATTCATCATCTTCCATGTCTTTATATTTGCCCT
TCAATATCCTAACTGTTATCATCCCAACTCTTAGCTGGTTTTATATCCTTATCAACCC
TATCTCCAACATATACTGTTTCTTCTGCTTTTAAACCCATTCTCTTTAATCCATATTTAA
AAAACCTCTAAGTGAGGCTTTCTTAAACCAATTCCTCTGAGGTTATAACATCATCAAAGA
35 ATGGATGAATTCCTAATCTAATAAGCTTTTCCATTGCTTTATAGTTAATCCATCAGTTA
TAACCCCCAACTTTAATCCCATTGCTTAAAGTTCATTAAATGTCTTTATTGTGTGGAT
AAGGCCCTTAATAATGCTACTTTAACGTTATGCTAGGTTATTATCCAGTAGTTATTATTT
TTGGGTCAATTTTCTTAAACAGCTTTAACTAAATCATCAAAATGCTTTCCATAATTTG
AACCTTTGTCTTAAATGATTTTGTTTAATATGTTTCAATGCTTCTTCAAAATCTATATTTA
40 AACCAGCATCTATCATTGATTTAAGTCTCTCTTCTTGAATCTCTACAAATTTCTGATG
AATTATATAAGGTATCGTCTAATCAAAACAAATTCCTTTATCATATTTTATTCCTTT
TAGCATTTTTTACCTTCTCTTTGACCATTTGAAACAATCCAACAAAGTCATCATCTCAT
TAACAGGAACAACAATTAATCTTAACCTTTTATGCCTCTCTATCCAACCTTCATTATAAG
CAGGAACCTTCTATCTTTATCGGTTCTCTGTTGGATTCCCAACTATAACATTTCTGTATG
45 GGAAGGGCTTTACTTCTATCTCTTTCATAAGGAAAGGTAGTTTCTCTAATATATCCTC
CTAAAGCCATTGTCAATCTTGGTAATAAAACCATCTTTGGCATATAATATCCCCCTTAAT
CTACTTGCAAAAATAATAATAAACCTCCCAAAATTTAACTTAACTAAAATAGTTTAT
ATTTATTTTTTATAAAATTATACATAATAAATAAAAGAGAAAAAAGAATGGGGAAGTTAG
TATTTAGTATTCTATGTAGTCAATAGCATGTTTAAATACTAATAAGTTCTGTCTCCAAC
50 TTTTACCATTATTTTCAATTAGAGACTCCTGTAACCTCAGCATCTAAACCTTCCCCATT
TCTTAAGAATATCTTGACCTTCTTCCCATTTAATCTTCTTGCATATTCAAAGTTTGGGAT
GACTTTCTTTGGTTGCTGTTTTTTTACTGGCTTATTCATCTACTCCACCTTTTGACATC
TTATAAATATCAACCTTATAATTTTCAATCACATATATATACTTTTTTAAAGATAGCAA
55 AAAATTACTTTGAGAGGCAGAACTCTTAAATTGGACAGTTATCACATAATGCCTTTTTCC
TACAGAACTTTTTACAGTGTCTCTAATTAATGCGTGATATTCTTTGTATATTCTAAAT
CTTTTGGTAAATTTTTTCAAATATTTCTTAAATCTCATCATATTTAGCTTTTTTCGTTAA
TTACTCCCAACCTACTAAACATTCTTTTGGTATAGGCATCAACAACAAAGCTCTCCCTAT
CTAATGCATACAACAAATACTATCAGCTGTTTCTTTCCCACTCCATTTATTGATAAGA
GCTCAGCCCTTAATATTAAAGTGTCTTTATCTGTCTTAGCCATCTCTTCTGTATTTCCAT
60 AATTTTCAACAATAAATTTAGTTACATTTTTTAGACGCTTAGCTTTTAAATTATAAAATC
CAGCTGGCCTTATAAGTTCTTTTAGTTTATCTTCAACATTTAGTATTTTACTTCTT
CCAACAATCTTCCATCTTTAGATTATTTATAGCCCTCTCTACATTTTCCAACCTTGAT
TTTGAGTTAAATTTGCTCCAACGACAACCTCATACCTTGTTTCGGCAGGCCACCAATTTT
GATGTCCATAATAATCTAATAAAATTTGTATATTTGTATATCATCTCAAATTTGTCT
CTTTCATTTATCATCTCTCTATAATAATGGACTTATTATCAAATGGATTGCCCCTAA
ACATAATGAATACAGATATGGATAGTTATCTTTTAAAGTGCATTAGGTAGTTTAGCCATTG
AATAATCAATAAATTTATAAACTCTAATAATATCGTTTTTAAATGGTCTAAATCACTTTT
TGGAAGGTTGCTTAAATCTCTCTTATGTAGCTCATCAGCTAAATGAAATACTGCCAA
TAGTAATTCGGTAAAGCTTTTCATGCTCCAATAGCAAAGGATTTTCCATCAATCTTAAAG
AAATCTTTATTTCTCTCTAATAGATTTTAAAGCTTATATAAATCAATTTTTTCTATATC

-170-

5 TATGTTACAATCATAATTCATTAATAATTTTTTGTTCCTCGTAAGTTTTATCATTCCA
TTCATCTGATATTTTAAAGTAATCCCTTATATCCCAACATCTCCTTCTAAGATTATTTT
TAAAAGTTCCTCTCCAACACTATTAAAAAAGAACCAACGACCATATTTAATTTTTCCAA
10 TATCTTCTTTTTTCCCTATAATCTAAAATTTTCTCAATGATTAACTTACAAGCAAAAC
TTCAATAGGAACAAATGCCAAATGTAATAAAAAATAGCTTAATATGTAATCAACTTTTCC
AAAGATTAAAAATGTATTGAATAAACCAATATAGATAAAAAAATTAACAAATAGCTAT
TATTAACATATACCTTTTATCATTCAATTTTTATCCCTTAAAATTCAGATTTTGTCTCCT
ACATAGTGAAGGTTTTAATAGCTTTTCCCTTATCTGCTTCTTTTATCTCTTTTCCATT
15 ATTAATGCAATCCCAACACATATTGGCTTTTTGTGGTTTTTCATCTACCACAAAAACA
TCCTCCTCTTTAATATTTTCATCTGCATCTACAATTCCTGGAGCCATTACATCTGCTCCA
TTTATTAATAATTTTATAGCACCTATATCAACAACAATAAATTTTTATCTGGGAGGGAT
TTTATAACAATTTTAAATGTTGGAATTACTTTATCATCTTTTTTAAATGCAATTTGGCTCT
TTATCGACTAATATTATCTCAAAGTCATCAGTTATAGCTATCTCCACATTTCCCTTTTT
20 GGGATTATCTCATCAACATTTTCAAAAAACACTTCCAATTCTTTTTTATTTTTTAAACA
TCTTTTTTACTTAAAAAATATCTTTTCCCTTATTTCCAACCTCTCACCTTTTATAATAAT
TACTCTAAAATTTTATACAAAGTAGTTCTCTCCTTAGGAATTAATCCAACCTTTTAAATC
ATGTCCTCAATCTCTTCAACACTCATATAAACTCCATGCTCAGCTCCTGCACTTCTTGAT
ATACTCTCCTCTATCAAAGTGCCACCAACATCGTTAGCCCCACATCTTAAAGCAACTTGA
25 ACCATCTTTTTTCCCTAATTTAACCCTATGAAGCTTGGATATTTTTTATCAAACCTTAAAT
ATTATCTGCTAACAGCAAAAAACCTTTAAATCTTCAATTCCAGTAGCTCCAGCTTTTGCC
TTTCCCTCTTTATAGATTGGAGCATATTTATGCATAAATGAGAGTGGAAACAAATTCAGTA
AAGCCGTTAGTCTCTTCCCTGAATCTCTTTAATTATAAAAAAGATGATTACCCAGTGTTTA
TATCTCTCGATATGCCCATACATCATTTGTTGCAGTTGTTGGAATGCCAATTTATGAGCC
30 TCCTTAATTATATAAATCCACTCTTTAGTTTTTATTTTATTTGGGCAGAGTTTCCAGCTCTA
ATGTCATCATCTAAAATCTCCGCCGCGAGTTCCCTGGCATGGAGTTGAGACCATTTTCTTTT
AATATTTTCAATGCTTCTTTAATATCTAAGCCAGCATTCTCAGCACCAAAAAATAAACCTCC
ATTGGAGAAAAGGCATGTATGTGGATATCTCCGTAAGGTTTTGTTGCTTCATGCACAGCC
TTTAAATCTCCGCTGATAATATGTATCTATCTTTGGATGCAATCTCCCTGAATACAA
35 ACCTCAGTGCAACCAATTTTTTGTCTTACTGCCCTCTTAGCAATCTCATCTATATCT
AAAAATAAGCATGTTTGTCTTTTCAATTTGGCTCTGAAAGCACAAATCTGCAATTTCCA
ACGCATATATTTGTGAAGTTTATATTCTATTTACCACGTAGGTAACTATATCTCCAAT
TCCTCTCTTCTCAAAGAATCTGCAAAATTTAAACAACCTCAAATATAATCTCATTATTTCA
AATAACTCTAATGCTTCTTTTTTGGATATTTCTTTCTCTCTAAATTTATTTGGGTCCATA
40 TTCTCATCTCTTAGAGTAGTATTTCTCCAGTTATTTTTAGTTCTCCATCTTCTATTTTATA
ATGGAAACATGAATAATAACCCCTCATGACATGCAACCCCTTTCTGTTCAACTATAAATAA
TAAAGCGTCTCCATCACAGTCCCTATAAAATTTTATTAATTTTTGAACATTTCCACTCTC
TTCTCCTTTTCTCCATAACTTTTTCTACTTGTGAATAATAATGCATATATCCAGTTTC
45 TAATGTCTTTTTTAAATGCCTCTTCAATCATAAATGCAACCATTAACACATTTTATTCTC
ATCACAGGTTATTGCTAAAATTAATCTCTCTCCTTCTATATTTCTGAATTTTAAATTTAG
TTTTTTAACAGTATCTTCCACATCCATGAAATCACCTAAATATGGATATTAATTAGGACT
GAAAGTCTTAACCTAATAGACGGGTGGTATACCAATAGGAGGTTTCTCCTATGGTTACC
AATCATCTAAACCCATCCATTCTCCGACTATGTTTATATCTTTCTCCTCATATACTCCAT
50 CAAATTTGTCAATTTTGAATTTGATGGGAGGGATATTGCTGCTCCTACAATTAAGTCTT
CTCCAATACCCAAAGATGCCAAATCTTTACCAATCTTCTCAAGTTCTTCTGAAGCTC
TCTGTATATATTTTTGGTCTTCTGGTTCGACTATTTTTTAAATATCTTAGTGTCTGTTT
GAGATAAAACATCAGGATGCAATTGCTTAGGTCTTTGGGATACTAAACCTAAACCAACAC
CAAATTTTCTTCCCTCTCTTGTATCTTCCCAACCATAGCTTGTGAGTTTTGTTTCAT
55 TTACTGGAATAAATATATGAGCTTCTTCTACAATTAACAGGACAGGTTTTGTTACAACCT
TGTAGTGTGATTCAATAATGTTAAGTTTGATTGTGCAACTCTTCTAATTTCTCTATTAA
TACTATATACATCCTTTAATGATTTTAAAGTAAGTTATCCTTTTTTAAAGAAGATGTTTAG
CTATAAATCCCAACAAAGTAACCATCTGAGGAATCTCCAACCCACTTAAATTAACGATGT
TTATTTTTCCAATTTCAAATTTCTTCAATTACATCTCTATCCCCAATATTTAATGCATAAT
60 CTAATTTGAATTTGCTAATAGTATCAATGAGAGACATCAATATAACGAAATCTTCCCTTT
CTAATTTTCTTCTATCATAGTTCTTCTTAAATGGGTTGTAATATTTAATTTCCCATCCAA
CTGATGCTATCTTACTCCATTATAGAGTAGATTTTCTATTTTTTCAATAAACTCAATTC
CTTTAGCATCTGGACATTCATGTTTTACAGTGGGTATGCAAAATCCACATAAACTCTCT
TCTCTATCTCATTATCGCTATCCCAATTAATTAAGCAAAATCACTTGGAGCTAATAAAAA
CAGGGTTTATTATTGGATTTATTACCTTTATTTTCCCTCCATGTCTTCTCATGATATAAG
AGATATACTCTCCATGGGGGTCTATCATTATTACAGTTCCATTTTTCTTTGCAAGTTCTC
TGCACAAAACAGATGCGGTATTTGATTTTTCCCTCCAGTTATAGAGAGTATTGCAAAAT
GTCTTGATACAAGTTATTTGTGTCTAAATAAACTCTAACATTATCTTGTTAATAAAT
GACCTATATTCAACCCATCTGGAGTTAGATATATATTATTTAGGATTTTATCATCACACA
ATCTAACTTCACTGTTGGGAGTATTGGTGTCTATTGGGAATTTTGTTCATCCA
ATACACCAATGACTTTAACTTCACCAACAAATTTCTCAACATCTGCAACTACATTTTTTA

-171-

5 TAACACCCAATACATCTCTGCCATCAACATTTTTTGCAATTACATACTCTCCAAATCTTA
TCTTTTCAAGGGATTCAAAAGTAAAGTGTGTGTGTGTAGTCTTTCTACAACCTTCATAA
CATAACCCCAAGTTTTTGGAGAAGCTCTTTTATTTGCATTAAAACGCTCTCATCAGATTT
ATAATCATCAATTAATTCACAGTATCTGTACATCTCTAATGATAACTTGGACTTTATATC
ATTGACCATTGGGATATTTTATCTAAGCTTATGTATGATTCAATAAATGATAGATAGAT
ATATGCTCCAATAGGATTATTATTTGCCATATACTTCCATAGGTTTGATGCATAGAAACA
AGTAATATTTGGTTTGTGATACATTACAGGAATATCAAATAAAACCGAAGGTATTTCAAG
ATTTGTAGGTTTTCTACTTCTTAATTTTCTAATATATTGTGCGATTTTACATGTAATTTG
10 CAAAGAATTGACAATTTTCAAAATTTTGTGTATGTTGTTATCGCTTCATCGATTTTTCC
AGATTTTTCAAGAATATTGCAAGAGATTTAATGTGCTAATATCTTTTGGATTCACTCT
TAAAGCATTCAAAAAGATTACATACGCATCCTTGTAGTTCCCTAACTTGTAAATAAATA
CCCTTTGACATACCACTCTACTGCTGTTTTCCAGATTTATTAAATTATCTACATATTT
CATAGCCTCATGATAGTATTTTGGGATTCCTGTTGTCTCAGCTTTTCCAATTAGGGAGTA
15 TAAGTTGAGTGCGCTAATATCTTCCCTCTGAGAGTTCTTCAAGGTATGTTTCTAAGACTTT
ATCAAAAAGTTTGGAGTTTTTCCAACCTCCTTTTCTGTAATAAAGTATGGCCAATCC
AAAATATGCATATGGATTTTGTGAATTTAGCTTAATTGCCTTGTATATGCTTCTATAGC
TCCCTCTTCATCTCCAAGCTTGTATAATATATCTCCTTTTTTGCATAATATAAACTCCT
ATTAAATATTGATATCGATTTATCAATATATTCAAGGGCTTTTTTATATTCTTCAAAGAT
20 TTCTGCAATTACACTTTTATAATAGTAAGAGATGTCAGAATTTTCATCTATCTGAAGCAC
TTTATTAATAATTTTTAATGCACCAATGTAATCTTTATTTTTTATCATCGTAAGTCCATT
ATTTAAATCTTCATAAGAGTTTATGGCATTTACAACGTTTTCCATACATTCAACAATTTT
TTTACACTCATGGCTTGGATTTTGTGTAATATTTTCAATAACGCATCATATGCTTTTATC
AATGTCTCCAAACAGTAGATAAATCTTCCCTGCCTTAAATAACGCATTGAGATTTTTTGA
25 ATTTGCCATTTTATATGATTTTAAATAGTATTTTAAAGCCTCTTCGTATCTACCATTTT
AACCGAAATATCTCCCAAATTTCAAATAATTCCTCATTTTTTAATTTTTTCAGAGGCCTT
TTAAGATATTTATATGCTAAAATTTTCCCCACGTTTATAGTGAATGAGTCTTTAAG
ATATGCAAAATATATGTTTGTGAGATATTTTAAAGCCTCATTTATTGCCTCAAGTGC
AGAGTCGTATTTTTCTAAATGGTAGAGTGCATAAGCAAGATTAAACCAATCAATAGGATT
30 GGTATTTTTCTTTCTAATGCTTTAAGTAGCATTCACTGCTTTGTCTATATATTCCTTC
ATCTAAGTAATAGTTAGCCTCAGTAACCCAATCTTCATAGGATTTAAGTTTTTCACTTAT
CTTTCTGAACAAGTTCATTGTGAATCACCAATTTTATGCCCCACATTATTGCTTTAGT
TATAATTATTTCTCCATAAACTCCATATTTATCAAAAATATCGTTGGCTTTTTCAACAAT
TAATTTTTTGTCTCCAAATGCATAAATTGTTGGGCCAAAGCTTGAAAGTCTGCATAAAC
35 ATCTTTATGCAATTCATTAATTAATCTTTAACAATATCTGATTGTAAAGAGAGTTCAAC
TTTTTTAAAGCCTAAGTATTGAAGCTTGTGATAACTTCTCCAAAATCATCTAAATTTTT
TTCAACAACCTGCTGGCATCATCTTTAATATATCCACTTCTTTTTTCCATAGACATGTTT
TAAAGGAAGTGGGCAGTATTTTTAATATATCCACTTCTTTTTTCCATAGACATGTTT
TCCTTTTGGAAATTATTAAGATAGTTTCCCAATCAAAATCATGTCTAAATATTATTGGTGC
40 TGGCTTAACTCCTTTTGAAGCAGATGAAGGTCTAAAATCTTCTTTATCCTTACCCTTGCC
AAAATATGCCCTCCATCAATTAATAATCCTCCATACTCAAAGCCCCCTATTCCAATGCC
TGAAGTCCCTCCCTTCCAGTAATTTAGCAATATTGTAGGCGTTTCTTTCTTATTGTA
TATTTTGTATTAATTTACCTACAGCCAAAGATAGCTGTGTTCCACTACCAAGACCAGA
ATGGGCTGGAAATAGTGATAGGATTTTAAATCAACTCCCTCTCCACCAATAACATCTAA
45 AACTTTGATAGCTGATTATATACTCTATCTTAACAGATTTTATATAATCTTCTCCATA
CTTTTCAATCAATTTTTATCAAACTCAATGGATATATCATCACTTTCTTTTCTTCAAT
TTTTATATTTGGCTCCTCTAAAGCCAAACCAATACCTCCATCAACTCTTCCAATAGAACC
ATTCAATCTATAAGCCCCATGTGAATCCTTGATGGTGTGTAATTATCAAAATCTCACC
ATTATTAAGGTTTTAAAGATAATAACAATAACAACAGATGTTCTATAAATTATAAATAT
50 TTACAACAAAAAATAAAAAGTTTGAAGCTTAAATTAATGCCTCTATCAAAATCCCCTCTTG
TAACAATACCAATTAATTTCTTTCATCATCAACTACTGGCAATCTTTTGATGTTATTTT
TAACCATCAACTTTGCTGCATCATTAATTTGTCATATCTGGCTTAGCAACAATAACTTTTC
TTGTCATCATCCCTAACCTTTGTTTTAATGCATTTTTTAAATCTTCCATAAATTCCT
CTATCTTTAAAGCTGTTTTTGTAGTGAAGTTCAATCAAATCCAATGGTGATGGTAAATGA
GATTTAAATCTTCATTATGTGTAACAATGGTTTTTCACTATGTCACTCTCTGAGATTATTC
55 CCCTAACTTACCATCTTTATTTAATCTGGGGCTCCACTTATCTTATTTTTCTTAAATA
ATCTTATTACATCGATTAAATCATTATCTCATAAACCACAATGGGTTTTTTCATGATAT
CTTTTATTAACATTATTTCCACATTTATATTTAATTTTATCAATATAGTCTCAATTTT
AATCCCAACTCATTACAAATTTCTTTAATTTGGTTGTATAAGTTTTTATCAATTTCAAAT
CCATCCTTTCTTTTCTTTTATCTCTCTCTATTTCCCGAGGATTAATATCTCAAAA
60 CCTCTGCTGGCTCTGAGTTTTTAATTTTATCTAACAACCTCATCAACTTTTCTTTTAAAC
TCCCTCCTTCCCATAAAAAATCTGGATTTATAGCTATAAATAAATCTCCCTTAGTGCAAT
CTCTCCTCTGGATTAGCAGTCCCTTTAACCTTAGTCCCAACCTCAGCCCCACCGATAGCT
GACAGCATTTGATAGCTAATGCCAAACCATACCCCTTAGGTCTCCAAATGGTAATATA
CATCCTTCCAATGCTTTAGCAGGGTCTGTTGTTGGCTTTCCATCTTTATCTACTGCACAA

5 CCTTCTGGAATCTTTATTTTTTTCTTAAAGCTTCTAAAATCTTCTCTTGCAATTGAA
GCAGTAGCCATGTCTAAGGAAAATTTATACTTATTTCTTTAAATGCTATAGCAATTGGA
TTTGTTCTTAAAATTTTCTCTTTACCACCAAAAGGAGCCATAGCTGGCTCTGTGTTTGT
ATTGTTATTCCAATCATATCTTGATTCATAGCTAACTCTGAATAATAGCCAGCGATACCA
10 AAGTGATTAGCATTTCTTGTAAGCAACAACCTCCAACCTCCAACATTTTTTGCCTTTTTTATA
GCTAATTTCCATGGCTTTTTTCCAACAACCTTGACCTAAACCCAAATCTCCATCTATAACT
GCCGTTGCTGGGCTTTCTTTAACTATCTTTATATCTGGCTTTGGATTTATATTTCTTAAT
TTTAAGGCAGTTATATACTGTGGAACCTTCCAATTCATGAGAAGTAAACCCCTTTAAA
15 TCAGCATCAACAAAACATCGGCAGTTATTTTGGCATCTTCTCTGGAACACCAAATTTT
TTTAAGACATCAATTATTAACCTTTTTTTCATTTCTGGTTTTTAAATCATATATCCCTC
CAAAAATTTTAAATTTATGGTTTTACATAGGTCATGTTATAATAGACAATATCCCCATC
TGCATCAACGATTGCTATGAGTAATTTTTTCTAACTGAGTGAGCAACCTAACAAACCC
AGTTAGCTCACTTAATAGAAAAGAGCTATCTTCAGGAAATACCTTAACCAAATAAACAGA
20 GTGTTCTTTATCTATGTTAGCTCCCTCTCATAAAGCCTAAAATCAGCCCCATATCAA
ACCAGTCTTTACTATATAACCTCTTGTCTTAAATCCTTATAAACTAAATATTTTAAACA
TAGTCTTTCTTCAACATTTCTCGCATATTCATATAGTTCTTCAAACTTAGAGGTTTGT
ATCTTTATATTTCACTTCCAACCATCTAAATTTATCAAATAGAGGGCTTCAACTAAAGA
TAGAGATAAAAAATCCCTTCAACATTTCCATAATGCCTTGCTGATAACTTAGATATCCC
25 ATTTTGTCAACACTATAACTCTATCTCCATCCAACAATCCAGTTATTTTTTGCCCCAT
TTTATCTCTCACCAAGTTATTATTTATAAAATCTTAAATTTATTGTGATAATAAAAT
AAATAACATATGGTTTTATGTTATTTAACAAAATTAATGAATGAATTAATATAGAAGTTCG
CAGTTTTTATATTAAAAAGGTATTTAGATGCCTAAAGGCATCATTATCAATAAATCATT
TATTCCTGCGAAAGTTCTATAATATTGAGGTGAATCTATGATATTCATCCAAGACCTTC
30 ACCAATAGCTGCTGCAATGTATCAACTTAGGGATTGGGTGTTGATGCTATAATTTTACA
TGGTCCAAGTGGTTGTTGTTTCAGAACCGCAAGATTATTAGAGTTAGATGGAGTTAGAGT
ATTTACAAGCAATATTGATGAAAAATGCTATTGTCTTTGGAGCTTCAGAGAATTTAAAAA
AGCTTTGGACTATGCAATTGAATATTTAAAAAAGAGTTAAAGAAAGAGAGGCCAATGAT
AGGCATAGTTGGGACGTGTGCAAGTATGATTATTGGTGAAGATTGTGGGAATTTGTAGA
35 TGATGATAGAGCCATAATTATCCAGTTGAGGTGCATAGTGGAAGCGGTGATAATACAAT
AGGGGCAATAAAGGCTATGGAGTCAGCTTTAAATTTAGGAATTAATGATGAGAAAGAGTT
TGAGAGACAGAAGTTTTATTAAAAAAGCTACTGAAGTTGAGAAAAAAGAGGCATGGC
AAAGAAAGAGTATATAAAGCCAACCTTATGATGATGATTTAAATGAAGCTATAAAGTTTT
AAAGGATTTGAAAGAAAAAGATGGGAAAAATAGCATGTGTGTTGAATGCTAAAAAGAAAC
40 TGCTATTTGTTTGTCTCATCTCTAATTGTTTTAAATAAGTACTTTAACTGTGTAAATAT
AGCAAACCTTAGATATAAATAAGGGACTTCCAAAGATAAGAAGAGATGCACAAAATATATT
AAGAAGGTTTTAAGCAGATTATATTACTGGTGGGTTAGATGAGTATCCAATAACCGGAGA
GAGAGCAGTCGAATATTAAAAAGATTTGGATGTTGATGCTATTGTTGTCTCTGGTGTCC
TCATGCTTTACCAATTGAAGAGATAGATAAAGACATAATAAAGATAGGCATAAGTGATGG
45 ACCAAGAACATATCATCCAATAAAGAAATTTATGATTACGCAATTGTTGAATTAGATGC
ACATGCGAAGGTTTTAGGGAAAAGAGATATTGTAAATCAAGATTGGAGAAATATTGGGA
TTATGCATTGGAATAAAGTTTAAAAATTTAATCCATAAAAAATTTTGGTGATAATAAT
GGAAAAACCATGGGTAGAGAAGTATAGACCAAAACATTGGATGATATTGTTGGACAGGA
TGAAATAGTAAAGAGATTAAAGAAATATGTGCAAAAAAAGAGCATGCCGCATTTATTATT
50 TAGCGGACCTCCAGGAGTTGGAAAGTGCTTAACAGGAGATACAAAAGTTATTGTAATGG
AGAGATTAGAGAAATTTGAGAAGTTATTGAAGAGATAAGCAATGGAAAAATTTGGAGTAAAC
TTTAACCAACAACCTTAAAGGTTTTAGGAATTGATGAAGATGGAAAAATTAGAGAGTTGA
TGTGCAGTATGTCTATAAGGATAAAACCAACACGTTGATAAAAAATAAAACCAAAATGGG
TAGGGAGCTAAAAGTAACAACCTTACCATCCACTTTTAAATAACCAAAAAATGGAGAAAT
55 AAAATGGGAGAAAGCAGAGAATTTAAAGGTTGGAGATAAATTAGCAACACCAAGATACAT
TTTATTTAATGAAAGTGATTATAATGAGGAATTAGCAGAATGGCTTGGGTATTTTCATAGG
AGATGGGCATGCAGACAAAGAATCAAATAAAATAACCTTCACAAACGGTGATGAAAAACT
TAGAAAGAGGTTTCAGAACTTACTGAAAAGTTGTTAAGGATGCAAAAAATAAAGAGAG
AATACACAAAGACAGAACACCAGATATTTATGTTAATTCAAAGAAGCTGTTGAATTTAT
60 TGACAAGCTTGTTTAAAGAGGAAGAAAGCAGATAAAGTTAGAATTCAAAAGAAATAAT
GAGAAGTGATGATTAAAGGGCATTTTTAAAGAGCATACTTTGATTGTGATGGTGGTATTGA
AAAACACTCAATAGTTTTATCAACTGCAAGTAAAGAAATGGCAGAGGATTTAGTTTATGC
CTTATTAAGGTTTGAATAATTGCAAAATTTGAGGGAAAAAGTAATAAAAAACAATAACAA
AGTATATTACCATATTGTTATCTCAAACCTTCAAACCTTAAGGACATTCTTGGACAACAT
TGGATTTAGTCAAGAAAGAAAACTTAAAAAGCTCTTAGAAATCATAAAAGATGAAAATCC
AAACTTAGATGTTATAACTATCGACAAAGAGAAAAATAAGATACATAAGAGATAGATATAA
GGTTAAATTAACAAGAGACATTGAAAAAGATAATTGGAGTTACAACAAGTGCAGAAAAAT
CACTCAAGAACTTTTAAAGAAATATATACTACAGATTAGAAGAGTTAAAGAAATTTAAAA
AGCATTAGAAGAAAAATATATTAATCGATTGGGATGAAGTTGCAGAAAGAGAAAAAGAAAT
TGCAGAAAAAAGTGAATAAGAAGTGATAGGATTTTAGAATATATAAGAGGTTAAAGAAA

5 ACCAAGTTTAAAGAACTATATAAAAAATTGCCAATACCOCTTGGTAAAAATATTGAAAAAAT
CATTGATGCAATGAGAATCTTTGCTAAAAAGTATTCAAGCTATGCAGAGATTGGAAAAAAT
GCTCAATATGTGGAATTCAGTATAAAAAATTACTTAGAGAGCAATACCCAAGAAATTGA
10 AAAACTTGAAGAAATTAGAAAACTGAACCTAAACTTGTAAGAGAGATTCTTAACGATGA
AAAATTGATAGATAGCATTGGCTATGTATTATTCTTAGCATCTAACGAAATTTATTGGGA
CGAAATTGTTGAAATTGAGCAATTAATGGTGAATTCACAATCTATGACTTACACGTTCC
AAGATACCACAACTTTATTGGTGGGAATTTACCACTATACCTGCACAATACAACCGCCGC
15 TTTATGTTTAGCAAGAGATTTATTGGAGAAAACTGGAGAGATAACTTTTTAGAGTTAAA
TGCCCTCTGTTTCAAAGATACACCAATATTGGTTAAAATAGATGGAAAGGTAAAGAGAAC
AACCTTTGAAGAACTTGATAAGATATACTTTGAACTAACGATGAAAATGAGATGTATAA
GAAAGTTGATAACTTAGAGGTTTTAACTGTAGATGAAACTTTAGAGTTAGATGGAGAAA
GGTTTCTACAATAATTAGGCATAAAGTTGATAAGATTTTGAGAATTAAGTTTGAAGGAGG
20 ATATATAGAGCTAACTGGAAACCACTCAATTATGATGCTTGATGAAAATGGTTTAGTGGC
AAGAAAGCAAGTGATATAAAGGTTGGGGATTGTTTCTTAAGCTTTGTAGCCAATATTGA
15 AGGTGAAAAAGATAGGTTGGATTAAAAGAGTTTGAACCAAGGATATTACTTCAAGGGT
TAAGATAATTAATGACTTTGACATTTGATGAAGACACTGCATGGATGCTTGGATTGTATGT
TGCTGAAGGAGCTGTAGGCTTTAAGGGGAAAACATCTGGACAAGTTATTTATACATTAGG
TAGCCATGAGCATGATTTAATTAATAAATTAATGATATTGTTGATAAAAAAGGATTTAG
25 CAAATATGAAAACCTTCACTGGCTCTGGATTGTAGAAAAAGGTTATCTGCAAGCAGAT
TAGAATATTAAATACCCAACCTTGGCAGATTTGTTGAGGAAAACCTTCTATGATGGTAATGG
AAGAAGAGCAAGAAATAAAGAATTCCAGATATTATTTGAATTAAGAAGAAATCTAAG
AGTTGAATTTCTAAAAGGATTGGCTGATGGAGATAGTAGTGGAAATTGGAGAGAAGTTGT
TAGAATATCATCCAAATCAGATAATTTATTAATCGATACGGTATGGCTTGCAAGAATATC
30 TGGCATTGAAAGTTCAATATTTGAAAATGAAGCAAGATTGATTGGAAAGGAGGAATGAA
GTGGAAGAAAAGCAACTTACTACCGGCTGAGCCAATAATCAAAATGATTAAGAAAGTTAGA
25 GAATAAGATAAATGGAACTGGAGATATATTAAGACATCAACTCTATGAAGGTAAAAA
GAGAGTTTCAAAGATAAAATTAAGCAAAATTTAGAAATGGTCAATGTTGAGAAATTATC
AGATAAAGAAAAAGAGTTTATGATTTATTGAAAAAGTTATCTAAAACAGAGTTATATGC
35 GTTGGTTGTTAAAGAGATTGAAATTTATTGACTACAACGACTTTGTTTATGATGTATCAGT
TCCAAACAATGAGATGTTCTTTGCTGGAAATGTGCCAATATTATTGCATAATCTGATGA
AAGAGGGATAGATGTAATTAGAACAAAAGTAAAAGATTTTGCAAGAACAAGCCAATTGG
GGATGTTCCATTTAAGATTATTTCTTAGATGAGAGCGATGCATTAAGTGCAGATGCACA
40 GAACGCTTTAAGAAGAACAATGGAGAAATATTAGATGTTTGTAGATTTATCTTGAGCTG
TCTAACTGGAGATGCAAAAATAACTCTTCCAGATGAGAGAGAGATAAAGATAGAGGACTT
35 TATAAAAATGTTTGAAGAAAGAAAGCTTAAACATGTTTAAATAGAAATGGAGAGGATTT
AGTTTTAGCAGGGGTTAAATTTAACTCAAAGATAGTTAATCATAAGGTTTATAGATTAGT
TTTAGAAAGTGGTAGGGAGATAGAGGCAACAGGAGACCACAAGTTTTTAACAAGAGATGG
ATGGAAGGAAGTTTATGAGCTAAAAGAGGATGATGAAGTATTGTTTTATCCAGCATTGGA
45 AGGAGTTGGGTTTGAAGTTGATGAAAGAAGGATAATTGGCTTAAATGAGTTCTACGAATT
TTTAACAACTATGAGATTAACTTGGATATAAACCATTAGGTAAAGCAAAAAGCTATAA
GGAATTAATAACAAGAGATAAGGAGAAATATTAAGTAGAGTTTTGGAGCTCTCAGATAA
ATACAGTAAATCAGAGATTAGAAGAAAGATTGAGGAAGAATTTGGAATAAAAAATCACT
40 AACAATAAATAAATCTTATAAATGGAAAAATTGATGGATTTGCTTTAAATACGTTAG
GAAATTAAGGAACCTTGGATGGGATGAGATAACTTATGATGATGAAAAAGCAGGAATCTT
45 TGCAAGGTTGCTGGGCTTTATAATTGGAGACGGGCATTTATCAAAATCAAAAAGAGGAAG
AATATTGATAACTGCTACAATAAATGAACCTTGAAGGAATTAAGAAAGATTAGAAAAATT
AGGCATAAAGCATCAACATAATTGAAAAAGATATTGAACATAAATGGATGGTAGAGA
50 AATTAAGGCAAAACATCATTATATATATAAATAACAAGGCATTTATTTATTGCTAAA
CTTCTGGGGAGTTGAAATTGGAATAAAACCATAAACGGATATAACATTCAAAATGGAT
AAAATACGGAAATAAATTTGTCAAGAGAGAGTTTTTGAGAGGTTTATTGGAGCTGATGG
55 AACTAAACCGTATATCAAAAAATACAACATAAATGGAATTAATTAGGGATAAGAGTCGA
AAACATAAGTAAAGATAAGACATTAGAGTTCTTTGAGGAAGTTAAAAGATGTTAGAAGA
GTTTGAAGTTGAATCATATATTAAAGTCAGTAAATTGATAACAAAACTTAAGTGAATT
60 GATAGTGAAGCAAAATATAAATACTATCTAAAATATCTATCAAGAATATCCTATGCCTA
TGAAAAAGACAACCTTTGCAAGGTTAGTTGGAGAGTATCTAAGAATCAAGGAGGCATATAA
GGATATAATCCTAAAAGAGATTGCTGAAATGCATTGAAAGAAGCAGATGGTGA AAAATC
TCTAAGAGAATTGGCAAGGAAATATAATGTTCCAGTTGATTTTATAATAAATCAACTTAA
AGGAAAAGACATTGGATTACCAAGAACTTTATGACCTTTGAAGAGTTCTTAAAAGAAAA
GGTTGTTGATGGAAAGTATGTTTCAAGAAAGATCATTAAAGAAAGAGTGTATTGGTTATAG
AGATGCTCTATGATATAACCTGCCATAAAGACCCCTCATTTATAGCAAAATGGATTGTGTC
TCAATACTGCAACTATCCAAGCAAGATCATTCTCCAATTCAATCAAGATGTGCTGCTT
TAGGTTTTCTCCATTAAAGAAAGAGGATATTGCCAAAAAATTAAAAGAGATTGCTGAGAA
AGAAGGTTTGAATTTAACTGAAAGTGGTTTAGAGGCAATAATTTATGCTCTGAGGGAGA
TATGAGAAAGCAATAAATGTTTTACAGACAGCGGCAGCTTTGAGTGTATGTTATAGATGA

-174-

5
10
15
20
25
30
35
40
45
50
55
60

TGAGATTGTTTATAAGGTCTCATCAAGAGCAAGACCTGAGGAAGTTAAGAAGATGATGGA
ATTGGCTTTAGATGGAAAGTTCATGGAGGCAAGAGATTTATTGTATAAGCTTATGGTTGA
CTGGGAATGAGTGGGAGGATATATTAACCAGATGTTAGAGAGATAAACAGTTTGGGA
TATTGATGAGAGGAAGAAGTTGAGTTGGCAGATGCTATTGGTGAACTGACTTTAGAAT
AGTTGAGGGAGCTAATGAACGAATTCAATTGAGTGCTTTATTAGCAAAAATGGCGTTAAT
GGGAAGATAAATTAACCTCTCTTTTCATGAATAATTTATTATTCCATAAAATATAGACG
TTGAAAATGCCCTCACCAACAAATAAnCCAnTCTTTTAAATTTAAAGAGTAATTTTTTC
TTTTCTTTAAGTTCCCTGTATCCATATATTTTTAATCTTTCTCAACTTCAAGATTTGAT
AAGCCAATCATCAATATCACTGCAAAAAATGTATATGGCAATGTTTATAATTCACAACGT
ATAAACCTTTTTTAACATCCTATCATATTATGAAAAGGTTATTTACACATAAAAAGTAG
GAGATGATTATGAAAAGAGTTGTGATTGCCGGAACATCAAGTGAAGTTGGAAAGACAGTT
ATCTCTACTGGAATTATGAAGGCATTATCAAAAAATATAACGTTCAAGGCTATAAAGTT
GGGCTGACTATATAGACCAACATATCACACGATAGCCACTGGAAATAAATCAAGGAAT
TTAGATTCTTTTTTTATGAATAAAGAACAATAAAATATCTTTTCAAAAACATTCAAAA
GATAAGGATATAAGTGTTATTGAGGGAGTTAGAGGGCTTTATGAGGGAATATCTGCAATA
GATGATATTGGAAGCACAGCAAGCGTTGCCAAGGCTTTAGATAGCCCTATAATCCTGCTT
GTGAATGCAAGAGCTTAACAAGAAGTGCAATAGCAATAATAAAGGTTTTATGAGTTTT
GATAATGTGAAATTAAGGAGTTATTTTCAATTTTGTAGAAAGTGAAGAACACATAAAA
AAATTAAGAGATGCAATGAGTTATTATCTTCCAGATATTGAAATAATTGGCTTTATCCCA
AGGAATGAAGATTTTAAAGTTGAAGGAAGGCATCTTGGTTTAGTCCCTACTCCAGAAAAC
TTAAAGGAGATAGAGAGTAAGATAGTGTTATGGGGGGAGTTGGTTGAAAATATTTGGAT
TTAGATAAGATTGTGGAGATAGCTCATGAGGATTTGAAGAGCTTGATGATGTGTTTTTA
TGGGAGGTTAATGAAAATTACAAAAAATAGCTGTTGCCTATGATAAGGCATTTAATTTT
TATTATTGGGATAACTTTGAAGCTTTAAAGAAAATAAAGCTAAGATAGAATTTTTTCAGC
CCATTAAAGATAGTGAAGTTCAGATGCAGATATTTGTATATAGGAGGAGGTTATCCA
GAGCTGTTTAAAGAAGAATTAAGCAGAAATAAAGAGATGATTGAAAGCATTAAAGAGTTT
GACGGCTATATCTATGGAGAATGTGGGGGCTTGATGTATATAACAAAATCGATTGATAAT
GTTCCAATGGTTGGTTTATTAAGCTGCTCAGCTGTTATGACAAAGCACGTTCAAGGACTT
AGCTATGTTAAAGCTGAGTTTTTAGAGGATTGTTTAAATGGAAGAAAGGGATTAAAGTTT
AAAGGGCATGAGTTCATTACTCAAAGCTTGTCATATAAAGAGGAGAGATTGGCTAT
AAAATAGAAAGGGGAGAGGAATTATCAATAACTTAGATGGGATTTTAAATGGTAAAGTT
TTGGCTGGTTATTTACACAATCATGCTGTAGCTAATCCTTATTTGCTTCATCTATGGTT
AATTTTGGTGAGTAAATAGAAGATAAGAATGAAAGAAAAATCTCATATGAGATTCCTGAA
AAAATTTCCATTTTTGATTTTAGAAATTATTTTCATGGATTTTGAGTTATTTTCATTTGT
ATTGATTATTTTTGGATTTCTCTATCTTTAGGATTTGAAAGGAGATATTGTTGATAAA
AAAATAATAAATATGAGGCTCATGATAGAAGTTATAAAGGAGAAAATCGTAGAGAGGAA
GCTTTTTTAAAGGAATAGGAATCGATAGAGGTTAAATCTTAGCAGGGCTTTTATACTAC
CTCGGATTATCGTTAAGGAAGGTAAGTTTATTCCTCTCCCAATTCGAAGACATAAGTCAC
GAATCGATTAGAATTTATTATCACAAGATTAAAGAGGTTTAAATAGATTTCCAAGTAAT
GGTAAATTCGATACGGTTGTAGTTGAGTAAAAGCTTCATAATGTTCTATAACTGGATG
AAATCGCTAACTTAACAACCTCATAAGGATTTACAGTTTATATATTAACCTTTGGAGCTT
AAGTACTAAGAATAAGAAAGGGTTATAAAATTCATTCAATAAAATCTAAAACTTATT
CAACAGTAACGCTTAGCTAAACCTCTTGGTTTATCAACATCTCTTCCCAATTCACATG
CCTTATAATAAGCTAACACTGGAAGGCTGGAGCATAAACAATTGGAGAAATCTCTCAA
TTACCTCTGGAATAATATATTTTTCAGCTCCATCTATTTTCAGTTGGAGTTATGGCTATAA
CTTTTCCCCCTCTTGTCTTAACCTCTTCTATATTTGATAATATTGAGTTAAATACTGCAG
AATCCCTTGGAGGAATATGCTACAGTATCCATATTTTCATCAATTAGGGAGATAGTTC
CATGCTTTAACAGTCCCCCACTCATCCCTCAGCATGTAAATAAGTTATTTCTTTAAATT
TTAAGGCTCCTTCCAATGCACTTGCAATATTTATTCCTTTAGAGATGAATATGTAGTTAT
TTAATTTTGAATTTGGCTATTTCTTTAATTGTTCTTTTTTATCTAAAACCTCCTTTA
TATAATTCGGAATTTTATCAATCTCTTCTCATATTCATCTCATATCTCTACCTAAAAGCT
TTCCATATTCAATAAACCAACCTATACAGTATCATTAACCTGGGATGTGTAAGTTTTAGTAG
CACAGACAGCTATCTCTATCCCTGCTCCCATCATAACGTTTATATCCGCTCTCTGTAG
CTGTGCTTCCCAAAACATTAACCTATAGCTCCAGTTTTTGCTTATTTTTCTTAGCAATC
TCAATGCCTTTAAAGTATCGTAGGTTTCTCCACTTTGTGTAATCCCTATAACTAAGGTTT
TATCATCAACAACCCCTTTATTTAAAAATTCAGATGCATCACAAGCTATAACCAGCTTTC
CAAGCTTTGCAAAACAAATACTCTACAACCATTGCCGATGTAAGGAGGTTCCCATGGCTA
CAAAATAAACCCCTATCATAATCTTTTATACATTTTGCCAATTCTTTAATTTCTTCAGCGG
ATATTTTGGCAGAGACTTTTAAACCTCTGGCTGTTCCATAATTTCTTTTAGCATGAAGT
GAGGATAACCCATCTTTTACGAGAATTTATATCCCAATTGATTTCCATCATCTCTCTTT
CAACAGTATTTCCATTATTTCTATAGTTACTTCATATCCATTTTCTTTCTTTTAAATTA
CAACAACATCTCCATCTCTAATGGAATTGCTTTATTTGTGTAATCTAAAAAGGCAGTTA
TATCACTCCCTAAAAAATAGCCGTCATCATTAAATCCCAATATTAGGGGACTTTTCATTT
TTGCCCAATTAAATAGGTTTGGGAAATTTTTATTTATATAACTAATGCATAAGTTCCCTT

TTAATTTTTTAATTGCATTTTTTAACGGCTTTTATGTAATTTCTTCATTAATTTCTTTAA
ATTTTTTTAATTTCTTCAATTAAGTGAGGGACAACCTCAGTATCAGTTTCTGATTTAA
ATTTATGCCCCCTTCTTCATTAATTCATCTTTTAACTCTTTGTAGTTAGAGATGATTTCA
5 TATGAAGTACTGCAATCTCTTCTTTGCAGTCAGTATGGGGATGAGCGTTTTCTTTGCATA
CATTTCCGTGTGTTGCCATCTTGAATTATGATTAATTATTAATTTCCCAATGAAATTTAT
GATAGTCCTCAACCTCTAAATCATAGACATATTCAACATCAGATTCAACCTCTTCAATTT
TAAATTTTGTCCAACTATATCAGCGTCTAAAAATCTTTTAAATACTCTGCTTTATCAT
ATAGTCCTTTACTGTTTAGTTCTTCAATAATCTTTTCTATTGTGTAATCGGTGCAATAGT
10 TATCTCCATTTTTATTGTTTTTAATGGAACCTCTACAAATTCCTAATCTCTTTTTTAG
TTAAAGGAATGAAATATATCTAAAGTTAAGTCCTTTCATTTTGTGTTAATATAGCCTCTA
ATTTCTCCATTTTGTCTTTGCAGTAAACCAATGTATTTTTTAAATAATTCAAAGGATT
TTTTATCACTTATAAGAAGCTTATGAGTATTGTTCGAATTTTCTCTTTTCTTTAATTT
TTGAATATGATGCTAAATTTCCAAATCTCAACAACAAGAAGTGAATCTCTTTTATAAGC
15 ATTTGGAAGTCATTCTATACCAATTTGCTTAGCCTCAGCTCTTATATAACCTTCTGCAT
CAATATTTCTCTTAAATATGATGCAACCAATCATTATTTAATCTAAATACAAATTTCTG
GAGTTCTCTCATTACCGTTTTTATTAATAACTCTGGAATGTTTTCTCTGAACCAATCAA
TCAGGTATTTGTGTTTTATCTCTAATATATAATAATGGCATCTCTTTTTTGATATTTCC
CTTCTAAGTTAAAGACAGTTTTTAAATAGTTGATTATATTTCTCTAATAACTTTCTTTT
20 CATCTTCAATCTCAACATCTTATTTGAAGGGAAATGCCATCTCCAATAATATAACCAA
TAATCTGCATTAATTTCTGGAGTAGGAGTTTTTGGAAATTTAACAGGATTTGTGTAATGTA
AGTTATCCCTATATATAATCTCTTCAAAGTTGATACCATAAAGAGAACATAATTTCTTTA
ATCTCTCTTCTTCAATACTCTCAATTTTCCAGTTTCAATTTTTTACAATATATATTTCTT
TAACTCCACATAAATTTTCAACGTCTTTTCTTGTAGTCTCAATTTTTCTCTAATTTTCT
25 TTAGTTTATTTCTTATTGTTTCACTTAACTTATAATGCCTTTCAACATATACATCTTAA
ACTCAACATTATCATTAAAGCTATAATTTAACTTCTCACTACACCAATTAACCTCACTTC
CATTCAAATCTTTAACACACTTCTCAACTATCTTTCCATTCTCTACAACAAACAATTTAT
GTTCTCCAGTTGTAATAAGTTCAGAAAAGGCAGTTTTTATCTTATATAATATCTTTGGTG
CTTTATGTTTAACTTTTTGATTTTTTTATTATATAGCTTTAAATCTTCAAAATTAAGT
30 ATAAACCTCATCTTCATCAATTTCAAGAAATCTTTTTCTTCTTCCATCTGGCAATATAA
CATAAGTATCTGGATGCAACAAATGCCCTATCCCAATATTCCATCAATATCCAAAAATC
TCTCTTTTTTAGCAACCTCTTCAACTTTGCCACATTCTTTTTAATAATTAGTTTATTAT
TATCAACAACCTCCAATTCCACAGCTATCATATCTCTATATTCCAACCTTCTTAATCCAT
TTAATAAGATTTTTGGAGCTTTATCATTACCTATATAGCCAATGATACCACACATAAAT
35 TCACCGATAAACCTAAATATCTCCTAAAGTAATAAATAGTTAAACCCATAAACAATAAT
ATTAATACTAATTTTAAATAATCTCTTTTAAATATATTATATAATGCTTTGTTTGGAGG
TGAGAGTTATGGTATTGGTAGTGCAGCGAGTGAGAAAACACCTGAGGAAATATTAAGAG
GAGTTGCTTTGATGTTGGATGAGATAATTACGATACAACCGTTCCAAGAAACATTAGAG
CTGCTGCTGAAAAGGCTAAAGAAGCTGTTTTAAAGAGGGGGAGGAGCCAATCGTTAGAA
40 GTGCAACAGCAATCCACATCTTAGATGAGATTAGCAACGACCCAAACATGCCACTTCACA
CAAGAACACAAATTTGGAGTATTGTTAGTGAATTAGAAAGAGTTAAATAAATTTAAAAAT
CCCCACTATTTCTTTACAAGAAGGTTTTAAAGTGTAAGTTTAGCTTGTCTCTTAAACCC
TCCACTTTTATATATGCATCTATCAATCTTTACCTAAACAACTACTCCATGATTTTTTT
AATATAATAACGTCCTCATCTCTTTTTGCTGTTTCTTCACTAATTTTAACTACCTGCC
45 TCATAGTAATCAACATAACCAATTTTCTTCAAAAATATTTTTCTTCTGTTGTTTAAAGT
TCTATTTCTTTGTTTATTGTCGATAAAAAAGTTGATATAAGTGAATGAGTGTGGATTATT
GCGTTTATGTCATTTCTTTTTCTATAAATCATTAAAGTGAGATTTTTTTCTGATGTAGGT
TTTTCTTTTATAACATTACCATCCAAATCCATTTCAAGCTATATCATCTTCTTTAAAAAC
CCTAAAAATAGAGCCAGTTGGAGTCAGATATATTTTATCCCCCTCTTAACTGATACATTG
50 CCTCCACTACCTACAACATATTTCTATCATACAATTTCTACATATTTAATAAATTGC
TTTTTGTCCATAATCTCACTTAAATATTTTTATTAGTTTCAACATCAAGATTATAACCG
TTATATAAAGAAATACAATTAATCCCTAAGATTATGATATTAATGCGGATTATTTTTTA
GGTTTCTTTTTTAAATCCTCCATGGTTTTTATGTATATTCTTAAAGCTAACAACGCTCTT
GTTTTAATATTTTTATTAGTTTTTTCATCTAATTTTTTCTCATTCTTTTAGTTTTGCAT
55 CTACTCTCTCTCAATTTCTAAATTTTTTACTCAATACTTCAAACCTCTCTCTATTTT
CCTTTTCATCCATAGTAGCCCTTATTTAAATATTAAGTTAATAATTAGATAATAGTGATT
TTAAATATTGAATAGCTATTTGTATATAATTAAGCTGGGTAGATAAATATTCAATTAT
TTAATATTACCATATAGCTAATTGTAAGACCTATTGCAATTATTACTATGAGTAATAGCA
TAGATATTTGTTTTAATTTCTTTCCATTCTATTTTTATGTTCTATGTCTTTTAAACAT
60 ATTTCTCCATTTCTTTTTAAATTTCAATTATTTTTCAAGATATTTATCAATTTTTTGAT
TTAGCTCTTTTAAACATATTTACATTTTGCCTCATAAATTCGTTTAAATGAACATTGGAAG
AGTTGATATTTTTATCTTTAATCTCATCAAGTTGCTCATATAATTTCTTTATTTTCATCTA
ATATTTTATTAGTTAAATCTTTCTGCCCCCCCCCTATTATCCAAATCAAATACAAGAGGA
ACTATCTCATCCAAGGTTTTTACAGGAATAATCTCTATTCCTCTGTTTCAATAACATCT
ATCATGTTTGCCTCTGGAATAATAACCTCTTAAACCGTATCTCTTAGCTGCCTCTATC

5 TTCTCATTAACCTCCTCCAATAGCTAAACATTCCCACTTAAATCTAAGCTTCCAGTTATT
GCAAAGTCCTGTTTTAATGGAATGTCTAATAAAGCAGATATTATAGCTAAACAACTGCA
GCTGTAGCACTATCCCCATCAATCTTTGAATATGACTGACTGAATTGGATATATATCTCT
10 TTATTATTTAAGTCAATATCTTTCTTAGGTAGAGGAAGTTTCTTCTCAGCTACTAATTTT
TTTGACAAATGCTGAAGCTAAAGTTATTGAATGCTTTGCAATATCTCCAGAAATATTTAAT
AGATGAGTTTCCTGGGTTTTTTGATTCTAATATTTGAACAATAATCTTTGTTACATCCCT
ATTCCTCCAGCTCCTAATACAGCTAAGCCGTATATAACTCCAACCTTTGGTTCATCATTT
GGCACAATATGCTTGTATCTCTTGAAGTTTTTGATGTAGTTTAAATGCCACCTGTTTTTCC
15 ATACTGTAAATTCCAGTATCAAATACCTTTCTCACGTGTTCTGCAGTTATATATACCTTG
TTACTTTTATCTTTTTGAGTTTCTGGATGATATTCTCCCTTATCATCAAAATTGCCCAAT
AATCTTCAACATCTTTACCCATAGCTACATCATTTGCCATTTTTATAATATTTGCAAGC
AATCTTAACTTAAAGTTAATTTATCCTTTGAACCTGCCAAGTATTGAGCAATTCTGACA
ACTTCAACAACATCCATCGTAAGTCATTGGGTTTAAAGTTGTTGTTCTTTATCTCTTGAAC
20 ATAACTGTAATAACTTATCCCTATTTCTAGGGTGTGTCCATTTTATTCTTTAAACT
ATCTTATAGTCAATCCTATCCAACAGTGGAGCTCTCAAATTATAAACATCATCCATGTTT
CCAGACATTATTAGGATGAAGTCACATGGTATTGGGTTTGTCTTACAGTGGCTCCACTT
GAATTTGGATTTCTCCCACTTATTGGAAGTTGTTTATCTTGTAGAGCACTTAAATGTAG
TCTGAACTTCCAAGGCATTGTTTTTATTTCATCAACGTATAAAATCTCTGTGTGCC
25 TCGTGAATAGTCTCTAATATAATCCCTCTATGTGGAGGAGTTCCTAATGGAGGTCTTCCA
CCTAATGGACAGTGTATATATCCCTAACAACCTTGTTACGTTGTAAGCACTTGCTCTT
ACAAGAGGTCTTTTTTACATTATATATAAGAGGACTGGCTTTAAATCCATTGGATTTAGA
TTATTTGGCATTGAAGCCCTTGAAGCCCCATTATGCTTGTAAAAATAATTACAAATCCA
AAGATTAAGAACTATTAGAGCAGTTATGGTTACAGCTGCCAGTAAGTAATTTGTGGTAAA
30 TATTTTAAAGATATTCTGACAGTAGTATAGCACCATCATTATTAGAAGTAAAGTTGTT
GAGCTTGGAGCTTTAAATCCAAATTTGGCATGTCTTTGAGTCTTCTTATACTCTCCA
TCTATAACCTCAACTATTGGTCTCTCCATATTCTTTAAATTTGGTTTGAATTAACATAA
TAAGGAGTAAATTCACCAAAATCAGATAAAATTTCTCCAAGTCTTAACTATCATTGAT
TTTCTACTCCAGGCTCTCTAATAAAATAACATTTCTCTTATTTTTTACAGCAGACAAA
35 ACAATTTTTTACAGCTTCTCTTGTCCAATAACTTGGTCAATTAACTTGGTGATGGTTCT
GGCAATTCCTCAGTAGTTTTAAATTTTATTGAAAACATATTAACACCTTATAAAAAATCTC
TGTAATATATTGACATATATAAATCTTTTAAATTTTAGTTACTATTAAAAGGAAGATG
CCTTATCATATAATCATAATCTTATATTTATAATTTTAGTTATGGTGATATGATGGATT
TAGAAGGATATGTTAGAAGATGCCTAAGAAAAAAATCCAGAAAAATAAGATTATTGAGG
40 ATGGGTTTAAAGAGAATTTAGAGATTAAAGAAGATGTAGATGAGGAGTTTGCAAAAAGT
TTATAAAGGCAATTTTAGAGGAGGTAAAGACAACCTGAAAAATTTAGAGAGATTGATGATG
AGAATTTAAAACTCTACTAAAAATATCCAAAATCTGGAGTAACAATGGGAAGAATGGGAG
TTGGTAGTAGAGGAGAAGGAGATTTCTTTGTTTATAGAGAAATAGCAAGGATTGTTAAAA
GCATAAAGTTAAAGCCTATGTTTCAGCTGAAGAGCAAGATGATGCAGGGATTGTTAGAG
45 CTGATGCTAAATACATAGTTGCGGCAATAGATGGAACCTCACTCAAGCCTAGTGATTCC
CATTTTTAGGAGGTTTTTCATGTAACAAGAGCTGCTTTAAGAGATATCTATGTCATGGGAG
CTGAGGCGGTTGCTTTAATTAGTGATGTGCATTTAGCTGATGATGGAGATGTAGGGAAGA
TATTTGACTTCACAGCTGGAATTTGTGCTGTTTCTGAGGCTGTTAATGTTCTTTAATAG
GAGGAAGCACGCTGAGAGTTGGAGGGGATATGGTAATTGGAGATAGGTTGGTTAGTGCTG
50 TTGGTGCAATAGGAGTTATTAAGAGGGGAGAACCAAGCAAGAAGAAACGCTGAAGTTG
GAGATGTTATTTGATGACAGAGGTAGTGGAGGAGGACGATAACAACAACCTGCCCTGT
ATTATGGATGGTTTGACGTGATTTATGAACTTTAAATGTGGATTTTATAAAGGCATGTC
AGAATTTGATTAGAAGCGGTTTAAATTAAGAGATTACGCAATGACAGATGTCACAAATG
GCGGTTTAAAGAGGAGATGCTTATGAAATTTCAAAAACAGCTAAGGTCTCTTTAATATTTG
55 ATAAAGAGAAGGTTTATAAAACAATCAATCCAAAGGTTTATAGAGATGCTTGAGGTATTGA
ATATAGACCCATTAGGAGTTTCAACAGATTCTTTAATGATTATCTGCCCTGAAGAGTATG
CTGATGATATAAAAAAGGTTACTGGAGCTATAGAAGTTGGATATGTTGAGGAGGGAGAGG
AGAGTTATTTAGTTGATGGAAATAAAAAATCCCATTAATAACCAATGTTTAGAGAATCCG
CATATACGCCAGTTAAAAAGGTTGTTGGTGAGAGAAAACCTGGAGATTTTGAGGAGATGA
60 AGGAGAAAGTTAGGAGAGCATGTGATGAAGCTATTAAGAGAAAGATTTTGTGTTGAAT
TGTTAAAGAGAGAAAAAGAAATTTTAACTTTCTTCCAAGATTTTACAGCAATTT
CCTTTGCTTGTCT
CTAATTTTTCATCTAAGATTAAAGTGATATAAAAAACAACCTATAAACAACACATTCCT
CTGGAACCTCCCCATACTTCTTATGCTCTTCTAAAGTCTCTCTTCCCCAGTTTTTGTCTG
AGAATATTTTCTTTTAAACAGTTTTTTCATCATCAGTCAAAAATATTGCTGTCTCTGGCT
TTGAAGAATCATTTTTCTCCTAACAATCCAGTCATAAATCTGTGATAGGTTGAAGATG
GAGGAATAAATCTAACTCCTTAGCTCTATTTGCAATATCTCTTGTAAATCTTATATGCG
GGTCTTGGTCAATTCCTACTGGAACAACAACGGGTTTTGGTCTGGACTTAAGTTCTCAT
CAAGTTGAGGATGTAAATATCAGCAACTGAACTATTGGGGCAAAGACGTGTCCAATGT

TTGTTTCTCCTTTAAATCCATAAAATTGCCTTCATCTCACTCCAATTTGTTCTTTTAGATA
AAATTAAGCCAAATCTTTAACCTTTTGATATTTTGATTGTAAATACACATTAATTTTTT
CTGGGTCTAAGCCAAGAGCTATGTAGTTGGTTATATACTCATTAAAGCAAGTTCTTTTG
5 TTGTTTCAAAGCTCATGTTTCTTGCCCAATATGCCTCTAAATCAGCTATTGGGATGTTTA
TATTGTCAGTGTATTTTGATAAACTTTAATAAATCTACCACCATTTTATGCCCAAAAT
GCATTTTACCAGAAGGCATCATTTCCACTAACAACCTGCAAACCTCTTTGTTATTTTATTG
CATCAACTATTCTCTCAAAATCCCTATGCCCAATATAATATTCTCTCTGAAGAAATGAT
GTTCTCTCTTTCAAATCTCTTAAACATCAACTATTGGCTTAACTCCAACTGCTCCATCG
10 TCTTTTGTAAATCAATAACTGCTGGAGTTTCCCATGGTGTAAATCCATTAGTTTCACCC
TTCATTTTGTATATAAAGATTTTAAATACATCAGTTGTAATATATTTATTATGTATTCTCT
TAAGGTGTCACCTATGAGGTGGGCAATATTTTGGTTTTATTAACTATAACATTACGCGG
TTGTTTAAATAAAGAGATAAGTAAGGAAGAGATAATTAAAAAGATTGATGAAATTAACAC
ATTTTCTTATAACGCAAAAGTGTATATAAACCTTAGTGTTCAAATCCAGCAATAAATAA
15 SGTTAATATGAAAATGGATATTGACGGATACAGTGATGGAAAGTTATCAAAGGGATTAT
ACATGTTTATTATACAGTTAGTACTTTAATGGTAGGAATGAGACAAATCTCTTTTATGT
AAATGAGGAAGGAACGTTTATAAAATTAGAGGGAAAATGGCAGAAAATAACAAATAATGA
TTTAAGCAATCACACGTGGAAATATATTAGCTTATATAAAGACTTAATTGAAAAAATGA
CATAAAAATTGAGGAAGAAAACAATCATTATATTATAAGGTTAAAGGATGAAAATGCTGA
20 AAAACAATTAAATCTTTCTCTACAGAGGGATAAAAATCCAGGAATAAATCTAAAAAT
CTCTGAAGAGGAAGTAGTTATTATATTAGATAAGTATGGAACCTCAATAAAAGTTATTAA
AAAAGGAAAATTGTATGGAACCTCAACTAAAGGAACTTAGATGGAGTTATAGTTATAGA
AACGGAGATTAAAGATATCAACAAAGATTTGACTTCTCAATACCAGAAGATTTAAGTAT
ATATAACTAACATAGGTTATTAAACATCATTATTTAGTTTTATTAACTATTTGTTTTGG
25 GTGGGTGGGATGATAACTACCACAACCTCTTATATTGAAGGAAAAAAGATAATCAAAAT
TTGGGCTTTGTGCATGGGTTGCATCAGTTTATGTTACTGTAAAGTATTATGAAGATGTT
AAAGATGCGTATGAAAGGGCATTAAAGGGAGTGGGAGTACTGCCCTAATTAGAATGGTA
GATAATGCAAAGAAATTAGGAGCTAATGCAATTATTGGGATTAACCAAATTATGCAATG
GTTGGAGAAAAAGGAGACATGATAATGGTTGGCATCTATGGAACCTGCGGTTGTTGTTGAA
30 GAAGATGGATAATAAATAAATAAATAAAGAAATTAAAGAAATTACTTTTTAGCAATACATAAACAT
CATCTCCAGTTTTTACATTTTTTAAATACTCTGCATTTTCAACTATTCTCTCAACAAATAT
TTGTTTTTTCAAAGCTTTCTCCAGTAGGACCGAATTTATCACTCTCTCCCAATCTAACCC
CAATCATTCCCTTATACCTACTAACCATGTTTGTACTCCAATAGAGCAGGGTTCAACTT
TATCCGTGGGATGTTTTCAGGCAACAAGCCTTTAGCATACTCAGGATTCCTTTAAACA
35 TTACAATATCCTTATGTTGAAATATACATGAAGCTTTCCAACCTCTCTTGTGTTAATC
CAGTAGTTTTTCTGAAATACCATGCTGTAATTGGAGCTTTATCTTCAAACAACTCTATAA
CGATTATTTTTGTTCTTATCCAATCCTCTAATTTTAACTTTCTTTTCTTTAATACATCTA
AGGTATATTCTGGCTCCTGnTCAACAACAATTCGATTTTCTAAATCTCCCTCTTCTCnA
CTTCTATATTGTATTTTTTAAACATCTCTTCAGCTTCCTCTATAGTTAGACCAATAGCAC
40 ACAACCTCTCAGGAACCTGnTTTTACAGACAAAACCTCCAGAATCAGnAAAGTCAATAAGCT
CTATTCCTTCCTTAACCTTCCAACAACCTGTGTGAGATAAAGATGAACCTCTACTTTCTC
TnAGATATAAACTTTACCTTCTCCAACCTCCATAGTTTCTGACAGTTATAAATCCTCTCT
CCCTATCAATTAAATTTCTTCTCAATTTTAAATGTCTGCAGTCTGCAATCAGCAACGT
45 AAGTATTTGTGTTTTAGTTATCTCATAATATCCATCTTAAAGCTAAACAATGCT
CTACTGCTGAAGGAGTTCCATCAAACCTCAGCTGTGAAATAAGTAAAGATTCTCCAGCCAT
CTTCTAATTTTAAATCTAAATCAGTTGTTACTAAGTAATCAACTGCCTCTTTCTCTCTC
TAATTGGCTCTATGTCAATAATTTTATCTCCAACCTCCAATCTATCAATAACCCACTTAC
CTCCAACAACAATACCAATCTTTGGGTCTTTTAAATCCATAAACTCCCTCAGTTTTTTTCT
TTATGAATACAATATGCCCTCATCTTTATCTAAACCAGATATACTCAAAACAACATCCC
50 ATTTTAAACTCTTTTGGTTCTGTTGAGATTCTAAGTCAATTGTCGTTGAACCAATG
CTACATCCATTCCACTAACCCATCTGAGCTTCTTTACAAAGTCTTTATAATTATTATAA
AGAATTTGCTGTCTCATTATTTTCAAGTTATTGCTATTGTTATATTCCCTTAGTTGTTT
TAATTAATAAATCTTTTGGTATTTTTTCAAGCTTCTCTTTTAACTCCTTTTATTATTACGA
TATTCGCTCCCTCATTATAGTATTCATCTTTTATAACCTCTTTAAAGTTTCTCCAACCT
55 TTTCTTTCCATTTACAATTACCTTAGCCATAGTTTCACCAGATTATTTTGAGATTATTA
TTGTCyTTATATTGCTCATCTCTTCCATTGCATTTTAACTCCTTCCCTACCTAAGCCAC
TCTTCTTAACTCCTCCAATGGCATATTATCTGCCTAAACAATGATGAATCATTATATAA
CTACTCCCCAACTCCAAGTTTTAGCAAAATTTTAAAGATTATTTATATCGTTTGTGA
ATATAGCTGAATGCAACCCATATTCAAGTGTGTTGGCTATATCAATCATCTCTTCTCAT
TAGTTCTAATTATAGGAATTACTGGGGCAATGTTTCAAGTTTGCATAAAATATTGTCTC
60 TATCAACTTCCAATATTGTTGGATAGAATAGAGCTTTATCTCTCTTTCTCTAATAATA
ACTTACCTCCTCATCTATAGCTTTTCTACAACCTTTTCAACCCATTCTGCATGTTCAA
CACTTATTAAAGGTCTACATCAGTTTCTCATCTAATGGGTTTCTACGTTAAGTACTT
TTGCCTTATTTACAAACATCTCTATGAACCTTATCTGCTATACTCTCATCAACTAAATCA
TCCCTACAGAGATGCAAACCTGTCCAGCATATATAAACTGCCTTTTATTAAATGCATTAA

-178-

CTGCTTTATTTAAATCAGCATCTTTTAAACGATATTTGGATTAAACCCCTCCCAATTC
AGGCAATTTTTTTAAAGCCAGCTTTTTTAGTAATTAATCTCCAACCTTTGAAGTGCCTG
TGAAGGATATCATATTAACCTTCTCATTAACAACATCTCATCTCCTACAACCTCTCCAG
CTCCAGTTAGCAAATATAAACTCCCAGTGGAACATTATATTTCTTCAAAGCATTTTCTA
5 TGATTTTAGCCAACCTCTATACAAACAAGAGGAGCTTTTGATGATGGATGATGAACATAA
CATTCCCAGTGGCTATAGCTGGGGCTATTTTATGAGCTGATAAATTTAGAGGGAAATTGA
AGGGTGTTATAGCCCCAACTATTCCAACCTGGTTCTCTCCTTGTA AAAATTAATCTATCAT
CTGAAGGGATTACCTCATCTCTATGCTCTTTAACATAGAAAGCAGCTAATTTAAATGTTT
10 CAATACTTCTTTCAACCTCTACTCTTGCCCTGTTTTATTGGTTTTCTGCATCTATAGCCA
ATATTTTGGCAAGTCTCTCCTTCTTTTCTTTAATTTGTTTGGCAATATTCATTAAGATGT
TGTATCTTTTAGTTATGGGGAGATTTTTCATAACTTCTTTTACTTTTCAGCCGTATCTA
TAGCTTCTTTAGCTTCTTCCCTACTTAAACGCAGGGATTTTTTAATAACTTCTAATGAAT
ATGGGTAAATAACATCCATATCTTCCCTATTTATCCACTTCCCATCTATGAACATGATTC
15 CACCAATAAAAAGAAATGTTGTAACATAATTTATAATTTGTGCCCTCTTTCATTTTAAATGT
TTTTAACAAACATTTAATGTTTATATATTATGTGTGCTTATAATTATTAAGATTTTATAGG
ATTTTTAATTTTGTGTTTGGTTGATGGATTGCTTCTGTTGAATATGTTTGAAATTTGAAA
ATAAGAGCATTTAGAATTTATTAATTAGTTCAAAGGATTTTTATTTAATTTCTAAGGCTT
TGTTAATTTGATTATTTAGATTAAATCAGACCGATTCCGGAATGGAAACTTTTATAAATC
20 CAATATTGCTGTTATTAGAATTAACCTCTCAAAGGCTTCAAACAAGTGGAAATCTCT
TTTTATTAATAATGTTGATATTGTAATCTAAATATTTATATTAGTTTATTTTTTAATAGA
GCTTTCACAAATTTATATATTAAATAATACATATAGATGCTAAGGAAATTAACCTCTCCTT
TAGTGAACATATGAAAGTAAGAAATTA AAAATGCTGAAATTAATTTAATTGAGGAAGA
GTTAAGTAAATATACTGATAAGGATTTTGTCAAAGCTTTAAATATGA AAATCTAATAGT
25 TTTGGAAGGAAAATGGCTAACAGTTTGTATACAAATATAGAAACAATAAAAAATTA
TATGTTTCAAGACATATTTTCAGTAGGTAATGTATTTGGTGAGATTAAGAGAAAATTCG
CTTATCCTTAGAGGGCTTTACATTAATATCTCCCAATATAATAAATAATTATGCAATTGT
AAATGAAAAGCTGAAGCATTATTTTTATATGGAAGGGATATCTTTAAGAATCAATAAT
AGAAGTTAAAGGTTTTGGAAGAATTGCTGTTTTTAATAAAAATAGAGAGTTTTAGGTAT
TGGACTCTTTGACGGAAAGATAATTAAGAATATAAAAAGATAAGGGATGGTATTTGAGAGA
30 GGGTGGATAATAATTATCAAGAGTAACATACATAACTAAAATTTATATTATCCAAAAT
TAAATTTTACTATTAATTATAATCTGAATTTTAAATAGGTGGAAACAATGAAAGCAAAG
AATTAGCTCAAAAATTTTATTAGATATTTACAGAACTTAGATGAATTTTCAAAGGATA
TAATTAGAGGAGATTTAGCAGATATTGAATTTAAAGGATTCTATCTAAAAGGAAAAACG
GAGAGAAGGCATATATTAGAACTTAGATGACTTTGAAAATTTAAAGATTTTGATGTAG
35 AGATGAGAAAATACAAATTA AAAAGTATAAATTTAAAGAACTTAGATGAGGGTTAATGA
TAATTAATCTATCTTCAAGGGTAAGTAAGGAATATAAGTTTGAAGCAAATGAATACTCAA
TAATCTACCCATCAAAATAATACACCATAGAGTTTAAAGAGAGAGTATTA AAATGGATGG
AGTTAGAAGATGATGAATTTAGATGAAAAAATTATAGAGTTTGACACAAAGATGAACGAGA
40 TTCTTGAAGAGCTGTTGGAAGATGTTGAAGTTGAAGAAGAAATTTCTGTCTATATTGATG
TATTTATGGATGTGAATAAAATAGAAAATTTGTAGAAAAGATGACGAAAGAATAATAA
TCTGGATTCTATCTGTCTTTTTATCTCAAACGATGATGTCTTAAGAGGACTTTTAGCTT
ATGAACCTTCAAGATTCAAAGCAGATTCTTAGAAGTAGGTTATAAAGATATAATAAAT
ACTGCAGAGAATTA AAAAATAACCAACAAAAACCAAAAGTTCTTGAAAAATTAAG
45 ATATTGCCAATAAATATGGAGATATAGACTCTTTAACTTAATAATGAAATTGAGAATG
AATAATTTAATCTCAATCTTTTATTTCCGCATCTTTATCCTTTAAAAATCTTTTAT
AGCAATTTTTTTAAGCCTTTCTTTAACTCATCCAATCCAATATCTTTATCAGCAGAGAT
TTTTAATATTTCTTCTATTCCAACCTCTTTTAAATTTTTCTTCAATCTCTTAACTCTCTC
CTCATCTACCAAAATCAATTTTATTTATAGCCACAACAATAGGAGCTTTAAACAAATCTTT
50 TATCTCTTTAATAGATTTATTTGCTCTTCTATTGTATAACCACAAAATTCAGTGGCATC
TATTATAAATAAAATCAAATTAGCTAAATAATTTAGAGCTAAAATTGCTGTAACTCAAT
ATCATTCTCTCATACAGAGGCCTATCCAACAGTCCAGGAGTATCGACCATCTGAATCTC
TCCTATATAACCAACATTTATTTCCCTTAGTTGTGAAGGGATAGCTGTTTATTTCAACATC
AGCTCCAGTGAGTTTTTCAATAGTGTTGATTACCAACGTTTGGATAACCAGCTATAAC
55 TACTGTTGGCAAATCCTTAAATGTTGGTAAATCTTTTAAATTTCTCTCTTGCCACTGCAAC
AAATGCCATCTCTGGATGAATCTGCTCCAATATAGATTTAACTCTACCAACAAATTCCTT
TCTTAACTTTCTGCTGTTGTGGAGTTCTTGCCCTTCTAATTTTTCTTGCTATTTCAAT
TCCTAATTTTCTGACCAATTCAGAAGCCCATTTAAATGCTCCCATCGACTTTTTAAATC
ATCTATCCCTACCAAGACCTCAACCATCTCTGATAAAACTTAGGAAGTTTCTTACTGG
AGGGCTTTTATCTATAACCTTTTGTAAGTTATCTGCAACAACTGAAGCAATAGTTCTTAC
60 CTTATGCTCCTCCACAAACCTCGCTTTTAGTAACCAAGGTAATCTTTCTGTCTCATCTC
ATTTGCTACTTTTTCTCTCTTCTTAAGGCTTTAGCCATCAATTCATCAGGCATCAATAT
TGTTGGCATTTTTTTGAATGGATTAGCTTCTCTACTCATAATTATCACCAAAAAAGTTTT
TAATAGATTTATCGATAAAAATAAAATTA AAATAAATCTTCTAATAAAGAATGATTTTTA
TTTTCATTTATTTAAATTTTCAACACTCCTGTATTTCCATCAACAACAATCTATCTCC

AGTTTTTATCTCCTCAATATCTATTTTATCAACTAAAGGAATTCCCTCCTAAAAATAGCCCC
AGTGGCAACTATTGGCTCACATTCTTTATTAACATATACCCTTTAAAAATCCCTCTCTTTGC
TAAACCATAAATAACATAGGAGCCAAACAGTACTCCCCCTACCATAAGGAAATACAAAGAT
TTTTCTTTCAATGATTGTCCATATAAATCGCTATCTTTATCTATAATGTTGCCCTCTTC
5 ATCAACTCCTCCTAAAAAGAGAATGGTTTTTTAGAAACGATTGCTATGCCTTCAATAAT
ACCTTTTGATATACTTCTCTCTTTTAGTTCCATAATAATCCCTCAATCATAAGAAAATTT
ACACCTCCGAGCGTTAGNAAAGGGGAGTGTAAAGAGGTATCCTCACTATAGAAGGGCTTTG
CCCCCTATTGGGATACTCCCCAGATAGAAAGTGGGGTTGCCCTCTGGCAACCCCGCTCTG
10 GAGTATAGCAATAGAGGCTTTGCCCTATGCTTTGAAATACTTCTTCTTTTAATTCAT
AATACCACCTTTTAAATTATTCAATCAAAAATTACTTCATTTAAAAACTTCTCACATAAT
AGCATCTAATTTTTAATGGGTTTTTACTTTCTATTTTAAATTTTCTCTAACITTTTCTT
TATTTGTIATGCAATTTGGATTTGTGCATTTAATGTCCCTTCTATCTCATCTGGAATTT
GTGGTTAAGTTTTTCAACAACCTTTCCGTTTCTAATGATGTTGATAGTTACATCTGGAG
AAATTAAGATATTTATCAACATCCTCCTTTTTTAATTCATTCCTTCAATTTTTAAAA
15 TATCTTTCTTTCTTTCTTTTGTAGTGGACATTAATGGCTATCATCACAGATGTCTCTT
TTGGGACATTTAAAAACCTTAAAAACCATTAAATGCCTTTCCAGCATCTATATGGTCAATTA
CAGTCCCATTTGTAATTTTTTTAACTTTTAACTCCTCCATAGGAATCACTTAAAAATTTAA
AGCTTTTGTCAATTTTCTCTAATATTTTAGCATTTTTTATTTGTGTTCTTTTATCTCA
20 TTCAATACCTCTAATTTTTTATTTACATTTTCTAACTCTCCAAAAATTAGTTTTATCCTT
GAATAATTTCTTTTTTCTTCACTTGGAAAATTTGCCAAAATTCGAACAGTCCCATCTTC
ATAGTTATACACAATTCATCAATTCCTAAGGCATGTCCCAAGTTTTCAATCCTTTCTCT
AAATCCACATGCTGGATTCTACCGTAAATAATAATTTCTAAGTTGTAGGCATAAACTT
CACCAAAAATAATAATAATAATAATAATAATAATAATAATAATAATAATAATAATAATA
25 TCTTTCTTAACTCTTCTGGATTAAATCTTTCAGGGAAGTGTCTTTAACTACTTTACCA
GCATGTTTTGGATGATATTTATCATAATCAGCTTCTAACTGCCTCAATACTGATTCTAAT
GACTCTTTTAAACATCAATAAACTCCCATCTTTCTGTTCTGAAACATAAGCTATATCT
TCACCTTCAGCCTCTAATTTGTTTGGTAATGATGCTTTTGGCCTACCTTCCCAACATAT
AATTTATTTGGTGTCTTAACATAAGTTGTTATTCTATAATAAGGAAGTCTCTCTTTATCT
30 CTCTCTTTTTTGATTGTTATTTTATCCAAATGAATCTTTCTGCTGTTTAAACCATCTTT
TTAACTTCTGTTGCAATAATTCTTTCAGCAAGGTCTTTAAATCTGGGTCTAACATACCG
TGTAATTCATTTCAATCATTTGCCCTTTCTTTAAATCAGCAATATATTTAATAATATCC
AATCTTGTGACAATTCCTCTCAATGATTTTCTTTTAACTGAGGACTCTCTAATATCA
TATCTTGCATAACTCTTGCAGCATCTGCAGCACTTGCATCAACATCGACTGTTATTAAT
35 GGAGTGTTCATAATTAATCTAACTGGCTGTCCCATCTTGGAACTTTTTCTCTTTAAAT
TCTCCAGCATCTATCTTTCTTAGGTTTAAAGACCTTTTTTAATATATCGACTTCAGTA
ACCATTCCAAGTGGTTTTCTCTCATCTACAAACCAATCTACCGATGTTATTGTCT
CTCATCAAAGCTCTCGCTTTACCAATTGAGTCATTTTCGTTTATTGTAATAACATTCCTT
GTCATTATCTTTGTAACCTTTGTATCTTTTCAATTTTTTGAATTTTGCAGCTCTTGCCATT
40 ATATCATAGTCAGTTATAATTCCTACCATTTTTCTACATTATTAATCTATTGGAGCTGCT
CTCTGCCCACATATCCAACATCTCACATACAGCATCCAAAAATGGAGTATCTTCATGTACG
CAGTGTGCTTTATACATTAACGACCTAATCTTCTCATCTGTTGATGATGCCAACAAACAAA
TCTCTCATGCTTATTAAGTAATATTCTTCTTACCGTCTTTTTTATCAACAACTATTAATA
45 TGATGAAATCCGTTCTCTTCCATAATTCCTAATGCCTTTGAGACAGGTGTATCAGGTGTT
ACTGTAACATACATCTTTTGTCAATATCTCTTTTACTGGTTGCTTTAACATTAATCTCACC
TTTTAACAGAAATTTTGTATGATTGATATATATCACATTTAATATTTAAAGTTTAAACAGC
AGTTACGTATTAAGAAATGTGAATGTTAATTTGGCTCTATTTTCTTAAACATATTAAG
AAAACCTTAAATATTTTAAATATCTTTTATCATTATTTGTTTTAAATTAATATTTGA
50 GTAATAATATTTTTTAAATAATCGTAAGATTTATATATTTTGGCATGATATACTGCA
TAAGTAATATAATATACATAATAACCTACACAAATTAATAAAAAATATATAAAATTA
CTCCCGATGACGGTCTCCCATGGTGGGATACTTGAAGGAAGTAGTAGAGGTGGGAAGATG
ATGGACTGGTTAAAGAATAAAAAAGCAATCTCTCCAATCTTAGCCTTATTAATCGTGTTA
GGAGTTACAATAGTCGTAGGAGCAGTATTCTACGCATGGGGAAGTAATTTATTCGGAAC
AGCCAAGAAAAGACACAGGCAGCAGTTGAAGGGACTGCAACAAATATGTTTTATGATGCT
55 GGGGCAATTAGGGTTGCAGCAACATGATTGACAAAATAAGATACCAAGATGCTGATGAT
AGTGATTTCATGGTTAGGCTATCCAAATGGTAACGGAAAAATTGCAAGGCCATCTACTTCA
AATGGATGTTATAATTCACATACCGGCACAGTATTCTATGACGAAAGATTTATTGTGGAA
ATTCCAGTAACATATTGACACACAAGATTATAAATTAACCTGGAGTTAAAGTTGTAGGAGGA
ATCCCAAAAATAGTTGATATGGGTGGAACCTACACAAATGCCTTTGAAGATATATCTGCA
AAGTTCTATGCATTCTGGTTACACCTAAATGACAACTATCAATTGTTGAAGAAAGATGGA
60 ACATTGTTCTGTTGGATACGTAAATAAATCAGGAATGTTTGAAGTTAGTAATGGGTATGTA
ATTGATGGAATCAGACAAGAGACACCTATGGAAAAATGGCTTCTTCAGTTGGTGCAACA
TCAGACTCCAGCTGGGATGCAGTTAATACAACAACTGGAGTAGCTCCACTTGTAGAGACT
TCATGGCCATATTATGGAACATACTGTAGTAATGTTAAGTTATACACAGCTACTGGAGAA
GAATTAACCAGGATTTGGAAGTGAACATTGGTTGCACAATGGTTCTGCAGTTCTGCA

-180-

ACATACTTAGATAAACTATTCAACAACCCAGAATATGTTGTAGGAACATTACCAAAGAAC
TCAGAAAAAAGCTGTAACAACTACTTATTCTTCAATACATTATACCTTGCCAACTACAAA
GGATCTACAAATGATGGATATGTGACATTTGAAGTTCCCTTAAAAGTTGTATCTAACGAA
5 GGAGTAAGCTAAAGAACTTAAAGTTAAATTTACGGTCTATGATGATGAGTAGATTTCTAA
TTTTTTCTTTTTTATTTATATACATCCATAAAATTCAAATTTAATATAAAAAATCTTTTC
AAATCTGAAAAAATAAAATTTATGAAAAATAAATATTTTTTCATATAAAAAATCATACT
GTTAGTTAAATTTTCATATTTAAATTTTCTTTATGAATTATATAGAAAATTTTATATAG
ACGAAATTCGTATATACATAACCACCTACATTAAAGAAAGTTTAAATAATATATAAAGTAA
10 TATTTAATTCCAATGACGGTCTCCTGTAATAGGATACCCGAGGAAAGAACGAGGTGATGT
AATATGTTTGAATGGATGAAGAACAAAAAGCAATCTCTCCAATCTTAGCCTTATTAATC
GTGTTAGGAGTTACAATAGTCGTAGGAGCAGTATTCTACGCATGGGGAAGTGGATTATTT
AATAACAGCCAGCAAAGTACTCAGTCAGCATTTAGAAGGAACAACATCCACAATAACCTAC
GCTGCAGGAGCCATAGGTGTTGGAGTTCCAAAAGAAATTGATGTTGAAGGAGATTGGAT
15 TTAACATATCCTACTCCAGATTACAACTCTCTCACTTGACTACAACAGATTATGGCTCA
TATGATGAAAGATTAAATCGTTCCAGTTCCATTAACTTTAGAAAAGTACTATGATTCGACA
TTAACAAATGTAAAAATAGAAAGTGACGGAGCCACAGAAAGTTGCTGGTTAACACTCAAA
AAGATTACATTAAGTACAACGGACAAAACCTATGATGCATATTTATTTATGCACAAATGAT
GGGACTCCATTTAAAGGTATATTAAATAGAACTGGAATATACCCAGATGCTACATGGACT
20 GGAGATGATGGAACAACCTATACAAGTGTATACTACATATTAGCTCCAACTCAGTTACT
GGAGTTGCAGCAGTAGATGGTAGTAAAGATTATCAGTTACAACCTGCTAAGAAATGGCCA
TATTCACAAAATGATGTCCAAAGTATGAGGTTGTATGCAGGAGGATTCAACAATATGTGG
TATGCATGTGCGGTTAATGGTTTCATATTCAGGCTGGACAAATACATTAAACAGCTACAAA
TTCATTGGATGGAAACCTGCTCAAGCATTTTACAAATACAAAACACCAATCGATGCTAAG
25 TTCTATACCTTCAGAATGGGATGTTGGAACATTACATAAAGGAGAAAAAGTTTCAAAAGAA
ATATTCTTCTTCTTTGGTTCAAGTATGGGTTTCCAAGAAGAGCCAAAGTGGAGAAACAAC
GTAAAAATCCCTGTAAAAGTTGTTTCCGACCAAGGAGTATATAAAACAAGTTGATGTCAAT
ATTGTATTAAAGATAGGTTATAAATCTCACCTTTTTCTTTCTTTTTTTATCTAAAT
AGTTTTAAAGATTTAAATATAAAATAACCTTTAACTGCTAATATGTAATAAAATATATGC
30 AATAAAATATTTCTTTTTGGATTAAAAATAAATTAGAATTTCAAAACAACCTTAAATTA
TATTACTTTTTCTAAAGTGATAGAAGAGATTGTCAAGTTAAGTTTTATTAAATATTGA
TAAAAAATAATAAAATATGAGGCTCATGATAGAAGTTATAAAGGAGAGAAATCGTAGAGAG
GAAGCTTTTTAAAGGAATAGGAATCGATAGAGGTTAAATCTTAGCAGGGCTTTTATAC
TACCTCGGATTATCATTGAGGAAAGTGGTTTATCCCCCTCCAAATTCGAAGATATAAGTC
35 ACGAATCGATTAGAATTTATATCATAAGATTAAAGAGGTTTTAAATAGATTTCCAAGTA
ATGGTAAATTCGATACGGTTGTAGTTGAGTAAAAAGCTTCATAATGTTCTATAATTGGG
TGAAATCGCTGATTTAACAACTCTAAATCAAAAATAAAAGCTAAATAAACATTTTTATT
AAAAAATAAAAAATTTTTATATGTGTTATTATAAAATCATGTATCCAAATATTATCTATT
40 TTGGATTTTCAATTTTCTTTTTTCTTTTAACTTTCTCGGCATATCTCTGTTAAATA
TCCTCGCTATTCTCTCTGTAGCGTCTAAAAGATTTAATAACTGCTCTAAGTAATAGTAAA
TATCTCCAGAGTACGTTTGATTTTTAACTCTTCATATAATGTCTTTGATATCTGTCCAG
GAGTTTTTCCAGAAATCCTTAGATTAAATATCATCTCTAAAATTTTTCTTCAACTTCAA
CTCCCTCAAATCCATAATAATTAAAGTTAAATCCTCCTTAACTTCTTATCCTTAATTT
45 TTTCCATCCCCTCCCTAATAACTTCCAAAGCATCAAAAACCTTGAAGGAACATTTATAT
TCAAAATTTTTGAAAGCTTTATTTTTAAATTTGTTGATAAATAGACGTTTTCAAAGGGCA
TAATTTTCAGTAATTAGTTTTATAATCTCTTTATTCTCAATAATCCCCTCTTTAATTTTT
CAGCAACCTTTGGATATAAAATGAAATAGCAACTGCACTTCCATAATTTGTTAATTTCA
CATCATTATTAGCTTTTATCATTCCATAACTCTCTAAATTAATCAAAATTTTGTCAAAG
AAAATGCCCTTCCAATATAAGGAAGTCTATCTATATCGTATCTGTTAGTTATCCAGCTG
50 AGATTGTAGCTAATATCTGCTCTTCTCTCATCTCATTATATTCACTTTAACATCTT
CAGGAAGTGGCTTTAATAATTTAAATGCCACTTCATCCTCAGTATTTCCATCTTTGCAT
GATATTTCTTCCCTATTTCCACCAAAAGATAGACCTTCCCAATTTTCATGCATCCCCCTTC
TTCCAGCCCTCCACACATTTGCTGGAATTCAGCAGGATTTAACCAATCAGCCCCCATAG
CTAAACTCTTAAGATAACAGTTGATGCTGGAAATCAACCCCTGCAGATAAAGCGGCAG
55 TTGTAACAACGCACTGAATTTTTGATTTGCGAAATCATCTTCAACTTTCTTCTTTTTA
TATATCCATACCTCCATGATAGAAGTCTGCTTAAATTCCTTTAGATTTTAAAGCTTTAG
CTAAATACTCTGCTCTCTTCTTGAGTAAAGTAAATATTAAGCACTGCCCTCTATATCCAA
ATTTTGAATGTTCTGCCATTCTTTTTAACAAATTTCTTTGATAATATTTAGTTTGGCAA
AGTCATTTTGCAGAAAATTATATGTCTCTTAAAGGAAGTGGCCTTCCATTATATAAAA
CTAATTTGGCATTTAGTTGTTTAGCCAATTCCTTTGGATTTCCAATTTGTTGCTGATAAAT
60 ATATTTTTGTGCTCTTTAAATAAAAACCTCAGCCTACCAATTAACCATCCAATCTTG
CTCCTCTCTCCTCTAAATTCAAAGAGTGGATTTATCAATAACCACTGTTCCAATATCTT
TTAATCTTTAGTTCTAATTAATAATCAATTCCTTCGTAAGTCCCAACGATAATATCAG
CATCTAACGATGTCTCAACATCAACTTTCTTCCAATCCTACCTAATCCAACCTCTTAAC
TAACCTTAAAACCTAATTTTTTCATATCTTTCTTTAAATTCAGTATTTTTGATTTGCTA

5

10

15

20

25

30

35

40

45

50

55

60

AGGCAACTAAAGGAAGTAAAAATAGAACTTTTTTCCAGTTTTAATTAAATTTTAAATTC
CTGCTAACTCACCATTAAAGTTTTTCCAGATGAAGTTGCTGAAATAATTAATAAATCAT
CTCCGTTTAAACAAACCAGCTTTAACGGATAGTGTGTTGAACAGGCAAAAGCTCTTCAATCC
CCCTACTCTTTATTATCTCTTTAAGTTCTTCTGGAATATCTAACTCATCTATCTTATAAT
TTTCAATCTTATCTTCTTCACTACCTGTTATAATATCATATCTTGTAAATCCGGCTTAT
CCAATGGATTTCTTATTCTCAACAAAGATAGAACTTTATCAACATCTTTAAATCTCTTTA
AAAATTTCTCTATAAATCTTTCGCTAATTTTTACTTCCTCTTTGATTTTCAATATCCCGC
AGTTTATACATATTTCTAAATTTCCATATCTACATCTATTATTTCTTGTCAATCTTTTGT
AGATATTTTTTAAATAAACAGAATGGGCAGAGTTCTATATAATCAAACCTTTAAATTTGTATG
ATTTTAAACTTCTTCTATTTCTTCTCATTCTTTCTTTTAAATAAATATTTTGTGAGATT
TTAACAACCTCCAAACCTTAGACGGCTGAATTAACCTTATCTCTCTACTCTACATCTGTATA
ATTTGTATTTATCTCCAACCTTTTTTGTAAATTTGCAAAATATCTTCTGATTATTTTTAACTT
CTATCCCATCTTCTATTTTTCCACCTACTTTAACAATTTCTATCTCATCTTTTTTCTTTT
TTGGCTTCTTAACAATAAGCATTATAAATCACCCTTCAAATAAACATTCAAATAAGCTA
TGAATAAAATAAGTTATAAATAATTATAACTTTATAATAACTTATTAGTAAATTTAGTAA
AACTTTTTTGGGGATATTATGAAATTTATAAATGAAATTTATAAAATCCAATAAAGGACAA
ATTTCTTTAGAAATTTCTTTGTGTAGTTATGGTTGTGTCTCTCAGCAATAATTGTTCAT
TACTATTTGATAAAGACAGCTATCGAAACAAGAAATGCAATATGGATGTTATAAATCAA
AGTTCCAATGTTGCTGAAAAATCCTTAAGCAATGTAACGTAGTGTGAACCATGCTGTTG
ATAGGTATTACAGGAATGCCAGGAGCGGGAAAAAGCTCAGCTTATGAAATTTGCTAAAAAA
TATAATCTACCAATAGTTTCCATGGGAGACGTTGTTAGATATGAAACAAAAAAGAGGC
TTAGAAATTAACCTCCAGAAATGTTGAAATACAGCTATAAAGCTAAGAGAGGAGTTTGGGA
AATGAGGCAATTGCAGTTGCATGCTCTAAAATATATAGAAGAAATTTAAAAGATAAAGAA
ATAGTTATTGTTGAAGGTATAAGGAGCTTATATGAGGTTAATTATTTTAGAAAAACATAAA
CCTTTGGTTTTAATAGCCATTCACTCTTCTCCATTAACAAGATTTGAGAGATTGAAAAAA
AGAGGAAGGGAAGATGATTACGCAAACTGGGAAGTATTTGTAGAGAGGAGCTTGAGGGAG
TTAGGATTTAGTATTGGACATGCTATTGCATTGGCTGATTTTGTAGTAGTTAATGAAAAA
ACCTTTGAAGATTGTTTAAATCAATTAGACAACATTTTACAGGAAATTTTAAATAACTTG
GAAAAATATAAGAAATATAACTTTATTTATGAACTTTAAGATAGATTCAATTTATATAAT
ATACTATTCTGTTTTCCCTCTTCTTTAGATTTTACAATTTCCAAGATTTTCCAGTTTTTTA
AATTATACCTTACAGTTTCAACATTCAAATTTCAAATCTTTAGCAATCTTTCTTAAATGAG
CAGGACTTTTTAATAAATATTCAAATATGCTTTTTTGGCTTTCATTTTTTAAATATAACA
GTGGCAAATCCCTCATATCCATATCTGCTGGATAGTAAATTAATCGATTACCAAATTTTT
TACTTTTAAATAGATTGCTTTTTCTAATATTCTTAAATGCCACGTAAGTGTGTACTG
GTTTTATTAGGTTTTTAGAAAGTTCTCTTAAATGACATCCAGGATTGTCTAAAATATAAT
TGTAATTTCTCTTCTTGTGTCTATTAGAAGGACTTTTCTTCTCATCAAGAAGATTTATAC
GAGAGAGGATAAAATCTTTTACTGATGCTAGTGCAGATATTAGCTCCAAAACTCTTTT
TTAGGGTTTTCTGAAAGTTAGCATTAAAGATGCAAGAGTTAAGAAAACAGTAAAAAGTA
TATAGGGCAGAGGATTTGATGTTTTCTTAACTATATGTATATAAATAAGATTAGCTAAAA
CATCCTCATCTGGCTTAAACCAACATATATTTTATTATTTATCTTTATCGCCGCTGGTT
TTCCGCTTTATATCTTGCTATAACCTCTCCTTTTTCTGGTAATTCATATAATGCCTCAA
CCTCTGATTGTTTTAATTTGAGTGGTCTTTATCCAGATAATTGTCTTATTGCCATTAA
CTTCTCTCGAACCATTATTGAAGTAAAAATAATAGCCATCTGTTTGTATTACATTTT
TCTTTGTAATGATAAGGTTATAACTTTTATTCTCTATTTTAAATCTTAGTTTAAATTA
AAGGAGCTATGTCTCTATCAACTTTTATATATGGAGGAATAATCACGAATCTTTTTTCT
CTCCAATATAAAAAACATGGAGTTCCATTCTCATAAGAAAGATAAACCGTAGTGTGTAA
GGTATTGACTAACATTTTCTAAGCTAACATTAATACCATAAATATGTACATAAATACCAT
AAACATGAACGATGCAAAATAAGATTAAATTAAGTAATAAAGTGCTTTTTTCTATGA
TTTCACTAATCTATGACTATAGGTGGAGGATACATGATTAAATAGAGCCCTAACGATAAA
AAAATTAACGAATAAACAATAATAACAATCCAAGCTTATGTCTATATTAATAAACACCA
ACAAATATAAACACTGAAATTTAGAAATTTATGAGTGTGAGACTAAAAATGAACCA
ATGAGCGTTCTTCTCCTTTGCATTTTTCTAATTTTCTTCAATTTTATTAATATTTCTTTA
TTGTTTTCTTCTACACATACCTTACCTCTATTTAAAAAAGATATGCTTCAAGTCTTATT
TCAACTGCCACATCATACGCTTTTTATCACTTAAAAATACTCTACCTCCATACCTTAACA
CCCAGTATAATGGCTTTTGTGAATTTAGAGGAATATCATAAATTTTATGTAAGTCCCTT
GCAAGGTCTTTTTCTACATCAGTAAGTTTAAATAAGTTATACCTCCAGGTAATATATTT
CCTAACTTACAACCTCTGGAACATATACTGTGCCACTTAGTAGTTTCAAGGTCTTTAATT
GAGAAAATCCCTTTATCAACAATATATGAACGTCTCCTAAATATTGGAGGAATCAACATA
GCAGTTATTGAAGTAGTTGTAAGTGTGGCTATAGCAGCAGCTACTTTTTTAAATTTTCT
TCAATTATTAGTGGGTACTTTCTTTCTTCTTCTTGTATTATTCATCTCATTTTGAAGGT
TTTTTGTCTCCTGAGTCTGTGACTTCTCTTCTTTTTTATGTCTCTGCATTTGGTTTATA
GTTTTAGATGACTCTCGTTTTCTTTTTCTTTTTCTTTTTTATTTCTCTTTCCATA
TAGTTATAATATGGAATGTTAAACCTTAAACCTTCAACTTTTCTATTCCAATAATGTAT
GAATTATCAACCTTAATTGCTGGTTTTATTTTTATAGTTTCTATAAACATCTCGCCATGCA

-182-

5 TAAAATTTAAGATAAAAAATAGGAACATAATCTGAAGTGATATTTAAATGACTGTGATACA
TTCTCATTAGGTTCTATAATATAGGAATAATTACCAAAATCTATTTTGTATTATTAACA
ACAGCCCAATAGCTTGCATTACATTTAAAGAGACATTCTTATCATTTTATTATATAA
10 ATAGCTGTCCATTCAATAGAACCATTAATAAATTTTATTTGACTTTATTATGGAAAAT
GGTATTGGCAGAGAATATCTTATCATCAATTTAGCGGGTACTTCAAAACTTATATTGCTA
TCTCCGAAATATAAAATATTTGAATTTTGTATTTTGATAAAGTTATTATTTTATAGGAC
TTGGCAGGAACCTAAGACTGATGCATTTTAAATGTTAAATCCTCCTGGAAAAGATATGTTA
AATAAGATACTGTAGGGATAGTTATTGATTATTTTATAATATACCCTCCATTCTCTCTG
15 CTGATTCTACTTGCAGATATAGTTATGGATATGTTAAATTTTTTGGGGGGAGATTAAGA
GTTATATTTTTTGAATATGGAAGATAAAAGGAGGAGTTTCTATAAGATATATAGATGCTA
AAAGCATCGGGATTTTCATAATCTATATGTAACCTTAGATACATCAACTGTTTGGAACCA
TTTGGATAAAATACAACCCCCCTATACTCATATATTTCCCCAAAACCTAAAGAAATAAAT
GCAAAAAATAGTATAATAATAATAATTAATATACCGATCTCATGGTCCCCAATTATTAG
20 GTTTTATTTTTTAAAGTATTTAAGATTTATAGAACAATTTTTTGACGAATTATTTTTTG
GGTCAATACCGATAATAAGTCCCTCAACTGTTGTTATATTGGTTGTTATTGATATGTTCA
TTGTCTCATTTCGATTTATCACATTAATTTAAACCAGTAGGTGTTCCATAGGTTCCAT
TTTCATCATAATCCCCCTGAAATATTGATTACTTCAATATTATCTGGCTTATACCAATAAA
CATAAACATCTCTTGTGTATATGATTTTATTGTTATGTTGTAGCCGTTTGGAACCA
25 TTACTATAGTTCCAGTTATGTTGAAGAACTTTTAAATTAAGAGATAGTTTCTTCCAAAT
CTGATGTTCCAATACCTTTTATCGTTGCTGTTGCAGTTAGTAAAGATTCTCTCCAACCC
CTTTTCCAGAAACATTTATTGTTCCACTGAAAAATCCATTACTATCAGCAATCAAACTTC
CCAAATAAATCCAACCTTTCTCCATAGGTATCATTCATACAGTGCCATCTGAAGAAATAT
TATTTCCATTAATTAATCTCCGCCACTTAAATTTTTAACTAAATAAATCTCAACTACCG
30 CATTTCGCAAGTTTGAAGTCCAGTTCCATTTCCAATGTATCCTTTAAGTGTAAAGTTAT
CTCCGTTTAACTCAGCATAGGTAATTATTGGATAGTCAATACCATGATTGCTTCATTAT
AGTTCAATAGCCCATCATTTAGAGTTACATTATCATCATCTAAGTCAATTCCGAGTAGAG
AGTTGTTGTAAATTGAGTTTGGAGATTATTATATTGTAAGGAACAAAATCCCAGTTTG
GAATTGTAATTCCTTTTCATGTTGAAGATTGTGTTATTAATATGTTGATGTCTTTGC
35 TTGCCCCATTAAATCCATAGGCAGAGTTGTTTGCTATGATATCTTTGAGATATTAA
ATTCTAAGCTAATCCAACCTCATTTAACCATAAAACCTCAATTCCTCCAACCTTTTCCAC
CATAAGTTGGATTGGACAGAGATTGTTGTTTATTATTTTATTACCTCTATTATTATAT
ATCCATTATCTTGATTATAAACTCCATAAGCCCCAACAGTTATTCTCGCGTTATATTTT
CTATTGTGACAGTTAATCCATTGTATTGAATTGTGTTGTTTATAATGGATATATTTGTT
40 CAATCCAATCCCAAGAATTCATCCATTTGCCTCTTGAATTAATAATGCCTGAGCATCGC
TGTATTGAATCGTGTTATTAATATAGAGACATTCTCAACTCTTCTCCTATGTATATTC
CATTACCGCTATTTCTTCAATACCATTATTTGAAATTATGTTGTTTTCAACTTTAACAT
CACATAATGTTCTGCTCCACAACCTTCTAAAGAAATACCATTACCCAAGTTGTGAGATA
TATTGTTTAAATTAATAAATCCCTTGGTATAGTTTCCACTGATTTTATTCCACTTC
45 CTGCTGGGTCTCCTCCAATCAAACCGTTATTGGTTATGTTATTATTAATATGTTTATAG
CATTACTCCATAGATGTAAATCCATCTTTGTAGGAGCCGTTTATTAGTGATTGGATA
TATTTACATTTGAAGCACTTCCCAACGAATAGATAAACAACCCATAGCTTCCGCTGTTTA
ATACACTTGAGTTATAAAGTTTAAATATTCAAAAATCCATCAGAAGGGACTTCAATAT
CAATACTGTTGTTTATGAATCTCTTAATAATGAATTCAACCACTGAGGTTTGATAAAT
50 TACCATAAGAGAGTATTGAGTAATTGTTATTATACAATAGAGAGTTTCAACACTTACAT
TTTCTCCATTAAATATTGCAATTCATCTGTGCTTGCTTAAATATATTTGATGAATTTA
TATATACGTTAGATGAATTAATCTTTCAATTCATAGGCATTATATGAAATATTCGATT
TTTGAATTTTTGAGATGTAGTTTCTTTTAAATATATTCCTATGCTATTGTTTCATTATAT
TTGAATTCATATTGAGGAGGATGAATTTCTTAATAATAAACCTTCATATCTATTTTTAT
55 ATATAAGGGAATATTCCCAATATGCTTGATATATTGCGATAGATTCCAATAGAGTTAT
TAATTATTGAAGAGTTAAGTATTCTAAAGTTGAGTTCTTTGAATACACTCCCTCATAAA
CGGAATCTTAATCTGAGAGTTTATTAGTTTTATTCCATTTCCATCTTTATATAAAACCA
ATCCTTGATTACATGAGCTTATAGTTATATTATAGATTGTATGTTTCCAAAACCCAG
CCCAGTTTGGCCATAAATCCCTACACCGTTTTTTAAAGATATTGAGAGTTATACAACA
TAGCCCATATTTTGTTCACATTGAAATTCATATCCTCCAGAGGCGTTTATTGTTAAAT
60 TGTCATATACAATGGATAATCTGCAAACTCCAATCATAATCAACTAACTTAACCCCTG
CATTTAATATTTTCCATAAATCCACAACCTCTTTAATGTTAAATTTTAGCCAGTTT
CATTTCTAATATTTCCAACTGACATTTTCAAGAAATATATTTCCAATGTATGTATCAG
CCCCACATTGTCAATAATTGGATTGGAGATATTTCTTCGAGATTAAACATTATCCC
CATTTTTACATATGTTGGCTTAACGTATTGTAGGTTTTTTGCTCCTCCTGTTCTCCTG
TGAATCCGAAATAAGTTGAGTTTCCCTATAATTTGGGTTATGTTTATTCCATGTTAATG
CTAAATTGCCATCGAAATATACTTGGAGTGTTTTTGTGTTGCTTCCATACGATTTTAT
TTAAGTGTTCTTCTCCATCCTCAACATTACCTAAATCGTATGGGTTTGGTGTGAGTAAG
TTAAGGAGTTGTAAGTGATTTAAGTTCCCATCAACATCTATTGCAATATGGTCGGTTG
TTGCTGGGCTGTCAAAATCGTTAAGCCAAGTATCAACCTCCACCGCTACACTCGGAGAAA

5

10

15

20

25

30

35

40

45

50

55

60

TTCCACCATAACCCAAATCTCCTCCAGTTCACCTAATTTCGTTAGTCCCCAACGATTGCA
AGGTAAAGGTTATACCATCTGCTCCATCAGGATTGTCTCCCAAATACGCATAAACTCAA
CAACCAAATCCTCAGATAGATTAAACCGCTTGTAATACCAAACACTACCTTTTTGGTTGT
AGTCATCAGGCGTTAGTATCAAAGTTAGATTATTTGAATTATTTATGTATGCGTTACCGT
TAGCTATCCATTGTAATCCTGATAAAATGATGGTTCCATTAATCTGAGTTGAACCATGGA
CAATAGTCAAATTGCTAATATTTATTTCCACTTGATATAATGTAGTGATTTCATTCT
TTGCGTCGATATTTGGTATTCTGAAATAACTCTCATCTTTCCCATAAATTGCATTTGCAT
TTTTTATAAATTGGGAAAACTACCTGCCCGTAGATTTCGTATTTGTTATTACATCAA
AGCTGAATCCAAATGTTATATTTTCCCACTATATGAATTTAGATTTATCAAACAGTAGT
GTTCAATTTTCCATCTTCCCAATTATCTTCTTCATTAGGGTCTCTTCTCCAAACATCT
CAACTACTCCATAAGTTGGATTATTATATATACCCATCCCCATTTTTACGTATTTGGCT
TAACATACTGGAGATTTTGTCTCTCCCGTTCCTCCTGTGAATCCGAAGTAAGCTGAGT
TTCTTATAATTTGGGTATATCCTTATTCATGTTAATGATAAATTGCCATCGAAATATA
CTTGGAGTGTTTTGTGTTGCATTCCATACGATTTTATTAAAGTGTTCTCTCCATCCT
CAACATTACCTAAATCGTAAGGGTTTGGTGTGGGTAAAGTTAAGGAGTTGTAAGTGTGGT
TTATGTTGCCGTTAAACATCTATTGCAATATGGTGGTGTGTTGCTGGAGCATCAAAATCGT
TGAGCCAAAGTATCAACTTCAACCGCTACACTCGGAGAAATTCCACCATAACCCAAATCTC
CTCCAGTTCACCTAATTCTGTAGTTCCCAACGATTGCAAGGTAAAGTTATACCATCTG
CTCCATCAGGATTGTCTCCCAAATACGCATAAACTCAACAACCAAATCCTCAGATAGAT
TAACCGGCTTGTAATACCAAACACTACCTGCTTCACCATAATCATCTGTTGTTAATAGAA
GCTTATCTGGGAATATTGAAGCATTCCCGTTGGCAATCCATTGAGAAGAGTTTATTGGAG
TATATACTGTTTGATATGTTCTTCAGCCAGATGTCATTTTGGCTATATTGAGGGTTTA
AACCTCTGTAGTTCCTACAGTCTTGAATTCCTACCACAAAGTAAGTTTGGAGGAGT
TATAAACTAAGAAGGAATAATGACCAAAAATATCTGTTGTTGTTGAATTTACTATGGTAT
CTCCAATATCTGGAATACCATCATTATTGCTGTCTTCAAGTAGAGATACATTAAACCCAT
AAATTCCTTTATCTTCACTATCTCTTTTCCAAGGGTTCCAAAGTCTCTTTTACATAGC
CCTGAATTTTATATCCGCAGTATATGGTATAGTTTTTCTTCGAAATTACACCATTAGATT
CGATTCAGTTATTGTAATAAGATATTTTCTGACTCTGGGAGGCTAAATGAGTAATTAT
AGAGCTTCCAAAGTGTATGGGAGTTTTTATCTATTTCTGTAGTAGCATTGAAGAGTTGA
TATATACACTACCGTTTGGATAATACACAGTTATATTTGCCCGCTTATATCGTAAGAAC
CAATAGGGTCTGTAATATTTGCAATATTGTAACATTTTCATTGGAAGATAAACGTTTT
TATCTGAAATATGTTATAAACATTAAACATAAGTCGTAGTGTTAGCGTTATATTGGATG
GATATGTTGAATTATGATAGATGTTTATTGAGTTAGAAGATATTTGATTTTCCACTCTCA
AAACCAAATAGTAGTTTTTGGGTATTGTAATTATTGAATCTAAGGTTATATTGAAATGT
AAGATTTTATAGTATCATCTAAGTATAGATACTCAACATCACTTCCTAAAGTAAAGGAAT
CAATTCATTTGTGGCCATTAAACGAAACAATTTTATGCATTTCAAGTTCCAAATATAA
CGTTTGGGTCAATTATATAAAGCAAAATTTGGAATTTTCTTCAACTGTAAAGTTGTCTG
CGAATCTTGGATATTGTATCCATGAAGCTAATGAATTGCTATTAATTGTTGTGTAGTTGT
TAATTGTTGTAGGTATTGAAGTATTTAGAGTCTTAAAGTATCTCCATGTAATAGAAAG
TTTTTTGAACTGAAGGAGGATATGGTGTGATGTCTGGAATGTTGTTTTCCAAATATTG
ATGGATTATTTATATTAACAAATTTAATGTAGTTGTATCAATCTCTCTAATGGGGCTG
TTGAAGGAATTGTCTTTGAGACAGTTAAATTTATCTCTCCAGTTGGCACATAGATATCTG
GCAAATATTTGAGTTTAAATCATAAATTTGGGTTTATATAATCCAGATTCCATCCCCAT
TGGCATCTTCAGCTATTAAATGGAGTTGTTGTATATTTTCGTTGTCCATCCTTTCTGTTA
AGTAGGTTATATTTATATCAAACTCTCCTCCAACCTCCAAAGTTATATAATGTTATATTGT
AAAATATCTCTTCTCCAACATTTCCAGTCTTTTCTGATAATTTGGTTGGACTGAAAATG
ATGTTATATAGATTATAATGCTTTTTTCATCGTTTGATGTATTCTGGTCATTTGGAAGAT
TTGTCTTTATTGTTATATTGTAGGCTCCATAAGGCATATTTGAGATGTTTACTGGAAAGC
TCACGAGTTTTCTTCTCATAAGGAACAGAGGTTTATTAAGTTGAGTTTGTATAAA
TATAAGTTCCATTTATCTGTGTTATATTAATTGACACATTCAAGTTGTATGCATCTACCA
ATCCATATAAGGCAATTGTTGAATTTATGTATATTATTGGGCCAATATTTGGGTTAAAGC
TGTCCTCATTGTTTGGGTAATCTATACTTTTAACTCCAGTATCATATAACTGGCTTAAAC
CCATATTTATTTCCGTTTCATCATGTCTGTATAGTTATAACCTAACCCCAAATTTATTGGCA
CTACCCAAATTTCCGAGGTTTTAATGAATCTTTAGTCCATGCTAATGCTGTCCCTGCAT
CACCCTCATATGATGAATCATTATTTAAATTATCATATCTAATATCAGACCACGTACTCC
AGTACAAATTAACATCATGTTTCGTAACCTGGGATTTTGAATTTAAACCTCCGATTTGTA
TATCCCCAACAGGTGCGTTAGAATCGTAGCCATACACAACATCATCAATCTATTATAGT
ATGCATCATCTCCCCACCAGCTTCTCTAAAATTTCCAATCCATCCCTTGGAAAAACTTTA
AATTTGTATATGTTTTTGTGGTTGGATTTTTTATGTAGTATATGGTAGCAAACCATTTAT
TATTTCTCTAATAATAACCTTTTGTAGTAATATTAGCTCATTATTATCCAAGGAGCAT
ACATATCTGTTATAATTACACTCTCTAAAATCCCATTTGGAACGGTATTTAAAGGAATAT
CTGTCTTATTTATTTTCAAGATAGGTAATAATATGTCCACCATCCCAAACCTACCTGCAGTTC
CTAAACCCCATACTGTCTTGTAAATGCTCCACTTGATATTTTATCGCTATTTTGAAC
CAGCGTAAGCATCAATATTATTTGCATAATTGTAATCTCCAGTCTCCTGCATGGTCAT

-184-

5 AAGTAGCCACGGTAGTTTCATCATCCTCCTTATTATATGGAAAGACAATTGCTGAAATCT
GCCCCACAACCACCATAATCTTGCCCCATTATAAGATAATTCAACAGCTATTGAATGATTTG
GAGCTGGAGGAATTAAGATATATCATATCCATAAATAGGATCGTCGTAGAGTATAGTG
10 TGTTATTTTCAATATACCATCTTACTTCTCCAATAACCTCTCCTGTTAATCTATTTATTG
AAATGTTATTTCTTATTACTCTTCCATCATCTCCAACAATTTCTTTAACCCCTATAACCTT
TTGGAATCTTACAGCTGAATCTATACCAAACCCCATCTACTTTATTATTAACCTCAACTC
TAATTTTATTACTGCTTATTTTTCCTACTATCTCAGTTGTATTTAGAATATTTTCAGGTA
AGTTGTAATCTTTTAGAATTTCTTTATCTGCTTTAAGTTTGATTTCTACAATACTATAAT
15 TGTAATCTTTACTATTTTGAATCTTGTATTTTTTCTTTTTTCGTATCTTTTCAATA
ACTTCTTAATCTCTTTTCACTACCTTCAAGTTTAATAATTATCTCCTTATTGACTGGGT
CATAGGAAATTAGCTTTTAAATTTCTTCTTTATTTTGAATTTAACTTTTATCTTTTCTT
TTGCATTTTCCACAAATTAATAATTTTAAATTTTCTGCTTTGAGATATTTTAACT
TGGGTATTAAATAATCTAAAGGAATTTCAAAGGCCCATTTATTAGTGAAATATTAATTT
20 CTTTTTATCTACAATGCAAGTTATAAACTTCGGTCTTTAACATAGTAGGATACGTTTC
CAACGATAAATCTATTATCTATCAATTTTGCATTAATTTGTAATAATCTACAGCAAAGG
TTTTTTTAAATCCCATCAACAACCTACTGAGTAATTTCTTAATATAACATTCTTTTTTAGTT
TTGTGGATAAGATATAAACTTCCCTTTTTATGAACCTTTAGATGTATTATTTTATTGT
TAGGGGTTACAATATATGCAGTATGTGGCTTAAATTTGTTTTATAACTATTTTCTCTG
25 ATGGGAAATAAACGTTTTTCAATATAACGGTTTTATTCTGTTGCTGATTTTCTCGATAG
AGTAATTTAAATAATTTGTTCTATTCAATGCTCTCATTTTGAATTTTGCATAAATAATGA
TTGTTTTATTTAGAATTAGAGGATATACCAAGTATTCATGTTTTTTTATTTTTTAGTCT
TAACTTTTATATTGAGGTCTAAATATTTAGCATAGGGTTCCCATTTGTTTTAACAATCA
ACTTAAATTTGTTGAATGAGACATTTAGATAATGTAATTTCTCTTTTTTATGTTTGTTT
30 CTTTTTTTTCTTTTTCTGGTTTTGTGTAATTTAAATAACTGTTCTATGTAATATTTTAT
CATTGAATTTTGAAGTAAATTTCTATTGGAACATTTAAACTATTGGAGAGATTATATATT
CGTTATCACCTATTTTGATAAACTTTAAGGGCGTTTTATTGCAAATCCAAAACCTCTC
CATTAGTTTTTACTATAACTCTATAACCATTAAATAGTAATGTTTAAATAACACTCATTTT
TTTTCTTTGTTTGTATCTGTTGTATTATTGATTATTATGCTACCACTATTATTAGTGGTGT
35 TTGTTAAGGAATTTGTTAACTTATATATCAATGAATTTAATTCAAATTAATCTGTTGT
TGTTTGTGTTGATACATTTAAACCTAAACTCACGTTTGAAAGCAATAAAATAGTGAATA
CAAATATTGAATATCTTTAAATAGGATTTCAATTTATCCCATTTGAAATTTTTTAACT
GTTCAAAGTAAAGTAATGTATAGGTAGTATATAAAATTTATAGAACAATATTAGACAA
TTATTGAGATTATTAGTTTTTATTCTTCTTATCTTCCTTATTTTCTTTATTTTTTCTTC
40 TCAACTCAGTATAGACAAATATTATTATTAATATACACAATATGCTTAACCAAAACACCA
CATATCCATGAACCTGGAAGTTTCGGTAATGGCAATATTGAAAACCTCAGCATTTATAATAA
GCAAAGTTTTTTTAGGGATTTGGAATTTATTTCCATCTGGTCTTGGTAGGTTAGATAAT
AAGGAGAGACAAAGTTTATATGGAAGTTTTTATATTCAAATCCCTCCAATAGGAATTG
45 AGACAGTTTTTAAACAATATCCATTATCAACAATATCAGCATCATATTCAATTATTAGAG
TTATATTTTTTCCACCATCTATTGGCTCCCATACTTGATATGTTATAACTGAATAGGTAT
CTTTATAAGAGACATTTACATCCATTGGATATTTTTTATCCCCAATTATATAATAACCCC
TTAAATTTCTCAATCTTACAGGTTTTTTTTCTTTTGTAAATGGTATTGGAATAATCAGTAT
TTTTCTTTGACTCTTCTTTTGTAACTTTAACTCCCCAATTCCTGGAACAAGAGGATACCT
50 AACAAGATTTTGAATAGTTATAACATTTGTTATATGTGCAGGATTTTTTGTAAATCAAC
GGTCATATTATAGTTTGTATTCTTCAACATCTGCAAAAGTTGGTGTATAAATGCAAG
GAAAATAAGAGTAATGCAAACTCTTTCATCATCATCCCCAACTTTATTTATTATTCCT
TATATTCCTCTTTGTTAATATACCTAATCCAAAGATAACGTTTATCAGTATTAATAATAT
CTCAAAGTTGTTTTCTACTGTTCCGGCTACTGTTGTTATTTTTGGTGAGGTTGTTGGTAG
55 TAGTGAGTTTGTAGGGTCGATACCAACGATAAATGCGTCGCTTGGGTAGAATTCGCCAGT
TCCGTTTAGTTTGTAGTGTATGACTACTGTTTTATTGCAAGTATTTACAGCAGTGTCGTT
CCAGTTACCGTCCCCATCTGCTCCTGGATATATTGCATGTAACGCCACCACATGCTTAA
ATTATACCTTGGATTGTTGTAATGGTGATTCTTCTCAGCAATCAACATACTTGATTG
ATTAACCCACTCATCTGAGACGGTGAAGTTCTTAGGAATCAAATCATAAACATACACATA
CTCAGGAGTCTTCACACTACCAATATTCTCCACAACATATAAATATCATAAGTCCCATC
60 CGCATCCGGAACAATATGCTTAGTCACCTTAATCAAATAACTACCCACAACATAAATCTC
CTCAACAACAACATAGGAACCTTCTATTGACTTACTTCATTTAAAAGGATATAAATCTTT
TTTTGACAGTGTAATGAGCAGTTTGCCCAACGATTGGAACCTCACTAAATGTGAAGTT
GTAGGTTTTAGAGTTCCATCTCTCCTGGAGGTATGTCAATATTTGGAGTTATAGTGTA
ATTACTCCCATCTATCCAGATAGATTTGTTAAATGGATTCCAATACAACCTCATAAGCAGA
TTTTATTACTGCCCATATATTAAGATTGTTAAATTAAGGAATATGATTTTGCATCATT
TTTAAATGTTACATTTCTATCCAAATGTTTATTTCTCCGTTAGTTCCATGATCTGTTGA
AATACTATAACTTCCAGATGCATAAACACCTTTTATAGATGTGTTTGTATTGGTCCCATT
GTAATTAATAGTATTTTAGCAAATCCATACTTTGCTAAAATATTATCCCTTTCCTATA
TGAATAATTTCCCAATACATTAATACCAAGTTGCACTATCATTACTCCAATTTAAGGT
AATATTTGTCCAATTTATTGCATTTAGATTTGAGGTATTGTAATCTTTTTTGAATAGTC

5 CCCATCAAATAAAACTGCTGTTCCCTTCACTTGAATTTGCAGATGTTATTTCAAGATACTT
CCAGTTTTTATCTCCATAAAAGTCGAAGTTTTTTGAATTCACCTCCAAATCATCAACATA
ATAAACATAACCTCCATGAATAACAACCCCTATCAAACCTTTGTATAGGTATTGTCTATTGT
TGAGACAGTTGCGGCTAAGGAACCATTTTTGATAATAAGTTGAGAATGTTATTGTTCCATT
10 TGAATAAATTTTTAGTTCGAAGTAATACCATTTCCTCTGGAGGATTCCAATAAACTTC
AGGACTAATTTCTGTAGGATTTCATTAGTTCTTCTATCAATTGATATGTAATTACTGTA
GTGATTTACCTCAAATGAATATCCATCAAAATTCCTCATCCTCCAAACCAATCCTGTCTAT
AGGGCCTCCTCCCCAGTTGCTCGGTCTATATACCCATCCACTTATAACTACATCCCTTCC
AATTTCTTTTGGGAAGTAATTTGTACCTCCATTGSGATCGTTGTTTAAACTTGTGAAAT
15 CCCATATTTTTCTAAAGAGTAATTTCCAGAATGAGATTGAATAGATGACCATTGAACAT
CCCGTTCTTATACTGATTCCAACAGTCCAATTTTCAAAGTTATCATAAAACCTGCCATT
ACTTAGATATTTTATAACATTAAACATTGACATTTTCTCCATTAGGAACGAGATTTTTGTT
TAAATATACAATTAATTTACAGTCCATTCTGACATTTTATTTGCTGGTATTTTTGTAAC
ATCGTAAGTTTCATTACTAATATTGGTAGGGTTTGAGATGCATCGATATCAAACCTATA
20 TTCCACATAGCTGTTATTTGGTAGTATTGGGATGTGTATGTATGTGTTTGCATTTGGTAA
GTTTGTATAAGCAGGAGCAGAACTCTCAATAAAAAACCCCTTTTGGAGTTCCATTATAAAC
TAATCTCAAACCACTTGCAATTATTTTTTATATCCACTGCTACCCACACATCGTTTAAAGT
ATCTTCTTTATAAGGGGCAGTATTTTCAATAATGATATGTCCCGTTAAACCATAGGAATA
GTTTGTTTTTCTGTTCCATCCACAGTAGCAGTTGCGTTGTACTCTTCAATATATCTTAC
25 CCTAGTGGAGGATATAAATCTGAAATCCTCAAATCATCAACATAGTAATCTTGCTCTCC
ATGCACAACAACCTCTATCGAATCTAGTATAGATGTTATCTATTGCTGAGACAGTAGCTCC
TAATGAACCAATCTCATAATAAACTTCTAATCTTAAAGTTCCATTGACTAGATATAAAA
CTTAAATAATACCAGTATTCTGAGGATTCCAGTTAGTTATTACTAAAGTATTTTAC
30 AGCAATACCATTTCTCGAGTTTCTATTGCAATTTTGTATAGTCGTGCTCTATTCTTAT
AGAGTATCCGTTGAAATTTCTCGTCTCAATACCTATTCTATCCCATCTTCCGCTAACATA
TGGCAAAGGTCTATAAATCCAACCTTCCATTACAATATCCCTTCCAATTTCTTCCCAAT
TAGTTGTATCCACCATTGTTGGTTCATCATTTAGAACTTTCTAAGGGAATATATTCTCTGA
ATGTGCATAATTAGAAGATTGCTCTACAGCCCCACTACTGTAGTTATACCACCCACTCCA
35 ATTTTCAAATATCATCGTAGAATATTGTTTTAATCCAGAAACACTGTTTAAACATTGATGC
CATAAATACGAACAGTAAATACATAAATATATGAATTTTAAATTTTATATTGGCAGTCC
CCACATCACCCATATAATATCGATAAAATTAACCTAATGTCAAAAAATCATATTTGAATTT
AGAAAAAGAATTATAAAAAATAAGAAAAATTAGTTTTACATTACCCTTCTTATTATGATT
CCCAACCCCTACAAGTAGGGTCAATAATGCAAGGAATGGTCTGAGTTGTTTTCTACTGTT
40 CCGGCTACTGTTGTTATTTTTGGTGAGGTTGTTGGTAGTAGTGAGTTGTAGGGTCGATA
CCAACGATAAATGCGTCGCTGGGTAGAATTCGCCAGTTCCGTTTAGTTGTAGTGATG
ACTACTGTTTTATTGCAAGTATTTGAGCAGTGTCGTTCCAGTTACCGTCCCCATCTGCT
CCTGGATATATTGCATGTAACGCCCCACCACATGCTTAAATTATACCTTGGATTGTTGTA
ATGGTGTGATTTTCTTCAGCAATCAACATACTTGATTGATTAACCCACTCATCTGAGACG
45 GTGAAGTTCTTAGGAATCAAATCATAAACATACACATACTCAGGAGTCTTCACACTACCA
ATATTCTCCACAACATATAAATATCATAAGTCCCATCCGCATCCGGAACAATATGCTTA
GTCACCTTAATCAAATAACTACCCACAACATAAATCTCCTCAACAACAACATAGGAACCT
CCGTACTTTGTTGAGTATTCATTAATACTTCTATTTATTAATGTTATGTTCTCGTCTGCT
ACCTTAAATGTACAGTTTGCCAGACAACCTGGAATTCATCAAATGTGAAGGCATATTTA
50 GTTGAACCTCAAACGCTTCTCGGAGATAATTTTCAATTAGGTGAGGACGTCGTTTGA
TTAGGGATTAAATGTTATATTAATGGGTCTAATATTACTGGATTACTACCATTTACA
GCCCATATTGTACATGAGTTAAGTTAAAGTAGTAACCTGATGCCTTGTGATACATTA
GCACTTTCTGATACATATTTTCACTTACCCTGATGCATTTAAGAATGGTCTTCTTGG
GTTGCACTTACTCCACCATATCTGTTGCATAAATCCCTTCAATTTTTGTTCTGATTTA
55 GTTCCATTGAATTCAGAAGATAACAGCAAAACCATATTTTCAATTTTGTTCCTGATTTA
TTTGTGTAAGTGTGTTTCTGTTATGTTGATTGTAATGGTTGCATTTTGTAGTAGTATT
ATTACGACTCCTGTCCAGGTTAATGAATCGTTGTATCCTGGTAAGAAGTAAGGACCATCC
CAGAGTGTTATTGAACCTTCGTTGGCTATAGCACCTGTTATTTAAGAAATTCCAAGTG
TCACTTCCATAATTTTGGGTCGTTACTTAGATATTTTGTGATAATAACAGAACTGGT
60 GTATCTGTTGCCGGTAGTGCTGAAACATTTCTGCTTATGTTTAAATAGACACTCCAATTT
GATAATCTTTCTGATGGAATTTTAGTATCACTATATGTTTCGTTGATTATCAATGGAAC
CCAGTTATTGATTTATCTATAGCAAAATTTAATTATAACATAGCTGTTATTTGGTAGTAT
GGGATGTGTATGTATGTGTTGCATTTGGTAAGTTTGTATATGCAGGAGCTGAACCTCA
ATAAAAAACCCCTTTTGGAGTTCCATTTACATAAACTTCTGGTCCAGTTATGTTGTTGGAT
ATATTAAGTGCACCCCAACATCGTATAAAGTATCATTATTTGTAGTCCCAGTGTGTTA
ATTACAATATATCCAGTTATACTTTCTATTGTTGAAGATACTAAGCCATCACCTGTAGTG
TTACCTGTTATGTTATATTTTCTGTAATATGCCACATATAGTGGTCCATTATCTCCATAT
CCAAATACAGTCCCAATAAAGCAATGACATTAAACAAGGCCATAAATATTAACCTTCTC
ATAACTTACCTCATGCATTTGTGTGAATAGGGGAACATTCTTAAGTAGGTAGTAATAA
TGTAATGTCTCCGTTGTATAAATAATTTATGGAACATTTTTTAGACATTTTTGATTTT

TCAAAAATTTAGAAAAAGAACCCAAAAAGTCCAAGGTTTTCAATTTGAAAAATAAACAG
CCGATATATAAACCTTTTGATATTAAAAATATCAATACCTAATAAACATTTTAAAAATAA
GCAAAAAATATTAATTCAATAACATATTGATTCCCTCCATTACAGCATCTACAGAAGCCCT
TATTATATCAGCGTCTGATTTTCTAACTTCAACAATTTTCAGTTCCCTTTTCTTAATTTAAC
5 AACAACTCTATTAAACGCATCAGTTCCCTCCACCAATTGCTTCAACTCTATACTCTACCAA
CTTAATATCTGCAACTCCACTTATTGCCTTTCTCACAGCATTATTGCTGCATCTACCGG
TCCAACACCATAAGCAGTTTCTATTAAAGTTATATCTTCTCCTTTATAATGGAGTTTAAAC
AGATGCAATTGGTGTTATTTTATTTCCAGATACAACAGTTAATTCATCTAATTTGATTTT
10 CTCTTCTACCAATTTTCCAGTAACTTCTCTAACTATAGCCAACAAATCAGCGTCTGAAAT
GTATTTACCCAAATCCCAAAATCTTTAACTCTTTTCATATATTTTATTTAATTTGCTCATC
ACTAAGCTTTATGCCCATCAAATCAAGTTTGTATTTTAAAGCTTTTCTACCAGAATGCTT
ACCCAAAAATAATTTCTTCTTCTTATTTCCCAACCAATTTCTGGTTTTATTGGCTCATAGGTTT
AGTATTTTTTATTAATCCATCAACATGTATTCTGCTTCATGAGCAAATGCATTGTCCCC
15 AACAATTGCTTTATTTGGTGGACAGGAAGTTTTCATCAATCTTGAGACAATCTTGAAAC
CTCATATAACTTTTCCATCTTTATCTTAGTATCATAGCCATAGAGTATTTTAAAGCAGC
AACAACCTCTTCCAATGAGGCATTTCTGCTCTCTCTCCAATACCATTAACTGTTACGTG
GCACTGAACAGCTCCACCTAAACTGCTGAGCAAGTATTAGCAGTAGCCATTCCAAAGTC
GTTGTGGCAATGAAGTGAAGTAAATTAACATTTTCAGTTATTTTTTAAATAATTC
20 CTGACTCTTTTGTGGAGTTAAACTCTCTACTGTGTACAAACACAAACTCTGTCTGCTCC
AACCTTTTCCCTTTCATTAATAGTTTTTATTAAGAAATTTACATCACTTCTTGTGTCATC
CTCTGCAGATAACTCAACAATCAATCCATGTTCTTTAGCATACTCTACAGCCTTTAAAGC
TGTCTCTAAAACCTCATCTCTGTTTTCTAAGCTTATATTTCATGTGTATTGGAGATGT
TGGCACTACTAAATGGACACTATCTACATCACATTCTAAGGCAGCATCAATATCTACAGG
25 TAAAGCTCTAACAATGAGCAGATTTCTGCATTTAAACCTCTTTTGTATTAAATTTTAT
TCCTTCTCTCTCTCCTTTTGAAGTTATAGCTGAACCTGCCTCTATAACATCAACTCCAAG
CTCATCCAATTTTTTGTCTATCTCTAACTTATCATTGGTGTAAAGAACTCTGCTGGTGT
TTGCTCTCCATCTCTAAGTGTGTATCAAATATCCTTACCATCATAACAATCCCTCATAA
AAAATAATTTAATGAAATTTAAATACTCATAATGAATCTGATGATAAAATGAATCATCT
30 CAAAGATATTTGATATTGTATATTTAAATTTTATGTGGGAAATAGTTCTGGACTAAAAAG
TTGGTAATATACATCTTTAAATTTAAATTTATAAATTAAGATTTCTTTTAAAGATTTTAT
TCCTGCCAAAGCCCCATTAACCTTTATTAATAATCTTTATAAAATTTTTATTATTTTTGAA
AGATACTATACGAAAGTCATAAAATACTCGCATTAAGATTTAATACAAAACAATAGCGA
AATTTTTATATTTGTAAAATTTACTTACATTAAACAAGTAGTTTTTGCAAAGTTATT
35 AAAATTAAAAAATACCTTACTAAAGGAAGGCATTCTACTACCCATATATTTCTTTAAA
ATGCTCCGCAAAAACATAAAATGCCAATTTGGTGATAAAATGGAAAGTTACATACAAAAC
TTATTTGCTGAGAGAATTTGGTGGAAAGAAGTTTGGGAAAGAAGATGTAATTTACAAGTTT
GAGAAATTAAGAGAGCTAAGCAAGAGGCAATGAAAAGACACCCTGATATGGAATTAATT
40 GATATGGGTGTTGGAGAACCAGATGAGATGGCAGACCCGGAGGTTATAAGAGTTTTGTGT
GAGGAGGCTAAAAATGGGAAACAGAGGATATGCGGATAACGGAATACAGGAGTTAAAA
GATGCCGTTCTCCATACATGGAGAAGGTTTATGGAGTTAAGGATATAGACCCAGTTAAT
GAGGTTATACACTCAATAGGTTCAAACCAGCTTTAGCTTATATAACATCAGCATTATA
AACCCTGGAGATGTTTGCTAATGACAGTCCCTGGCTATCCAGTTACAGCAACACACACA
AAATGGTATGGGGAGAGGTTTATAATCTCCCATTTATAGAGGAGAATGACTTCTTACCA
45 GATTAGAGAGCATTCCAGAAGATATCAAGAAGAGAGCAAAGATATTATATCTCAATTAT
CCAAACAACCCCTACTGGAGCACAAGCTACAAAGAAATTTCTACAAAGAGGTTGTTGATTTT
GCTTTTGAATAAGAGTTATCGTTGTTCAAGATGCTGCTTATGGAGCTTTGGTTTATGAT
GGAAAGCCTCTTTCATTCTTATCAGTTAAAGATGCTAAGGAGGTTGGAGTTGAAATCCAT
AGCTTTTCAAAGGCATTCAACATGACCGGTTGGAGATTGGCATTTTTGGTTGGGAATGAA
50 CTTATAATTTAAAGCGTTTGCAACAGTTAAAGACAACCTTTGATAGTGGGCAGTTTCATCCCA
ATCCAAAAAGCTGGAATTTATTGTTTGCAACATCCAGAAATTACAGAAAGAGTTAGACAG
AAGTATGAGAGAAGGTTAAGAAAGATGGTTAAGATATTAAATGAAGTTGGATTTAAAGCA
AGAATGCCTGGAGGAATTTTTATTTATATGTAATAATCACCACAAAAGCTAATGGTATT
GAATTTAAACAGCTGAGGATTTCTCCCAATACTTAATTAAGAAAACTTATTTCAACA
55 GTTCCATGGGATGATGCAGGGCATTATTTAAGATTAGCAGCATGCTTTGTTGCTAAAGAT
GAGAACGGCAATCCAACAACCTGAAGAGAAGTATGAAGATATGGTATTAGAGGAGTTTAAAG
AGAAGATTGGAGGGAATGGATTTAGAATTTGAATAATTGATTTTTATTATTTTAAATTT
TTCATATTTTATTTTACTATTCTTTATTTATATATTCGGATTAATAAAAATATCTAAA
ACCTGTTCTAAAATTTATTTATACTAAAATCTCCACTATATACAATCAATAGAAAAAA
60 GAGGATGTAAAATTTTTCAAAATTTTTGAAAGAAATGAAAAAGGTGAAAGGTATGGATGA
GTATGAAAAATCATCAATGACTTAAATACCATAAACTCAAAGCAAAATTTATTGGTAT
TAAGATTATTATGGTAAGAAGAATTATCGATATGCATAAAGATAATGATAAATTAATAAA
AAAGGTATTAGAGGGTATAAAAAATCTGATCTTTATGATTTAGTTTAAATGCATGTCC
TGAATTGAAAGGAGAAAGGATTAAAGATGTTTATTTTAAAGAAGATGATTATTTAATGT
CATTAAGAAGACAATGAGCAGTGAAATACTGTATTGAAAAATGTGTGATTAAATGATGA

ATCTCCGCCCTAAAGATGGGAATTTTAGGAGATTATGGGTTAACTTTCATCCTCTCCTG
CTCCATCAAAGCCATATTTCTGAATGCTTATGTCATAATAATAACATCTTAGAAAGATA
TTTATAGTACTACAAAGTCATAATAGGAACAAAATTACATGAATATTCAAAAAATTACT
5 AAAAAATGAATCAATAGGCGATTAAATGAAGGCAACAGAAAACAGAAAAGTAAATGAA
ATAAATGAAATTTCTTCTACCTCTATCAAAAAATTTAAAGAATGTTGAGGGATTGTGCATA
GTCTCAAAGGATTCCTTGTGTTAAAGTAGGAAATATTGACGGAGAAGATTTAGAAATAATA
TCAAGGCATATGGCTGTTGTTATGGGTAGTTCAGAGATGCTCTATAAAAGATTTAATGAT
10 GAAGTCGAATACATTGAAATTAAGGAAAAAGCATAAAATAATCTTATATAACTTAGAT
GATTTTATATTTGCAGTCGTTGGTAATATCAAAGCTGATGAAATAAAAGATAAGGTTATG
GAATTAAGTTTAAAGTTAATAACATTGACGGATTAAACAGCTGAGAATATTATTGAAGAG
ATTGCTCTTTAAATTTTAAATTTTAAATAGGACTTCATGGGAATAAACATTATAAGGAA
AAATACGGTTAAATGTGCTTAAAAATAGAAACATGGAATTTAACTCTTGTGATATTAT
CAAACTAATATTTAATGAATTTATAGGCATAAATAAACCAATAAACATATAGCTATATT
15 GGAGTTATACCTACATAATATACTACACAGTAAATTACGCAAAAAGATTATATGTAATAA
AACTATATGATAATAACAAGGGACTTTAAAAATGATTAAGAAACAATTTAAATTTGTGG
GGGAGGGGTTAAATATATATAACAATAGTCAAAGCAGCTTTTTTATTTTAAAGAATCTA
AGAAGTTAAGTTCTTCTCTCAATCTCTAAATATTTTTTTTTGCTCTTAGTTAGTTCA
TCAATTTCAATACCCATAGCTTTCAATTTTAGAGAGGCAATCATTAAAGTCTGTTGTA
20 GGAATGTTATAAACCTTGGCTCTAACTTCTCATGATTTTTTAAGATGATTACAGCCGCT
AAAGCTTGGTTGGCAAACTCATGTCCATAACCTCACATGGATGCCCATCTGCACATGCC
AAATTAACCAACCTACCTCTCCCAATAAATATATTTCTTATTTCTTAAGTCGTATTCA
GTTACACAATTTCTAACTCTTTTATTGATTTAGCTAACTCTTCTAAGTGCTTTTTATTA
ATCTCATTGTCAAAGTGTCAGCATTTGCTAAGATAGTCCATTCTCTCATCTTCAATATA
25 TGTTCTTTCTAATAACATCCTTACATCCAGTTGTTGTTATAAATATATCTCCAATCTCC
GCAGCTTTCTCCATCTTCTATGACTCTAAATCCATCCATTCTTGCCTCTAAGGCTCTAATT
GGATTAACCTCTGTAACACGACCTCTGCTCCTAAGCCTTTAGCTCTCATTGCTACTCCT
CTACCACACCATCCATAACCAGCAACAACAACAGTCTTTCCAGCAATTAATAAGTTGTGTA
30 GCTCTCAGAATTCATCTAAGGCACCTTTGCCAGTCCATATCTGTTGTCAAATAGATGT
TTCGTATATGCATCATTTACATCCATAACTGGAAATTTAAAGCTCCTTCTTTTCCATA
GCTTTTAACTCTGATGATTCCAGTTGTAGTTTCTTCAACACCTCCCATTTATGTTATCCAAA
AGTTCAGTTCTCTTTGTATGCAATAAAAAATTTAAATCACAGCCATCATCTATAACAATA
TCTGGTTTGTGGTCTAAACCTTGTTTAGGTTTTCATAATACTCCTCTACTGTCTCTCCT
CTCCATGCATAAACATGCATTCTTTTATAGCACAAGCAGCGGCAACATCATCCTGAGTG
35 GATAAAGGATTGCATCCAGTTATAGCAATCTCTGCCCTCCTTCCATCAATGTCTCTGCT
AAAACAGCTGTTTTTGTCTTAAAGTGTAGAGCCATTCTATTGTTATTCCTTTAAATGGC
TTTTCTTCTTTAAATCTTTCTCTAATTAATTTAAACAGGCATGTGTTGTTTGGCCAT
TGATTTTTTCTCTCTCCTTCTTTCCAGAGGTTTATGTCCCTAACTTCATACATTCATTT
ACCTTAAAGAATTAATTTTAAAAATTAGTAGGGTAGCAGAGATATATAAATTACTATTTT
40 TTAGTGAAGAAAAGCTTTTATTATTTATAAATTCAAATATATAAATTAAATTAATAAAAA
GAAAATAAACCTTAAATTTTATTCTGAATCGGTCTGATTTTAACTTGTAGTTTCCAAA
GAAGGACACCAGCTAATGTTTCCATTCCAAATCAGTCTGATTTTAAATAGGACAATCATTC
ACAACATAACTTATTTACTTACTTAATTAATCTTAATTTTAAAGTGTGTGACAGTTAGGT
TAACTTTTTTATTAGTATTATCAGTATATTAATAACTTAACTCTAAAAATAGAGAGGA
45 GATTTTTATGTTTCTATTAGACCCATTTCTGGAATTAGTGGAGATATGTTCTTATCAGC
AATGATTGATTTTGTGATAAAGAAGATTTTATAAATACAATTAAGGTTATTTGATGT
AGAGATTGAGATAAAAAAGGTAAAGAAATGTCATATATTAGCTAACAAAGTTAATAAAT
CCCAAAGTGATTAATTGTAATGCAACACTTATAAAGATATTAAGGCTTATTAAGG
TCTGATATTCAAGAAGATATTAAATTTACTGCTTAGAAATCTAAAGATATTGGCTGA
50 GGCAGAAAGCAAAGTGCAATGTGGATGTTGAAATGTTTCAATTCATGAAGTTGGGAA
TTATGATACAATTGCCGATATTGTTGGGGCAGCATATATTATAAACAAAGTTAAATCTAAA
AAATAACTGCTTATATAAGCCAATAAATGTTGGAAATGGTTTTGTAAGGACAGAACATGG
ATTACTACCAGTTCCAGCTCCAGCTACGGCTGAGATATTGAAAGGACTTAAATATTTTT
TTCTGATATAAATGAAGAGCTAACACACCTACTGGATCAGCTATTATAAAGTATATAAA
55 TCCAAAATTAGCTAAAGGGGCTTTTATTATAAAGAAGTTTCTTATGGAGCTGGAGATAA
GGATTTAAATCTTTTAAATGCCCTTAAAGGTTTTTAGAGTTGAAGATATAAAGAGGGAGGA
TATAGTTTTATTAGAAACGAACGTTGATGACATTTTCAGCAGAGATTTTAGGCTATTTATA
TGAAGTTTTAGATGGAAAAGTTAGGGATTTGCATTTTATCCCTACATATATGAAGAAGAA
CAGACCAGCTTATACAATTAGGGCTATTGTTGATAGAGATATAGCTGAGGAGGTAGCCAA
AATTATAATGAGGGAGACTGGTAGTTTAGGGGTTAGAATATTTGATATAGAGAGAATAAC
60 AGCTGATAGAGAATTTAAACTATAAATTTGTTGATGAATCTGTTAGATTAAAGTTGG
GAGAGTTAATGATGAATAATCTCTCAAAAACCAGAGTTTGAGGATTGAAGAACATTGC
TAAAAATATGGCATTCTTTTAAAGATTTTATATAAGTTAATAAATTTCCCAAATTA
AAATTAGATTTACAAATCTTTTTTTAGATACCTTATTATAATCCAAAAACCAATACCTAA
TAACGCTCCAGCTATAAAGTTATCTAATAACATTCACACCTAACCTATGCATAAGAA

-188-

ACCAAAAAATAATTCATCATTTTCAGCATCTTCAATAATCTTATCTATCAAAGGTTTATT
TCTCTTTCTTCCAAGATTGGAGGATAATTTTTTATCTAATCTTCATAGTCATCTATAA
TCCCTTTATATTTTATAAGAGCTTATTTAAAAGCCATATCCCTAAGCCTATTTAAACATCCA
5 GCCCAGCATCACCAATATCATTTCCAATCCCAAGACCTAAGACAGTAAATCCAAAAGTTA
TCATCCCTTCTAATCTTCTTTAATTCAGTGAATTATTGACTGCAAAATATTTCTGCCATTT
TCATCCCTTTATAATCAAAAAAGTAAATATAATCAAAAAATATGGATGTAGAGATTTGGA
AAGTTGTTTTAACAACCTGCATCATATATTTTCAAATATTTATGACTTAGAGTATAAATAA
TTTATGATGAGGGATTATTATGGTTGTTGAGGTTTTAAGATTAGGACATAGAGGAGACAG
10 AGATAAGAGGATATCAACCACGTAGCTTTAACCAGCAAGAGCCTTAGGAGCAGATAAAAT
AATTTTTTACAACCTGAAGATGAACACGTTGAAAATAGTGTAAAAAAGTTGTAGAGAGTTG
GGGAGGAACTTTGAGTTTGTGTTGAAAAACATTGGAGAAAATATATTAGAGAATTTAA
AAAAAGAGGGATTGTAGTTCATCTAACAATGTATGGGGCTAATATAAATGAGATAAGCC
AGAGATTAGAGAAATAAGCAGAGATAAAGATATATTAGTTATACTTGGGGCTGAAAAAGT
15 CCCAAAGGAGGTTTATGAATTGGCTGATTATAATGTATCTGTTGGTAACCAACCACACTC
CGAAGTTGCTGCTTTGGCAATCTTTTATAGATAGATTGTTTGGGGTAAAAACACTTTATAG
AGATTTTGAAGATGCAAGATAAAGATAGTCCCATCAAAAGATGGAAAAGTAGTTATAAG
AGAAAAGCAAAATAAATAATATCAAAATATATTGGGGGATACTATGGAAATCCAACCTCC
AGATATAGAGGAAATAAAGTTAGAGGATGTTTTGATAAAGAGGAGGTCAGTTAGGGAATA
TTGCTCATCTCCACTGACTTTGAGAGAACTTTCTCATATACTATTTGCTGCCTATGGAGT
20 AACTGATGAAAGGGGATTTAAAACTGTTCCCTCTGCTGGAGCAACGTATCCATTGGAAAT
TTATGTAAATGTGAGGGATGTTGTTGGAGTTGAGGAGGGAGTTTATAAATATATTCCAGA
GAGGCACTCAATTGTTAGAAATTTAGATGAGGAAGTAGGGCACGAATTAGCTTTAGCAGC
TTTAAAGCAGATGTTTATCGCCATAGCTCCAATTGTTTTAATTATAGCTGCTAACTATGA
AAGAAGTACAAGAGTTTATGGAGATAGAGGATTAGATATGTGCATATGGAGGTTGGACA
25 TGTTGCTCAGAATGTATATTTAATGGCTACATCTTTAGGTTTAGGAAGTGTATCAGTTGG
AGCATTTTATGATAATGAAATAAGGGAGATTTTAAAGATAAAAGAATATCCTCTATTATT
GATGCCAGTTGGTAGGAAGATAGAGTAATAGTGTCTTTCAAAAAACAAAAATAATAAAA
GTTATTGAGAAAAATGGCAGGATTTTCACAGGTCATAAGTATTAATAACGTGTTTATAT
GTATGAGGTCATCAATATCTTTATTAAAAATCAAAAATTTAATTTCTATAAAAGCCCTA
30 TGAACGCTTTTCTAAAGGATAGCGTTCATTAATACATTATTTATCTCATAAAAGACAC
TATAAAGGGTGGGGATATGATAGACACTCACATACACTCAGATACAAGAGGTTTAGAGGA
TTTGGAGTTAATGGCAATGTGCTTAGATGGAGTTATAACATTAGCTCATGACCCATTTGA
GATGAAGAACATTAAAGTTTGGGAAGCTCATGTAGAAAAGCTTTTAATTAATGAGTTAGA
GAGGGCTAAAAAGGTTGGATTGAATTTGTTTATTTGTGTAGGGATGCATCCAAGGGCTAT
35 TCCTCCAGAGATTGATGAGGCTTTAGATAAAATAAAGAGTTATATAAATTATAATAGTAG
GGTTGTGGGTATTGGAGAGATTGGTTTGGAGAAGGCTACAAAGGAGGAGAAGGAGGTTTT
TATAAAGCAGTTACTTTTAGCTGAAGAGTTAAATATGCCTGCAGTTGTGCATACGCCAAG
AAGAAGACGGTAGGAGGTAACATAAATCATATTGGATGAGATTTCCACTCTGAATTTGAA
AAATAGGGATATAGTTATTGAACACTGCAATAAAGAGACAACAAAATGGGTTTTAGATGA
40 GGAGTTTTATGTTGGATTGACAATTCAGCCAGGAAAATTAACCTCCATTAGAGGCTGTTGA
GATAGTTAAAGAGTATAAGGACTTTGCTGATAAGATTCTATTGAATAGTGATTGCTCCTC
AAACGCATCAGATGTTTATAGCTGTTCCAAGAAGCTGTTTTGAAGATGAAGATTAATGGTAT
TGAAAAAGATGTTATTTATAAGGTTGCTCATAAAAATGCTGTGAATTTGTTTGGATTGGA
CATATAACAAAAACCAAAATTAATTTAAAAATCAATAAAAAATTTTATTAATAAAAAA
45 AATAGTTAGGACTCTCCGTATATTTAATTTTACTCACAAAAATAAACAGTTTTTAAACGG
CGATATTATGGCATACTGGCTTTGTATAACAAATGAAGATAATTGGAAGGTAATAAAGA
CAAGAAGATTTGGGGAGTGGCTGAAAGGCATAAAAACACTATAAATAAAGTTAAAGTTGG
AGATAAACTAATTATTTATGAGATTAGAGAGAGTGGGAAAGATTATAAACCACCATACAT
AAGAGGAGTTTATGAAGTTGTTTACAGAGGTTTATAAAGATAGTTCAAAAATCTTTAAGCC
50 AACTCCAAGAAACCTAATGAGAAATCCCATATAGGGTTAAATTAAGAAGTTAAAGT
TTTTGTGCCACCAATTAACTTTAAGGATTTAATTCCAAAGTTGAAATTCATAACAAACAA
AAAGAAGTGGAGTGGGCATTTGATGGGAAAAGCAATGAGAGAAATCCAGAAGAGGATTA
TAAGTTGATTATTGAAGCTAAAGCTTAAACCTATTTTTTATCCTTGATCAAGCTCATC
TAATGAATAAACACTTAACTCTCCAGTTTTTACAGCTTCTATTGCCTTAACAGCAGCTTT
55 TGCTCCAGGGATTGTAGTTATATAAGGAATACCCAAATCCACTGCTGCCCTTCTTATATA
ATACCCGCTGACTTTGCCCTCTTTCCAGAGGAAGTGTATTATTAAAGTGCATCTTACC
ATCTCTCATTAACTTTAGGATGTTATCATTTGGACTTTCAGATATCTTCTTAACAAGTAT
TGCTGGAATTCCTTTCTCTCAACACTTTAGCAGTTCTTCTGTTGCGTATATTGTAAA
GCCAAGCTCATGCAACTTTTATGCAACATCTACGATATGCTTCTTATCCCTATCTCTAAC
60 ACTTATAAAGACATTTCCAACGATTGGCAATTCATATTTGCAGATAACTGAGCTTTATA
GTATGCCCTACCAAGTCTTTATCTATTCCAATAGCCTCTCCAGTAGATTTTCATCTCAGG
CCCTAAACAGGGTCTACTCCAGGCAATTTTTGGAATGGGAATACTGCCTCTTTAATTGA
TACATACTTCGGCTTTGCAATCCAAACCTTCTCAGCAACTTTTCAACATCATAATCTTT
AATTAACCTCCTCAACTTTTTGCCGAGCATAATCTTTGTGGCTAACTTAGCCAATGGAAAT

5 TCCAACTGATTTACTCACATAAGGAACAGTTCTTGAAGCCCTTGGGTTTGCTTCCAAAAC
ATAAACAACTCCATCTTAACTGCATACTGCACGTTTAAAAGCCCCACTATGTTTAAAGC
CCTTGCTAATTTGGCAGTGTAATCTATAACAGTATCAATTATCTCCTTTGGTAAAGTTTG
10 AGGAGGAATAACTGTTGCTGAATCTCCACTATGCACCTCCAGCCTCTTCAATATGCTCCAT
TATTGCCCCAAATTAAAACACTCTCTCCATCACAAACAGCATCAACATCCAACCTCAATAGC
ATCTTCTAAAAATTTATCAATCAACACTGGATGCTCCTCTGAAACTTTAACTGCCCTCTT
CATATACTCAATTAACCTCATCCTCGCTATAAAACAATTTGCATTGGCCCTTCCCTCTAAAAC
ATAGGAAGGCCTAACTAAAACAGGATAACCAATTTCTTTAGCTATCTCCAATGCCCTCTT
15 TTTTGTATATGCTGTTTCTCCTTCCAGCTTGAGGAATATTTAACTTCTTTAAAGTTTGA
AAACTCTTCTATCCTCAGCAGCATTATATTCTCTGGAGTGGTTCCTAAGATATTAAC
TCCCGCATTTTTTAATTTTATGGCTAAGTTTATTGCTGTTTGGCCACCAATTGAACAT
AACTCCCAAAAGCTCTCCTTTCTCCTTTCTCTTTTCAAGCAATATTTAATACCTCTTCAA
GGTTATTGGTTCAAAATAAGCTTGCTGATGATCATAGTCGGTTGAAACTGTCTCTGG
20 GTTGTATTATGATTATAGCTTCAATTTCCATTCTCTTTTAAAGCTAAAAGTGCATGAAC
ACTTCAATAATCAAAATCTATCCCTGACCAATCCTTATCGGCCCAGAACCGATGATTAT
AACTTTTTTCTATCTGATGGATTGCTTTCTCTTCTCTTATAAAACAATGTCTCATA
GGCAGAGTAATAGTATGGGTTTGTGCTCAAACCTCAGCAGCACAGGTATCTACCATTTT
GTATAAAGGAATGATATTGAGCTTCTTTCTCAAGTCCCTAACTTCTATCTCATCCATTCC
25 TAATAAATTAGCTATCTGTTTATCAGAGAATCCCAATTTTTTGTCTTCAATAATATTTCT
CTTAATTTTTTCCATATCCATATAATCACCTATTTTTTATTTTCAATATCTTTTAAACT
ATCTCAACTTCTTTCTTTTATTTTAGGAACGCTCTTCTTAACTATCTTCCAAAGAAGGATA
TAATCAATCCCAAAATATTTATGAATTAATATTTCTTAATCCTACCATCTCTTTCCATG
GGACGTTGGGAAACTTTCCCTAAAATCATTATTTATGTATCTTGACGCTTCTCCAATAA
30 TTTCTAAGGCTTAATAACCGCATATCGTATCATTTTATTTATTTATAAACTCATTATAGT
CAATATCTTTAGTAAATTCATAACATCATTAGCACTTTCTAAAATATCATAAGGAATG
CTTTAACATCCCTCTTAGACATAAATTAATCCTCCTCAATAGATTTTTTACATAAGGA
TTGTGGATTGATTTTTTGTAAATTAATCAACTTTTAAATCCCAAAATCTTTCTAAATAT
35 TCAATTAGCTCCAAATACTCTGAAAATGAAGGATAGTTGTTTTCATCAAATTCACCCATA
ATGTCTATATCACTTTCTCTGCTGCTCCCTCTTGACATACTACCAATAAGGCAATA
GATTTAACCTTATATTTATCTTTAAGGATTTTTTATGCTTTCTTTAGGATTTCTTTTAT
TCGGAGAGTGTTTTCTAGGTTTCACTATATACTATATTTCTTATTCTTTTAAACCT
CTTTAATGCCAATAATCCATTAATTACACATATAATTCCAACCTAAAGTTACCAATATTCT
40 TCCAGTTATTAAGCCAATAATGTAAATGCTACAAATATAAGATTCAATCAAAATTAATAT
ATTTATTTTGGTTTCTTTTCTATAATTTCCCATTAAGCATTCAATTTCTTAATTTCTTC
TTTTAATTTCTCCAATTCCTTTCTATATCTACAATATCTTAATCTTCTTAATGAAAAA
TTCATCAATATCCGTTAGCTCAACTATTTTCTCAACACTCCAACCTTCTCTAACGCCCT
45 AGCAATAACAAAATCTTTCTATCAGTTGGATTCTTTAATATTTCTTCTATCTCTTCATC
CGTATAGTCTTTATCCTTTCCATCTCCAATTATGCCGAATCTTCCAATGTCTAAACTTCT
AATTGCCCTTTTGCAGGCTTCTTCAAAGCTTCTACCTATAGCCATAACCTCTCCAGTGG
CTTCTACTTGTTCCTAATTTTTTATCTACTGTTTTAACTTATCAAATGGCCATCTTGG
50 GATTTTTACAACAACATAAATCTAAAGTTGGCTCAAAGCTTGCTGGTGTTCCTTTGTAAC
ATCATTTAATATCTCATCTAATGTTTTACCAGTGGCTATTTTAGCGGCAATCCTTGCTAT
TGGATAACCTGTAGCTTTACTTGGCAGGCGAGCTTCTTGAGACCTTGGATTCACTTC
AATAACTCTATATTCACTCATCTCCTTATTTACAGCAAATGTATATTACAACCTCCCTC
45 AATTCCTCAATGTCTTATAATCTTTATAGCAGCGTTTCTTAGCTTTTGATAAACTCATC
TGGTAGAGTTTGGATAGGTGAGACAACAATACTCTCTCCAGTGTGTATCCCATTTGGGTC
TATGTTCTCCATACCACAGACAATGATGCAAGTGTCTTTCTATCTCTCATAACCTCAAG
CTCAAATTCCTTCCATCCTAAAACACTCTCATCAATCAAAACTTGGTTGATTATAGAATA
55 TTTAATCCTTTTGGGTAATATCTAATACTCCTCTTTGTTATGGGCAATTCCTCCTCC
AGTTCTCTCAAGGTAATGCAGGTCTTACAATGACTGGATAGCCAATTTCTCAGCAAA
CTCAACTGCTTCATCAACAGAATTAACGGCCTTACACTTTGTAAGTGGCTCATTAAATTC
AGCCATTGCCCTCGGCAAAAGTTCTCTATCCTCAGCTATTTCAATAGTTCTAATATTAGA
60 GCGGAGAAGCTTAATTCATATTTATCTAAAATCCCTCTTCTATGTAATTTCTAAAGCTAA
GTTAAGACCTGTTTGTCTCCCATTTGTTGTTAAATAGCATCTGGCCTCTCTTTCTCAAT
AATCTTCTCAACGATTGTTGGATGTAATGGCTCTAAATAAACTTATCTGCCATGTCTGT
ATCTGTTTGAATAGTTGCAGGATTTGAATTCATAAAATAGTATAAATTCCTCTCTCTT
CAAAGCTTTACATGCTTGAGAACCTGAAAAATCGAACTCTGCAGCTTGTCCAACTAAT
CGGTCCAGAACCAAAACCATTACTTTTTTAACTCTCCATCAATATCCACCACAATAA
TATTTTACAAATTTATATATTTAACTATTATTATTCAGATTATCTTAATATTGAGGATG
AGCTTTTAAAATTTGCATAACTATTTATGTTACTTAACTTTAAGTATCCTTTCTCAAT
AATCAGTTAAGGTTTTTAAAGTTAATGGTAGGTAATGGTGATAATGTGGAAGAGAAGAT
ATTGCCAATTGCATTAAGAAATGCCATAAAATACAATGGAAAAGCTAATCCAAAGGCAGT
TTTAGGATATTTTTTGTGAGAAAATCCAGAATATAGGAGTAAAGCAAAGGAGGTAATGCC
AATGTTGAGAAAGTTGTTGAAGAGTTAATAAACTATCATTGGATGAAATTAAGAAAA

-190-

5 GTTGGAGAATTAGGAGAAGATGTTAAAAAGAAAGAAAAAAGGAGAAAGGTTTAGAATT
ACCAAACGTTAAAGATAAGGTAGTTATGAGATTTCGCTCCTAATCCATCAGGGCCTTTACA
TATAGGGCATGCAAGAGCAGCAGTTTAAATGACTACTTTGTTAAAAAATATGGTGGAAA
GTTAATTTTAAAGATTAGAGGATACAGACCCAAAGAGAGTTCTGCCAGAAGCTTATGACAT
10 GATTAAGAAGATTTGGATTGGCTGGGGGTTAAAGTTGATGAAGTGGTTATACAATCAGA
TAGAATAGAGCTTTATTATGAATATGGTAGAAAATTGATTGAAATGGGACATGCTTATGT
TTGTGACTGCAATCCAGAAGAATTTAGGGAATTGAGAAATAAAGGAGTTCCATGTAAGTG
TAGAGATAGAGCCATTGAGGATAACTTAGAGCTTTGGGAAAAGATGCTGAATGGAGAACT
TGAAAATGTAGCTGTTAGATTAAAAACAGACATAAAACACAAAAACCCATCAATTAGGGA
15 CTTTCCAATATTTCAGAGTTGAAAAAATCCACATCCAAGAAGTGGAGATAAATACTGTGT
ATATCCTTTAATGAACCTTCTGTTCCAGTTGATGATCATCTTTTAGGAATGACTCATGT
TTTGAGAGGAAAAGACCACATTGTAAATACTGAGAAGCAAGCTTATATTTACAAATACTT
TGGTTGGGAAATGCCAGAATTCATCCACTATGGGATTTTGAAGATAGAGGACATTGTTTT
AAGCACTTCATCAATGTATAAAGGAATTAAGAAGGTTCTCTATAGTGGATGGGATGACGT
20 TAGATTAGGAACTTTAAGAGCTTTAAGAAGAAGAGGGATTAAACCAGAGGCAATATATGA
GATAATGAAAAGAATTGGAATTAACAGGCAGATGTTAAGTTTCTTGGGAGAAATTTATA
TGCAATAAATAAGGAGCTTATTGATAAAGATGCAAGGAGATTCTTCTTGTCTGGAATCC
AAAGAACTTATATCGAAGGGGAGAGAAAAAGGTTCTTAAACTTAGAATGCATCCAGA
TAGACCAGAATTTGGAGAGAGGGAGTTAATATTTGATGGAGAGGTTTATGTTGTTGGAGA
25 TGAGTTGGAAGAGAATAAGATGTATAGATTGATGGAGTTATTTAACATAGTTGTTGAAAA
AGTTGATGATATAGCATTAGCTAAATATCACTCAGATGACTTTAAAAATAGCAAGGAAGAA
CAAAGCTAAGATTATACACTGGATTCTGTAAAGGATAGTGTAAGGTTAAAGTTTAAAT
GCCTGATGGAGAGATAAAGGAAGGCTTTGCTGAAAAGATTGCTAAAGTAGAGGTTGA
TGATATTATCCAATTTGAGAGGTTTGGATTGTTAGAATAGATAAAAAAGATAATGATGG
30 ATTCGTATGTTGCTATGCACATAGATAAAAAATAATTTTTTTTATTTTATAGATTTTAATTT
CCTAATCTCTTTAATTTTTTTAGCTAAAAGTTCATTATCTTCATTTTCACTTTTTTAAC
CCTTTTTATCTTATCCTCTTCTCCCATTTTTTCCAGTGTATCTCTAGCTATAACATA
AACCTCAGCACTTTCTTTTCTGAAAGCTTGAGGTTTTGTAATATAAACCTTTTCAAAGTA
TTTTTAACTAAATTTACATAATCATCTATCATGTCTCCATAAAATACCTTAGCTACAAA
35 ATTGCCTCTCTCTTTAGCATCTCAGTAGCTATTTGTAAGGCAGTAGTTACTAAATCTAT
TGAACGAGCGTGGTCTATATCCCAATAACCGCTTATATTAGGGGAGGCGTCACTTATAAC
CACATCCACCTTTTTTTCATCATTTGGAATTAGCTCTCTAATTTTGTCAAATTTTCTTC
TAAGGTGAAATCTCCTTTTTATTGCAACTACATTATCATATTCAAATGGCTTAAGTGGTTG
TAAGTCAATACCAATAACAAAGCCTTTATCTCCTACAATCTCTCTGCCACTTGCATCCA
40 TCCGCCTGGAGCACAACCCAAATCCAAAATATCTTTCTGGTTTAAATACGTTAAATTT
TTCATTTAACTGCATGAGTTTAAAGATGCTCTTGAACGATATTAAAGTTTTTAGCTAA
TTGTAGTAGAAATCTCTCTTTCTTTGTAAAACCCATCTTTTATCTTTTCTTCCCATAGT
TTCACCACAAATTTTAAAAATATTAAATGTAATTTTTTAAAGAAATAATAGGTAATAAAT
AACTTAGGAAAAGCTGATTCTTATGAGTTTGTGTAAGGATAGTATTTACATCCTAATGT
45 CAAATTTATACTCAAAGGGAATGGCATATCTATTTTATTTTATAACTGCATTTTTATTGG
GAACTGAAGCATTGTTGATCTTAAAGGGATTAATGCCAATAGCTGACACTCTAACAATAT
TTTTCTCTTCTGGTATTCCTCCAGCCATAGCAAAATCTTAGCTGAAGAAAAAGAGGTAG
ATATTAAACAAATATTTCCAATATTATATTTAATGATTTTGCTCTCAGTTGTTGGATTTA
TCTTAACTCCTTATATAAAATACATTTTAGGAGGGCATTATTTAAATCTGCCAAATTTT
50 TGTATTTGCAAGTAGGTTCTTGTGTTGATGCTTCAACAGTAATAGCATTTTCAAGAGGTA
TTTTACAAGGATTGTTAAAGATGAAATATCTCTCCCTTACGTGGATTGTTGAATACACTG
CAAAAGTCATATTGGTTTTTATCTAACTCTATATTTGGGAATCTTTGGCTCTTTGTTAT
CAATATCTTTGGCATATTTAGTAGGAGGGATTTTGGGCTATATTTGATTTATAAGGCAT
TAAAAGGAAAATTTGATTTCAAAAAATTAATTGACATAAAAAATACAACAAAAACATAT
55 TCTCTAATTTTAACTTAGACATTTTGAGATATTCAATCCCTATTGCTTTAACGTCATCAT
CATACAGATTGTTTGGAGATATTGATAATATAGTTATAATGTCCATTATGGGAGGATTTT
GGAGTGGGATTTATGGTTACTCCTCTCAATATCAAGAGGAATATTTATGTTTGCTTCAG
CTGTTAGCATCCCTTTACTTCCAAGAATATCTAAAACATAAGATTAAAGCTTATTAAGAG
AAGGAATTATCCAAACACTATCTTCTCATCAATTTTTGTTATTGGTTGTTTGTGTTTTCC
60 CTGAAATCCCATTGATAGCATTTTTTAAACAGCTAATCCAGAAGGAATTTTATGCCTAA
GAATTTAGCAATCTCTCTTTATTTATGAGCTATTATACTTTAATATCCTCTGCACTTC
AAGGTTTAGGGTATGCAAAAAATTTCTTTCTATATAATTTGTTTGGGTTGGTGTAAATA
TTATCTTAAATTTAATTTTGGTAAATGCTTATGGAATTGTTGGAGGAAGCTTAGCTACAT
TAATAACATCAATATCTGTCTTTTAAATGGTGTGTTTTGCTATTTAAGAATAAAAAAGC
ATATTATTTAATTAGCTGATCTTATACTTTCCATTAAAAGCTCAACTTTCAGTCCTAA
TCTTGCTGGAATAACCTCTATTCCAGTATTTTGGGAAATATATTCTGCCTCTATTTGAGG
ATTTGTCACTTAACTCCCATGTGATTCAATATCAACAACTCTGGCTTTTTGTTTCATTGA
GTTTATTAAATCAATGGCATCGTTAGAGCAGAGATGCCCTTAAATCGCTCATTTTCTT
TCTAACAATATTTCGCTATTAAATTTCTAACTCCATCAAAGTCTCAATTAGCTGAGGGAT

AAATTCAGTATCTGAAGTGTAACCAATATCTCCATAAATTGTTGATAGTCTAAATCCAAT
ACCAAAACGGGTCTCCATGTTTTGTATGTTGCTTTTATTGTTGTATCATACAACCTGTC
AGAGTCTCCAGGGTATAAACTCTAACCTCTCAAGCTTTGATTGATGGTATTTTGATAC
AACATACTCATATTCTCCAAAACCTTCAACAACCTGATAAGCTACCTAAAAAACTCCTCG
5 CTTTTTGTGTCATTCTTGTAGTTATAGCTTCAACAATAATTTCTCCATCAGTGTAGTGGTC
TGGATGGCAGTGAGATATAAACAGGGCATTAGTTCTCCATGGAGATATTTTAGCTCGTT
TAATCTCACTATCGCTCCCGGGCCAGGATCTACATGCATTCTAAGCTCATTGTATGGAT
TCTAAACCCCTCTGTTGCCCTTTTTTGTGTTATTGTTGCCCATCTTCCACCACCACATCC
10 CAAAAAATAATTTCCACCCTCAAAATACCACATCTCCTTTTTTGTGTTTGAAGTGTAA
TTATATATTAAGCCAAAATTATTAAATCTTTTATCTTACTTCCCTTACACTCTACATTGT
ATGTTCCATTACAGATAGTTTTATATATGGATAAGTTACAACCATTGCTGCAAATCTT
TTGGAGGAATACTTTATAATAGACAGTAATTTTATTGGCAGTTTCTGTTATATTTATTA
TCTTTATTTTATATCCAGCGGTTGGCATCTCTTCCAAGTTTATGACTATTATAGTTTTGT
15 TATCTTTGTAGTAATAATAATATCCCTATTTTTCTCTCCAAAAGCTCCATAGGCAATTA
TTTCATAATTTAAAGTGTAAAAATATTGGTATTATTATTTACAATTTTATCACTGACAT
TTTGATAGTTTTGATTTTTTGGAAACATTGAGTTTATACATGAATTATTTTTATATTAT
AATTGCCATTTTGGGTTTTTCAAAAGAGATACAACCACATAAAGTTATAGAACAAAGAA
TAGCAGTAAATAGAAACAATATAATTATTTCTTTTTTCAATTTTCCAAACCTCCGCTGTCT
20 TCTTTGGTAATCTCTAACCGCCCTTAGAAAATCCACTCTTCTAAATAACGGCCAATATAT
ATCACAATAATACAGCTCTGAATAAGAGCTCTGCCAAATTAATAAATACTAATCTTTTC
CTCCCCAGAAGTTCTGATAATCAAATCAGGATTGGAATGGCAAATTTGCTGTGTATAA
ATGTTTATCTATTAACCTCTTATCAATATCTTCTGGTTCTATTTCTCCTCTTTAACCTT
TTCAGTATCTTTTTTACAGCATCTATTATTTCTTGTCTCTCCATAAGCTATTGCAAT
25 ATTAACAAAAAATTTGTTGTAGTTTTTGTCTCTCTTCCAGCGTATTTTATTGCTTTTG
AACATTTTTTGGCAATAGATTAATCTACCAATTGCTCTAACTCTAACTCATATCTATG
AATTTCTTCATCATCTGCAATCTCGTAAACTTTTTTCAAATAATCCATTAATTTATC
AACTTCTTCTTAGGTCTTCTAAAATTTTCAAGTAGAAAAGGCATATAGAGTAACAACATT
TATGCCCAATCCCTTGCCCATCTAAGACTTCTCTAACCTTCTCAGCCCCCAAGTAATG
30 CCCGTAGTATCTATCTTTTCCATAAATCTCTGCAGCCCTCTATTTCCATCCATTATTAT
AGCTACATGTTTTTGGTAAATTGTCTTTATCAATAGCCTCTTCTAAAATCTTCTCGTAAAT
TTTTAAACTCCGGAGTTGTCTAAAATCTATAAAAATCAATTATTACTCTTTTCCAAAT
ACTCTTTAATTTGTTTTTATCTTACCCAAAATCCCCACCTATTAGGAATTTAATAGCGT
TATAGTATCTCTCCCAATTAGCGTTTCTACTTGTATCAATAAAATTGACATTTTTATCTG
35 ATAAATAACTGCCCCATAACCAGGAATTTTGCAATCAAACCTAAACATCTGAAAATTA
AATTTCCAGTAATCCATCTACAGCTATAATAATATTGTATCCATCTTTAAATATTCCT
CTATTAATATACCATATGTATAATATCCACATTTCTTTAAATGCTCAACTATTTCTCT
CAGCTTCATATATTGTTTCATCCACTACTTTATTCCTTCTTAAATCTCCTAATCTTCTC
CAGAAAGGACTGCAACTTTTGCTTTAATATTATAATTTTTTAAAAAGTTAGATGCAAAAT
40 CTATAATCCTTATTTTATCTTTTATTCTCTCATTTTTGTCTTCTGATATATCATCAATCC
CTACTGGAGATAGTAAAAAGATTCCATTAGTAAAGGGATTCTTTAAATTTGATGCCCTAT
AAAATTTTCTATTCTTTCTTAAATAGAGAAATFACTTTTGATGAAGATAAGATCCCC
TAACAGCCCCATCTATCTCTCCATCCAATAGTTTATCTACTAAAAGTTTTGGATTGTCAA
TTAATTCAAACCTCTATTCTCTCTTTTAAATTTTTCATAAGCCTTCAAACTCTCTCTT
45 TATTGTCTCTATGCCATAGCATACATAATTATCACTTAAACTCCACTTCTATCTTAA
AATATCTCTCTCTCTTTTAAATATCTCTGCTATCAAAGCCCCCAATAGCCCCACT
TTCTCCATATAAGACAAATATCTTTGCTCAACAACTCTTTAATTTCTTTTGGAAATATC
TATCGGATTCTTAAAGTCCCTATAGAACCCTGCTAAAACCACTCTTCTTTATTTTTATC
CAATAAAGGTAATAAGCTATTTATCTCCATAGAGACACTTAAATTAAGCTATCAACTGC
50 CAATCTACAATTTTCACTATTAAATAGTTGTTAATTATCTCTCTTTTGTATTTTCAAC
ACCTTTATAGAGCTTGGCTATTTTAAACAGCCCTGCTTTGAAAATGCTTCATTGTCTGT
AATTTTCCAGCATCTATATCTCTAATCATTTCTAATCTATAGGGCCATGTAACATTCC
AATAGCTCCAATACACGCATCAAATCCTCCAAAATCTTACCATCTTTTATTAATAAGT
TACAGTATTTGAGGATATATCGGATAAAACAAAATCATTAAATCCAAATAATTTATATGC
55 ATAATAAGCTATAGAAACCTTTTCTGGAGATGCTATATGGGAGTATAAAGCTCTAAACCT
CTCATCTAAGCATCTATTCTCTATGCAATCCTGGAATAACAACAGCTGGCAATCCAGA
TTCTTTAATCTCATATAAACCTTTGTTCTCTCTCAACCTTTTCTCCAGCTCTCTTCAAT
ACTTAAACTCTCTATTTTTCACTTTTTCTATTGGTAGGATTTTGTATCTCCATCTCC
CATTGAGTAAGTTAAAGCAATCAAATCAATATCTTCCAATGAAATATGTTTCTCCAACCTC
60 CTCTAAGTAAGATTTTTCTTTGAGTTCTGTTCTCTTTAGTTTAAATATTATCTTTTTATC
ATTATCTTTTATGCATGTAGTTATTCOCGACGTTCCATGGTCTATTCCAACGGTTATCAT
AGTTTCACCAATAATTTATGCAATCTCTTTATTTTATAGAAATCATTCCAAATTTCTTT
TGAAAGGCTTTTTAAATTTCAATTAATCATGATGTTCAAGTCTCCCAAACCATATCCA
TCAATATAATCTTGATTTTTTATAAATCTTTTTATTACAGCCTCTTTTGAGAAATTTAT
ACTGAAATGATACTCTCAAGGGAAAGTAACCTTTATTTAAGTTTATTTTCAATGTCCCAT

ATTGGTGTTTGGTCATCATAATATGTCTCTTTTATAACTCCAATAGCATGAATCTCTCCG
GTTTTTGCAATTTGGAAAACGGCAACATCAAAAGGTTTTATTTGGTTATATTTTCTTATA
AAACTTCTCCAATTCCTTTTCTGTTTCTCTCCAGCGTTTCTATCCCCAAAATCCCCAAATC
5 ATATGATTATAGCAGATTTCAATATTTCTTATATTGTTAGAGCTAAAGAGCCAATATGTC
ATAACTATATCCCTCATTTTAATAATTTTAAATGAAAATATTACTATCAAATGTCTAT
CAATTTTGTTTAACACAAATTTATATAATTAGGTAATTTAATTACCTTAAAAATGATT
AGATTGATTAGGGATAGGCATGGAGAAGTTTCGATATTGCGATGACAGTGTGTTTGGTAAT
GATATTCTTATTCATATTTTACCAATTATTTATATGCTATCAAATCCCGGAGATTTAAA
10 CCAATTGTTGGATAAAGAGGTTATAGAGGCGTTTAAACTACTCTATTAGCTGGAGCTGT
TGCTACTCTAATAGCTCTAATTTTGGAAATACCAACTGGCTATATTTTGGCAAGGTATGA
TTTTAAATTTTAAAGCTTTGTGAGGCTGTTTATAGATTTACCGATGGCAATTCCTCAGAG
CGTTATAGGTATCATAATCCTATCCTTCATTTATGGTATTGATATTATAAATTTTATGG
TAGATATGTAGTTGATAACTTTTGGGGGATTGTTACTGTCTATCTATTTGTTGGCATACC
15 TTTTATGGTTAATAGTATAAGAGATGGCTTTTAAAGTGTGATGAAGAGATTGAGTATGT
CTCAAGAACCTTGGGGGCTTCAAAGATAAGGACGTTTTTGAATATCTCTCCATTGAT
AAAAAATAATATCATCTCTGGGATTATTTGAGTTTGGCAAGAGGAATTAGTGAGGTTGG
AGCAATATTGATAATAGCATATTATCCAAAACAGTTCCTATCTTAATATATGAAAGATT
TATGAGCTTTGGATTAGATGCTTCAAACCAATATCTGTTGGAATGATTTTGTATTGACAT
20 AGCGTTGTTTGCATTACTAAGGATGTTTGGGAGGATGAGAGGGAGATAATGCTTAAAGTA
AATAATCTATCAAAGATTGGAAGATTTTAAATTAAGAATGTCTCTTTTGAATAGAT
AGGGAGTATTGTGTAATCTCGGTCCAAGTGGAGCTGGAAAATCTGTTTTAATAAAATGC
ATAGCTGGGATATTTAAACAGATTCTGGTAGAATTATTTAAATGGAGAAGATATAACA
AATCTACCACCAGAAAAAGGAATGTTGGTTATGTTCCACAAAATTATGCCCTATTTCCA
25 AACAAAACGTTTTATAAAAACATTGCCATGTTTAAATAAAAAAAGTCAATAAATTA
GAGATTGATAGAAAGGTTAAAGAGATAGCTGAGTTTTAAATATTTTACATTATTAAT
AGGGATGTTAAACATTAAAGTGGAGGAGAACAGCAGAGGGTAGCTTTAGCAAGGGCTTTA
ATTCTAAATCCATCTATTTTACTTTTAGATGAACCAACATCTGCTGTAGATATTAAGATT
AAAGAAAGCATTATATCTGAATTAAAAAAGATAAAGCATATCCCAGTTTTACATATAACC
30 CATGATTTGGCTGAAGCAAGGACTTTGGGAGAAAAAGTAGGCATTTTTATGAATGGCGAG
CTTATAGCTTTTGGAGATAAAAGTATATTAAAAAACCTAAGAATAAAAAGGTTGCTGAG
TTTTTAGGGTTTTAATATAATAGACGATAAGGCAATAGCTCCAGAGGATGTAATTATTAAG
GATGGAATGGAGGAGAGGTTGTAATATCATAGATTATGGAAAATATAAAAAGGTGTTT
GTCAAATATAATGGTTACATCATTAAAGCTTTTACAGAAAGAGATTTAAATATTGGAGAT
35 AATGTTGGATTAGAGTTTAGAGAACAACAAAATTAACATGAAATTTTTTGGTGATAAGA
TGATTGTAGTATCAGGAAGTCAATCCCCAAATTTGGCTTTTAAAGGTAGCTAAGCTTTTAA
ACACAAAATTAACAAGAGTAGAGTATAAAGATTCCCAGACAACGAGATTTATGTTAGAA
TAGTTGATGAAATCAACGACGATGAGGCAGTTATAATAAACACACAAAAAATCAAAATG
40 ATGCAATTGTAGAGACAATTTTCTGTGTGATGCTTTAAGGGATGAAGGAGTTAAAAA
TAACCTTAGTTGCTCCATACTTAGCTTATGCAAGGCAAGATAAAAAATCAATCCCTGGAG
AGGCAATAAGCATTAGAGCTTTAGCAAAAATCTACTCAAATATTGTTGATAAACTCATT
CAATAAATCCACACGAAACACACATAAAGGATTTCTTACAATCCCATTATTTATGGAG
ATGCAAGTTCCAAAGTTGGCAGAGTATGTTAAAGATAAATTAACGACCCAATAGTTTTAG
45 CTCCAGATAAAGGAGCTTTAGAAATTTGCTAAAATCTGATCTAAAATCCTAAATGCAGAAT
ACGACTACTTAAGAAAAACAGACTCTCTCAACAGAAATCCAAATAGCTCCAAAGACAT
TGGATGCTAAAGATAGGGATGTGTTTATTGTTGATGATATCATCTCTACAGGAGGAACA
TGGCTACAGCTGTTAAGTTATTAAGAGCAGGGAGCTAAAAAATAATTGCTGCATGTG
TGCATCCTGTTTTAATTGGAGATGCATTAAATAAGCTCTATTACAGCTGGAGTTGAGGAAG
50 TTGTAGGGACTGATACATATTTATCAGAGGTTAGTAAGGTTAGTGTGAGAGGTTATTG
TTGATTTATTATAATTTTTAAATTTTTAATTTTTATCCTAAAAACCAATAAACTTTC
CTAAGCAATAAAATACCAATAGATGCCCCATAATTTGAGAGAGTGGCAACTAACAAGA
CTCTAAATAAATTTGTTTAAAGAGCTCTTTAATTGATTCAGCATTTATTATCCCACTA
AATCTTTATCTGTTATCTCTCTATACTTTAACTCTACAAGTCCAGCTATCGTCCCCACAG
55 CCGCTAATGGTAATGGGACGAGAGTAGTTATAGGGGCTGATAGAAAGGCAACTAATGCAG
TTATCAACTTCCCTCTTGCCAATAAAACTCCCAAGGCAGATAAGCCCCAGTAAATAATA
TCCATTGAAAAGTAATCATCTTTAATAATTCTGGATTATTTAGGGCGTAACATATCATAT
ACAAAAGATGCTAATTATAGTCAATGAAATACCATATGTTAAAGCTTTTTTAATGATT
TTTTTCTCTTTTAACTTTTAAATTTCCATTAAATCAATATCATTTCCATTTTCAAGCT
TTTTTAATATCTTACAATTCCTCAACATGTCCCGCTCCAACCTACTGCCACCAAGAAT
60 TTTTATTCTTACTCAATCAAAATAACCTTTTAGCCATGAATCTATCTCTTTCATCTACTA
AGACCTCATATATTGTTGGAGATATCTCCTTTAGCAATTTAATAAATTTTTCAGGATTTT
TAACCATATCGTTTAAATAATCATCATCTAATTCCAAATCTTCCCTCATCAGAAATTAATA
GCTCCCAAAAATCTTCATTTTTCTTTAAATGTCATTCTATCCATTAAATCTTGATAAAG
TGATATCTATATCCCTATCAATTAGATATATTGGCAATCCATATTTGCTTGCTATTTCTA
TAGCTTTTTTCTATCTCACTACCTGGCTTTATTCCAAAACCTCTCCCTATCTTCTTTGAG

5 AATTAGCTAAAATTAATATATGAAAAATTTAAAAAATTCCTTCCTTTAATACTTTTT
TTAAATCCACTTTTTCTCTTCATTGTAAATTAATGAGAAAAATCTTCTATCATCAAGCT
CTACTGCAATTCCTTCTGGAGAGACAGATGATATAATTTTTCTACTTCTTCAATACTAT
CCTTTGAAACATGAGCAGTTCCAATTAAATAGATATCACATTCATTAACCTCCATTAAATA
10 CTCTAACATGTCTCAAAATAATCACCATCTATTTGTAAAAAGTGTGCTTGATATTTTGT
AGAAATTATTATTAAATTGTGCTTTAAATATTTAACACTAACTATTAATTGTTTAAATTT
ATCTTTTTCTTTTTTTAGTTTTTACACCTAAGAAAGCCCTTTTTATTATAATTGTTGCAT
AACTTCCTTTTTCCAATTCATAGCTTAAAGTTATTTTTATATTTTCTTTATTCAATTCAT
CCTCTTCAAACCTCTCCAATTTTTAAGTTTTTAGGGATTGAAAGAATCTTTCTTTCACTGT
ATATGAACCTCCCTAACTCTCTATATTATTAGCTCTCCATAGTAAGGCCTTCTCTCT
TTAAGATTTCTTCAATAATTTCTTTTTCTTCTCCACTATATTCATGTCTGGAGCTATTG
TTGGAAATTTTTATCTTTCAATATATTAAACACTTCTCATCCATTTTTTTATAGAACA
TAAGGGTTCCACATTCATATTCATAATAAACCCCTATCTTCTTCTGGAACATATTTTCTTA
15 ATAACCTCTTTACACACTCATTCCATAGATAGCTTTGATAAGCAGCAACAAAAATTTTCT
TCAGCCTATCATCAACATAACTTAAAGCTTTTTTATAATCATTGCTTTTTTTAAGCTCTT
TAACCATATTCACATATAATCTTGACTTTATATTATTTTCTTAAATATACTCCCAAATTT
TATCCCAATCTCCCCAGTTTTATCTATAAATCTCTTAAATCTTTTATTAATTTCTTTT
CAGATTTTTTATATTTCGTTAGCAATATTTTTCACAGCTTCTTCATAATTGCTTTTATAA
CTTCTTTGGCAATGAATTTTTATCAAAAACGCTTCCAAATCTCTGACTATCAAAAATAAT
20 TTGGAGCTCCAAATCTAAGTATTTTAAATTTTCTTTTATTTTTGGGATGTCTCTTTTT
TTAAACCCCTAACTGTATTGTGAATCTATTTCCCTCTAAATCTCCCAACAATAGAAATT
TTGATTCTCCGATTAACCTAATTTTAAATTTGGTTCATCTAAGCTTAATTTTCCATATT
TTTTTGGTATAGATATATTAGTAGTTAAAGCATGCCTATCTTTAATCCACAGTATC
CAATATCCTTCAATGGAATTTTAAATTTTTTGCAATATAAGAGAATGCTTCAAACCTCT
25 CTATATTTCTCTTTGTTAATTTATAAAGGTAGCATCTATCTCCAGCTATTTTATTAAT
CAATAATTTCTTCAACGATAAAATCCTCTGGCTTCATTCTAAGTTTCATAAAAAGCACCCC
AACAATATAAACTTCTATTATTAACCTTAAATTTAAAAAAGACTCTTTGGTTGAAATAT
TTTTCATAAAAAGACTTGAAAATTCACAGGAATTAGTTCCACAGAAAAATAACCTAAAG
GAATTTTAACTTTCTTGGGTAATTTTTTAACTCTAAATAGATGACGCGGGGGCCGGGA
30 CTTGAACCCCGGCTGGGCGTTGCCCAATGGGATTAGCAGTCCACGCGGTACCAGGCTGG
GCCACCCCGCAATAAAAGCAACACTAATTTGGGTATAAGGTATATATAGTTTTCGTT
TTTACAATACAAGATATAGAAAATTAACACTATTTTGAACCCCTAAAACATACAAAATAA
AAACAACTCATAAATCTCTTAAAAATAAACTTTAAATTTGAAAAATTAGTAATACTT
TTTATTAATTTTCCAATACCAAAATCAAAACAACCTACTTATAATCTTAAAAATCCGAAAG
35 ATTTCTAAAACCTGTTGCTATGCTCACAAGAAGCAAGAAATTAATTAATAATCTATT
ATGCATATTAAATTTCTCAATAAGCATATCTATTTATATTTTATACATCACTATTTGT
CATTAATGATAATGATAAATTTACTGGTGACAGTGATGATTAAAAAATCGCAAGGAAGAA
GTGTATTGATGTAATGCTTGTTTTACTGGTGGATGTAACGCTTGTGATATTGAAGTTGT
TAATGCTATATTCTCTCCATTTATGATGCTGAGCAGTATAATGTTTTTTTAACTTTAA
40 TCCAAGAGAGGCAGATATTTAGTTGTTACTGGTTGTGTACTAAAGTTGTTGCAGAATC
ATTAAGAAAAATTTATGAGAAGATTCCAGAACCAGGAGCTTGTGCTGTAGGAGCTTG
CGCATTTGATGGGAGGAGTTTATAAAAACATTGGAGGAGATTTAGGAACCTCAGATTTTGT
TGCAGGACCTGTTGAAAACATTATTCAGTTGATGTTAAAGTGCCTGGCTGTGCCCCAAG
45 ACCAGAGGATATTATTGCTGGGATAGTTAAAGCTCTACCTAAGGTTATCGAAGGAAAATG
AGGTTTTTATAAAATTTATGAGTGAGAATGATTATGTTTGTAAATTTCTTTAGTGAG
GGATAGGTTATGATTGATGAGCTAATATCCATAATTGGCATTCCGGCTTTAGCATTTGCA
ATCTCTACATATATTCCGGGAATTCAGAGAAAGATAGAGGCAAGGATACAACAAAGAATA
GGCCCGAGTATATTAGCCCCAGGATTTTGGGCATTTTTTAAGTTTTTATTAAAGAGACA
50 AAAGCTCCTGATGCAAAATTTGCCAAACTATATAATTTGCTGCCTTTGTTGTCTATAGTT
GTGTTGTGGGCATTGTTGTCTATAACATCATTAACATCCTTCCATATATTATCTAACGAG
ATTGGTATTGTTGGATTGCTGAAGTTGGAGGAGATGATGTATGTTATATTAGGTTCTTTA
GCATTTTCAATTATGGGCTGGAAAATGCCGTTTATAGATGAATGCAAGGCACACCGTTT
ATAAAAATCTTAAAGCTTTTCAATGGAGCAGTTAGGAGCTGTAAGAAGCTTTAAATGATA
ACTATAGGTTCAATTTCCATTTTATTAGCAACATTTTTGCCATTTGTTCAAAAAGAAGAGT
55 ATATTCTTAAAGATATTGTTGGAGAACCATTTTTATTCTCATTGGCTGGGATATTTGGA
GCTGCGTGTTATTTTCAATGGATATGTGATAATGATTAAAGAATATCCATTCTCAATAACT
CACACAAAGGCAGATGTTATTGAAGGCTCTACAATGGAATTAATTGCAAAATATAGAGCT
TTATATTTAGCAAGTAAGGAACCTTTGTTAATAGCTTTAGGAAGTTTATTGCAACTCTA
TACTTAGGAATAGCTCCAGATATAGAGAATCCTATAACAATAGTTGAAAACCTTTGCTATA
60 GCTTTGATATTCCCTATATTGGCCACATTTGTTAGGGCATTTTCGCCAGTACTTTTTATT
AAACAGATATCCTATCTCTATGTGGCAACACTAATTTGGTGTATTGGCTTTATATTT
GCATTGCTTGGATGGTAAAGTATTTTCAAAAATATCTAATGAGTTATGAGAAAATGCTTA
AAACAGCAATAATAATTTTAAAAATATCTTTGAGATTCTGGTTTATACTCTTCCCTT
AATTTTAACACTACTACTGGAGTATGCTCCAATTTTTCCAAAATCTCTTCAAGTTATAAC

5

10

15

20

25

30

35

40

45

50

55

60

ATAGGTGTTGATTTTTCTAAACTTCATTAATGTTTTTATTGTTTTATGCACTCTATC
ACAAATAAAAGCTATCCTTGTAAGCTCACCAATAGAATACTTTTTATATACCTCATTTCC
AGCTATTGCTAATGGTGTGCATCCAGCAAATCCACCAATCTTTAAACATCTGCCAACCT
TCCAAGAATGAAACCAAAACTCCAATACCCTTATTATCCATCAATTGCATAGGGAAG
AGCGGTAAAAATAGAAATTCAAAACCTCTATAAGTAGCATCAGTATCGGCAACCATAACAAC
AACATCAACACCTAATTCTTTTTTATCTCTTTATATAACTCCTCAGCCCATTTTTTTGG
ATTTTTTGGGAGAGGACAGGCATAAGTCCCAGGGACGTTTGTTAAATCAACTCCTCCTTC
AGCATAAGGTTTTAAGGCATATCTTAATCCAACCTATTTCTATAATTGTCTGTTTATGCTT
TAAAGTCTCTTCCCTTTGGCATTCTTCTCAAATTTTTTATTTTTATCTTCTTTAACTTTCAA
TAACCTTTCCAAGCACATAGCCCCAAAGATATTTAGACCAATAATAGCAGAGATAAGCTAA
AACTCCTGGTTTTAAATTTACTCTCATCAATAAAATTTCCCTCAGCAGTTGAAACCATCTT
TTCATTAATACTACAAAATCTCCATCCTCTAATTTAATTCCACTATTTTTTATGCTTC
AACATCAATGGGATAAAATTTTCTCCCTTTTTATGTATCTTGTTTTGATGGGATAAGC
TCTCATATTCTCACATGTTAAAGTGTATCACCCTAGCAATATTGAATAGGATATTTATAA
ATATGGCTAATTAATAAATTATTATTTGTTAGATAAAATCAAATTTAATTATGTGGGGG
AGTATGCCAAGAAGGAAAATAGACAAATGTATGTAAAAATCTATTTGGAAGGTAATGCA
ATAGAAGGTGAATATGATTTTGACGCAGTTACACACTTAAAAAATGGCATATTAATAAC
CTATGGACTGGAAAAAAGACCCAAATAAATTTGGAATATGGATAATAAGTCATTTACC
ATTATTGACCCATCAAAGATATGTGCTGTAGAGGTACAGGTTTCATTAATGTTCTTAGAT
GACATCCCTGAAAAGAAATTTGGAATGAAGTCATTTAGTGAGAGAGATTAGCTTCTTAC
TTAATTAATAATTAATAATAATTAATAAATAACTACTAAAGGTGAAAACATGAAAAGA
GTAAAAACTGGAATTCCTGGGATGGATGAAATCTTACACGGTGAATACCTGAAAGGAAT
GTTGTTCTATTATCTGGAGGGCCTGGAACCTGGAATCCATATTCTGTGAGCAATTTTTTA
TACAAGGGGGTTGTTGATTACAATGAACCAAGTATTTTAGTAGCTTTGAGGAACATCCT
GTTCAAATTAGAGAGAATATGAGACAGTTTGGATGGGATATTAGAAAGTTAGAGGAAGAG
GGAAAATTTGCTATAATCGATGCCTTTACATACGGAATAGGAAGTGCTGCAAAAAGAGAA
AAATACGTTGTAAATGACCCAAATGATGAGAGAGAGTTAATAGACGTTTTAAAACTGCT
ATAAATGATATTGGAGCTAAGAGGATAGGAATTTGATTCAGTCACTACCCTATACATAAAC
AAGCCAATGCTGGCAAGAAGAACTGTCTTTTTATTAAAAAGAGTCATCTCTGGTTTAGGA
TGTACTGCTATCTTCACTTCTCAAATATCCGTTGGAGAAAGAGGATTTGGAGGACCAGGA
GTTGAGCATGCAGTTGATGGGATTATAAGATTAGATTTGGATGAAATTTGATGGAGAGTTG
AAGAGGAGTTAATCGTATGGAGATGAGGGGAACAAGCCATTTCATTAAGAGGCCATCCA
TTTGACATAACCAATGAGGGAAATATTGTATATCCAGATAAGGTATTGAAGCTTAGATAA
AATTTTAAGGGAGAGGATGGAGTCATTTATCTTAATTTTATCTTAATTTTATTATTTTTG
GGAGTAGTGTGTTGCTTTTGGATTTTATTTGATATTCATAAAGCTTACTGGATTAAATTTG
ATGGATTATTTTCCAAGATTTAAAGAGAATAGACTAAAAATGATTTTATGATTTTAAAGT
GTGANTCTTGCCCTTCTCATAAATTTGGTTGATTATGAAAAATTTTAGTTTTTTGATTGAG
ATAATTCATCCAATTGCATCAGTCTGGATATTTATTATATTGATATATTTATTATTAAAG
TTCTTATTCCCTTAAAGAGTCCCATTTATCAAAATTTATGAAAAGAAATTCATGGGAAATAG
TCTGCAATAGCCATATTTCTTGAACCTTTAAAAAATTATCGAATATGTGGATGAGCATAAT
ATTGCCCTCTCCAATAACAGTTGCTTTAGTGTTTTTTATCCAGTTGTTGTTTTTTTTAAT
TGCAAGTATTTTTATGAAATGGAGTTGTCAAGTTAGCGATTCATCCAGTTGTAGAACAT
CATGAAGCTTTTTATCCAATAACAACCATTAGGTTTTGTAAATACAGCAAAAAGGTTAT
ATCCTATTAGTTGTTATCTATAAAATATGGCAAAATAGGGGGGCTGGTAGTTATGGAGAT
AAACAACCTTTTACATCGGCTTTTATTGGATTAGCAGTATTTATTTTGTCTATTACTATTAT
GTTCTATATTTGGGCTTTTAAAGTTTGATAAAAAGTATTTGGCTAAGGAGTAGTAGAACCA
TCTTTTTTAATCCTTAAACCAAAAAATTAATAATTAAGATTATCATGTGAAACCATGG
AGACGTCAAAGAAGTTAGTTATTGTTGCAGTTCTCTCAATAACATTAATTTTAACTTATG
CCTATTTAATAAGCATAATTGAGGGGGTTGATTATTTACAGCTCTATATTTTCAAGTGTTA
TTACAATAACAACCACAGGTTATGGAGATTTTACTCCAAAAACATTTTTGGGGAGGACAT
TAACGTGTAGTTTACCTATGTGTTGGTGTGGGAATAGTGATGTATCTCTCAGCTTAATAG
CGGAGTTTCAATGTTGAGGGGAAGTTTGAAGAGTTTGTGAGGTTGAAAAAGATGAAAAATA
AGATTAAACTTTAAAGAGCATTATATTATCTGTGGATATGGAAGATTAGGGAAGGTTG
TGGGGGAGAAGTTTATTGAAGAGAATATCCCATTTATTGCTATAGATATTAATGAAGATG
TCCTAAAGGAAGAGTATGAAAAATACCCAGATAAGTTTTTATACATTGTGGGGGATGCTA
AAAAGGAGGAAGTATTGAAAAAGCAAAAATTGATAAGGCAAGGGATTAATTGCTACTC
TTCCTTCTGATGCAGATAATGTGTTTTAACCTTAACAGCAAGAGAATTAATCCAAACA
TTTTAATTACGTAAAGCAGATGAGAAGGAAGCCATAAGAAAATTAATAAGCTGGGG
CTAATAGAGTAGTGTCTCCGATTATTAATTGGCGGATTAGAATGGCTGAGGCTCTGTTA
GACCAGGGATTTTGGACTTTTTGAGCACATTTATTAAGATAGCTAAAGATGAATATGAGG
AAGATATTGAGTTGAGAAAGTTTGTCAATTGAAAAAGATTCTGAATTAGCATATAAAGTT
TAAAGATGCGAATATTAGAGGAAAACTGGGGCTACAATCTTAGGTATTCGAAGAGAAA
AGGAGTTTTGTATAAATCCTTATCCAGAGTTTATTTCTAAACCTGGTGATGTAATATATG
CATTTGGAAGTGAAGAAAACCTTAAATATTTGGAAAATCTTGTTAAAAAGAAAAAGAAAA

5

10

15

20

25

30

35

40

45

50

55

60

AGTTATAATCCCATCTTTTTTATTCCCAATTTAACGGCATTCTTTTTTAGGTTTTGGTTT
ATCCCAATATAATCTAAAACCTTGCTCTCAAAGTTCATGTATGCAGCAACATTTAAACAAT
ATAACCCCTCTTCAATAAATCGTCTAAAATATCAACAATCTCCTGGGCATCTCTTTTAAT
TCCTCTTTTAATTTATTTTTCAATCTGTCTTCAATTTTAATAATTATTGCAGTTAAATAC
TCTGGTAGGAAATCTTCTCTACGTATTTAATTCCTCTTTTTTACAATTTCTTTATAAAAT
TCATTTAAATCACTATCATTGGATATTTCAAATAAACCCCTTTATCCAATTTTAAATCT
TCCTCAAGTTCTTTCTTTTACTCTCATCAAATAATGTCTTTGTTTTTCATATGAGAAG
ATATCATTAAATACCTCTTCAACCACTTCGTCTATTGTCTTACTAATTAAGTCCTTATAT
TGTGTCAATTTAGAAAAATCCTTCTCTCAGATGCAAAGTGATGCATATTTTCAATAATT
TCGTTGTATATTCCATCGAATGTTACGTTTCATTACTACCCCTCTCTATGTTAATTTTT
AATTTGAATTATGGGTATATACAAATATAGTGTTATTTTATTGTTTAAATATTACTTTA
TTTAGTTTAGTCTGGAGTTTTTAAATAAAAAATTAAGAATAATAAGTTTCTATTTAACT
GCATCTACTAAAAATATGATTTAGAAATGGTATAAATACTTATTGGTTATTGGTAGAAGT
TTAGATAAGCTTCTACCAATTTAACTCCAGCGTCTGTTAATCCCTCTCTCCCTATGAATC
CAACATTCTTTAATATAACCAAGTCTTTTTAATCTCCTCTGGGGTTAAAGATAGATACT
TAGCTAACAAATACAATTTCAATTTCTTTATGTTCTTTACCCTCACTCTTCTTTCCAAA
CTTTATCAAACCTCTTCTTATGGTCATAGATGGTTTTTAAATATGTTGAATGTTGTTGGAG
TTACAGCAAACCTTTGTTGCCAACAACTTCTGGATTTTCGCCATTTCTATAGCTGTTTTAA
CCTCTTCCCTAATTCGTAAATTTAATCATCTTGTGTTGCAACTCTTTAATGAATCCCTT
TGGATTCTGCCTCACCTAAAGATTTAATGATTTCTTTCTCATCTCCACCAACATGACCTT
GGATTAACCTTAACATTCATCTCTGTGGATATATCTCTTCTTGGAACTTTAATTAGAG
TTGAGATATCATATTTGTTAAGTATGGCTTCTTTAATTGTTTTTGATAATTTTATTA
AGTATTTTCTTTTCTGTTATTTCTCTTTTTTACAGTTCCTTCTTCTTTACCTTTAATTA
CCCATTACGCAATTGGCACATCTCCACTTTCTGGATAGGTTATAGCTTTCAATCCATCTG
TTGATACCTCTCTAAATCTTTAACCTTCTCTCCAACTCTGTCTCATCCAATATGTGTCCT
TATTTTTAACAACTTCTCTCTTTATTAACCTTTTGATTCTAAGGTGTGTAATACAGCCC
CTAAGTCATCAATATTTGTTCTCTTTTTAATTCATCGTAAGTTGGTATAATTTCAAGGT
TTGTTTCATACTTTTCTTTATTTCTTCAATTGCCTTTAAACCTTAATCTCATCCTCTA
AGACATAGATTGGGAGGGTTTTCTCTCAACCTTACCCATCTCTTTATAAGTGTCATCA
TTGCTTGTCTTAATTCAGTAACTTTTCTTCCAGCATAGAAACCGCTTTCTGTCTCTCTT
CAGTAGTTCTCTCTCTCCAAAATTTCAAAGTCTCTTTTCTCAATATTAAGCCCTTAC
TTAAGTTTGGAACTAATGAAGCTACTTTTAAACATAGTTCAATGCCTTTGTTGTAGAAA
ATGCCCTTCCACTTTCTGTTTTTGGTGAAATTAAGCAATCTCATAGCTTGGAGTGCAT
TAATTATGTTATCTCCATATCTTTAGTGTTTTTGTAAAGTTATTAGCTCATATAAATCT
CAATCTTTGGCATATCTTTTATAAATGCCAATAATTCAGGAGTTAGATAAACAACCTGGAT
GTGTCTCTCTATATATCTTTAAATCTCTTTTCCAATCTCTGTTAAACCAATTTTCATCTG
CTAAGAATCTCTCTTTTAACTAATCAATCCAGTCTCTGGAACATTTCCAGTTTCTCTCA
ACAATTCATAATTTTAAATCTCAGAACTCTACAAATATATCTGGAATCTTTTCTAAAT
CAATTTTATCAACAATCTCCATCAATTTTTTACCAGCTTCAAGTGAATATTATCTTATCTC
CTTTTAATTCAGCAATCTCAATATAAACAGCTCTAAGCTCTGTTTTTAACTCTTCTG
GTAGAGCTTTTTCTATCTCGTTCTGCATTTCTGTCTCTTTCATCTTTTTTAAATTTTCCA
AGTGTCTCTTTTTTAGGAACAGATATCACCTCATCACTATTTATTATTATTTTGTATT
TATTTTTATTGTTGTTGAAGTTCTTCAATAAATGCTTTATTGAATCTTTTATTGCTCTA
AATCTAAGAATCCACAACATTATCATAAAAACCTGTTGCTCCAAAGAATGTAACCCATACA
AGCAGGCTAAGATTTGGCACCATAAATACGTTAAAGTTACTAAGAACAATAATGAATAT
CCAACATCAATTACATACCTGTATTTTCCATCTCAAAGAGAAATATAGAAGTTAGTGTG
AATGTTGTTATTTCTCTAAGGTATTTGTTAAATGACTTTTATTTATTATTTTATTTTCA
AGTTCTTTACATCTTCCCTTTTTTCATAGGCTTTGCTAATCTTTCTTATTATTTTCATAT
CCTATAAGAATATGGCCTCCAATCCCTAAAAATACTAAAAAACCCATGGCTGAGAGAATT
CCAAGTATTATTCTACATCCATTATTTTCCCTATCATATTTTGTCTAATATTGCTAA
TTTATATTCAATTTTACTAATTAAGTTCTCACTTTTTTATGTCTATGAAGTTCTATAA
AACTTTTCTATAATCAATTAATTTAAATATGTTTAGAAATTTATAAACATAAAAAATTAA
AAAATAGGATAAAAAATTTACAGTTTTTAACTGATATAGCACCCGCCACCTGCGAACCC
AATATAAATAATACAAGGGAGCAGGTGGCGAAAAAAGACCCGAAGCATGCACAAAAATAA
AAATTTAAAGAATTAGGTGAACCATGGAATTTAAGATTGTAAATACTATCTGCCCTTA
TTGTGGAGTAGGTTGTTGTTTGGGGTTGGTAGTTAAAGATTGGCAGAGTCATAGGTATTCA
TCCTAACAAAAGACATCCAATAAATGAAGGAAAGTTATGTGCTAAAGGAAATATTGCTA
TCAGTTTATACACAGTAAGGATAGATTAACAAAACCATTGATAAAAAAAGAAAGTGGTTT
TGTTGAAACTACATGGAATAAAGCTTTAGAAGTAATTGCAGAAAATTTAAAGACCTATAA
GGATGAGATTGGCTTTTTTTCATCTGCAAGATGCACTAACGAAGATACTACATTTTACA
AAAATTTGCAAGGGTTGCTTTAAAGACAAACAATATTGACCAATTGTGCAAGGTTGTGACA
TTCAGCAACTGTTACTGGAATGAGTGCATGCTTCGGGTCGGTGCTATGACAAACAGCAT
AGAGGATATTGAATTAGCAGATTGTATATTGATAATTGGCTCAAACACCTTTGAACAACA
CCCATTAATCGCAAGAAGAATAATGAGAGCCAAAGATAAAGGAGCAAAAATAATAGTTAT

-196-

AGACCCAAGAAGAACAATAACTGCAAAAACTCTGATATATATCTACAAATAATTCTCTGG
AACTAATGTTGCCTTAATAAACGCCATGATTAATGTAATTATAAAAGAAAATTTGATAGA
TAAAGAATTCATAAAAAATAGAACAGAAAGGCTTTGAGAAATTTAAAGAAAATTTAAAAAA
ATATACACCAGAATATGCATCAAAAAATATGCGGAGTTGATAAAGAAGCTGATAATTGAGAG
5 TGCTAAAATTTATGGAAATGCTGAAAGGGCATCTATCATATACTGCATGGGAGTAACACA
ATTTACACACGGTGTGATGCTGCAAGGCATTGTGTAATTTAGCCATGATAACCGGAAA
TATTGGTAAAGAAGGAAGCTGGGGTTAATCCATTAAGGGGCGAGAATAACGTTCAAGGAGC
TTGTGATATGGGAGCTTTGCCAAATGTATTTCTGGGTATCAAAGGTTGAAGATGGCTA
TAAATTATTTGAAGAGTATGGGAAACTGACITGAATCCAAATTTCTGGTTTAAACAATACC
10 AGAGATGATAGATGAATCTGGAAAAATATTAAATTCCTATACATAATGGGAGAAAATCC
AATAGTATCAGACCCGGATGTTAAGCATCTTGAAGGCATTAAAAAGCTTAGATTTTTT
AGTAGTTCAAGATATATTCTTAAGTGAAGCTGCAAAATTTGGCAGATGTTGTTCTTCCAGC
TGCATGTTGGGAGAGAGAGGATGGAATTTTACAAACACTGAAAGGAGAGTTCAATTAAT
AAGAAAAGCTGTAAATCCACCTGGAGAGGCTTTAGAGGATTGGATAATAATCAAAAAATT
15 AGCTGAAAAACTTTGGTTATGGAGATAAATTTAACTACAATAAGGTAGAGGATATATTTAA
CGAGATTAGAAAAGTTACGCCCTCAATATAGAGGCATAACCTACAAAAGATTAAAAATTGA
TGGCATTCAATTGGCCTTGTTTAGATGAAAATCATTCAAGGAACAAAAATCTTACATAAAGA
TAAGTTTTTAAACAGATAACGGTAGAGGAAGATATTTCCAGTTGAGTATAGAGAAGTTGCG
AGAAGTTCCAGATAAAGATTATCTTTCATTCTAACAACCTGGAAGAATAATATTCCACTA
20 CCATACTGGAACCATGACAAGACCATGCAAAAAATTTAGTTGAAGAGATTAATGAACCATT
TATTGAAATAAATCCAGATGATGCCAAATCATTAAAAATTTGAGAATGGTGATTTAGTTAA
GGTGATTTCAAGGAGAGGAGAGATAACTGCCAAAGCAAGAATAACTGAAGACATTAAAAA
AGGAGTTGTATTTATGCCATTCACCTTCGTTGAGGCAAACTCTAACGTATTAACCAATAC
TGCGTTAGATGAGTTGTGTAATAATCCAGAGCTTAAGGTGTGTGCTGTAAAGATTGAACG
25 AATTTAATTTATAGAATTGTTTATATAATAGGAATCATATTTCTAATGTTATGGGGTGA
GAGTATGGAAGAGATAGTTAATAAGATTACAAAATTTATCAGGGAGAAGGTTGAAGAAGC
CAATGCCAATGGAGTTGTGTTGGATTAAAGTGGGGGATTGATTCTTCTGTTACAGCTTA
TTTATGTGTTAAGGCACTTGAAAAAGATAAAGTTCTCGGCTTAATAATGCCAGAGAAGAA
TACAAATCCAAAAGATGTTGAACATGCAAGATGGTTGCTGAGAATTTAGGAATAAAGTA
30 TATTATCTCAGATATAACAGATATCTTAAAGGCATTTGGTGCTGGAGGTTATGTCCCAAC
GAGAGAGTTTGATAAGATAGCGGATGGAATTTAAAGGCAAGGATTAGGATGTGCATCCT
CTATTACTTTGCCAATTAAGATAAATATAATTTATTAGTTGCTGGAACCTCCAATAAATCTGAGAT
TTATGTTGGATATGGAACAAAACATGGAGACATTGCTTGTGATATAAGACCAATAGGCAA
TTTATTTAAACAGAGGTTAAAAAACTTGCTAAATATATTGGTGTTCCAAAGGAAATTAT
35 TGAAAAACCACCATCAGCAGGGCTTTGGGAAGGACAGACAGATGAAGAGGAGCTTGACAT
TAAGTATGAACTTTAGATACGATATTAAGCTTTATGAGAAGGGCAAACTCCAGAGGA
GATTCAATAAGAGACAAACATTCCATTGGAACTATTAAGTATGTGTTTGAATTTAATTAA
AAAGAATTGAGCATAGAGAAGCTTTACCTCCAACACCAGAGATTTAATTTTTAATTTTAGT
TTAAATATTTTATTTTATTTCTATTTTAAATTAATTTATTTATATATTGTAATAT
40 TCCAAATCATAAGTCTCAGACCATAATTATTTAAATATAACTTCAACCAATATTTAGAAA
ACCCAAAAAACTATCTCTTTATATCTCTACGGAGGGTGTTCATGTGTGGTATTATCGG
TTTTATGAGTAGAAAAAAAGAATGATAAAGGGGATAAGATAGCGTTAGCGTTAGATAG
TCTAAAAGAGAGAGGTAATGGGAAGGGTCTGGTTATGTAGGTTATGGAATATATCCAAC
AAAGTATAAAGATTGCTATGCATTCCACATTTAATTGACAACACACCAAGTTTGAGAA
45 AATAAGGTAGAGGTTGAGAATGTCTTAGAGCAGTATGGGACAATAGTTAAAGATGAGGA
AATACCAACAGAAGATGGCATTATAGAAAAACACAAATTCCTGGAGATACTTTTATGA
AGTTGATGAAAAATTTGCTGATAGAGAGGAAGATGTTGTCGTAGATATAGTTATGGAGAT
TAATGACAAAATAGATGGAGCTTTTGTCAATTTCAAGTGGAAGGATTTAGGTGTTTTTAA
GGCAGTAGGATGGCCTGATGAGGTTGCTAAATCTATAGAATAGATAAATATGAAGGTTA
50 TATGTGTTAGCAGATGCAAGATATCCAACAAACACAAGAGCATGGTGGGGAGGAGCTCA
CCATTTCAATTTATTAAATTGGAGTGTAGTGCATAATGGAGAGATAACAAGCTATGGAAC
AAACAAAAGATTTGTTGAAATGTTGGTTATAAGTGATAGATTATTAACCGATACTGAAGT
TGTTGCCCTATATATTAGATTTATTGATGAGAAAAACACAAATCCCTGTTGAGTATGCCCTT
ATCTGCTTTAGCACCAAGATTTTGGGATGAAATAGATAAGATGCCAGAGGAAGAGAGAGA
55 GTTACATACAGCAATAAGATTGGCTTATGGAGGAGCTATGCTAAATGGTCCTTTGCAAT
AGCAGTTGGAACCTCTCAAGGTTTAATCTTTATGAATGGAGATATTGAGAAAGACACAAC
AATGTTTGGTTTAAACAGATAGAATTAAGTTAAGACCATTAAATGCAGCTGAAAAGGATGA
TATGATATTTTATTTCAAGTGAAGAATCTGCTATAAGAAGAATCTGCCCTGACTTAGATAG
AGTTTGGATGCCCTGACGCTGGAATGCCTGTTATAGCAAGACCTTGGAAATAACAAAGAT
TAAAAGATTAAAAATAAAACATGAGGAAGTGAATCATGATTTCCAGCTATGTGCCACC
60 AAAGTATAAAGTAGAGGTTGACCCAAACAGATGTATGCTATGTGAGAGATGTACAATAGA
GTGTTCTTGGGAGCTTTATAGGAGGGAAGGAGATAGAATTATTAGCTACTCAAACAGATG
TGGAGCTTGCCATAGATGTGTTGTAATGTGTCCAAGGGATGCAATAACAATTAAGAAAA
TGCAATATCTTGAGAAGCCACCCATTATGGGATGTAGATGCAAGGTTGATATTTACAA

TCAAGCAAAAACCGGCTGTATTTTATTGAGTGGGATGGGTAATGCCAAAGAACACCCAAT
CTATTTTGATAAGATTGTTTTAGATGCATGCCAAGTTACAAACCCATCCATCGACCCATT
GAGAGAGCCAATGGAATTAAGAAGCTTACATTGGTAAAAAACCAAGCAGTTAGAGTTTGA
5 ATTTGTTGAAGAAGAGATTGATGGCAAGAAGATTAAAAAGCTAAGTTAAAAACAAAAAT
AGCTCCAAACTTAAAGTTAGATACCCCCAATAATGATTGCCCATATGTCTTATGGAGCTTT
GTCTTTAAACGCTCACCTATCATTTGCTAAGGCAGTTAAAGAATGTGGAACATTCATGGG
AACTGGTGAAGGAGGATTGCCAAAAGCTCTCTACCTTATGCAGACCACATAATTACCCA
AGTTGCCAAGTGAAGATTGAGGTTAATGAAGAGTATCTTATGAAAGGTTCTGCAATAGA
10 GATTAATAATAGGGCAGGGAGCTAAGCCTGGAATTGGAGGGCACTTACCTGGAGAGAAGGT
TACAGCAGAAATTTAGCAACAAGAATGATTCCTGAGGGAAGTGATGCTATCTCACCAGC
TCCTCACCATGACATTTACTCAATTGAGGATTTAGCTCAATTAGTTAGAAGTTTGAAAGA
AGCAACAAGATGGAAAAGCCAGTGTGTTTAAATTCAGCTGTCCATAATGCTCCAGC
TATTGCTGTTGGAATAGCAACAAGTGATGCTGACGCAGTTGTTATAGATGGATATAAAGG
AGGGACAGGGGCAGCACCAAGGTATTCAGAGACCATGTTGGAATCCCAATAGAAATGGC
15 TATTGCCGAGTAGATCAAGATTGAGAGAGGAAGGTTTGAGAAATGAAATTAGCATCAT
AGCAAGTGGAGGAATCAGATGTTTACAGCAGATGTATTTAAGGCTATAGCTTTAGGAGCAGA
TGCTGTCTATATTGGAAGTCTGCAATGGTTGCTCTTGCTGTAGAGTTTGTGGAAGATG
TTATACTGGATTGTGTGCTTGGGGAATAGCAACACAAAGGCCAGAGTTGGTTAAGAGATT
AGACCCAGAGGTTGGAGCAAGAAGAGTAGCTAACTTAATCAAGGCATGGACACATGAAAT
20 TAAAGAACTCTTAGGAGCTGCTGGAATTAAGTCAATTGAAAGCTTAAGAGGAAACAGAGA
TAGGTTAAGAGGAGTTGGCTTAAATGAGAAGGAGTTAGAAGTTTATAGGAATAAAGCTGC
TGGAGAATAAATAGAACTTTCACAAATAAAAACTTTTATTGAAGGGTGATGCCTTTGGC
ATCTAAATTCACAAATCAGCATATAAACTGTGAAAGTTCTATTTAAATTTTAAATTTT
AAAGGTGAAAGGCATGGAAGAGGTTGTTATAGATGCAAGGATATGCACTATAGAGAGCT
25 GAATGAAAAATACATGAAATTTAAGGGAATAATCCAGACATTAAAAAATTTGTCTTAAA
AAACGTTTATAGGGCAGAGGTTTATTGCCGATGGAATACAGAAGAAAGATTTAACTATAGA
GATTTACGGCATTCTGGTGGAGATTAGGAATGTTTATGAGCGGCCCTACAATAATAGT
TCATGGAAATGCTGAATTTGCTCCTGGAAACACGATGGATGATGGAACAATAGTTATCTA
30 TGGAACTAGTGGGGATGTAACCGCCCACTCAATGAGAGGAGGAAAGGTTTGTGAGAGG
GGATGTTGGTTATAGAAGTGAATTCACATGAAAGCTTATAAAGATAAAGTTCCAGTTCT
TGTGATTGGTGAAGAGCTAAGGATTTCTTAGGAGAATATATGGCTGGAGGTATTATAAT
TGTCTTAAACATTGATGAAAAAGGAAATGATTTAGGAAAGGTTAAAGGAAGAATGATAGG
AACTGGAATTCATGGAGGGGCAATTTATATTAGAGGAGAGATAGACAAAGACCAATTAGG
35 TGTGCTGCAGATATAAAGAATTTACTGAAGAGGATTTAGAAAAATAAACCATACAT
TGAAGAATTTCTGCAATGGTTAATCTGCCAGAAGATGTTAAAAATAAACTATTGAATTC
AAAATGGACAAAAATAGCACCAATCTCAAAAAGACCATTGCGTAAGTTATATACTCCTGA
CTTAATGTGAACTTTTAGTAAAGTTTTCATCAAACTCGTCCATTAAAGTTAGACTTTCA
GTCTAATTAATGTCCATTATTATAACAGTGGGACTGAACGCAGTGAAGCCCACTCTGGA
40 GTATTCCAATAGGCGAAGCCCTATGGTTGCGGAAGCTCTATACTCCCCGACTTAATGTAA
TTTAATAGAAATTTTATCAATTTTAAACTATTTAGAAGAAACACCAAAATGAGCCTT
AGGTGAGATTAAAGAAATCTTACAAAACCTAAAGAGGAAGTTTGGGATACTAATAGAT
GTAGTGGTTGTGGAGCTTGTGTTGCAGTTTGTCCAGTAAATAACCTATATTTAGAGAAG
AAAGCCCAGTAAAGTTTGAAGTGCATGAATGTTCCGTATATAAGTCCCAGCAGATATCG
45 TTGAGCATCCAATTCAGCAGAGTTCTGTAAGACAGTAGTTTATGACGTCCTTGTGGAG
CTTGTACGATGCTGCCAAGGATAAAAAATCTGCTATTCCAAAACCAAGGGATTGG
GGAATATATTAAAGGCAGTTAGAGCTAAAGCATCAATAGAGATAAAGAATGCCCAAAATG
GTGGAGTTGTAACAGCCATATTGGCAATGCGTTTGTATGAAGGATTAATAGATGGAGCCA
50 TTGTAATGATGATGACAAATGGACTTTAGAGCCAGAAATCATATTGGCGTTATCAAAAG
AAGATGTTTTAAAGTCTGCTGGTAAAGTACCTATGGAAAGGTTCAATATTAAGGGCGT
TAAAAACAGCAGTTATGGAAAAGAACTTAAAAAATTAGCTGTTGTTGGGACTCCTTGTG
TTATAAACGCTATCTATCAGATACTATCATCAGATAACGACTTATTAAGCCATTAGAG
AAGCTATAAGATTAAAAATTGCCCTGTCTGTTTTGAGACTTATGATTACAGCAAGATGA
TTAAAAAGCTTAATGAAGATGGCATAGAGCCATGGGAAGTTAAAAAGATGGATATCGAAT
55 CTGGTAAGTTAAAGATAACCTTAATCAATGGAAACACTGTTGAATATAAGCTTAAAGATG
TTGAGTCTGCAATGAGGAATGGTTGCAAGGTTTGGGAGATTCTACTGGCTTAACATCAG
ATATTTAGTTGGTAATGTGGGAAGTGGAGAAAGGCTATTCAACAGTCTTAATAAGAAACA
AGTGGGAGAGAGGATTCTTTAAGAGAGCAGTTTATAATGGTTATATAACCTATGATGAGA
ACGTTGATTTAGAAGCAGTTGAAAACCTGTTGAATTAAGAAAAAGAGAGTTAAAAAGG
60 ATTAAATCAACTATACTTTTTTTCAATAAACTCTTTCAAAACATAATAATCCAAGATT
TCATTTAATAAATCATCATTATGGGCATCTTTATAGGTATTTGGTAATGGTCGTTTTATA
ATCTCTTTATAGATTTTCAATTAACCTATTTAGCCATTCTCTTTTTTACATTGCCATTT
TTTAAATTATATGCAATATCCACAATTAGATTAATCTTATTTTCTCAATTTCAATTAAT
TCATCTAAATCAAAATATTCCTTAAATAGCATAACATAATAAAGGCATTTTTTCATAATTT
TCTTTTAGTAGATGGGCAATAGCCAATAAATCACTCATTGATTTGTCAAACTTTTTAATG

-198-

ATTTCAATTGACAATCTCATTAGATATTTGGCAACTTTTAATTTATTTTTAAATTCCTCA
TAAACTTCTAAAAATCTTTTCCAATTTCCAGCCCCTATAAAAAACATCATCATAAATCA
AAGAAATCTGAATTGAAATTATATATATTATCTTCAAATAGTTTTCTTAAATGAGGCTCT
5 CTGTTTAAAGATTTCTTTTCTTCTCATAGCTAAAGTCAAAGTTAAACACTTTTTAAA
ATATCTCTGAATTAGCATCTTTAATAACATCGTTATAAATCCACTCTCCCCACTATTT
AAAAAGTTTTTTGTAAATCTAATTTCCCAATCTTTGCAAAATATTGAGGCAATAGTTGAT
AACTCTCCACTTAAATTATAAATCTCCATCTGCCAAAATCCCTTCAACAAACCAGTCG
AATTTTTTAATTCCTTCTCAATGTTGTTATTTAAAATTTCTTTATAAGCCTCTTCTCTA
10 AGTCCATAATAATCACATTTTGGGACATTTTCTTTAAAGATTTTATTAGATAAACTAAAA
TACTCTATTGCTTTATCGTAGTCCTTTTTATTATAAACTCACATCCTTTAAGCCAATAT
TTGTATAGAAAATTTGACGAATCTTTGTTTCAATCTCCCAATTAAGCTCTAAACATCTC
AAAATAAAAAATCAACATATTAAAGAATCAATCTTCCTATTCAATATACTTTGTCTTATC
TTCAACTCCAGCCATTAAAAAGCTCTCTTCTCTCATACAGCTCTCACACTTCCACACA
15 GTGTAAAAAGTCCCTCTCCATTATCATGATAGCATGAATAACTATATTTCAAAACCTCAAC
ACCAAGCTTTTTCTCCAATTCAGCCCCTAATTTAACAATCTCCTCCTTTGTTTTGTCTA
TAGAGGAGCTTCTATCTTAACCTTATTTAGTGTCCATACTCCAAAACCTTTATTAAATGC
CTCAACAAATCTATTGTGTGTCTGGGAAAGTAACTCCTTCCTCTTTATTTATTCCAAT
GAATATCTTCTCTGCATCCAATGCCTCAGCAAAATCCGCTTGCTATACCAACATGATTAC
20 ATTCCTTGCTGGAAACCATACAGCCTTCATTGTTTCAATAAGCTTTCTCACTATCTAACT
TTCCATTTTTAATGTTGGAATTTCTTTTCAAGTTATTAAAGAGCTTTTTTCCAACTGTTT
AACGAATGGTAAATCTACAACAATGTGTTCAATACCCAAAATCTCACAAATCTTCTTTGC
TGAATTAATCTCTCTCTTAGCCGCTCTTTGCCCATAGTTAAAAGTTATTGCCGTAACCTC
ATAACCTAATCTTTAGCTATCAGTGTGACTACTGTAGAATCTAATCCACCACCTTAAAC
25 AGTTATTGCCCTTCATAATAATCACCTTTTAAAATTATATTTAAAATTAAATAATTGGAATC
TTTGAATTTTTGTCTGTAATAAAAAAGGTAAAAGAGAAGAAATTTTAGTAGATTAAAGTAT
TTACCTGTCTCCAGTCAGTAAGTCTGTTCTGAAGTCATCCCACTCAGCTCTCTTGATT
TCCATGTAGTTTTCATATATGTGTTTTCTTAAAGCTTTCTGCAAGACTTCATCACATTCT
AACTCATCCAATGCAGCAGCTAAGTTTGCAGGAAGTCAATTCCTAACTGCTTTTTTC
30 TCTTCTTCTGACATCTTGAAGATGTTTCTCTCAACTGGCTCTGGAGCTGTCTCTTCTC
TTAATTCATCTAATCCAGCAGCTAACATACATGCAAAATGCTAAGTATGGGTTGCATGTT
GGGTCTGGAGCTCTGAAGTCTGATTCTTGTAGCTTTTCTCTTGCAGCTGGGACTCTGATG
ATAGCACTTCTGTTCTTGTGTTTCCCATGCGATATTACAGGAGCTTCGTAACCTGGGACT
AATCTCTGTATGAATTAAGTGTGGGTTTGTATAGCAACTAATGCCTTAGCGTGGCTT
35 AAGATTCAGCAATGTAGCTTAAACATGTTTCACTTAATCCATTGTAAGGCCCTTCTGGG
TCGTAGAATGATGGTCTCCGTAAACAGACACTCTGGTGGCAGTGCATTCCGTTCCG
TTCATTCCAAAGAATGGTTTTGGCATGAATGTAGCTTTTAAACCGTGCTTCTTAGCAATG
TTTTTGATTGTCTCTTGAATGTTATAACGCTATCAGCTGTCTTTAAAGCGTTGTGCAAT
TTGAATCAACTTCGTGCTGTCTGGAGCGACTTCGTGGTGTGATGCCTCAACGTGGAAG
40 CCGAGGTTTTCTAAAGCTAAGACGATATCTCTCTAATGCTGGAGCGTCTGCTAATGGT
TCAACATCAAAGTAACCTCCATCGTCAGCAGGAACCCATCTGTGTGGGTTGTGTGGGTCT
CTCTTTAACAAGAAGAACTCTGGTCTGGACCAACAAAGTATTCTCCATTCAATTTCTTTC
TTTAATCTCTCTAAAATAGCTTTTAAATCTGCTTCTTGGGTCTCCTTCGAATGGTGTCTTC
TCATCTTTATAAACATCACAGATAACTCTTGCAACACTTTTCTCTTCAGGTCTCCATGGT
45 AAAACAGAGAGTGTGATAAATCTGGTTTTAATAACATATCTGATTCTTCAATACCAACA
AAACCGGTAATTGATGAACCATCAAACCAAACTCCATTTTCAAAGATTTCTCTTAATCT
TCGATTCCTTTTTCTCCAGCCTTAAGTGGGTATGCGACATTTTTTGGGAATCCTAAGATA
TCTACGAACTGGAATCTTATGAACCTAACGTTGTCTTCTTTACATATTCTATTGCTTGT
TCGACGTTCAATTTCCATCCCCAATGCAATTTGATTGAATAATTCTGGAAGTAAGTTTCC
50 TACTTCCATATATATATAATTTACGGTATATTCAATTTAAATTAATAATAAAAAATTTAT
TCATAAATATCAAGTGCTCTATTGTAACACTCTATAGCTTCATTAATTTTTTCCAAGTTTT
TCGAGAGCTATGGCTTTCCCATCCCAAGCATCTGGAATATTTGGGTTAATTTCCAGCACT
TTATCAAATATTTTTATAGCTTCATTAATTTTCCAAGCTTGTATTAGTATAATACCTTG
TATAGATAAAGTAATGGGTCTCTGGATTCAATTTTAAAGCTTTTTTAGTATATTCAAGG
55 GCTTGATTAAATCTTCCAAGATAAATCAAATTTGTATTATGTACATTAATGCACGAATA
TCTTTATATTTCTTTCAAAAACCTTTTTTATAGACATTTAATGCTTCTCCATATCTTCCA
AGTTTAAATAATATTTCTCCTTTGTACAATAAGGACTGGCAATCTTTGGGATTTATTTTT
AAAGCATTATCAAACATTCTAATGATTTTTTAAAGTTTGCCTTCTCTATATAATATTTCC
CCTTTTTAGCCCCAGGCAATAGCTGATTTTGGATATTTTTTCAATATTTTATCAATAATT
60 TTTAATGCATAATCATACTCTCCAAGTTTTTTAGTATAAAGGAGTTACATATTTAACA
GGTAAATCAGATTTTTCTAATCTGCATAATTTAAGAATACCTCTTTTGCTTCTTCTAAT
TTACCCAACTTACCAATAAAGCTCCTTTAAAAAATTTGCTAAAATATATTTGGTTTTT
AATTTTAAACGCTTTATCAAATATTTCTAATGCTTTATCATTTTCCCCCAATGTTCTTAAT
ATCTTGCTTTTCTTACATAAACAATCGGGAGATTCCCTAACCTCTAAGATTTTGTCTATC
AATAATAGGGCTTTTTTATAATTTCTTTTTTCAAGTGCATCAAATATTCATCCCATAAA

5 ATGCTTTTCATTATATATTTCCATATTCACCCCCCTCCCCCAAGGTTTTAGCAATATGCGAT
TTTAATCCCCCTATTTTACGAATTCGTTAAATTATTATTACTATGATATTATTTATTAA
AATTATTTTAGTGTAATAATATAAATTTTCTATCTGTGAATACTGGATATTTTCTTTTAT
10 TTCCATATTATTTCCACATTAGTTTATTTAAAGTTAATAAGATTGGGGTATTAATTGGTTT
TATGACATTATACGCTATAATATAATTATAAATATAAAAAATTAATTATAAAAGTCCATA
AATTACTTGTATCCCAATATTTGTTTATTTTGCATTTCTTACATTTTATACTTGGCT
CTATAAATTACCGAAAAGTTTTTATACTATTTTATAGAGTAGTTAGGAATGTAATTTCTTT
15 TTCCCTAAGAATAAGATTTCCGTTTCCAAGTATATATATGGAGGCTGAAAAAATGAAAA
AAGTTGAAGCAATCATAAGACCGGAGAAGTTGGAGATTGTTAAAAAGGCTTTGTCTGATG
CTGGATATGTTGGAATGACTGTTAGTGAGGTTAAGGGTAGGGGAGTTCAAGGTGGAATAG
TTGAGAGGTATAGGGGGAGAGAGTATATTGTTGATTAAATCCAAAGGTTAAGATTGAAT
TGGTTGTAAAGAGGAAGATGTTGATAATGTTATTGATATTATATGCGAGAATGCAAGAA
20 CAGGAAACCCAGGAGATGGAATAATCTTCGTCATACCAGTAGAAAGAGTCGTAAGAGTAA
GAACAAAAGAAGAGGGTAGAGATGTACTTTAAAAATTTAATTATGTAATTTAAAGAGAGT
15 TGTGGGGTGAACATAGCTACTGCGGATTTGTTTGCAGATGCCACAGATATACATTCAA
TAGTTCAAGGCATTGACCACCTTAGCAAATGCTTCAGATGTGTTCTTCTTGTAGTAATGG
GAGTTCTTGTCTTTATGATGCAGTGGGGCTTTGCGATGCTTGAAGGTGGTCAGGTAAGGA
AGAAAAATGTTAATAATGTTATGATGAAGACATGGTTGATTGGTTGATTGGTTGTTG
25 CATGGTTATTCATTGGTGGAATTTTATGTTCAAAAGGTTTGTATTATCTGCATTATAG
ATTGGTGGAAACAAATACTTGGAAACAACTGGCCAAATAATGGATTGGACTTAGCAAGCT
GGTTCTTTGGTCTTGTCTTCTGTGCTACTGCTGCAACAATTGTCTCTGGAGGAGTTGCAG
AGAGAATAAAATTCAGTGCTTATGTTCTAATTTCAATTGATTATTACAGGTCTATTATATC
30 CTCTCTTCGTATATTTAGGACCTTGGGGAGCAAGTATAGTTCCATGGCATGACTATGCTG
GAAGTTTGGTTGTTTATGTTTGGTTTGGTTTGGTTTGGTTTGGTTTGGTTTGGTTTGGTT
25 GTCCAAGAATTGGAAGATTTGTTGATGGAAGACCAGTTCCAATATTGGGACACAACTTC
CAATGGCAGTATTTGGGGCATTGTCATTGGCAATTGGTTGGTATGGATTCAACGTAGGTA
GTTCAATTGGCTTTAGGAGATATTTCAAGGGCTTGTATGTGCTACAACATAATGGCAATGG
CTGGAGGAGGAATAGGGGCATTAATTGCTTCAAGAAATGATGTTCTATTTACAGCCAACG
35 GAATAGTCGCTGGTTTATGTTGCAATCTGTTTCAAGGACAGATGTTGTTAGCCCAATAGGTG
GATTAATAATTGGTTTAAATGCTGGATTGCAAGTTCCAATTGCTATAAACTTGTGAAA
AAGCAGGATTGGATGATGTCTGTGGCGTAGTGCCTGTCCATGGAAGTGCAGGTGTATAG
40 GAGCAATCTTAAGTGAATTTTAGGATTAAAAATATTTGGTGGAGCAGGAGGCGTTAGTT
TAATAGACCAGATAATTGGAGCAGTATTTTGTATTATTTATGGAACAGGGCTTGGATATA
35 TTTTAGCGAAGATTGTTGGTATTGCATTAGGTGGATTAGAGTTAGTGAAGAAGAAGAAA
AAATGGGATTGGATATGGCAGAACACAAAATGCCTGCTTATCCAGAAGAGACAGTTATCT
AAAATTTCTAATTTATTTTAAATTTATTTTGGACAATAATTTAATCCTAAACCAACA
45 ATATCCGTTTTCTTTTATTTATTTACCTTATTTCCATCCCATAAATTTATTTGTAATCTTT
TTTAGTCAATTTCTCATGCAGCTTGCCAATATTGAGGGAATTGGACATGCACCTTCTGG
AATTTCTGCTTCTCCAATCTGCTTTGGACAATATTACACTTATCAATTTTATTCCTAT
40 TTTTTCATCATCAATAACAAAATCATTGCACATGTCACAAAATTAATTAATAATTTAT
TAATTCCTTATCTCTATTTCTTTTGGATTAACTGTCTCTTTTAAACACTTGCTATCTT
TTTCCCACCCAGAACCCACAACATTTGTTGTTCTTGTATTTAAATCCCCAACCTTGAAA
45 ACTCTGCTATCATCGATGTTAAACAATGTGAAGATTTTTTTTAGGCTCCTATTCTTAAA
TAATTTCTTTATATTTTACCCCAACCCCACTAATAATTAATAATACGTTAAATTTAATTA
AAATTTGTTTGTATTATAGGAGATATATAAATATTTCTATGTCTATCGTTATCAAAAT
TGAGGGATATGGTGAGAAGATGATTCTCAAGCATAGAAGACCAATATATATGGATTAAT
50 GAATAAAGAGGGGAATAAAGAAGAAGTTGAGATGATAATTAACGAGTTATTAATAGGGA
TTATAAAATAACGTTCCCTCCCTTCAGGAAGTTCAGCAGTCTTTTTATCAATGTGGATAGC
AAAAATTTATAGTAACGAGATTTCAATCCAGATATGGGAGGTTGGCAGGGATTTTTAAA
55 ATTTCTTAAATTATTGAATCTAAAAAATAATATGATAGAAACGAATTTGGGAATTATTGA
TTTAGAAAAATTAGATGAAAGTTTAAAGAAAACTCATCACTTATTTTAAACATCTTTAGC
TGGATATTTAGCTCCACAACCATTAAGAAATAAAAAATTTATGTGAGGAGAGAGAGGT
60 TTTATTTATTGAAGATATTTCAAGAAAAATGGAGGAGATTGTGGATATGGAGATATTGT
TGTTTGCTCTACTGGAATCCAAAGATATTAAGTGTGAATACGGTGGTTTTTTTAGGAAT
TAGTAAAGAAATTGAAGAAAAATAGGTAATGCTTTAAATGACATTAAATTTTATCCAA
AACATATAAAACAATAAACTATTTTGGACTTTTAAAGAGGAGTTACTAAATGCTAAAAA
AACGTATAAGAAATATGTAGAGGCATCTAAATAATTAAGATGAAATTGAAATGCCTA
TTTTAGAGAGTTTGGAGGAATATCTGTATTTATTGAATGCGATAATCCAAAAATATCTC
TAAAAAATAAACAGTTTAAATAAATTTGACAATAGAAAATCAATAACAACATCTGTCC
AAACTATGATAGAATTTTAAAAAATGGGATTGTATTGAAACAAAGAAAAATGATATCTC
TGAATTGAACAGAGAAGTTATCAATGAAATTATTATAGCATTAAAGCTCTATTTTATAATT
ATAATATTATTTTGAACATTGCTTTTTTTTTCTGCGGCTCTTTTCATTGTTATTCTG
ATTAACCTAAATTAACCTTTGCGATCAGTTAGGACTACTAAATCCCTCTCCTGCATCG
ACCATTAGGGTTTTACCGTGCTCTCTTCAATCATTTGTTTCTTAAAGTACCCATTCCA

-200-

5
10
15
20
25
30
35
40
45
50
55
60

ATTCTGCTGCTGTTCTTTTCAGCAGCCCCAAATGCTGCTGAAGCCATAGCCCCAACTAAC
TCAGCATCAACACTCCCAGGCAATTGAGAGGCAATAACTAAACCATCCTTACCAACAACC
ATAGAACCCTTAATACCCTCAGTCTTATTCAACTCCAACAAAACCCCTATCAATCATATTT
TCACCCCTTATACTCTGGCTTATGTAAATTATGCGTTTTTGCTATATATAATTTTTTAAAT
TTATTGTTATGTGTGGGACATAATTTTATTATAAGTTCGTCAAGTCCATCTTTTTTCA
CTGCACAACCTTTAACAATGAATTTTGGGTTGCAAAAGTTATAAACTTCGGAGGTATCGA
TATCTCCAACATCTGTTTTATTTATAAAAATTCCTGACGGGATTTTTTTAGATTCTAATA
ATTTTATTATTTCTTCATCTTCTTTAGTTATTTCCTTTTGATGCATCCAACACTACTAAAG
CAAAATTAGTCCCTTTTAAATGCCAATTCTCTCATGAAGTCAAATCTTTTCTGCCCTGGAG
TCCCAAAGAGTGTATCTTCTTATCTTTTATTGTTAATGAACCATAGTCAATAGCTGTTG
TAATTCCTTTGTATTCAACTTTTCCAATTTTATCAATTAAATTTTCCATTAATGTTGTTT
TTCCAACATCACTTGAACCAATAACTACAACCTTAACCTCATCTTTTTTCATGAATCTCC
CCTAAAAATAAAAATATTATAAGTTTAAATGCTCAAATAATTTTCTTGCACTTCTTTTATT
GCCCCCTCTGCAGCAGCCCCCTCTATTAAAGTTTTTATCTCCTTAAGTAAATGATTGAGCC
GCTACAAGTGTGTTGGTTTTATTTCTGCTTTTTCTACTTCTGCCTTTAATGTTTCATCT
AAGTTTTGAAGAATCTCTAAGGCAGCATCTAAATCCTTCTGTCTATCTAATAACTTCATT
GATGAAGCACTCCTTATTAATAACTCTGGATTTAATGCCTTTACCATCCCTTCAATACCT
GATGTTTCAACAAGAGAAGCCATTGTCTGTAGGGTCATGATAACTTGCTGTTCAATCATC
TTCTTAGGAGCAATTATAATCTTTTCTCCAAGTGTATAGTAGTCCAGAACTCCCGATAAA
GCAACTGCAGTAACATAACTCCCCATATCAGCAACAAGTGAAGAAACATCAGCAGGAACA
ACATAAGCCTCTTTTCTTGCACTTTTGGCAAGCTCTACAGCTTTTTTTATCTGTTCTCTCA
GTAGCCAATTCTTTTCCATCAGTGGTTTTCCCAACATCACATAATGTCCGTGTTGTGGA
GTTCCAGGAACAGCTGCTGGATGCATTGATGAAATTCCTACATCCTTTCTTTTGTCTCT
AATATTGGTTCTAATGAGTAGTATAACACTACAGGTGAAACAGTGCAGGTGTTACAAATA
ACAGCATTTTCAGGAACATGTTCAATAATGTCTTTGCTATTCTAAATGTTGCCTTACCA
AAAGGGGTAAATAAAACATGAATTTCCCGTGCTTTGCAGCTTCGACATCATCACTAACA
ACCTTAACCCAGCATCTTCAACCTTTTCCATAAATCATCACTCATTATGTTTTTATTT
GGTTCAGCTAAAACAACATCATGCCCTGCCTCAGCAAATTCATAGCCATCCTTGAACCG
CCATAAGGTGGCTCCCCACCGAATTTTTCTGGAAGGTTTAAATTTATTTATGTATAGATTT
TGATTTCCCGCTCCATATACGGATACCTTCATGTTATCAACCTTGATTTTTCTTATATTA
CGCATTTAGAGTTTCTGATGATTATTATATAAACTTTTATTATTTATTTTCTTATTAT
TATGCTATTCCAGCCCTCAACTACTTTAATGTGTTCTCTAAAGCTTTTGGAAATGGCGTT
AATTATCTCTGTAATTTGAGTATTTGGATTAAACATTAGCTATCTCTCCAAGTTTTCTATT
TATTTTACATCCTAAACTCAGTGCTTCCCTGTTTTTAAATCAACACTTATTAAAGATGA
TACTATCTCTGTTAAAGTATCTCCAGTTCACCAATACATTCCATTGCCTTTATTTTTGG
TTCTTTTATTTTATCAATTATCTTTTCTCTCTAATAGTATAGTCAGTTTCCCTTTAAC
AACCATACTTTGGCATTTTTAGTTTATAATCCCTTTCAATGAGTTTTGGCACTTCATT
ATCGTCTATCTCAGATATAAAACCTCTAACATAAGCTGGATGAGAAGCTTTTTCATCTGC
TAAGAAATGCCAATTCACCAACATCAGGCAAAAAGAGATAAAATTTATCTCCAATATTG
TGCTTTGCAAGCATACATTCTCCAGCATCTGCAATAATCTTTGGAGAGAAATTTATCTC
TCTAATTTTTGAAATCTTTGGTTTTATATAATGTATTATAACCAATCATCATCTATCTC
TTTTAATGCGTCATAAATCTTTAAGCTTCCATCCCTTCTCCAATATCCCTGTAGTTAT
TACTTTAACATCTTTTTTATCAAAATCTCCAAAGTTTTTAAACAGCCCTATCAAAGC
TCCGGCCCTCCATAGAAATAGGAAATCCTTGTTATTTATTATTTTATCTCCTTTTAA
TGGGTTTTTCCAATAGTTAAATCTAAACCTTTTATTGGCATAGTTCCTGCTATAATCATTA
GTAATCCCTACAATTTATTCATTTTGGATTAACTAACTCCTTAGCTTTTTTCAAACGCC
CTTCTCTAACGCATAGCCAAAACCTGCGATAAATGTATCTCCAGCCCCGAAACATCATG
ACCTCTTTGACTTCTGTTGGAACATGGTAAATATTTTATCAACAGTTATTAAATGTAGCTC
CTTTTTACCTCTCGTTATAACAAAGTTGAATTGTATTATCAACTGATTCCAATCCAG
ATTTTTCCAACCTCATCATCTTTATTTTCTATCTCCCTTCTTAAATTTGGGAAGCCTCTT
TTAGATTCCGTTTTTATTAAATAGACATCCTTATAAAAGTCATTTTTTGGTTTTGGGTCAA
TTAAGATTTTCCCTTAAATCTTTTTTTTATGTATCATCCATGAGTTCCTTTGTAATTAATC
CCTTTGCATAATCAGAGATTACTAATATATCTGATTTTCCATTGAGATTTTAAATAACTC
CCAAATTTTACTGCTTAACTCATCGTTTATTGGATAGATTTTTTTCATAATCAACCCCTAA
GCAATTGCTGATTATAACCCATAGCAACAAATCTATGCTTTACTATTGTTGGCCTTCTTT
TTTAACGTTTCTCTATCTTCAATTATCATCTATTTACCAATTTTTTCTCAACCTCCTCA
CATATAACATGATAAATTTGTAGATGGCACTCTTGATCCTTGCTGTGTCATTAGAAGGA
ACCACCAATGCCAAATCAACAATATCCTTTAGCTTTCTCCACCTTTTCCCAATAAAACCA
ATTGTATAAATCCCCATTTCTTTGCTTTATTAGCTGCCTTTATAACGTTTCTGTAATTT
CCACTTGTGATATACCGGCCAAAACATCTCCTTCTTTTCCAAAGCTTCAACTTGCTC
TCAAAAATCCTATCAAAACCATAATCATTTCCTATAGCTGTTAAAATTGATATATCTGTT
GTTAATGCAATTGCAGGCAATCCTTTCTTTCTAAGTAAACCTTCTTACAATCTCAGCG
GCAAAATGCTGAGAGTTAGCTGCACTCCTCCATTTCCACAAATTAATTTTATTTCCAT
TTTTAATGCATTATATATGACTTCAATAGCTTTTTTAACTTTTCTCATCTTCTTCAA

-201-

5 TGAATTTTAGTTTCACATTTGCACTTTCTCGAAATACTTTTTCATAATCATCACCAAAT
TATTTATACCTACTATATTAATACTATATAATTGTAACATAAAATTAATTTAATAAAAAAT
TACTAAAGGGAGAGGATGATAAGAAAGGCAGTAATTCAGTGGCTGGTTTTGGGACTCGA
CTATTACCAATAACAAAGGCTCAACCGAAGGAGATGCTTCCAGTAGTTAATAAGCCAATA
10 GTGCAATATGTTGTTGAAGATTTGGTAGAAGCAGGAGTAAAGGATATTTTATTTGTAAC
GGGAAGGGAAAACAGGCAATAGAAAACCACTTTGACGTAAATTATGAGTTGGAGTGTA
TTAGAGAAATCTGAAAAATATGAACCTCTAAAAATTATTAAGAAATTGATAGTTAGGG
AATATATTTTATGTAAGACAGAAAGAGCAGAAAGGTTTAGGAGATGCTATTTTGTATGGG
GAGGAATTTGTTGGGGAGGAATACTTTATAGCAATGCTTGGAGATACAATTTACTCTAAA
15 AATATTGTAAGATTTAATAAAAGCTCATGAAAAATACGGCTGTTTCAGTTATTGCATTA
GAGAGAGTTCCAAAAGAAGATGTTTATAAAATATGGAGTAATTGATGGGGAAGAGATAGAA
AAGGGCGTTTATAAAATAAAAAATATGGTAGAAAAACCAAAGTTGAAGAGGCACCTTCA
AATTTGATTATAACCGGGGCTTATTTATTATCTCCAAAGATATTTGAAAAAATTAGAGAA
ACTCCTCCTGGAAGAGGAGGAGAGATTAGATTACAGATGCTATGAATCTACTTTTAAAA
20 GAGGAAGATATTATAGGGGTTGAATTAACGTGTAAGATATGATATTGGGGACGCTCTT
GGATGGTTAAAAGCAAATGTAGAAATTGGAGCTGAAAGATTCCCTGAATTTAGAGAATTC
TTAAAGAATTCGTTAAAAATTTAATCTAATTTTATTTTATTAAGTTGGGATAGTA
TGGATACAGCAATAATATTGGGACTTTTAGTGGCTGTGTTTTATGGGGTTGGGACATTTT
25 TTGGGAAAATTGTCTGTGAAAAAAACCTTTATTTCAATGGATAGTGGTAAATATAGTTG
GGATTATATTATGTTTAAATCATATTACTCAAATATAAAAAATATAATTACTGACCAAA
AAATCTTACTTATGCAATAATATCAGCAGTCTTAGTAGTGATTGGTTCTCTATTGTTAT
ATTATGCGTTATATAAAGGAAAAGCAAGCATTGTTGTGCCCTTATCATCAATAGGTCCAG
CGATAACAGTAGCTCTGTCAATCTGTTTTTAAAGAGACTCTAACACTTCCACAAATGA
30 TTGGGATAGTTCTTATAATTATTGGGATTATTCTCCTTTCAATATCTAATTAATTTATTT
AATTTATAAAGTTTAAATTTATAAGGTAATAAAAAATAAAGATAAAAAATAGTTACTGCC
TTCTAAGGTTAATAAATATCTTCTTGGCCCTTGCATTCCAAGCTGTAATTTTATTGCCTT
TATAAGTTTATAAACATCTTCAACAGTTTTCAGCATCATATAACGCTTCTTAAATTTCTC
TCTTTTGAAGGTTCTATCAAATTTAACAAGTATTCAACTGTGGCAACCAACTCAATATA
35 TTTCTCTCTCTATTCTAAGTTATCTAATTCATTTATTATCTCTTGAATTTTGGAGA
CGGCATTCAATTTACCTATTGTGTAATTTTAAATATCATTACTACATAAAGTCATATAAA
TATTTTAAACACCATACTCAATATTTTATGGTGAGAACTTGGCAATGATTGGTTAGTAG
GGAAACCAACGTAAGGAAATCAACAATGTTCAATGCTTTAACTGAAAAACAGCAGAAA
TTGGAATTTATCCATTTACAACAATACAACCAATAAAGGTATCGCTTATATAACAAGCC
40 CCTGTCTTGTAGGAATTGGGAGTTAAGTGTAAATCCAAGAAATTCAAAATGTATAGATG
GGATTAGACATATTCAGTTGAAGTTATAGATGTGGCTGGTTTAGTCCCAGGAGCACATG
AAGGTAGAGGGATGGGAAACAAGTTTTGGATGATTTAAGGCAAGCAGATGCATTTATAT
TGGTTGTTGATGCCCTCTGGAAGACAGATGCTGAAGGAAATCCAACAGAAACTATGACC
CAGTTGAGGATGTTAAATCTTATTAAATGAGATAGATATGTGGATTTATAGCATTTTGA
45 CGAAAAATTGGGATAAGTTGGCAAGAAGAGCCCAACAAGAGAAGACATAGTTAAAGCTT
TAAAGACCAATTAAGTGGATTGAATATAGATGAGGATGACATAAAGATGGCTATTAGAG
ATATGGATGAAAGCCCAATTAATGGACTGAAGAAGATTTGCTAAACTGGCTAAAAAGC
TTAGAAAAATTTCAAACCAATGATTATCGCTGCAATAAGGCAGACCACCCGGATGCAG
AGAAGAAATATTGAAAGGCTAAAGAAAGAGTTAAGGACTATATAGTTATTCCAACATCTG
50 CAGAGATAGAGTTAGCTTTAAAGAGGCTGAAAGGCTGGAATTATAAAAGAAAAGAAA
ATGACTTTGAGATAATTGATGAAGCAAGTGAATGAACAGATGAGGAGAGCTTTTGATT
ACATAAAGGACTTTTTAAAGAAGTATGGAGGAAGTGGAGTCCAAGAATGCATAAATAAG
CTTATTTTGTATTTGTTGGATATGATTGTTGTCTATCCAGTTGAAGATGAGAACAATTTT
CAGATAAGCAAGGAAATGTATTACCAGATGCATTTTGGTTAAAAAAGGAAGTACTGCAA
55 GAGACTTAGCTTATAAGGTGCATACAGAGTTGGGAGAGAAATTTATCTATGCAATAGATG
CAAAGAAGAAGATTAGAGTAGGAGCTGATTACGAATTGAAGCATAATGATATTATTA
TTGTCTCTGCCGCAAAATAATTAATTTTGGTGGCCTCCATGGCTACAACCTTATGAGCT
GAGAATTTATGGAATGTGGAGTGTGCTGAATTTATAGATAAAGTTGAGAGTTTAGGAAA
ATTGTTGGATGTGAATGGGGTGTGTTTATGTTTATAAAGACAGTGTTAGGATTTTGGCAA
60 CTTTCCCAATGAGAAGAAAAGACAGCTTTTAAAGGAAATCATTAAAGATTTAGAAGATGA
TGGTGGGTTAATAAAGGTTGAAAGGATAGAAGAAAGAGATTTAAATACATATATTGAATT
TCCTAATGGATTGAATAAGATTTCAACGAATGAGTTAAAGAGATTAATAAAAGTTGGA
TAAACAATTAGCTATTAGAGAATATTTTTAATGCCTTAGAGAAGCAAATAAAGTTTC
AGAGGAGATTAGAGACATATTGAAGATACCTTTGAAGTTTAACTTTATTCAAACACCTT
ACTCATACACCCAGCCAACAACCGGCTATAGCATCATCTAAGAACATAAAGCCTTTCT
ATCTAACTCTCCAATTATTCCGGGTTTTTTAGCATCATAGAATCTAAAGTTAAATATTGC
TTAGTTCCAGCAATCTCATTTGCTATAGCTAATCCAATAACCTCATCAACATACACATA
GTTTGGGTTCTCGTTGATGTAATGGCAGATTGTAGCTCTGCCTTCATTATCCAACAA
AATTGCTGCAATTAATAAAGTTGAGACATTAGGTTAGACAAGTCTTTAAATAAATCTC
CTTAAGTTTCTCTTAACTCTGTCTCTTCTTCTTCACTTCCCAATATATAAATCCATTCC

-202-

AGCATCCAATAAGCTGTCAATAGTTATTCCAAACTCCTCTAATTTTTTnATAATnATTTT
CTCAGTTTAAATATTTTGGATTTTATGGGCATATCTCTTATAATAAACATTAAAAATAAAAT
CTCATTTTTTTATTAACAACTTAAATATTCTATACTATTTTgTTGTTATCTCAACACCAT
5 TTTCAAGTTATTAATATTGTGTGCTCAGCCTGGCCAACTATTCCATTCTCCCTCTCTTTTA
ATATTGGATAACCGTAAATGCAAGATGCCCTAATTACGAGTTTAAAGCCAGCCTCTCGC
TCTCATTTTTTTAAACCCATCTTTTCAGCAAAGGGTAGATAAGGGTAATTTTTTGATATAA
CGTCTAAAAGTTTTCTTGCTTGTGGCAATCTAATTGGTCTTTTGGCTAAAAATTTATATA
TGTTTTCCAAGATTCCCATCTTTAACCATTCCAAAGCCATCTGTTGCAACGGCTCTATAG
10 CCACCAAATCTCCAACATCTATATATTGATTGGTTCTTTTCATAGACATTGGGAATACTAA
TTCCGTGATGCAACTCATATCTATGCATCACATGTCCAGAGAGGTTGGATATTGGTTTAT
AACCATAACTCTCAATAACCTCCTGAATAATCTTTCCCATCTCTCCAATGTTCAATTGGAG
GGTTTATCTCCTTAAATACTGTATATAGTGCATCTTCAGATGCCCTTACCAAATCTTAT
AAGAGTTTGATAAATCTACTGTTATAGCTGTATCTGCTATATATCCATCGACATGAGCTc
15 CTAAATCTAATTTAACAACATCATCATCTTTAAACTCCAAGTTATCATTAAATTTGGAG
TGTAATGAGCTGCTATCTCATTAATTGATATATTGCACGGAAATGCTGGCTCCCGKCTTA
ATTCCTAATTCTATTTTCAACAAATTCAGCAACTTCTAATAGCTTAACTCCTGGCyTTA
TTAATTTTACGGCTCCTCTCTGACyTTAGATGCTATTTTCCCTGCCTCTATAATCTTTT
CATACCCyTCAATCTCCATCTTTCATCTTTAAGTTTGGTTTTAATAAGTTTTTtAGT
20 GTTGTTTTGATAACCTTTAAATTGATTGTTATTTATTGCTGAAACTATAATATAATCAATT
TGTCTTTCTAAGTTtCAATATCTTTCCCATTTTTTAAGtTGTAGATAATATCCTTGACT
ATATTTTTTATTTTCTCCTTAACTTCATCTGAGAACGTGGGAATTTTGCATTCTCTAAC
AACTTTTGTGTAAATGCCACTCTCCCTCCTCTTCTTCCACCATTGCAAGATAATAATTT
CTAAAAAATGAGCTGTTCAAATATCCTAACAAAAAGTATATGTCATCATCCTTGTAGGGT
25 TGGATAAATATAACGTCTCCTGAAGGTAATAGTTTCATCATCTCCTAACTAAACCTATTA
TATGGTTTTCTGTCTAAAGTTGGAACATATATTGTTTTTTATTTAGATTTTTTATTAA
AATTTATAGTTTTCTCAATGCCCTGCCAATTAACCATTTTTTGTTTTTTGGAGGTATCTA
TTCTCCATTCTGTCTTTAACTTCAACAATTTTTTATATATGTTTGGATATTTGGTTTTA
AATATTTCTTCATCTTTTAGGTTGTCTCAATTAATATATATTGAACAAATCCCTCAACT
30 ACAAACTTTTACAGTTTTTGGCTTAAACAAAATTTTTTATAAGTTGTTTTTCATCTTCA
TTTAGCTTTGAGATGTCATCTTCATTAAATAAAATGCCCTCATCAAATCCAGAACTAAG
CCCCTCCAAGTTTTGCTATATCCTTAAATAACACATGAGGAAAATCTGGGATTTTTGTA
AAAAAGGTAGACCAAGGTTTCTGGTGTAGTGAATGAGGAATTTCCATGTATTCAAAAT
ATCGTTTGATTTTTTGCATTTAACACATTAATAGCTTTTTCTTTTATCTCTTTAATTT
AAGTTTTTTTGGAGATAATTCTAATAACATCAATTTTTTTCAGATTTGTGGTTAAATCTCC
35 TTTTTTAACTTAAATATTATTGTTTCAGGATTTTCATTTTTTAAATAGCCTAACTTCATC
CAAATCAATAATTATTTCCAATTTTCCATGTTTTAGAATGTTGCTCTTACAATTTTTGC
ATATGTGTTATAAAAAAGTGATATGGAACAATATAAATCAACTCTCCACCATCTTTTAA
AAGATTTATTGATTTTTATAATGAAAGCATAATAAATGTCCCCCTCACTTGTGCTTAAAT
40 CCGTTTTACTTCTTTTTTATAAATTTCTGGAAGACTGTTGAAATGGGCATAGGGAGGATT
TCCAATAATTAATCAATTTTTCTTTAAAGTTATAGCTTAAATAATCTCCTAAAATTAT
CTCAAATTCATCAAATTTTGCCTTGCAAGTGGTTGTATAAATCTTTATCTATTTCAATACC
CACACAATTTTTGTATCCAAATCTCTTAATACCTCTAAAAATATTCCTTTTTCCGCATCC
AGTGTCTAACACTAATCCATTTTTTGGGATTGTAGAAAGATTATCATTAATTCAGCTAT
45 TTCTTTGGAGTTTCAACAAAGCTAATCTTCCATGTTTGGCCTCTTAAATATTAATCA
GTTGGATTTTTTATTGAGTTCAAGACAAGAATTTCTGTTTTTATTGAATTTAATGACTTTT
CTAAAGATTCTAAATTTGCATCTATAAGTTTTTAAACAAAAGCAAAGTAATCTATTGGGT
CACCAAGATTTGGGCTATACCTTATCTGAAACATGTTATTTCTTGGATTAACATAAAAT
CGTCTTAATCTCTTCTAATAAGAAAAATTTGTATCCTCTCTATACTTATCAACAACAA
50 AAATTCATAAGATACAATTTCAATTACCTGAAATTTCTATTATAGACCAATTTCTCCATTTA
TGGTTATTTCTGACGTTAATCTCTGCCGTTTTATGCCCAAATATAAACGTAAGAGGTTAT
TGTATGTTGTTACATCGTTCTTGTATTACTTTTTAAATCACCAAATTTATTGTTTATGA
ATATTAAAAAATTTCTTCCATTTATTATTCCATAGCATAATAAATCATAAGGTGTCCTTC
TACCTTCATAGGAATATATTTTCATCCTTTGGTTTCAGAAAATTTAATTTTTAAGTTTTCTT
55 CAGAGATTGTATAGTCTTTTAAATAAACTTAAACCTTATCGTCCAAATTTCTATCGTTAA
TATTCTCATCATTTTTTATTTTATTATAAATTTCCCTAAATATATCTCTTAATTTTCCCG
ATAAAATTTTAAAGTTGTTTATTAACCAATTTTACCACCATTAAATGCATTATCTCTTTAT
GACAATTGTTAAATGTCTCCATCCTCTAATTTATGGTCTAATCCAACCTCTGCCCCG
60 ATGCTTTTGCTGACTTCCCCCAAACCTTGGGCATACCTGAAATTTCTAACGAAATCTTTATG
CAGTTTTTCAACAACATCTTTACAGTAGCTCCTCTTCTCATAATTAGTGGTTTCATCAA
GTCTGGCTTTTTCCCTGTGGTTTTAGATAAATCTTTATAAAACCCAAATTTCTCATAGAT
TTTCTCTTTCAATAAATCCAAGTTAATTCCTTTGTTACCAGAACTAAGATATAATCCTT
ACCAAATTCCTCTAACTTTTGTTTTATATATTTTAGATACCTCTCATCAGCTAAGTCTAT
CTTATTAACTACCACCAAGGAAGGGATATAAACTCTGTTTCCAGCTACAACATCAATAAA
CTGCTCTAAGGTTATATCCTCCCTTATAACAACATCTGCGTTGTGTATCCTATATTCATT

5 TAATATTGCTTCAATTGTATCTTCATCGATATGGGTTAATGGAACGGTTGAACTAACGTT
AATCCCTCCTCTCTCTTAACCTTTGATTTTAAACATCTGGAGGAGTTTGGTCTAATCTAAT
TCCAACATTGTAGAGTTCTTTTTCAAGCACTGGTAGGTGGTCTAATGTGTAGATATCAAC
10 TGTTAATAAAATCAAATCAGCACTTCTTACTGCAGATAAAACCTCTGTCCCCCTACCTTT
CCCTGATGAAGCACCAACAATAATCCAGGAGCATCTAAAAGCTGAATTTTAGCTCCCTT
ATATTCTAATATACCTGGAACAATTGTTAAAGTAGTGAAAGCATAAGCCCCAAGCTCCGA
TTTAGCATTGTGTAATTTATTTAGCAGGGTTGATTTCCCAACAGATGGAAATCCTACAAA
GGCAGCTGTAGCGTCTCCACTTTTCTTACAGCATAGCCCTTTCTCTCCCTCCACCTCCCCC
15 ICTACTCTGAGCCTGCTCTCTCAACTTAGCTAATTTAGCCTTTAACCTACCAATGTGTTT
CTGTGTGGCTTTGTTATATGGTCTTTTTTAATTCTTCTCTATCCTTCTAATTTCTTC
TTCAATTTCCCATACATCACCAACAATATTAATTTATGGTTTCTAAAAATAAAAACTCT
CTTAAGAGATAACAAAAATAGCATTATAATTTTACGCATGCATTTATTATAAATTGCGT
TTGCTACATTAAATAAAATAGTTAAAAAAGAGAAATTTATAGTTTCTCTGACTACCTA
20 AGAAGTCACATTCTTGTCTTTATAGAGCTTGGACATTAATTGGGCTGAAAGCCCCAAC
TTAATGGACGGGAGGTATCCCAATAGGAGGTCTCTCTATGGTTATAATTCATCAACTA
ATTAATAATCTCTTTAACTCTGTCTACGATGTAGTAGAAATCCATGTTCTCTTCTT
TTCTTGCTTTAACTATTCCAGCCTTTTTTAAGATGTTTAAAGTGGTGTGAGATTGTTGGCT
GTGGCTTTTTTAGCTCATCTATTATTTTACAAACGCACATGCTTCCATTTTCAGCCAATA
25 ACTTTAAATCATCAATCTTGTGGGTCTCCAAATGCCTTGAAAATTTCTGCCGCTTTTT
CCTACTTCTCCATTGTTATCCCTCGTGATTATTTTTTATTCTATTAATAATGTTAAGTA
TATATTTAGACATATATTTTCCATATTGATGTTTAAATTGCAATCAACTTTACTATAAT
ACATTAGTAGTATTTAAATATTTTGGTTTTGTTTTATTTTCAAGCTTGGATACGTCATCTCA
ACCTTGATAGTCTTTGGATTATCAACACCTTTCAAGGTTTCAATCATTGCTTTAATTGTG
30 CTACCAACAATCTTAGAGACAAAAGGAACAGCAGGAATTATTTTACCATCAACAATTATT
TTTATACCTTTTCGCTAATACACAATCATCCCATCTTGCTTCTCCTTTAACAAGTGCCTTA
ACAAATGTTCTGCAGTTATACCCACAATGTCCACAGTTTAAAGTTCATTGTAGGAAGTACG
GCTTTTTTATAAATAACTTTTTAAACATCGTCAATGTTGTAGTTGTAATCTTCAATTATC
ATTGCTGTATGGTCATCAATCAAATCACTCCCATCTTTATCCTTAAGCATAACTATCTTA
35 GGGATGTTTAAACCTTTTAAAGCCTCTTTAAACCTTCTATAATAACAAATCTATATTG
TAATCTGATAATACTGATAAAATGTTTTCTAAATCCATCCTATCTGTAAAGAAACTGTT
TTACTGTCAAGTGTCTAAACTGTTATTTTAGCTCCCGCGTTTGACAATCTGTAGTATCA
GTTCTTTTTTATCTACTTCTACATCTTCTTTAGTGTGCTTGATAACTGCTATTTTTTTA
TCAGAATGTTTGAATTTCTTCAATTAGGGTTGTTTTACCAGAATCTTTATAACCAATA
40 ACGCCTATGACTCTCATGTTATCACCATAAAATATAAAAACTGTAGGTTTACATATTTAA
ATTTTATGCATTAATTATTCTATCACAAAATAAAAAATTTGAGGGATAGTATATGATGTTT
GTTTATAGCTGATAATCACTTAGGTTATAGACAGTATAACTTGGATGATAGGGAAAAA
GATATTTACGACTCATTTAAATTATGTATAAAAAAGATTTTAGAGATAAAGCCAGATGTT
GTTTTACATAGTGGTGATTTATTTAACGATTTGAGACCTCCAGTAAAAGCTTTAAGATA
45 GCTATGCAGCGTTTAAAAAATTACATGAAAATAATATAAAGGTTTATATTGTTGCAGGA
AACCATGAAATGCCAAGAAGGTTAGGGGAGGAATCTCCATTAGCCTTACTAAAAGATTAC
GTTAAATTTTAGATGGAAGATGTTATAAATGTAAATGGGGAAGAGATATTTATCTGT
GGGACTTATTATCACAAAAGAGCAAAAGAGAGGAGATGTTAGATAAATAAAAAATTTT
GAATCAGAAGCTAAAAACTATAAAAAAAGATATTGATGCTTCATCAGGGAATAATCCCA
50 TATATTTCACTTGACTATGAAGTTGAACATTTTGATTTACCAAAATTTTCTCATATGCG
TTGGGACATATTACAAGAGGATTTTAGAGAGGTTTAAATGATGGAATTTTAGCTTACAGT
GTTTCAACAGAAATTTTATAGAAATGAATATGAGGACTATAAAAAAGAAGGAAAAGGA
TTTACTTAGTTGATTTTAGTGGAATGATTTGGATATCTCTGATATAGAAAAATTTGAT
ATTGAATGCAGAGAATTTGTAGAGGTAATATTAAGATAAGAAATCTTTAATGAGGCA
55 GTGAATAAAATTTGAAAGATGTAAAAATAAGCCAGTTGTTTTGGAAAAATTAAGAGAGAA
TTTAAACCATGTTTACACTTTTAAAGGATAAAATCTAATTAATAAAGCTATTATAGTA
GATGACGAATTTATAGACATGCCAGATAATGTTGATATTGAGTCACTAAACATTAAAGAG
CTTTTAGTGGATTATGCAATAGGCAGGGAATTGATGGGGATTAGTTTTAAGTTTATAT
AAAGCTCTATTAATAATGAAAATTTGAAAGAGTTATTGGATGAATATTACAACACTAAA
60 TTTAGGGGATGAGTATGATACTAAAGAAATAAGGATGAATAACTTTAAAGTCATGTGA
ATTCAAGAATTAAGTTTGAAGAGGATTGTTGCAATTATTGGAGAGAATGGAAGTGGAA
AATCATCTATCTTTGAAGCAGTGTCTTTTGCCCTTGTGTTGGGGCAGGCAGTAATTTAAT
ACGACACAATAATAACCAAGGAAAAAATCCGTTTATGTTGAATTGGATTTTGAAGTCA
ATGGAAACAATAACAAATTTATCAGAGAATATGATTCTGGAAGAGGGGGAGCTAAGCTCT
ATAAGAATGGAAGCCTTACGCTACTACAATTAGTGCAGTTAATAAAGCAGTAAATGAAA
TCTTAGGCGTTGATAGAAATATGTTCTTAACTCCATATATATTAAACAGGGGGAGATAG
CTAAATTTTGGATTAAACCCCTCCGAAAAATTTGGAACAGTTGCGAAACTTTTGGGAA
TAGATGAGTTTGAAGAAATGCTATCAAAAAATGGGGGAGATTGTTAAGGAATATGAAAAA
GATTAGAAAGAAATGAAGGAGATTGAATTACAAAGAAATTTATGAAAAAGAAATAAAAA
ATAAATGAGCCAATTAGAAGAAAAAATAAAAAATTAATGGAATTAATGATAAACTAA

ATAAAATAAAAAAGGAATTTGAAGATATTGAAAAATTATTTAATGAATGGGAAAAATAAAA
AGTTGTTGTATGAAAAATTCATAAACAACTTGAAGAAAGGAAGAGAGCTTTAGAGCTTA
AAAATCAAGAGCTTAAAATTTTAGAATATGATTTAAATACTGTTGTTGAAGCAAGAGAAA
CTCTAAATAGACATAAAGATGAATATGAAAAATATAAATCATTAGTTGATGAGATTAGGA
5 AAATTGAGAGCAGATTAAAGAGAATTAAAGAGTCATTATGAAGATTATTTAAAATGAACAA
AGCACTTGGAGATAATAAAGGAGACATTGAAAAATTGAAAGAATTCATCAACAAAAGTA
AGTATAGAGATGATATTGATAATTTAGATACTCTATTAAATAAAATAAAGATGAAATTG
AAAGAGTGGAACTATTAAAGATTTGCTTGAAGAACTTAAAAATCTAAATGAAGAGATTG
10 AAAAAATTGAAAAATATAAAGAATATCTGAAGAGTGCAAGAATACTATGAGAAGTATT
TAGAATTAGAAGAAAAGGCTGTAGAATACAATAAACTAACTTTAGAGTATATAACATTGC
TTTCAGGAGAAAAATCCATTGAAAAAATATTAACGATTTAGAAAACAAGAAATTAATAAAC
TTTTAGAAGAAACAAAAAATATTGCATTGAAAGTATTGAAAAATTCATTAAAAGATAG
AGGAAAAAAGAAAGTTCTTGAATACTACAAAAAGAAAGATAGAATAAACAAAAAAC
15 TTGGGGAATTAACAGTGAAATTAAGGCTGAAAAAATTTTAGATGAAGTAAAGAAG
TTGAAGGAAAAATGCCACTATGTAACACCAATAGATGAAAAATAAAGATGGAATTAA
TAAATCAACATAAAACCCAGCTAAACAATAAATATCTGAATTGGAGGAAATAAATAAAA
AAATTAGAGAGATTGAAAAAGATATAGAGAAATTAAGAAAGAAATTGATAAAGAAGAAA
ATCTTAAGACACTAAAGACCTTATCTTGAAGAAACAAAGTCAGATTGAAGAATTAGAAT
TAAATTAAGAATTATAAAGAGCAGTTAGATGAAATCAATAAAAAAATATCCAACATG
20 TAATTAACGGAAAGCCAGTGGATGAGATATTAGAAGACATTAAAGCCAGCTGAACAAAT
TTAAAACTTTTATAACCAATCTTATCAGCTGTTAGCTATTTAAATAGTGTAGATGAGG
AAGGTATTAGAAATAGAATTAAAGGAAATTGAAATATCGTAAGTGGATGGAATAAAGAAA
AATGTAGAGAAGAGTTGAACAAATTAAGAGAGGATGAAAGAGAAATAAACAGATTAAAG
ACAAATTAATGAAGTTAAAAATAAGGAAAAAGAACTTATAGAAATTGAGAATAGGAGGT
25 CATTAAGTTTGTATAAATATAAGGAATTTTAGGTCTAACTGAAAAATTAGAAGAGCTTA
AAAATATTAAAGATGGGCTTGAAGAGATTTATAATATATGCAACTCTAAGATTTTAGCAA
TAGATAACATTAAAGAGGAAGTATAATAAAGAAGATATTGAAATTTACCTAAACAACAAAA
TTTTAGAGGTTAATAAGGAAATTAATGATATAGAAGAAAGAAATATCCTACATTAAACAAA
AACTTGATGAAATAAACTACATGAAGAAGAACATAAAAAATAAAGAGCTCTATGAAA
30 ATAAGAGACAAGAACTTGATAACGTAAAGAGAACAAAAACAGAAATTGAGACAGGAATTG
AATATTTAAAAAAGATGTTGAAAGTTTAAAGCAAGATTAAAGAAATGTCTAATTTAG
AGAAAGAAAAAGAGAAATTAACGAAGTTTGTGTAATTTTAGACAAGGTTAGGAGATAT
TTGGTAGAAATGGATTTCAGCATATTTAAGAGAAAAATATGTTCCATTAAATCCAAAAAT
ATTTAAATGAAGCATTTAGTGAGTTTGACTTGCCTTATAGCTTGTAGAACTCACTAAAG
35 ATTTTGAAGTAAGAGTTCATGCTCCAAATGGAGTTTTAACCATTGACAATTTAAGCGGTG
GAGAGCAGATAGCGGTAGCTCTCTCTTAAAGATTAGCCATAGCTAACGCTTTAATTGGAA
ATAAGGTTGAGTGCATTATATTGGATGAACCACTGTATATTAGATGAAAAATAGAAGGG
CAAAGTTAGCTGAAATCTTTAGGAAGGTTAAGAGCATTCCACAGATGATAATTATAACCC
40 ACCACAGAGAGCTTGAAGATGTAGCAGATGTGATAATCAATGTTAAAAAAGATGGGAATG
TTTCAAAAGTTAAGATTAATGGATAGTTATGAGGAGGATATAATATGGTTTTAAATAAAG
TTACATATAAAATAAATGCATACAAAATAAAGAAGAATTTATTCCTAAAGAAGTGCATT
TCTATAGAATTAAGGTTTTGTTAATGAAGCATTAAATTTTATAGATTTGTTAATTTTT
ATGGTGGCATGATAATTAATAAAAAAGATAAAAGTTTTGTTTTACCATACAAAGTTGATA
45 ATAAGATTGAATACAAAGATGGAAATTAACGAAATCCCAATAGACATTGAATATATTA
AATCATTAAATTAGAATATGTAAACCAGAAATAGCTGAAAAACTTGTGGGATATCT
TTAAATCTGTCCATAAAATAGAGCCAGAATTATCAAGAATTATAAAAAACATTAGAAAC
ACAAAGTAGTGGAAATATAAAGTTGAGTCATATTGTGAGTATGAAGTTAAAAACATG
ATGGGGATTATTATCTTATATTAACCTTTAGACATACAGCGTCTATTACaAAAcCTTAT
50 GGGATTTTGTAAATAGAGATAAAGCACTATTAGAGGAGTATGTTGGGAAAAAGATTATCT
TTAAACCTAATCCAAAGGTAAGATATACAATTTCACTGGTTGATGCTCCAAACCTCAAA
AAATAGAGGAAATAATGAGTCACATAAATTAATATTACAAATGGTCTGAAGATATGGTAA
AATCTACTTTTGGGGAGATTGATTATAATCAACCCATTATGTATTGTGAAGAAATCTTAG
AACCATTTGCTCCACAATTTTGTAACTTGTATTTTATATGGATGAATTAGATAGCTATA
55 TTCTTAAAGAATTGCAGAGTTATTGGAGATTATCTAATGAAAAAAGGGAAAAATTATAA
ATGAAATAGCAAAAAAATCTAGATTTATAGATAATACACCTAAAGAATTAGAATTTATGA
AATTTAATAACTCCATTGCTCGTGAAGGATGTAAATAAAAAATCCTACCAAAATATATT
CAACAAATACATTTTACGTGGATTTACAATCAAAATGCAAAAAATATATCTCCCATATG
ATGTCCAGAAATTATAAGGAACAAAAATTTATTAACATACATACTTATTGATGAGGAAA
60 TCAAGGATGAATTAAGGCTATTAAAGATAAAGTAAATAAAATGTTTAGAACTATAACA
AAATTGCTAATAAAACAGAATTGCCAAAATTCATTATGCCAATAGATGGAATATTTTT
CTACAGATGACATTAGGGGAATTATAAAGAAATAAAATCTGAATTTAATGATGAATAT
GTTTTGCGTTAATTATTGAAAAAGAAAAATACAAAGATAATGATTATTATGAATTTTGA
AAAACAACTTTTTGATTAAAAATAATCTCTCAAAATATATTATGGGAAATTTGGAGGA
AAGATGACAAAGGATATATGACTAATAATTTACTTATACAAATTATGGGAAATTTGGGGA

TATCCAAATCTCCAAATGTTTCTTAATCCTATAGCCGAACCAACACTCGCCAATATAAAT
CCCAAGTTAGAGCTCCAGCTTTCTCTTTCCATATAAATCACAACACTTTTACTTTATACT
TTAATTTTCATACTATTTTTTATATTTGTTCTGAGTAATTTAAGTATTATCTGAAGTA
5 TAATGTATCCTTATGAAGACTTGGAGGGAGAATATGAAAAAATATTGACATTGCTATTA
ATAACATTTCTTTTAAATTTCTGCTTTTGTCTGTGATTATAAAAGCTCCAGCAGTATCTTTA
ACGGATAGAGGATACGTGGGGGTCCAATAAATATTCAAATTAATGTTACGAAGGGAGAT
GGACATGTATTTATGGACACTATGCCTCTAATGAATTAGATATGCAAGGTCTGCAAGA
ATCGCTGCAAAAGTTGCTGGGGAAAGTTACTGGAAAAGATATGAGTAAATATAATGTATAT
ATCACAGTAAGAAGTGATGTTCCAGTTGTTGGGGGGCCATCAGCAGGGGGAACGATGACT
10 ATTGGAATCATCTGTGAGTTGATGAACCTGGAGTTTAAATAAACATGTTATGATGACTGGA
ACGATAAATCCGGATGGTAGTATAGGACCTGTTGGAGGGATATTGGAAAAGATAGAAGCT
GCTAAGAAAGCAAACCTGCACAATTATGCTAATCCCAAAGGGCAGAGGTATGTTGAAGTA
GAGGGCAACAAAGTTGATGCAGTAGAATTTGGTAAAAAATTGGGAATTAAGGTTATAGAA
GTTGGAAGTATATATGAAGCGATTCTTACTTCACAAATAAAAAGATAATAATGAAGGAA
15 TATCCAGAAAATCCACTTATCGAAGAGAAAATATAAAGACATAATGAAGGAGTTAAGTGAA
AACGTTTTAAAAACAGCTAATGAAAAATATGAAAACCTCTCTAAAGAGTTAAGTAACAGT
TATGTTGGATATGAATATCAAAAAGCCCTGTTAAATGAACCTAATCTCAAAAGAGTTAAGTAACAGT
TTAGAGAAGGCTAATGATGAATATCTAAAAAACAATACTACTCTGCAACATGCTCTGCG
TTTAAACGCATTAATTAACCTTGAACTATTGAACACACCCTAAAAACTTAACTGGAGAG
20 GAAGATGTTAAACCTTTCTTAAACAGAGTTCAAAAATAAATTAGCCATGATAAAGAAATT
GTTTATTCAAAAATGTAACCTACTAACAACCTTTGAAGAGATATTGGCAGGAAGGATAAGA
ATTGCTGAAGCGGAAAACTCTTAGATAATGCGTGGAAATCTTACTATTTAGGAAATTAT
GATGAAGCGATAAAGTATGGTAGCTTTGCGAAGTTGAGGGGAGATAGTGAATATGGTGG
25 GTTCTTTTAAAGAAAATGATAACAATGGCAAGATAATAAATGAAGCTAAATTAATCA
TTAGCTCAGCAGTATTTAGACAACCTGAAACAATCTTAACTTATGTAGAAACATTATTC
CCCAATCTACCTACTGATGACCTTGAAAATGATTTAGAATCAGCAAAAGAGGCATATAAG
GATGGGGACTATTTACTAACCATAGCTGAGAGTATAGATACCTGTGTAAGGCAGAGATT
CCATTGGTTATATTTGGAGATATTGAATACTCCAAAAAATATGCAAGGAACAAAATAAAC
TTGGCTGAAAACCTTAGGAATAACTCCAATCTCAGCCCTTGTTTATTATGAATATGCAAT
30 AGTTTAAATGATACCATTTCAAAAATTATGTATTATAAATATAGCTCATACTACGCCCAA
ATGGATATAGATGTAATAAAGAGTTGAATAAAGTATCAGTGAAAATATCAGCAGTGAA
ATTAATATAGTCACTAACGAGAATGTTAATATTGAAGAACTACAACCTAAGGAAAATAAT
GTTGGAATAATGATTTCTGCAATAATTGGTGGATTAAATAGGGTTTGCAGGAGGATACTTA
GCAAGAAGAGTTTCTGCTTAATTAACCTTTTTATATTTATTTTATTTTATTTTATTTAT
35 TTTTATGGTGAGAAAAGTGGCAGAACAAAATTTACAAAAAATAATGAGAATGATAGGG
AATTATCTAAAAATGTTTATTTATTGGGATTTACAAGCTTTTGAATGACATGAGCAGTG
AGATGATAATGCCAATTTTACCAATGCTTATTACAAGCGTTGGGGGAGGAAGTTTATCAA
TAGGTTTAGTTGGAGGTTTAAAGAGAGTTTATCTCAAACATTTTAAATGGTTTTTAAATG
40 ATTGTTTCAGATAAAGTTAGGAAAAGGAAGATTTTTGTTGTTTTAGGTTATTTAACATCTT
CAATGTTTTAACTACTCTTAGGTTTATCAAAAAGCTGGTTAGGAGCTGTTATATTTTCTT
CCCTTGAAAGAATGGGCAAGGGATAAGAACAGCCCCAAGAGATGCGATAATATCTGAAA
GTATGCCTAAACCTTTGGGTAAAGGATTTGGAATACAGAGAGCTTTTGATACCGCTGGGG
CTATATCTGGCTCTACCTTATGCTATTGCTTTTATTCTATATCTTCAATATAGTTTCAATC
45 AAATAATTTTAAATAGCTGCGGTTATTGGATTTTAAACCCTAATTCCTCTATATTTGTTA
AAGAGAAACCTTCACCTCTAATAATAAATAACATTTAGAGTAGGGATTAAAAATTTAC
CAAAAGAGTTAAAGCTTTTTATTTTAAATCTCAGCTATATTTACCTAAGTAACCTTTAGCT
ATATGTTTTATATTTTGGAGCTCAGGAATTTTTAATGATAGTAGATGAAAAATGGCTA
TTATAATCCCTATTGCTCTATATATTTTATACAACATCTTTACGCCACATTTTCAATTC
50 CATTGGAATTTTATCTGATAAATTTGGGAGGAAGAGTGTTTAACTATTGGATATATAG
TTTATGGTATTGCTCTTTAGGATTTGCCTACTTTATATCTCAAAAAGCTTAATATTGT
TATTTGCTTTATATGGAATTGCCTATGCATTATTTGCTGGAAATCAGAAAGCTTATGTCT
CAGATTTATCGTCAGAGGATATTAGAGCAACAGCCTTAGGGCTGTTTTATACAGTTGTGG
GATTAACAAGCTTACCTGCAAGTTTAAATAGCTGGATATTGTGGAAGATAAGCCAGAAA
TGACATTTTTATATGGAAGTGCTTAGCTATAATTTCAAGGTTTGTTACTTCTTTTATAT
55 AAAATCTCTCAGTTTTTTTATTTCTAATCTCTAAGATTCTATGTAGAGGTATATAAGTG
TCAAAATATATTAATAATTCCTTTAAGCTCAACATCATCTAAGATATAGCTTTTTTA
TTTTCTTCAGCCCCCTCTATGTAATATAACAACCTTCAAAATCTTCTCTTATATAACGGA
TGCCAAAAGATTTGTTTAAATATTTCTTTAAGCATAAATATCCCCAATTTATATAGAACT
TCTATCTAATAAGCCAAGTTCTCACCATTTTCATCAACTCTAATCCTTCCAAACCTTAT
60 TTCTCTAATATTTTAAATATCTCTTCACTTATTGGAGTTAAATTTCTAATGTTTCATT
CTCAAAATCAATAGTTTTTAAATACCTAATCCAATGCAAAAGCTATCTTCATCAATCAA
TCCAACCTATTAATTTGTTAAACCGCTCTGGCTCAATGTAATATAGGATGTTTTATCTAT
TTGCCCTGGCATATTTACCAATCTCTTTTTTACTATTGTATATCTTCCATCGCATTTGCT
ACCATAAAGTATCTTCCACTTAAAAAGTGATTCTAATAAGTATTTCTCATCTCTAAAAAT

CTTCTCTCCTTGAAATACCTTGGTTCCACCAATAACTACATCATTAAAACCAATATTATA
AATTTTTGAGTTTTTAAAGTATCTTTCCATTTCTCTGCTCTAATTTCTTTTCTTTCTCTC
TCTGCTGAATGATTTTGCATTTTCATAAACTTTTAAGTAAAAAACCTGATTTTATTTTC
AAAGGGCTTTAAATACTCTTAAGTTCATTTCTTTTCTCCAATGCTATTATAATATCTGG
5 CTTAATCATTCTATTTTCATCCTCTTTAAATCAGCTCCAGAACCAGATATCAGCCCAGT
GGTATCAACTATAATAATATCAGCCTTATCTTCAGCATAATCACACAATAATTTAGTTCC
AGTAATCATCTCTCCAAAAAATTGTATTGGGGCTGTTGAACCAACGAAATAAATTTTGTA
TGGTTTAATTTTCATATAAATTGTAAAAATTTGTTTCTGGGAAAAGCTAAGCTTATAGTTGC
10 TGGAGGTAAAATGCTCTTCTGCCCTACATCACTATCGACTATAGCAACTTTAAATCCTAA
GTTTAAAAGCTCATTTGGCCAAAAAGTAGCTAATGTTGTTTACCCTATCAACTCCTCC
AAGTAATATAATTTTAAAGAGTTTTGGACTATCTTTAATACAACTCAGAGCTTCAAATCT
ATCCTCTGGAATCTCTGTAGTGAATAAGCTTTACTTATCATGTTATCCACCAAATTA
GTATAAATAATTAAAAACACAACGACTGTATAATCAACTGCCTTAAAGCGTTTAAAGAT
TTTTCAACATCTATTTTCCCACTACCAAGTTTATAATATCCTATCTTCTCCAAAGTTATA
15 TTTAATGCATTTGCCAATGTAGCCATTGTATAACCAGAGTTTGGTGATGGAACCTTATTA
GCTTCTTTTAAAAACCCATATATTGCCTTTTAAACATCTCCTTTATAAAATGGGGCAGTA
ATTATTAGCAAAATCCCTGCTATTCTTGAAGGAATAAAATGGCAATATCATCCAACCTT
GCTGCTAACTTCCCATACCATAGATATTTCTCATTTTATAACCAATCATTGCACTAAT
GTATTTATCGCCCTATAAACAAAGGCTCCAGGCAACCAAAAAATATAGCATAGAATAAA
20 GCTCCAATTATACTGTCTGTTATGTTCTCGGATAAGCTCTCTACTGCAGCCGATAATACA
TGCTCTTTATCCAATTTGAGGCATCTCTGCTAACTATATGCTGAACAGCTTTCCTTGCT
CCCTCTAAATCACCATTTTTTATATATTCAATCGGCTTTTTGCGAATTGCAATAATGAT
TTGTAGCCAAATAGTTGTTGATAACAAAAACCATAGATAATATAGTTTAAAGGAAATGGT
AACAGCATTATGCATTTATCAACAAAAAAGCTATAACTCCCACTAATAGAGTAATA
25 AATGTTGTTAGTGAGCCAAACAAAAATCTCTATATTTATTTTGAATTTGTAGATTTA
AATATGTTCTCTAAAAAGCTATCAACTTCCCTATCCAAACCGTTGGATGAATACTCTCT
GGCAACTCCCCAATGATTCTATCAAAAATAATAGCCAAAAATAAGATTATTGGATTGAGC
ATTATCTCCCTTTTAAACAATTCCTCAATATCTCCAAAAATTACTTCACTCTACAAAAGC
TTGGTAGATAAACAGCAGCTTTTCCAGAGTTTGTGCAACTCTTTTATAACCTAAATCCT
30 CAATTGGAGAAACAACCATACAGGTGCTTTAACTACCTTTCCACCAGCTTTTCAATAA
TCTTTGTATATCCCATCTATCTGCTATTGCTTTAATATGAAGAGAGCAGCAACCCATA
AATCAGCATTCAATTTTTTATTTTTTAAAGTTCAGCAATTTTTTAAATTTCCATTAAAC
TGCAGTGAGGGCAACCAATACAAATTAAATCTGGCTCTTCATTTGTTGTATTTAATTTTT
CATAAGCTTCCTTTATCTCCTCAACTCCAAATAGATATCTTTTCAATTTTATCATTAAACA
35 CTCTTTAACTCTGCATTGAGCTGTCAAGTTTTTGGCGTATATAAGGCGATACCACCAC
TTGCAGCCATTGCAGCTCCCAAGGATTTAAATTATCGTTATTTGGATTAAATTTATATA
GATTTTCAAAATATGGAATGCCATTCTTAACAATCTTCCCACTAAGTAACCTAAAGCTC
CATAAAAATCTCTCCATATTTAAAGTTAGAGATTAATTGTCCATCTAACTCAATGATAT
GTGTTGTCTTTCTATTTTTCATCTAAGTGATATCCATAATATGGTGTTTTCCAATAATTG
40 CAGCTGCTAATGCTGATGGCCACCTTCTCTATTTGTCTTAGCTCCTAAGACAGAGTTTG
CAAAGCTCACAGCTGAGCTTTTCGGCCCAACTTATATGCTCTCCGAATCTTGAAGGTTTC
CAGTTAAATAGGGCGTGCAAGTGCAACTTATCTCAACTTCCATCTTTTAAATGCTTCAA
TAATTCTCAACTGCTTTTTTGGCAAACTTCTCATCAATGCCAAGCTCTCTCCATATATCTA
45 AATCCATTCCAGCTGGGTTTAAAGTGCCATAGACCTTAACCTTAAACATCTCTTTAGCAA
AATCTTCCAAAACTCTAAACCAATATCTTTAATAGTTTGTATGAACTCCAGAAATTT
GAGCTGAGCTTATAGGGATTAGCTTATCAGCTCCATAAATATCTCCAAAGAACTAATA
AATTCATACATCTTCTTAAACCTCTCCATATTCTCCATCTAATATTTTCTCTTCTTCTT
TAGTTAGATACATTTTATCCCTCAAATTTTACTAAAAATCTGATTAAAAATAGATTAC
50 AGTAGGGCTGAATGTAGTGAAGCCCCGCTCTGGGTATCCCAATAGGGCGAAGCCCTATGG
GTTAGATACATTTTATCCCTACTTTTAAATATTTTTCATATAGAATACTTTTCCATCATA
TTCTAATTTTATTAGTTTTCCTCATTTACCATTTTATTTATAATATCAAAGCTAATATT
TGATTTATTTAACAATCTTTAATAACTTCCCTCTCTCATTTGGATGAACGGAAGTTATAGC
CAATATATCCTCTTCAACATTTTCAGAGAATATAAATTCATTTCCCTTCAAATTTCCCTAA
55 GAGTTAATTTTATTTTTTACCAATAATTTCAATTAATATGGCTAATATTTTAGTTATAAC
TTCTATTTTAGGAGGTTTATATATTTTTCAGATGGTGGCCTTATTGGAGTATTTAAATA
GCATTTATTTGGATTAAATCTTTTAAAAATCTGCTGTTTGTATTATAGATTCCTCTGT
ATATTTTATACTTCTTAAATCATCGTTTTCAGTTATCAACTCTCCTTTATAGTTATCTCT
AAAAGCTATCATTCCTTCTAAGATTTTATCTAACCCAAATCTTTATGAGGTCTATTAT
60 TTCTCTCAAATTTTTTTCATCAACAGAATCAACCTTAAAGATACTAAATCAAAGTTTAA
TATGTCATTTCTAACATCTTCCCTCCAAATTAATGAAGAGTTTGTAAATTATTGCTATTGG
AATGTCAAAATCTCTAAGCATTTCAACTTCTTTTGATAAATTTATATCTAATGTTGGCTC
TCCATCTGCAACAAAAGTGAGGTAGTCAATTTTCTCATTATTTAGCTTACCTATCCTCTC
CTCTACTGACTTAAAAATATCTTCTGGACTATAAACTCTCCTCTCTATAGTTTGTGTT
TATGGTTCTTCCAACTTGGCAATATACAAATCACTAACAACTTACATGGAATGCT

5
10
15
20
25
30
35
40
45
50
55
60

ATTTATCCCTAGACTCTTCCCTAACCTCCTTGATGGAACTGGTCCAAATGCTATAGTCAT
AGAACCACCAAAAATAAATAAAATATAAAATTATTCCTCTATTTTCTCCTTCTCAGCCAC
TTTCTCATTAAACGATTTCCAAATATTCTTTAATATTTCTTACTCTTCACAGCATCCCT
AATATTTTATTTTCTATGCTAATAACTCCATCATAGCCAATTTCTTTTAGCTTTTCAAG
GACCTCAATAAAGTTAATATTTTCTTCTCTATTTTCAAATGCTCATCATAGCCGTT
ATTGTCGTGGGCATGAACATGTATAATTCCAATTCCAATATTTTGTAGTTTTCACAAAA
TTCAGCTGGATTTCCAGCAGTGTTCGCTGTCTATATCAAAAGTTATCCCTAAAATCTT
TGAGTCAATGTCTTTAACAATCTCCAATAATGATTCTGGAGTTATCCCTAAAATCCTCT
AAAGTTTGGCATGTTCTCCAAACCAATCTTTATTCATAATCTTCAGCTATCTCTACAAT
CTCAGAAAGTGTGAGAAATGTTATCCAGTATCTCACTTACATAGTTACTCCAGAGCTC
TGGAAATATAGCCAGGATGAACACAACCTCAGAATCAAGCTCAAAAGCACCTTCTAT
AGCGTCTCTAATAACACTCAACTGTTAATTTCTTAACCTCTCTCATTGATGCAGGGTT
TAAATCTGAAAAAGGTGCATGCACATAAATTTCAACTTCGTATCTATCTCTCAATTTCCAT
GAGATACTTTATATTCTTTGGAGATAGGTAATGAGTTCCCTCAGACAAATCTCCCATGC
ATCAAAGTTGTGTTTCTCCTCATTGATGAAGTTAAGCTCTCTGGTAAAAAAC
TAATGATGAAACACCAATTTCTATCTAACACCCATTTTGATTTTTGTCTAATTTAGT
TTTACGCTTCAAATTAATATTTATGTTTTAATAGCTTTTAGCTTTTGGTTGCTAACGT
AATGTTTTATATCTGTTAAACCTAATCTGTCTAATGATAATGATAAATTATTTGGTGA
ATAGAATGGATTTTCAGATGGCATCATTCCATAACTTCTGGGCTTTTAGTTATTATGGAT
TATATGGTGTGTTTTTGTGATAATGTTCTGAAAAAATCATAGCTTTAGAGATTTTAG
GTAGTGGAGTTAATTTAGCTTTAATTGCAATTGGTTACAATGGTGGAAACAATCCCAATAA
AACTTCCGGGTGTTTTCTGTAGAAGTTTTTGCTAAAGAATCTGCTTATCCATTAACCTCATG
CATTAGTTTTGACAAATATAGTTATAGAGGCATCAATGCTTGCTGTGATGCTTGGAGTCT
CTATAATTTGTATAAAAAATATAAAACACTCAGAAGCTCTGTAATACTAAAAGAGGATT
AATCTATTTAACTTTCTCTAAAAGATTGGAGGGAGAATATGAATTATCTGCCGATGATG
ATAGTGTTCCTAATCATGGCAATAATAATGAATTTATTGATGGAAAAGAGAAAGCA
GTAAATATATAACATTTATTACAGCTGCTATTTTGATTATTTTGCCATTTATCAGCCAG
TATGGTTATTATTACTTTGGTGGGCATGGAGTTGTTAATGGATGGGTATCTGGTATTGCC
TATCTATATAACCCAGCAAAGCAGGCAATTATTGTAACCTCTGTCTTTAATTGCCTCTCTT
GTTTTAATTACAGGAATGGGAGAGAAATTAAAGAATAATATGTTTTGTACCTCTCATT
ATGGATTTGCAAGTATTGCAGCTATAGTTTTGGCTGATGATATATTCAACTGTATGTG
TTCTTTGAGATAGTTTCAATTGTCCAAGCTGGATTAGTATTTTTATCTGGAAGTGAAGAG
GCATATAAAGCAGGATTAAGATATATGATAATGGGGAATGTTGCGGCAGCCTTAATGCTA
TTAGGAATAGCGTTCTTATTAGCTTCAACTGGAAGCTTAAACATCACAGACATGAAACAC
TATCTGTTAGTTGATAATCCAATGATTTATGGTGGCTGTGTTGCTAATTGTTGGTTTA
GCTTATGGGGCTGGATTGCCGCCATTCCACAACGTTAAAGCTGATTTATACGCAAGGTCT
AAGGATTTATCTCTGCAATGCTCCAACATACTCAAAATTTGTGTTAGTTGGCTTGATG
ATAATTATTCTAAAATTATTTAATGGATTAGATTATTTTGCAAGTGCTCATGCTGTTTTA
ATTGCATTGGGAGTTTTGGCAATGGTATTTGGGGTGTATATGGCGTTATTGCAAAGTGAT
TATAAAAGCTTTTGGCATATCACGCTATAAGTCAAGGTGGCTATGTGGCTACTGGCTTA
GCTTTAGGAACACCATTAGGAATTGTTGCTGGTATCTTCCACGCTATAAATCACGTTATT
TATAAATCTGCCTTGTTTTTGGGGGCTATATTGTAAGCTGTAAGAGAGGAAGTAATTTG
CATAAGTTGGGAGGTTTATTGCCTCTAATGCCCTCTGTGGCATTATGTTTTATGTGCA
AAGCTTGGGATTAGTGGAAATCCACCATTTAACGGATTTACAGTAAGTGGATGCTTGCC
CAAGCAGCTATGCAAGTGAATATGCCAGAAATAGCTATAATAATGATTATGTTAGTATA
GGGACGTTTGTCTCAATGATGAAGGCATTCTATTTAATTTACTTAAACAGTTGATGAA
GAACTCTGAAAGAGTATCAAAACAAGGAAGTTCCTAACTTGCTGTCTTTAGCTTGTTT
GTATTAAGTCTCTATGCATAATAATTGGTCTCTATCCAGACATTGTAACAACTATCTC
TGGGACTATGCAAGGAGTTAGGGGTTAATTATTATTTAAATAGACAAAATAACTTAAT
TTTTGGTGGATTTTATGGATTATAATGACTTTCAAAAAAGTTGGATAAAGAAGAGCATG
GGGATGGAATCACAGTTGGAGCAGTTTATACTGGAGAATTTACTCTCTATTTATTGTTTA
TATTTGGAGCTTTGATTATTGGGAGAGTTTATGGAAAACCTTTGATGACTTTGTTGGTT
TAGCTGCATTAGCTTTCTCTCTGTCTCAGTGTCTCCTTTAATCTTTAAGTTTAAGGAAGAGA
ACTCAAATGCCATAAACTACCAGTTGTTTTGGCTCTCCATATTCTTGGGGCAATTGCAT
TCTGCATCTATATGACAACAAGGTGCTAAAATGAAGCTCTAAAAGAGATTTAGCTGTTGCC
ATATCCTTCTTTGTATTTGGGGCATCTGTATTATATAGTTTAGCACACATGCAGATTAGT
CCAGGAGTTAATGAAGTTTATCTCACTCACTATATAATCCCAAATATGTGTGTGCTGTA
ATATTTGACTGGAGGGCTTATGATACCTTGGGAGAGTGTGTTGGTCTTAGTTGTTGCCGTT
ATGGTCTCTTGGATTGTGTTTGGGAAATCATTATATGATAACACCTATCTAAAAGAGTTA
TTTCAGCTCCAGAGTCAGATGATTACATAACACTTCAAGGTTGGGAGAGATATACACCA
ATAATTAAGTTTTTGGCATTTCCTATGAGTGTGTTAATGGTTGCATTGGGAATTATAACT
GTGTTAGGAGGGCATATAACACCAGGAGGAGGTTTCAAGGAGGAGCTCTAATTGCTGCT
GCATTTATACTATCAGTTATAGCCTTTGGTTCTAACAGCCCATTTATGGTTTGACCATAAA
TTTTTGGAGAAGTTGGAGGCATTGGGAGCTTTAGGTTATCTATTACTTGGTGTGCTGGA

ATGTTTATTGGAGGATATTATTTATTCAACTTCACAGAAATTAATGGCTTTACTATCTTT
CCAGCTCCAAAAGAAATCATAACAGCTGGAATCATTCCATATCTAAACATTGCAGTTGGA
TTAAAGGTTTTAGCAGGGTTATCTACTGCTGCATTCTTACTGTCTTGTGAAAAGGTTATT
5 ATTGAAAAAATTAGCAAATCTGAGGAGAAATTGGAATAAATTGGAATAATGGTGATTTAA
ATGCTTGATGCAATATTATCAAACATTTTATATTATCCTTCAATTCTTGCATTTTGT
GGAGTGTTGATGGGAGCTAAGTATAGGCATAAAATAGGAAATATTTTTGGATACTTAATT
TTAAGTGTACTTATAGCTTATTTCTTAAAGGCATTTCCATACTATGACTTACTTCCCTTA
TCTTGCTCTTATCTATCTGCAGTAATTGGAATAATTATTGGAAACAGGTTATTGGAGGG
10 AAAATGATTTAATTTGGTGAATAATGGATGAAAAAATGTTGAATAATATTTTAGATGAA
TTTCTACAAAAATGCAAAACAAAAATTTGGAGATGATTTAATTTCAATTATTTTATTGGT
TCTTATGCAAGAGGCACTGCTGTGGAGTATTGAGATGTTGATTTTATAGTTATTGCTAAA
AATTTACCAAAAAGAGGATTGACAGACATAAAGTTTAAAGGGACATAGTATTAGAGTTT
ATTTATAGATATGGGATTAACATTTCTCAATATTGGTAGAGCCAAGGGATTTATCACTG
AAGAGTATAAATCCGTTGATTTGTGGTATTTTAACTGGATATAAAATAATATATGATAGA
15 GATAACTTCTGGAATAATTACCTTGAGAGAATAAAACCGATTATTAAGAATAAAGCCA
ATATTTATCGATGAGGAGAAAGAAATGGAAGATAGCGGATTTAATATAAAGTATGCTAAGC
TATTCATAAAAAGGGCGGAAGAGGATTTAGAAGTGGCAAAAGTTCTACTAAAAACAAATC
ACTATCCAGATTCACTCTATCACTCCCAACATGTGTTGAAAAAGCTGTAAAGCAGTTT
TAATTTTAAATGGAATTATTTTCAAGACATGTAGTTTCAGGAGTGTTTAGGAATGTCA
20 TCTACGAGATGAAAATTGAGGATTCATGGAAGAGAAATTACTAAATCTAATACCAAAAA
TAGAAAGCTTAGAAGAACATTGGGTTATGCCAAGGTATCCAGAACCGTATTTTGGAGAAC
TTTGGAAATCCATTGGAAGATATACTAAAGAAGATGCTGAAGAATGTTTAAAGATGCTG
AAAATGTGTTGGAAGTAAATTAAGACTTTTTTAAAGAGAAATATGGCTTAAACAAATTT
25 GAGGGGAGGAAGGATGATTATAACTATATTAGATGAATGTAGGGTAGAGGAGAAATGCCA
ATCCTGTCTTTCTCACAAACATCCAAGTGTATGGAAGCTTGTCCAACAGATGCAATATT
TTTATTAAATAATAAAGTTTGTAGCTGTTTAACTGCGGAGAGTGTGCAAGAACTGCCC
AAACAAGGCAATTAAGAGGAATGAGTTTGGAGGCTATTATGTAGATAGAAGGAGATGTAA
CGTTGCGGTATATGTGCCAACGTCTGCCCAATTGGAATTATAAAGATTGTAGAGAAAGA
30 TGGAAAAAATTTCCCAATGGGAATTTGCTCAATGTGTGGCGTCTGTGTTGAGGTTTGGCC
TTACAATGCAAGAGTTAGCTCTTATGAATTGTTAAACACAAAGAGAGAAGGCTTAGCAGA
GAGATACTTAAAGTTTGTAGAGAATCTTATGAAAGTTAAATTATTTAGAGCTGAAGAAAA
ACCAGGAAAAGTTGTTGAAAAAGTAGAAAGGAAATCTATTAAATTTGATAGAGATAAATG
CGTTGGATGCTTAAGATGCTCTTATTTATGTCCAAGAGATACTATAGTCCAGATTCTAT
35 AGATGCATGCACATCCTGCAATTTGTGTGGAGAGAACTGCCCAAAAGATGCCATTAAAGA
TGGAGAAGTAGATTATAATAAATGCATTCTCTGTTTAAATGTGTTGAAATCTGCCCTAA
CGATGCTTTAAAGTTTGAACCTTTAAAGTTTAAAGTTAAGGAAGATAAAACATCCCA
ACCAACAAGTTATTGTATAAATTTGTGGGTTGTGTGCTGAACACTGCCCAAGTGGAGCTTT
AAGGTTTGAGAAATGGACATCTATATTACAGCCCAGATGTTTGTGGAAATGTATGGAATG
40 CGTTAAATCTGCCCTAACGATGTTAGAAGAATTAACAGGACTTTCGAGATTATACAT
CCATAAAGGAAATTTGATGCCAAGGCATCTATGGGCAATAATAAATTTACTCCTGCGA
AAGTCTGTAGATGATAGAGTTGTTGGAGGCTGCTCTCTATGTGAAATTTGTATAAATAA
CTGTCCAGAAGAAGCAATATCAATAACAACAGTTAAATTGGAGAAAAATTAAAGATGAAAA
45 CTGCATACTCTGTGGAACATGCTCAATGTATGTCCAAGAGACGCTATAATAATAGACAG
AAGTAATGGAGAGGTTTTATTACTGATAATTGCATAGCTTGTGAAACATGTGCTATTCA
CTGCCCCAAGAGATGTGATTCCAAACACAACCTGGCTATAAAAGGTTGTTGATAGAGAAA
CTCATTTATTAGAATGATATGGACTTCTGTATAAAGTGTGGTCTCTGCAACAAGGCTG
CCCAATAATTGCATTGATTATGGAGTTATTGATAAAGAGAGATGTGAGTTCTGTGGAGC
TTGCTACAATATTTGCCCACTAAAGCGATATATCTACATAGAAAATGGAAGTGAAGA
50 ATAAATTTTGGTGATTGAGTTGGCTGAACTAAAGAACTTTGCCAAGATATTTTAAACCG
GGATATATGAAAATTTGGAGAGAAATTATCTTTGGGTCTGGAAGATACACAAGCTTAGAGA
TGAGAAACGCTATACTAACTGGAAGTGTAAAGATTCCAAAAACCGTTATTGAAGAACTCT
GCATTGGTTGTGAGGGATGTGCCAACGTCTGCCCACTAAGGCAATTGAGATGATTCCAA
TTGAGCCCGTTAAAAATAACAGATAACTATGTTAAAGATAAAATACCAAAAAATTAATCCAG
55 AAAAAATGTATATTGCCTATATTGCCATGACTTCTGCCCAGTTTTTTCTGTGTTAATG
AAATATCTCCAATACATCCAAGAGATGTTGGTGAAGAATATATAGAGATTGATATATCAA
AATTGTTACAGAAAAAATTTGAGATTTCTGAGGAGCAAAATTAATAAGATTAGCTCATTGT
TATCAATTAATTTGAGGAGAAATTATTAAGGATTAAATTTACTATATATTTCTATTTATA
ATGGGAATTTTGGTGATTTTTATGAAATCTTCAATAGAGAGAAAGAAATTCATAAAATC
60 TTATCTATTATAGAAGGAGAACCAAAATTTGATTTATTTTCATCTATGGCTCCATAAATAGT
GGAAAACTGCCTTAATAAATGAGATTATTAACAATAGATTAGATAAAAAATAAATACATT
GTGTTTTATTGATTGTTGAGGGAGATTTTATCTCTAAATACGATGATTTTCAATGAAGTT
TTGTTTGAAGGAATATGAAGGAGATAAAGCCCTATAGAAGTAATTAAGGCAATTATCAAT
GACTTACCTTCATTGTATGGCATTCCCATACCAAAAAATCTCTAAACGAGATTTTAA
AAGAAAACACTAAAAATGTTTTTAGATATATAACCAATGTTTTAATGGACATTAAAAAG

-210-

GAAGGAAAGCAACCAATAATTATTATTGATGAACTTCAAAGATTGGAGACATGAAAATT
AATGGATTCTTAATCTATGAGCTATTTAATTACTTTGTATCTCTAACCAGCATAAACAC
CTATGCCACGTTTTCTGCCTAAGTTCAGATAGCTTATTCATAGAGAGAGTTTATAATGAA
5 GCAATGTTGGAGGATAGAGTTGATTATATTTTGGTGGATGACCATAGAGGGGGCTACGCC
CCCTCTATTGGTATACTCCCCAGATAGAAAGTGGGGTTGCCCTTTGGCAACCCCGCTCTG
GAGTATAGCAATAGAGGCTTTGCCCTCTATGCGAGGTGAATATATCTTAGTGGATGATTTT
GATAAGGAACTGCCTTAAAATTTATGGATTTTTTGGCTAAAGAGAATAACATGAGCTTA
ACTAATGAAGATAAAGAGTTAATCTATAATTATGTAGGGGAAAACCAGTTTTAATAATA
10 AAAGTTATTGATAAGTTGAGATATGAAAATTTAAACGATATTTTAGATTTTATGCTTAAG
GATGCTACTCAAAGTTAAAATATTTCTTAGAGGATGTTAAGAAGAAGATGAGGAACTT
TATAAAAAAGTTGTTGATGCATTAATAATTTTAAAGAAGATTATGAAATAGAGGATATA
AAAATACCTAAAAAATTAGAGAGTTTAAATTAAGAAGAAATATCTTATTCTTAAATCCA
ATAGAAGGGATTTTAAAGCCTCAGAGTTTTTGTAGTTTGAATGCTATAAAGAAGGTGTTA
15 TAAAAATAAGAAAATAACTATTTCATATTTACTAGTCGGCTTCCTTTATAGCATCATAT
AAGGAATCATATAGATAAATAATCTCCTCGAAACTTTTAGAAAAAGTTTCATTAAAACTC
GTCCATTTAAACCAATTATCAAAGTTTTATAATTAATAAGGCACCTATAGAAGCCCTTTG
GGCTTCTAAATATTCCTTAATTAGATAATTTAGCTTTGATAATTGGTTATAAGTTAGGGC
TTTCAGCCCTAATTAAATGTCCATTATTACAGGTCAGCTTCCTTTATAGCTTCATACAACG
CATCGCATAGATAAATAATCTCTTTCTCAGTTATTGACAATGGTGGGACTAAGATAATAA
20 CATTACCAATTGGTCTCATGTAGATACCTTTTTCTAACAGCTTTTCAGCAACTCTGTAGC
CAGCTTTATAACCGTAAGGGTAGGGTTCTTTAGTCTCTTTATCTTTACAAGCTCTATTC
CGACCATAAAACCCCTTCCTCTAACATCTCCAACATGCTCAAGTTCCTTTAATTTCTCTTA
ATTCCTTTATGGAAGAGCTTTATTTTTGGTTGGATATTCCTATCACATTCTCCTTCTCAA
AAATCTCTAATGTTGCTAATGCAGCAGAGCATAGAAGTTGGTTTCCAGTGTATGTATGAC
25 CATGATAGAGTTGCTTACTCTCTCCAACTCTCCTAAGAATTGGTTATAGATTTTCATCAG
TTGTTAGAGTTGGCGCTAATGGCAAATAGCCTCCAGTTAATCCCTTTCCAAGACAAAGGA
TATCTGGCTTCTCCAACCTTTTTAGCTCTTCATTATCACAGAAAAACATCTTCCCAGTTC
TTCCAAATCCAGTAGCTACCTCATCGAGGATAAAGATTACATCATCTCCTTACATGCCT
TTGCAACTCCTTCAATATATCCATCTGGATATGGAATCATTCAGCAGAACCCATAATTC
30 CTCCTTCAAGGATAACACAAAATACTTCCTCAGCATGTTTTTCAATTAACTAATCATCT
CATTTAACACTTCCATTTCACAACCTTTTTCATTTCTCTCATCAGTATCTTTAAAGTTGT
GGTATTTGCATCTGTAGCAGTAAGGAGGATTTGCATGATAGCCCTTAAACAATAAAGGCT
TAAAAACCCCATGGAATAATTCACTCCCCCAACACTCATTGCTCCAACAGTGTCCCAT
GATAGCCTTCTTTAACTGAAATAAATTTAGTTCTTCCCTTATCTCCTCTTAAACATAAT
35 ATTGATAAGCCATTTTAAATTGCTATTTCAACTGCCTCTGCTCCATCTCAGAGTAAATA
CCTTTGTTAAATGCTTTGGAGTTATATCCACCAATTTTTTTGCCAATAAAATTGATGGGA
CGTTTCCACAGCCTAAAGTGTGAATGGCAGATTTTATCAGCTTGATTTTTTATTGCTT
CAATTATCTCCTTTCTACTATGTCCAAATAGATTACACCATATAGATGAAACAGCATCCA
AATACTTATTTCCATAAATGTCAATTAAATAATTGCCCTCTCCTCTCTCAATAATCAAGT
40 TTTTTGATTCTCTATATTTCTTTCATCTGTGTGTATGGATGCCAAATATATTCTTTATCCC
ATTTTTCAAGTAAATTTTTATCAATGTTTCATTTTATTCACCTCAAATCTTTTCAAATC
AATCTCAAATCTTCCCTACTTTTAAACAATCCCAATTATTTCAATGTTCCCAACTTTTTT
TATTGTTTCAAAGGTTTTTTCATAATATAAACTTCACTTAAATCAGTTATACAGTTAAT
45 AATAACTCCTCTAACGTTAATTCCTTTATTCCTTAAATGTTCAACAGTTAATAGTGTG
GTTTATAGTCCCTAAATTAGGCTTGAACAACAACACTGCATCTAATCCTAAAAACTTAAT
CAAATCACTCATTAAAAAATCTTCTTTTATTGGAACGCAACTCCTCCAGCTCCTTCAAC
AATCAAAAAATCATATTTTTCTTTTAAAGTTTCATAAGCATTTTTTATTTTCTCTTTTAT
CTCATCCAAAGTTAAAGGGGAGTTTTCAACGTCAAACGCAATATTGGAGATAGGGGAAG
50 TTTTAAATTAATAGGATTCATTAAATCCAAATCATCATCTGTATTTAAATATTTTTTAA
AGTTAGAGTGTCTTCTCCTCCTGTCTCAACGGCTTTAAATATCCAACGTTAATGCC
CATTTTTTTCAAATTCTCTGCTAAAATTGATGAAACGTAAGTTTCCCTATACCAGTGC
TGTTCCAGTTATAAATATCATTTTATCACCTATCAAATTTTAAATCTACTGTTTAAATA
ACTTACCACAAAATGATAATCGTAATTATTATAATTACAATTATCATTGATATAGGAAAC
55 CAAATAAATGCTTATTTTATTAATAAAAACTAAAAAGAGAAATATCAGTCACTACTAT
AAACCTCTTTAATCCTCTCACACAACAGTTCAAATCCTCTTTTTCATGCCCAACATTTA
TGCTAACCCCTTATCCTCTCCAATCCCTTAGGAACAGTTGGATATCTAATTCCTACACAAA
AGATATTATTTTTTATTAATGTTCTGCTATTTCCATGGTTTTTCTTTAAAAATAAATG
GATAGATTGGAGTTAAGTTATCTTCTTTAATAAATTCATATTTTTTAAAAACTTTATTG
CTATTTTTATGTTTTTTTGAAGCTTTTTAACTATATCTGTTTTTCAATAATCTCAAAGG
60 CCTTAATGCAACCCCTCAACTACATGAGGAGGTAGAGCAGTTGAGAATATAAACTCCTCG
AAGTGTATTATTAATACTCTACAACCTCCTCAATTCACAGACAAAGCCTCCTAAACCAC
CAATTGCTTTAGATAAAGTTCCAATTTGCACTATGTTGTGAGAAGGTTTTAAATTAAGT
GCTTTAATGTTCTCTCCCATCTCCTAAAACCTCAGTGCCGTGTGCGTCATCAATAATTA
AAATGGCATTAAATTCATCAGCTATCTTCTTTAAATCCCTCAAAGGAGCTATATCCCAT

CCATACTAAAACTCCATCAGTTACAATAAAGAGGTGTGTATATTTCCCCCAATTCCTCTT
CAATTAAGTTGGTTAAATGCTCAACATCGCAATGATTGTAAATTAACATCTGCTTTAC
TCAACTTGCAACCATCAATGATAGAGGCATGATTAAGCTTATCACTCAAAATTAATCTC
CTTTTTTGCACAAATGCAGAGATAACTCCAACATTCGTTGCATAGCCGGATGAATAAATA
5 AAGTCCTCTCCGTCTCTTTAAATTCAGCTATCTTCTCCTCCAATCTTTGATGGTTTATAT
TTCCAGAAGTTAATCTTGAGCCGGTTGAACCAGCCCCATATTTAGCCCTTCTTTAACTG
CTTCAATAACCTCTGGATGCTTTGATAGGCATAGATAATCATTTGAAGAGAAATCTAAAA
CTCCATCATCTTTTTTCCCTTAAAAATCTATATAATCCGTTGTTCTTTATAATTTCAATCT
10 CTCTTCTTAATTTCTCCCTAAACATAAAAAATCCCTTTTTATTTTATAATAAATGGTTTGT
TTTCTAATTTGTTGATTAAATCCTCTATATCAACATCATCTTTAACAAAAATACCCTTC
CTCCACTTTCTCCCTCTTTTTTAAATTTGTAATTTCTAAAGTATCCCTTTTTAGTTGCTA
CATAGCCAGTTGTGTAGCTTTTATTATCCGATGTGCAGAGTTCTGCAATAACTCCCAAT
GAATAACCTTAGATGCTATGGCAATGGCATCGACAGTTCTTTCTGTCCCTAAATTTCTT
15 TTAATCTTCTCTTTCAATTCCTTTGTTGTATCTATGTTTTAACTCTAACTCCTCTCT
CCTTATCTGGCTCTAACCTCTCTCCCTTTAAATTTAAATTTGCTGCTCCTCTCATTTCCCC
CTTTATCAATAATCTCATAAGCATAATCTATAACGCTATCTGGGATGCCTTCATTTCTTA
ATATTTTCTTTGCCGTTTCTCTTGCTCTTCTTTATCTTTACAGTGTATTGTTTTATTG
GCAAGTGGTTAATGTATGTTATCTCTCTTTAATCTCTTCAATCTTTATATTATAAAGT
20 CTGGAGTTCCATTTTCATGAGTTAAAGCCCTTCTTACAAGCTCCTTAACAGTCTCTTCAA
TCTCATCTTTATTTACAATTTCTCTCAGCTCCAGAGATGTGTTTTCCATTCTTCGATGCCC
TCATCTTTTACTATACATAACAATCACCATAAATTTTAAAGTTAATGTTTATTATT
GTATATAGGGTGATTTTTATGGAGATTGAACTTTTTTAAAAAATCTCTAAAGAACAAA
ATAGATTTTGATGATGCCCTCTATTTATATAATAAATTCAGTGTATAGATTTGTTATAT
25 TTGGCTTTTAAAAATAAAAAATAGGATAAAAAATAATAGCAAAATTAATTTATGCTATA
ATAATGCAAAAAGTGGAATGCAAGAGGATTGTATTTTCTGCTCTCAATCAATTTAT
AGTAAATGCAACATCCCAATATATCCATTAATCTAAAAAGGAGATTTTAGAGTATGCT
AAAAAATCATCGATGAATGTTCTAAATTTCTCATCCATAGAACGTTGGGACATTAATT
GGGGCTGAAAGCCCCAACTTAATGGACGTGGGGTATCCCAATAGGGGGTTTCCCCTATGG
GTAGAGAGATTGAGTATAGTAACAAGTGGCAAAAAATTAATGATGATGAATTCATTGAA
30 ATTGTTGAAGCTATAGAGCTTATAAGGAAGAACAATTTAAAGTGTGCTGTTCTTTG
GGTTTATTGGATAGAGAAAAATTAAGAACTAAAAAATTTGGACGTTAGGATTCACAAT
AACTTAGAGGCATCAAAAACTACTTTAAAAATATCTGTTCACTCATAGCTATGAAGAT
AAAGTAAAGTTATAAAAGAGGCAAAAACTTGACTTAGAGGTTTGTAGTGGTGGGAATA
TTTGGACTTGGAGAGAGCGTAGAGGAGAGAATAAAGATGGCTTTTGAAGTTAAAGAGTTA
35 GGGGTGATAGCGTTCCAATAAATATTTTACATCCAATTGAAGGAATAAAGCTTATGAA
AAAAATAAAAAATGGAGAGATTAAGCCAATAAGTGTCTCAGATGCTTTGAAATGATAGCG
TTATATAAAAAATATATGCCTTATGCAGAGATTAGATTGGCTGGTGGGAGAAATACAA
TTAAGAGACTTCCAATCTTATGCCTTAATGGTCTTAGACGGATTAATGGTTGGGAATTAT
TTAATAAAGGGAAGATGTTTAGAGGATGATTTAAGATGATTGCTGATTTCCACAGT
40 TTATAAATGAGGTGATATTTGAGATTTGATTTTCATACGCATACGGTTTTTAGTGATG
GAGAGCTAATTCCTGCTGAATTAGTTAGAAGGGCAAGGGCTTTAAACATAGGGCTATAG
CTATAACAGACCATGCTGATTTTAGTAACTACAAAGAGCTTATAGAAAAACAACAATCG
CTAAGGAAGAGCTAAAAAATCTGGGATGATATCATAGTTATTGTTGGTGTGAGCTAA
45 CCCACATCCCACCAAAATCTATACCAAGATGGCTAAAAAAGCTAAAGACTTAGGGCTG
AGATTGTCGTTGTTTCATGGGGAGACGGTAGTTGAGCCAGTTGAGGAAAAAATAATTACT
ATGCCTCAATATCTGAGGATGTTGATATCTTAGCCCATCTGGCTTTATTGATAAAGAAA
CTGCTGAAATTTGAAGGAGAATGATATATTTGTTGAGATAACTTCAAGGAGAGGACATA
ACATAACTAACGGCTATGTGGCTAATATAGCAAGGGAGTTTGATTAAAAACTTTGATAA
50 ATACTGACACCATGCTCCAGAGGATTAATAGATGATGAGTTTGCAAAAAAGGTTGGTT
TAGGGGCAGGATTAAACCAATAAAGAGTTGGAAAAATCTTTATTGCATTATCCAAAGGAGC
TTTTAAAGAGAATTTGAGGTGAAAGAATGAAAATCTCCGATGTTGTTGTTGAATTTATTA
GAGAGGCAGCTATTTATCTACCAGAAGATGTAAAAAATGCTTTAGAAGAAGCATATAAAA
AAGAAAGTAGTGAATATCAAAAAACACATTAAGCAATCATAGAAAATAACAAATAG
CTGAAGAAACGCAAGTTCTCTATGTCAAGATACTGGTGTCCCAATAGTATTTTGAAAA
55 TTGGAAGAATATAAATTCATCAGAAATAATGAAATCATTGAAGAAATAAAGAAGGAG
TAAAAAAGCAACGGAAGAGGTTCTTTAAGACCTAATGTAGTTTCATCTTTAACAAGAG
AGAATTTTAAACAAATGTTGGCTTAAATTTCCCATTCATAAATATTGAGTTTGATGAAA
GCTTAGATAGAGAGATTGAGATAATTGCATTTCCAAAGGGGCAGGAAGCGAAAAACATGA
GTGCTTTAAAGATGTTAAAGCCCTCTGATGGAATAGAGGGGATAAAAACTTTGTTTTAG
60 AAACAATTGCAAAATGCTGGAGGAAAGCCATGTCCTCCAATAGTTGTTGGAATAGGCATTG
GGGGAACGCTGATGTAGCATTAAATTAGCTAAAAAAGCACTGCTAAGAAAAATAGGAG
AGAGACATAGGGATAAAGAAATAGCTAATCTTGAAGAAGAGTTGTTAGAAAAATAAATA
GCTTAGGAATTGGAGCAATGGGTTTAGGAGGGGATATAACTGCTTTAGATGTTTTATTG
AGATTGCTGGATGCCATACAGCTTCTTACCTGTAGGAATTTGTATTCAATGCTGGGCAG

ATAGAAGGGCAATTAAAAGAATAAAATTGGATGCTAAATTATAAGTGTCTTTCAAACCTTC
TTAGATAACTAACGCACTAATAAACGCCTTCCTTTGGAGGTGTCAAACCTTCCTCAATA
AATTTTATTGATTTGAAAAAATAGAAATAAATTACATCTCCTTTTAAATATCTACTACTA
5 AAAACCTCCAATTGATAAGTTTTCTGGTTTATATATAATGAAATATTGCCCTGGAACCT
CATTCTCTGGTATTTTGAATAATCCAAGGTATTTATTTTCCAGTTTTTATTAATTCTA
TTTTGTATTTTTTATTTGTTGGGGATAGTATATACAAATTATTGCCAATATCTATCTCAG
AAGATATTTCAATTCTTACTGTGTCCCTAATGAATAAATTACATCAGATATATAGATTT
10 TTGGAGGTTTTGGTAGTTTTATGGTTTCTTTTTCTTAGGTTTAGGTTTTCTTTAATTT
TTAATTTATAGAGAATGGATGCAATTATAGATATTACCTTTGGACGTGTTGGTTCATACA
TTAATAAGCCGATTATTGTTATAATCAATCCAATAACGAATAGGATTATTAAATCCTTTA
TTAAATTTAGCAAATATGGGTAGGGCGATATTTTTCTTTAATGAATATTTATTTAAGT
TTTCAATATTAATGGTAGATATTCATCGAAACCTGTAATTTTTATAAGAGCATATACTA
TTTCTAAATCTTTAGAGAGATTTGTAAATCATATTTACTAGTTCTATTTACCTCAGTTT
15 TAATATTTGGTGGTAGGGTGATATTTATTTTAAATTCATTTGTTTCTTTCTGGTTTTAT
TTGTCATTTTTCTTTTTCAGTTTGGTTGTATATTTTAGTTTCGTTTGTATATTAATTA
TATTTGTTAACTACTGTTTCATTAATAGAAGTTTTAATTTATTTAATTTTTTGAAATAA
AATGTTTTTTTTGAATTTTTTATCGTTGATATATTATTAAGTAGTTCAATGCTTACAGTT
ATATTGTTTCTATCTTTCCCAACATAAAACGGAACCTTTGTCTCTTTATATGGGTAGATT
20 GTTATTATTTTGAATATTTTACCTATTGTAGCATTAACCTTTATAGGAACCTGATAATTA
TGAGATAGTGTAGATTGGCCCAAGGGTCTGAAGGATTGTATTCTAAACCAATACTACC
GGATAGGTGACCATAATTGGTTTATAATATAGAGGAATAACTGCCTCCCCAGTTTTAGCA
TATATTATTAATATCCCTCTAATGAGTCATTGAATAAAATTTCAAGATTAACCTTTCTA
TAATTTCCGTAAATATCGATGGTTTTCTTTTTTACTACAGTTTATTAATCTGCCATTTTCA
25 TCCATTGCAGAAGCCCAGATTTCATATCTTTTAAATCTGGAACAGCACTTTTTAGAGAA
ACTGTAACATTAACAGGATATCCAACAATTGGCTCATACTTCACAAATCCCTGCGTTCTA
TTTCTTATTTTTATAAAGACAGTGTAAATGTGTCAGATATACATCCTCACAAGCAATTATT
GGTCTTGATTTAATAATCCTTGTTACTACACACTCTCTAACTCCCATATTTGTAGCAACG
TGATGTAGATAGGGCCGTGTATTCTTTAAAAATAGCGTTTTTATATTTACAGGAATC
30 TCTTCCATTGTTCCAATTTTTTAAATCTTCTCTTCAAAATAAGTATTTTTTAAATATCG
TCTGGGACTGTTATATATCTTGTCTCAACGCATCTTCCAACGACTTTCTTTAAGCTA
AAAGATAAAATTTTGAAGATATCCAACAATATCTCATCTTTAAGTTACTGCATAGATAA
ACTGGTGGAGTTGGAATTAAAGATAAATTTATACTTATATTTTTCTTAATGATGTAGTAT
TTTTCATAAGGTGGAGTTATAGCAGTAACATAAATTTGAGTTAATTTTTCCATCGTGA
35 GATAAATCTTTTGCATTAATTTTAAATCCACTAAATTTAATAATATTTACGCAACTTTTG
TTAAGCTCCACTTCTTTTGTAGTAGGTTTTATTATAAATATCCTTTATCGATATATTCGCA
TATATCTTTTTATTTAAGTTATTTGTTACATTAACATAAACATCATAGAATATGCTTTCA
TCAACAAAATAGTAATGTTCTGGATAATCTTTACTTCTAAACTATTTATCTTTATTGGC
40 TTAGTAAATGTTTTATAATAAAACCTTCCATATTTCCAGTTTACATAACACAAATATT
GTGAAATTTTCATCATAAGGGTTTAAACGCTGATGTATTAAAGTTTAACTGGAATTGAGTAT
CCATCATTAATTTCTTTTGCTAAAAAGTATTTATTTATTGTTTTATTATTTAATATGAGA
TAATTATCTCCCTCTTTTTTACATAGAAATACCTGTAGAGTTCCATAAACATCATAATCA
ACTGTATTATTCACATCAACATCAAACAGTTTGAATATGCATAGTCCCCATATTCATCC
45 TCACATCTAACATTATATACATACAGTGGGCAAGCTATTTCTACATTATAGACCTTTATC
TCATCTCCAAATAGAGATTTTAAATTTACAGTATTACCTTTAACTGTTTTTTCAGTTGAA
TAATGATTATCACTAAGCTGCTTTACTGTTATCGTGTATTTCCAGAATAGTAAAAATTA
ACTTTTTATGGGAATTATAATTTTGGATTTTGGAGGACATAAACGTTAGGCGTCCAAGAT
TTTATTATTAAGCCATTGACGGAGGATTTGATTTTATTATTTTGTGTCTTTAATGATG
50 TAATAAGTTCCCTGTAAAGATGCCGTAAATGAAATATTAACATAGTGAGGAACATAATCG
TTGTTTCTTATAGTTACATATACAAATCGTAAAAAGGAGGATATGGGTAGGGACATATT
TCAAACCTTAACCCCTCTATCTCTATCTTTTTTAGTTACTTCTTCTTCAGGAACGGAAC
TTGCTGTTATATGCATAGGTTATATTTATTTTTTATAAAAAGTATAGGTTATATTATTA
CTTTTTATTGTTACAAATACTGTATGAACCTCTTTTTCATTAAACACCATCTTCTTCTA
55 ATAAACATTAGAGAATATTTTGGGATTGAGTAATTAACATCTCCACTTGCATATCTATT
TTGTTGTCTATATATCCAATTATTGATATATTGCAATTAATGTTATTATCTGGATTACTT
ACTGTTATTATTAGATATTGCGAGCTATCGCTGTAATCAATATCCTTTATCTAAGCCA
TTAACTGTGATTAATGCTAAAGACAGTGCAATAATAATACGATATATTGAATTTTATA
AATGTGACACCTAATTTTATATATTGTAATGTGCTATGTAATAATAATGTTTAAATATAT
ATGCCATAATACCGCATTTATATTTTAAATATCATACTACAATAATCAAATAATTAATAA
60 ATTTTTTATAGTTAAGATAATCTTAAATATCATAAAATTTACTTTATTGCCCATATACAT
AAACACTTACATAAACTTAATGGTGAAGTTTAAATGAACAAGTCGGGAATGTCCCTAATAA
TTACAAATGTTATTATTAATAGGAACGCAATTGTCATCGGTGCAGCTTATTACGCTTGGA
GTAAACAAGGTATTTAGCGACACTACCGAAAAATAACCCCAACAATAAGTCATCGATAG
GGAATATCATAAAACCTATTGAAATTTCTACAATTGAACATACTATTTTACAAATCTTG
ATTTAAATGGAGATTTCCCGGATAACAAATAACCCAGAGGAGCGATTATTCAAACAATAA

AATTAGnATTTATAACAATATTGATGAAGATTTAAATGnAAATACAAGAATATACTGCT
TAACTCCAAATGTTTCCTGGGCATCAGTAAATATAGATGATAGCAGTAAACAATTTATTGT
TGGATAGAGATGAAAACCCCTTACAATTATAGCGGACAATATGTTTATTTAATGGAACAG
5 TGTATTATTCCTCAATGAAATTTTATGATGAAAATGGAAAACCTATTCTATGCTGCTGCTT
CTAATGGAAACGCATTGAATACTTCAAATTTGCTTGATTTAATTGATTTAAATTTGCCAA
CAGAGAGTTTTTTATTGAAGGGGAATTCTAAAACAGATATAAATTATTACATCCTAATAA
ATAATACAAAAGTTCCAAATACAATAATATTTGAAATCATTGCTTCAACGAAATATGGAG
ACGTAGAGAAAAAATAACATTTGAAATTAGTTAAAAAGGTGATAGTATGAAAAAGGCAA
10 TTTATTTGTTAATTTTATGTATTTTGGATTATCTCTGTTTATTTTACTTATGCTGAGA
ATATTTTCAGATATTTCAAACACACACCTCTAAAAACATCTCAAGTTCAAATATTTCTCACA
ATAATATAATCTACAGTAATATAAACTACAACGnAATTCTATATATTATTGTAACAAACA
ATACTGCCTATGTTAAAGATGTAATAAATGGGACAAACAATCCATATCACATAAAATCCG
CTGGAATTTATTTGTATGAGAAAATATATGGATACAACCTATTCTAATTTACTATATAGAA
15 ACTCTTCAAATCTCTTATATTCTACTACAATTTTAGTGTTGATAAAATAAATTACACAA
TAAACATAACGATTCCTCAAATTTGAAGATTATGTTGGCTCCCTTGGAGGACCAATTAGAA
TGAGGATTCCACCAATAATGTGAAAATAATCATAGTGGCGGAAAATAAATTGGCTGAGA
CGAATGGAAAATATATCTTAGAGTATAATAAAACAGATAAAAAAGTTATAAGTTTGATTT
ATTTAGATAATGTCTCCTCAATTTGTAATATTTTATTATACAAAGTTCCTCAATAGTTTCAG
20 AATTTTATGGATATGCAGTAGCAAATGTTACATCAATTACAGAAAATAGGACATCTTACA
CTATCAAAAACCCAAAAGGGACATTTACATTTGATAGAAAATATAATGTTTTTGTTCAA
ATAAACTGCCTATTTAAAAGAGCCGTATTTGTATGTAAACTTTATAATTGACAAATTG
ATGATATAATAATATTAGAAAATAATAAAATCTCTGAAAACCTCTACGAAATTCATGAGTA
ATTATTTATTAAGCTTTTATTGGAATTATTATAGGTTTTGGGATAATAGGATTGGCTATTT
25 ATTTGAGTAAAAGGGGAAGAAAATGAATACATATCTATCTACTCTTTTAGTTTTAACTAC
AATCTTTGCATTATCAATTATTGCCTATGAATGGGGAATTAACATAATAGACACCACCTT
AAATCAGGTTTTCAAAGAAAAGAAAAAAATCGTATAGAAATTATAAAAAATCTAATAAA
TGATGTAATATACAGTGGTGTAGATTGAGAAAGGACATTTGATGAAACTAAGATTACTTT
AAAAGAAAATAATGTTAAAATTTCTAATGGGACAAAGTATGTATCATTCAATATCACAAAC
30 CATTGAAGGAATTGATTATGATGTTTATCTTGAAAAGGAACATTATATATCTTTATCTA
CAACATCTCCGCTCAATGTCCAAATGTTTATTATATCAAATATACAAATCTATCAATTTA
TGAGTTTGGAGGAAATATAACAATAAACTACTCCGATAATTTGAGGCATTTCTATGTTAA
TAACTCAAAGGTTTATGTTTATAGCTTATTGATGGGATAAATATGCATATTATTGCAAAA
TCCATTCTTCTTATGGCAGTTTCATTTTTGGTTATTATTTACCTCTACAATTTACTCT
35 GAATTAATTGAAATTGGAAAATATAGGTATATTGACAAGGTTGATAGGGAAATACTTCA
GAAGTTATGAATGCAGTAGTTTTAGCAAATGAGGGGAATATAACTCTCTACAAAAAATA
AACCTAAATTGCAAGGTATATTTGAAAATAATTCATTTACAATAATTTCCAAAAATAAA
ACCTATGTTTATAAGTTTAAATAACAACATTAGATTCTTTAAAATGAGATTTCTGACATT
TCTAAAATCTCATGTAAAAAGGTCAATAACACCTATATGATTTTATATAGAGTGATTTTA
40 TGGTAATAAAGAAAATATTTGGTGAAAATTTAATTTTAAACAAAATATAGACATTAATA
AAATTTTAAATTAGACAAAAATGTAAAAAGGATAGAGAGGAAAATGAAAGTTATTTGG
ATGCTTTAAAGAGATTATGAAGAAATTAATAATCTTGAAATTTATGAAAAAATGACGA
TTGGTATGGCGGAGATTATAATTGGTTATGATAATGTAGAAAAACAAAAAGTATATTG
45 TTATTGAGCCAAATCTAACAAAAGAGATAAAACTATTTTAAAACTAAGAAAAGTTG
TTCAGGCATTATTGGATGTTCCAGTTGAAGAAATAGACAAAGAAAAGTTGGAGGATTATT
TAAAAGAAAAAATTAAAGAAATTTTGACGATTTAAATTAACATTGGATGATGTAACAA
GACATAAGTTAATTTACTTTTAAATTAATACCTCATTGGATATGGGAAAATAGATGCTC
TTATGAAAGATGAGAATTTGGAGGATATCAGTTGCACAGGTGTTGGAAAGCCAGTGATG
TGTTTTCATAGAAAATACGAACATTTAAAGACAAATATAAAATTTGAAACTGATGAAGAA
50 TAGACTCGTTTTGTATATCCTTAGCCCAAAGGTGTGGAAAATCTTTAACATTGGCTAATC
CAATAGTGGATGGTTCTCTCCAGATGGTAGCAGGCTAAATGTAACCCTTGGAAAGGGATA
TCTCAGTATGTTTCAACATTTACAATAAGAAAATTCACACACACTCCTATATTGCCAAC
AGATTTAATAAGATATGGGAGTATTTCTCCAGAGATGCTTGCATATCTTTGGTTACTCAT
TGAATATAAAAAATCTATTATGGTTGCTGGAGAGGTAGCTACTGGAAAAACCCACCTTTT
55 AAATGCATTCTCTCTTTTATCCCTCCTCAAATGAAAATCGTATCTATTGAGGATACTCC
AGAAATTAGGTTGTATCATGAAAAGTGGATTGCTGGAACCTACAAGAAGTGAGTTCCGGTGG
AGAAGAATATGAAATAACTATGATGGATTATTATAAAGCGGCTTTAAGGCAAAGACCAGA
TIATTTAATTGTTGGAGAGGTTAGAGGTGAGGAGGCGAAGATATTATTCAAGCAATAAC
TACAGGACATTTGGCGTTATCAACGATACACGCAAAATCCCCAGAGGCAGTTATAAGGAG
60 GTTGAATGCTGAACCAATGAACATTTCAAAGATTATGCTTGAACAACTAAATGCCATATG
TATGCAGGTTAGATTGATTTATAAAGGAAGATTTGTTAGAAGAACTAAGAGTATAACTGA
GATTGTTGAATACGACCCAAAAATTTGATGATATTATATTACATGATGTTTTTAGGTGGAA
TCTGAGATGATACATTTGAATTTTCTGGAGAAAGTTATTTGTTAAGAAGAATAGCTGA
GTTCAATTGGAATTTAGAAAAAGAGATTATTAATGAACCTCATAGTAGAGCAGAATTTTT
GAGGAATTTATGTAAACAAAACCAATTTTGAAGAATTTGTTAAAAAGATATGTGAGTA

-214-

5 TAAAGAATATCATAAAGGTGATTGAATTGGATTTTTTTGCCAATTTAAAGTTAAGGTATT
ATAAATTGGCTATGAACTTTTTAAATAGAGGATGAGAAATTTGATGAAATTTATTAA
AAGCAGGTATGAATGCAGTTTCTTCCACATATCTGCCTGTAGTATTTTAAACATCTATAA
TATTAGGGTTAATTATCTTCATAATTTTTTAATAGTATTTAATATATCTATGCAATTT
10 TTGGGCTTATTGGAGGGATTTTTATTGTTATTCTTATTGGGGTCTTATATCCTTATGTCT
TAGCTGAAGAAAAGGCTAAAAGTATAGATGAGAATTTACCTTATGCGTTTGCCTTTATCT
CTGCCTTATCTTCAGCAAACATTCCTGTAGTGGAGATATTTACTTCTCTATCAAAAGAGG
ATATTTATGGAGGGATGAGTAAAGAGGCAAAAGAAATAGTTAAGGATACGAAGGTATTCA
ATTATGACATTATAACAACATTTTTAAGAAGAGCAAGGATAACACCAAGTAAAAAGCTGT
15 CTTCAGTTTATTATAATATAGTAGCCTCTTTAATAGTTGGGGCTGAGATGAAAAACATTT
TTCATGAAATATATGAACGATTGATGGAAGATAGAAAGTTGGAATTATTTGAAGCTATTG
AAAAAGTTGAGATACTGTCTGAGTTTATGTAATAGCATGTGGTATGATTCCCTTATGTCT
TTGTTATGACAGTTTCTGTAGCTTCCATTAGTGCAATTTTACAAACCGCATCACTTT
TTGGAGACCCAAAGCTACTTCCACTGACCTTTTATTTATGGGTTCCAATAGCATCAATAA
20 TTTTATGGGATTGGTTTATGGAATACTACCAAAAGACTTCAAATTAATGTTTCTTTAT
TAGATGTTTTAAAGAATTTGATGAACCAGAGATAGAAGGCATAAAATGAAATTTAAAT
GGAAACCAGTTCATTTTATTACTTTGTTTTTTTGGATGCTTCTATAATTTCTTTTATGT
TGTTTTTTCATTAGAAAATCAATTTTTAAGTTCCATGGAAGTATTTCTTAATGTTTGGAA
TTTGTCTTCTTATACTTCTTTTATTTAACAAGCTATTGGCATTTTATTATTGAAATC
25 AAAAGGAGAGATACTACCTATATTTTTAATGATTTAACCATGGCTGTGAGAAGTGGTA
TGGATATAATTAGAGCGATGCAGGTCTGTGCAAGAACGAAGTATGGGCCTTTAACAAAAA
TTGTAAAAAAATGGCTATTCAGATGTCTGGGGAAGGCCTGTGAATGAAGTATTTGCCG
ATTTAGAAAGAACAGAAAATCTTTAATTCGAAAAAGAATCGCCTCAATATTAAGAAGT
GTGCCGTCTCTGGTGGGGATGTAAAGGATATCTTAACCTCAGTTACGGTTCATGCATACA
30 AGTTAAGTGAATGAAAAGGGAGATAAGTGAAGGCAGTTTATATATGTGGTTGTCATCT
ATCTCTCATTTTTCTGTACATTGGGACATCGTACATTATGGTTTATTCCCTCTGCCAA
CATTATTAATAAATATTCATGGTTTGAGTGTGAAATTTATAAAAACTATTTATCCAAG
GAATTTTGATATATTCCATATTTCTCTGGAGCTTCTTTAGGAATACTTACTGAGAGGTGCA
TTATGCTGGAATAAAGCATATATTACTAATGTTGATTGTTGGATATATGCTGTTTAAAT
35 TTTACATTGGGGGATAATAAATGGAATTTGGACTATTTACTTGCAACAGCCATGTTTTAA
TTGTATGTCTATGTTATATCTGAACCGTTAATTTACATAGTGTATGATATTGAAG
AAGCTAAAAAAGAGTTTTTAATGTATTATAATGATTTAAATATAAATTTCAATTTCAA
AGGGAGATTTAATTTTTAATTTTTAAAGTTAATAAATAGGATATGTTATTGAGGGATTG
TATTCAAAGACACATCTGAAAGTAGAGAGTTAATAAAGTATCTTGAAAACCTGAATGGCT
40 CATACATTATTGCATACTCCCTTCTAAGGATGAATTCATTATAACAAAAAATCATGAGT
TTTTAAGAATTATAGGGCATTATAATATTTCTGCAAAATACAAAAAAGGAGAGTATGGGG
ATATTGAGATAATATATCCAAAAAATCTTCTATCAACTATAGGGAATTTCAAGGTATTA
GTTGTAATAAGTTGTTTGAAGTTCCGTTCTATATAGTTGATAAAAAATGAAAACATCACT
TCAAAATACTACGGCATTTTAGAAAGTGGGAAGATGATACTTAACAATAAAGGGTTATTAG
45 AATCTTAGAAGCTACAATTGCAGGTATTATGGTTATATTAGTTTTTTCTTATTTGGTAAT
GTCCCAGAATTTTGATTATAATCTTTCTTTAGAATTTATTGGATATAATGCATTATACTC
TGCACATATTGAGGAGGGGGATTTTGAAAATATCTCCTCCCTCTACAAAAAATTTGAAGT
GCCAAGTAATGTAGGTTATGGATTTGAGATTTACAAAAATGGGAATTTAATTTATTCTGA
TGCAAAAAATGGAGTTGTTGTTGAGAGAAATTTATATTTGAGAATAACACCTCAGTAA
50 TTTTATAAGTTAAGGTTGATATTATGTTGGAGATGAATAAAAGAGGGCAGTTTTTTATT
ATTGGTGGAGTTATTTTATCCATTGGATTAATATTGTTTTTTCTTACTTGGTTTTAACTCC
TATACTTCTGATGGCTCTTATTTAACAGTATTTAAATGAAAGATGTCAAAAACTCTATA
GAAAGCTGTTTAATAAACTCTTTAACTTCAAACTCAAATTTAAGTAAAAATTTAGACATG
CTAAAAAATAATTATAAAGATGAAGGCATTGAAATTAATTACAAAAAATAATATTTTCT
55 AATATAAGATATGAGGCAAAAACTTAACATTCAATTTTTCTACTATACAATGGAAATTTT
TCTTATAACATATCAAATTATGGATTTGGAGGGGCATTTAACGGAAGTTTAAACGTATCA
AATTATGTATTACGAAGAATCTATTGTTAAATATCTCTGAAAATGGCTCAGTTACTGGG
AGTTTTAATAAAGTGAAGTTATGTTAATGTATTTGTTTATGATAGATTTGGAAATTTG
ATACTTAATGAAACCATTTATAATAATTTCAATGAAAAATCGTTATATTATTATATCTTA
60 AATGTATCAAAAGAGGGGATTTTGCTATATTTATTATGGCAAAGGATGTTTTTAAACAACT
CATTGGCAGAAAATGTATCCTTTATAAATACAAGTGGATATTACAATAACTCTGAGAATG
TAACATATATAAACATGTCAATGAATGGAAGCTTTTCTGGAATATTATGTTTAAAGTT
CATATAAAACATACTATAACAATTAATGAAAGCGTAATTTTGTCTTTAATGATACAA
CTTCGCCAATTGAAGTTGAGTTGTTAAATAACTATTTCAGATGTAATTTCTTAACATATAATC
TTAATGAGAGTATAAACAATTTTAGTGACACTTCTTATCTCATCCTAAATGAATCCTGCA
AAAATAGCTATTTCAATGTCATTTATGGTAATTCACCAATGCTTTATGTTTCTTTGCAATG
ATGAAGATTTTAAATCACAACATAACAATTTTAAATCCACAAAAAGGAATATCTTCTAAGG
GATTTGTTTTGACAGATATTTTTATAACGACTCCAAGGATGTTTTATTCTATCTTTAATA
ATTCTTTTGAATATCAAAGCTGGAACATTAATTAATTTGGTGGAGTATGGATTTGGGTT

-215-

5

10

15

20

25

30

35

40

45

50

55

60

ATTTATATGGGTTGATTTGCTCAATATATGGGGCAGTTGAGGATTGGAGAAAAAGAGAGG
TTACTGACTTTTTATGGATATCTATGCTCTGGGTAGGAGTTTTATTTCATCTCCTATATA
ATAAAAGTTTTATTACTATTTTTTATTGAGATTTTTGCTGTTTTATTATTACCTATCTG
TTAGATATGAAAAGTTAATAAGTTAGTTTATATTGGAGTGTTTTTTTTATTGTCTAT
TTATTTTGTGTTAAATCATACTTTGCGTTATCTTTTTTAGTATTTTATTGGATTGGAATTT
TTTTTATACTACCTTAATTTTATGGGAGGAGGAGATTGTAAATTTTTAATGGGGCTGAGTT
ATTTAAAAGGGATGTTCTTTACCTTCATTATTTTTTTAAATGCAATACTTTTTGTCTATCC
CCTACTGTATATTTATCTTATTAATAAACCTAAAAAATGGAAATCATAAAAGATTAAAGT
TAAAGAATTTACCATTATTGTTTTATAGCTTTAAAAAAGATATAGACAAAGTTAAAAAT
TTGAGACCATTATGGGGGATGATGAAAACCTTCCCTTAATTCCTAATATAAATGAAGAAA
AGGAAGAGAAAAAACAACAAAGGAAAAGTTGGGTTACTCCTCAACTCCCTTTTTTGG
TTTTCATATGCTTTCTTATATTTTGTATATTGTCTCTCTCTTTTCCGTTGATTTTTAAAG
TAATAGAATTAGTTATTAATCTCATTTCTAAGAGGTTTATTAAATCCCCATATATTGCA
ATTCCTGGAACTTCTTTTTCTTTTATTAATTTTATGCCATCCCTTTCTTTTACAACCTCTA
AACATTACAATGCTGGCGATTCTCAAATGTCTTCAAATGTTTGGGCAGTATATTCGTTA
ATTGGAATCAAAATATGGCTGTTGGTCTATAACAAAGTATGTATTATCTATTTTCACAGCA
ACTGAAGCATGATAGGATGAGATTTTAAATGATGAGGTATTATATAAAGCAACATCTAAC
ATATAAGGATTATATTATCATTTAGCAATAGAGCGGAGGTTAATGTGGCGTAATCTAAA
CAAACCTCTTTTTTGTGTTTTACCCTTCTGATGGGGTATTGTACTCATCCAGCTAAAT
TTCCACTTTCTATTTTTTTACACTTATCATAAATCATACTTTATGTTGTTTGTACCCAC
TTTGCTATATTTCAATAGTAGCCTTTTATCCTTTCTCTTTTAAATTTATAAGATAGGGAT
TTAACTTTTTCAATTTCTTTTGGTGTAAATATATTTTTCATTAAGTCTCTAAAATAT
TCACTATTAAGAGACGTGCTGTAATATTAACCTTTGTTTGGAGGTTTACATATAATTGGG
TTTTCTGGAATGTCGTTTAGATTAGCAAATGTTATTATTGATGCATAAGTTCCCTGTATA
TCAGAACCAGCTAATAGAATGACTGTATGTCCATTTATTATCTGTTTTTCAATAATCCCT
TTATTTTTTCTGGAAAGGTTTATTTATTTTTATTTTAAAGAAATCCAATGTATTTTTTT
GTTAAAGGATTTTCTTCTGGATTGCCAACTAATATTGTATCTTTTGTAATTGTTGTTTTG
TTATCTGCGTTTAAAGGGGTTATAATCTCTGCAGTTTTTACAAATTTTTGAAGTTCAACA
GATGTTAATGTGTAGTAGCAACATGATTAACATCATAGATTTTTTCATAAGCGTAGATA
TTTTGGAGTATTAATAATATAAAAAATATTAATAATCTTCTCATCTATCACCAGG
TTGTCAAGTTAGTGATTTCAACCAATTATAGAACATCATGAAGCTTTTTATCCAATAAC
AACCGTATCGAATTTACTATTACTTTGGAAATCTATTTAAACCTCTTTAATCTTATGATA
ATAAATCTAATCGATTCGTGACTTATATCTTCGAATTTGGAGGGGGATAAACCACCTTC
CTCAATGATAATCCGAGGTAGTATAAAAGCCCTGCTAAGATTTTAACTCTATCGATTCC
TATTCTTTTTTAAAGCTTCTCTACGATTCTCTCTTTATAACTTCTATCGTGAGCC
TCATAGTTTATTATTTTTTATCAATATTTAATAAAACTTAACTTAACAATCTCATAAAC
AATATCACAATATAAATATTGTTTTTTTATTAAATAGTAATATGTATTGTTATATCATA
ATGTTAATGAGGAGGCTTTGCCCTCGAGACGAAATGTTGATACTAAATATTAACGAAGTT
TGGATTTTGGGGCTGTATCTGTTTCAGTCCTAAGTCTGATGAACCTCATAGTGAAGGGAATG
GTGCTCCCGATGAAGCTATGGGCTGAGGACAACCCATTTCCATAGCTTACCGATTCCGTAT
AGTAAATTATTAATGCTATGGTAAGCTATGGAACGGGAAACAGTATTCATCACTACAT
TATGATTTTTTAAATGTTTGGCAAAAATTACATATGTATTTTATTACCAATTAGTTCCAA
ATAGATAGAGCTTGTGTTGTTGTATAAACCCCTAACTCTACACGTCCATTTTGAAT
CCCCACTATCTCTCTATAAATATACTTTCCAGCAATGGGACACTTATGCTATAATATT
TATCATAAATTTTCATCGTAATATACATTTTTTGGCTCGAATTTAACTATATATATTGAAT
TTCCATTTTCGTATATACAGAGTTCCCTTCTGCATCTTTTTTAGCTTCAAACCTCTATAT
TGTAGSTTTTTATCCATCCATCTCCAGCCACTTCCACTTGTGTCCCAAGCCAATTGTAGT
TATGACATATTGACAATCCAGTAACTCCATCAATATTTAAGCCACCTTCATAGTTTCTTG
CAATATAGTAAATATCCGAATTATCTGATTCAATTTAATTTTTATATCTGTATAATATA
CCTTACTTCCATCATAATATACCAATAATCCAGAACCTGTATCAAAAGCATAAACATTCAA
TATTTGTTTTTAAAGAGTCAGTTATTTTAACTCATCTGGCTCTCTTTTATAAACAGTTA
TTATATAAAGCCCATTTTTCTGTTGCCACTATTATATAATTCCTAAATCACTTCTTGCA
CTATTATATTACCATTAACTCAAACCTCTTAATTTGCACAGGTGGGAATGGTTTCATCAA
ATCCATCTTCATATTTACTGTTATAAGCCCAATCTTCAAACCTTATCTTTCTCCATAGTAA
TTAAGTAAAGTTTATTTCTTTCCAAACCAATAACTATTTTGAATTTTATTATCTCT
CTGCTCCAGCCATCAATTCATCAACATCCACATTTGCTACCACAACATCTTTTTTAATTT
TAGCTAAATCAATTTCAACATTTCTGTTTATCCATTATTGTTTCTTTTGGACAGTCAA
ATATTACATGATGCAACTTTCCATTATCATCTCTATAAACCACCCGCTCCATAAAAGT
CATCACATACTGCTTTTACATTGTAAGGCATTTCTATTAAATTTATGTCATCAACATCGG
CATCGAATCCCATATTATCGTTATATGTGAAATATCCATACTCTCTCCACTAAATCCAA
AACACCATATTTTATTTCCATCTATAATTATTGGATTTCTAAATTCACAAGGGCTATATT
TCCAATCTTCAAATGTTACTTTCTTATTTCCAAAGTCGAACATAACTCCATCCATTCCTG
CAACTTCGAGTTCTTTCCATGTTAAAGGTAATTCATAAGTGTGGTCTCTTTATCTTCAT
TTCAAACCTGCTGTTGGTCTGTTGTTTCATTTTCTACGTTGGTTGTTGCTCTTCATTAA

-216-

TTTGGTTTTCTTCTTCTTCAATTTTACATTTTTCACAATTTTCAAGTTTTTCAATCCAATCC
AATCAGTACTTACAAGAGTGATCCATCATACTCACCAAATCATCTTTGTCAATAGTAA
GTGTGGTTGTTACTCTATTTCCATCCACTTCAATATTATAATCTGTATATCCATAGTTTT
5 CATAATCATTCTTATAATATATTTTCTTTTTTTAGCATATTCATCATCAATACATATCC
AAAGTCCCTTAATTACAATTTTATCTCCCTCATCATAATAAAATTTCCCTCCATCTGCAT
CAAAGTATTGTATAATTTGAATGCAAAATATCCTTTTGGCATTTCATTTATTATCTCTC
TTATATTTTTCATCTTCAGTTACCAAATTTATTTTTTCCATTTATAGCATCAATAACTTTTT
CAACTCCTCCTTTTAAATCCAAATATGAAATATCCTTTTATAGTTTGTAGCTGCAAAATTTGC
10 CTACCATATCAGATACTTCTGTAGTATATACTAACAAAGTAGCTCCACCATAATATTCCT
CATTGTAATCATAGCCCAATTTTTTAAAGTATTCCTTTAGCAGTTAGTTTATCTGTTTTTA
TTAAATTGGCTGTTTTCTAAGTTCATATAAACTCAACATCATCTGGAGATAATCCATAGC
ACTTTAATATACTGTTTAACTCATACACGCCCTTTCCCTTACCACCTTTAGAAAAC
TTCTACATCCACATAGCTCGCCCAAAACACATTTGGGATTAAATTATATGGCTCTTCAA
15 GATTGATATTTTTATTAACCTTTGTTGGTATTATCGTGGTTAAATTCACCTTTCTCTTTAG
TTTGTGATTGTATTCATTTTTCAGTATTGTATTTTATTCATTTCCAAAATTTAAACCAA
GTTTGTAGCATAATCTCCTAAGAATTCCTCTTTACTCATTATTACCTTTGCTACAACCTA
TATTGCCATCCCTATCTATATCGTAATCTTTGATGTTCCATTATCTAATTCATCCTCTA
ATTCCTCTTTTACATATTCATCTGCTCTTTTGCATCATCTACGTCATTATATACGGCAA
20 CAACATCAAACCTCTACATTTCTTCCCTTAAAGGTATATAAAAGCGCCATAATACCCCTTAT
AATTTCTTCCGATATTTGCTATTACATAATCGTCATCTACTTTACTTAACATGTCCTTAA
TTTCCTTCTTCTCTGTTATCGATGGATAGTCCCTTTTATTGTGTCTATAACTCTTTTTA
CATCTTCAGTATTTCCATGAATAAGGTAATTTTGTATTTTGAACAGCATAAATGTGAT
TTTCATTTATAAGCATATTTGCTCCATTATATTTTCTTCTTTATAATCTAAGCCAAAGTT
25 CGTCCATGAATTTATATTCATCTAAGCCATATCCCTTTAATACATAAGTATTGTCTGCTT
GGATTGTGATTCAATATCATCCACACTTAAACCATACTTCCCAATTAACCTCTTATATG
CATTTACTATTTCACTATTCTCTCCCAATAAATCAACAAATCCTTCTGTTTTAGTATATA
CAACTTTTTAGATGATTTTGGAAACAATATCTAATGGTGATGATATAGATTTTTAGATA
TTTTTGACTCTTCATAACTTCCCTCTGAAACACAACAGCAAAATAGGACAGCAATCG
30 AAATAGTCAAAATAATAACAAATTTTTTCATAAAAAACACCTCCTCTTTAATAGTCGTGG
TCTCCTCCATTATCAAAGTCATCAACAACATCTTCAACAAAGTCCTCTGCCCTCTCCACA
ATATCATCAATTATATCTTCTCCCTCTTTTACAATATCTTCAACCTCTTCTTAACTCTCT
TCACCATATTTCTGCTACTCCATAACCAGTTACTGCTCCAGCTCCAAAGGCAATGGCTTTA
TCTATTAACTATCATCTTTATCACCTCTTTTTTCTCTTTTATCATATAAATGTCGTCA
35 TCGCCATAATCATGGACATAGACATCTTTAGTTACATAATGGTGATGATAAACATCATGA
CTTCCATAACCTCTTTTACTTGATGAGCTTCCATGTCTAAGTTGATATGGTTTTGGCTTC
TTTTTTGGAAATAGAAGTTTTTTTATCAGCCAAATCCAAAATTTAAATTTAAAGCCCA
ATTATGGCAAAAATTTATGAGTAGAGTTAATATTAATTTTATATTTTACCTATATATTTA
AATATACAAATTTTTATATTTTAAACTAATATAAAATTTTAAATTTTAAAGCAATATACC
40 TGAATACAGTAGAAATTTTTATATAGTTGAATGGATACCTAATAAATACTTTAAATTTAT
TTCTATAAATAGTTTAAAGTATTAAAAATTTTATTATGGCAATTTGGTGATTTAATGGAT
AAGAGGTTTATAGAATTAATAAAAAAGGTTGGAAATTAATAAATGAAGAAAATAAGCA
ACATATATTGATGAAGTTTTTTTAGGGGCAATAATAACAACATTAAGTACAATGGATAT
GTTTTAATGGACATCGCTTCAATGGAACTTCCATTACTTTATGTTTGAACATTTAGAA
45 AGCTGGGATAGAATAAAAAATAGTTGCTGAAGTGCTTCCCACTATTAAACAGATGTCAAA
GTTATAGGGGCGAGGATGTTTATTGAATTTCTTATGGGGTTATGATTAAAGGAATCCCA
CCATCCTTATTTGGTTTAGGATTAAAAGGATACCTATCTCAATGCTATCAAAACATTGGA
AGTATTAGATATGAGTATGATGGTTATTATCTTTTGTAAATTTGTGCAACTTATTTGCTA
ATAAACGATTACATTGACTTTGACACGCTAACGATTGATTGGGAAAACTAAATAATGAT
50 ATAAATGCAATAATATCCTCTCTTGCTAAATATTTAGAAATTCATAAAAAGGTGGAATAA
ATGGGAATTTTTGATTTAGCTAAAAAATAACTCATTCAAGAGAATACACTAAGAGCATT
GACGAGATATTTGTTGGTGAGTTAATAAATTTTATGTATAAAAAATGGAGCTGTTTGAACA
GAAATTAAGTCAACACAGAAAGCTCTCACAGCTTAACCTTCAATTTGTAAATCATCCG
GTCTTACACATACTTAGGATTACGGTAGATAGAAAAATGAGGGGATGGCGTCAAAAAT
55 CTGTTTCTCAGTCAGTTTTTAACTTTGAAGCAGTAATTAATAATGACTTGGTTGAACCA
AATGATGTTTTAGTTATGTATCAAACTGATTTTTAAATATGTTTAAATTTCCAATATTT
GGAAAAGTTAAATAAATCATGATTTGAACATACATAATAGCAACAACATATATTGAA
GATTTAGGAAAATATATAAATCAGATAGAATAAGAAAGCCCTTAGGGAAGAATTG
GAGAAGATATTAAATACATTAGTTAAACATTTAGAGCCATTAATAAAGAAAGTTTGACTAA
60 TGTTATTTCTATTTTCTTATATTTAGATTTTTCATATTAACAATACAGAAAACAAAACCTT
ATTTATTCATTACTTTTTATTTAGTTATAATCTACATTAATCATATTCAAAAGGTGAA
ATAATGAGAAGTATAATAAAGGGAAGAGTTTGGAAAGTTTGGAAATAACGTAGATACAGAT
GCTATATTACCAGCAAGGTATTTAGTTTATACAAAACAGAGGAATTAGCTCAGTTTGT
ATGACTGGGGCAGACCCAGATTTTCCAAAGAAGGTTAAGCCAGGAGATATAATAGTTGGA
GGAAAGAACTTTGGATGTGGTTCAAGTAGAGAGCATGCCCCATTAGGATTAAAGGAGCT

5 GGAATCAGCTGTGTTATTGCTGAGAGCTTCGCAAGAATATTTTATAGAAATGCCATAAAT
GTTGGATTACCATTAATTGAATGTAAGGGCATTTCAGAGAAAGTCAATGAAGGGGATGAG
TTAGAGGTTAATTTAGAGACTGGAGAGATTAAAACTTAACCACTGGAGAGGTTTAAAA
GGTCAAAAATTACCAGAATTCATGATGGAAAATTTAGAGGCTGGAGGATTAATGCCATAC
10 TTAAGAAAAAGATGGCTGAAAGCCAATAATTTTATTTTGGTGGTAATTATGGCTACA
CAGACGATAACTTTAACTTTTGAAATCCAGAATTTATTGATAAAAAATAAATTCAAAAAG
GAGCTTGAAAATTTTCATCAAGAAAAAAATCTTGGGAGAGAAATCTATAAACTTATGGAA
AAGGTGTAGATGTTGAAAAAATTGAAAAAGAATGTGAAGAATTTAGAAAAAAATTCAAAT
TCAGAAATGAATTTTATGAAGAGGGAGAAGATGATAAGTGATAGAGTAAAAAAGGATT
15 AAAAAGAGCTCCAAATAGAAGTTTATTAAAGCCTTGTGGATATACAGATGAGGAATTGGA
GAGACCATTTATTGGAGTTGTTAATAGCTTTACCGAAGTTGTTCTGGGCATATTCATTT
AAGAGATATTGCTGAGGCAGTTAAAAAAGCAATTTACGCAATGGAGGAACTGCCTTTGA
ATTCAACACAATGGCAATATGTGATGGAATAGCAATGGGACATGAGGGGATGAAATATTC
CTTACCTTCAAGGGAAATTATAGCAGATACTGTAGAGAGTATGGCAAAGCTCATGGATT
TGATGGATTAGTTTAAATTCCTTCATGCGACAAAATAGTTCTCGGAATGATAATGGGAGC
TATAAGAGATGGATTACCATTTATAGTTGTTACTGGGGGGCCGATGTTTCTGGAGAGTT
20 GAGAGGGAAAAAGTATGATTTAATTAGTGTATTTGAGGGAGTTGGAGCTTGTGCAGCTGG
GAGAGGAAAAAGTATGATTTAATTAGTGTATTTGAGGGAGTTGGAGCTTGTGCAGCTGG
AAAAATTACAGAGGAAGAATCTAAAGAGATTGAAGATATTGCCTGCCCAGGAGCTGGTAG
TTGTGCTGGACTATTTACAGCAATACCATGGCTTGCTTAACAGAGGCTATGGGCCTCTC
TTTGCCATATTGTGCAACATCACATGCAACAACAGCAGAGAAGATAAGAATAGCTAAAAG
AAGTGGGATGAGAATAGTTGATTTAGTTAGAAACAACATAACTCCAGATAAGATTTTAAAC
TAAGGAGGCATTTGAAAATGCCATTTTGGTAGATTTAGCTTTGGGTGGTTCAACAAATAC
25 AACTCTACATATTCCGGCAATAGCAAATGAGGTAAAGCCAAAGTTCAACATTGGATGA
CTTTGATAGATTATCTGGTGAAGTTCTCACATAGCTTCTTTAAGACCTGGTGGAGAGCA
CTTTATAATTGACTTGCACAGAGCTGGAGGAATTCAGCTGTTTTAAAGGTTTTAGAGGA
AAAAATAAGAAAAGAAATGCTTAACAGTTAGTGGAAAAACCATTGGAGAAATAATTAAAGA
GGTTAAATACATTGATTATAGTGTAAATAAGACCTGTAGATAATCCAGTTTCATGAAACAGC
TGTTTGGAGAATATTGAAAGGAAGCTTAGCTCCTAACCGAGCAGTTGTTAAAATCGGAGC
30 TGTAATCCAAAAATGTATAAGCATGAAGGGCCTGCAAGAGTCTTTGATAGTGAGGAAGA
GGCAGTTGATGCTATATTGGGGGGAGATATTGAGAGAGGAGATGTTGTGGTTATCAGATA
TGAGGGGCTGCGAGGAGGGCCAGGAATGAGGGAAATGTTGGCTCCAATTCAGCAATATG
TGGAATGGGGTTGGATGATTCTGTGCTTTAATTACAGATGGAAGATTCAGCGGAGGAAG
TAGAGGACCGTGTATTGGGCACGTTTCTCCAGAGGCAATGGCTGGAGGTCCGATAGCGAT
AGTTGAAGATGGAGATATTATAAAAATAGACATGATAAACAAGAAGTTGGATTAGCTTT
35 AGATGAAGAAGAGATTAAAGAGAGATTAGCCAAATGGAAAAACCTGAACCTAAGGTTAA
AAAAGGTTATTAGCAAGATATGCTAAGCTTGAAGTTTCAGCTGATGAGGGAGCTGTATT
AAGATATGATTAAATAGAGATTTCTTTATGCTTATTGTATTTTTTACATAATATTTTATT
ACCAATTTATAATTTTGTCTGAATACACTAGGACTAGGATTTTTTAATTTTATATGATTT
40 GGAAAGTTATCTCGTTCAATACATTTATAATTAGGAAAAACCCATTTAAAATCTGATAT
CATTATTTTAAACCTTTTTTATCTAATTTCTAAGGGTAGCTTATTTAAAAATTTTATTT
ATTTGGATTGTTAAATTATAGGGATTTTAAAAAATCTACTTAATGTTTTTATTTTG
AGATTTCTCCAATGATTAATTTTATTTTGAAAATCAAATATTTTAAAAACCAAGTTTAT
ACCATAGAGAAAAAGTTTAAATATTGGTTAATGGTATATAAATAAAGGTGAAACCTACCC
45 ATCGGTAAAAATGTGGGTAGTAAAAATATAAATATCAGAAAGATTATAAATAAATCATCTG
ATATGACCGCCTGTTAAATCAGACCTCTTGGAGGATGGAACCAATTGTCTAATCTGCTT
CCCCAATCTCTCTTTATATCTCTCGTTAAATCAGACCTCTTGGAGGATGGAACGTT
AATTGCATTCTGATAGTTCAATAATGACACCATTTGTTAAATCAGACCTCTTGGAGGATG
GAAACTTAATAAATTATTATTATTGTAATATATTAGTTCTCTCTGTTAAATCAGAC
50 CTCTTGGAGGATGGAATTATAGCTAAAAATATCAATATAATTGGGAATAAATTAATCTC
CTGGTTAAATCAGACCTCTTGGAGGATGGAACCTTTATGAACTCTAAATCACTCTCAT
TGAGATTTCTGTAGTTAAAAATCAGGAATGGATGATATTAAAGATTTAAAAAATTAATTT
TTAGCTTTTTTATTACATTTTGCAACAAATATATGCTTCACCACTATTGGAGTTATTGTA
GCTGTTATTACAGAGAGAGCTACAATGTTACAAATATTTCAATTTCTTAAACCAAGT
TCTCTTCCAATTGATGCTGCTACTAACGAAGCTGAAATTTTTGGAACCTGTTAATAAACCT
55 CCAATAGTATTTTTTATCTATCAAAACCTAAAATCTTAAAGCGATAAAACCAGAGATA
AATTTAAGCCACTGCTGAAATTAGTGTGATTAATAAAGCTCTAAGTTACTTAAATTA
AATATAACTCTTATATTGTCTCCATTCTTAAACTAAGAAGAAATTTGGTATAAAGAAA
CCATAACCAATTGCATTCAAATTTTTGTTTGAAGTTTCATCATGCTCTTCTTTAGTTAAA
GCTTCACTAACAGCAACACCACAGATAAAAGCCCCAACTATTGGATGAATCCAATAACC
60 TCCCCAACTATTATGGCAATGAATATAATAAATAAACAATAGTGTATTCTTTGAGCGTGA
AGCTTTTCAAATACTCCAAGGATATTTTGGATAGTGATGGGATAGCTAAAAGTAACACA
CCAATGTATAAAACTGTCTCTAATAAGAATGTTCCACATTCTCTCCACCAATCCCTAAC
TTTATACTACTGATAATAAAGAAGAGTAAATAAATCAACGATAATTGTAGCACTTAA
ATTATAGTCCCCAATCTTGTTTTAACCATTTTCAGCTCTTCTAATATTGCATAAACAATT

-218-

5 GCTACAGAATGAGACGCAAATATTACAGCATATAACAACTCCCAATAAATCCAAGACCT
AAATACTGCCCAATTAGGTAACCTCCAACACCAGGGATTAGTAGTGAGAATAAACTTAAA
ATTAGGGAGTTCTTAACTCTTGTTTTAAAGTTTCATTATCTACTTCAAGTCTGCTAAA
AACATTAACATAATCGCTCCAAAATCTGCAAGTATTTTTAATGTCTCATCCACCTGCAAT
10 ATATTTAACCCATAAGGACCTATAATAATCCCTGCAATCATAATGGATGTTATGGCAGGG
ATGTTAACTTCTTTAATAGATTAGGCACAATGAAGATTATTGATAATATTATGAAGAAC
ACATAATAATACTTTCCATTACCCCAACCATCAAAATTTTAATTGTTTAGGTTAGAGGGC
TATTTTAATATATAACCTTTTGCTGGAACCATTCCTTAGTCATTCTAAAAGTTTGAAG
ACATGAAAAATTGGTGATATAAATGCTAATCTTAGCGGGTTAGGATTGTATGATGAAAA
15 TGACATGACCTTAAAAACCTTAAAAATTTGCCAAAAAGCTGAGAAAACTATGCTGAATT
CTACACTGCAGTTTAACTGGAACCTACAACCTGAAAAATAGAAGAGGTTTATAGGTAAGAA
GATTTCATGTTTTTAAGTAGGAAAGATGTTGAATACAATGGATATAAGTTGATAGAAGAGGC
AAAGGATAAAGACATAATGTTTTTAAGTCTGGCGACCAATGGTTGCTACAACACACGT
TGATTTAGCAATAGAGGCAAAAAAGAAAGGGATTGAAGTTTAAATAAATGCTCCATC
20 CATATATTCAGCTGTTGGAATTACTGGATTGCAGTTGTATAAATTTGGTAAACTACATC
AATTGTCTTTCCAGAGAAAACTACTTTCCAGAACTCCATACAATGTAATAAAGGAAAA
CTTAGAGAGAGGGTTGCATACTCTGCTTATTGGATATTAGGATTGATGAAAAATGAAAA
GAGGTTTATGACAGCAAATGAAGGATTAAAGTGTGTGTTAGAAATTAGAAAATAGAAAGAA
AGAAGGAATTTAAATGAAGATACAAAGGCTGTGGTGGTTGCAAGAGCTGGAAGTTTAAA
25 ACCAAAACCTTGCTATGGGAAGATAAAAGATTTAATTAATTATGATTTTGGTGAGCCTTT
GCATTGCATAATAATCCAGGAAAACTTCATTTTATGGAAGAAGATGCATTAATAATATTT
ATGTGAAAAATTTTAAAAATTTTAAAAATTTTTATGTTGTTGAACCTTCAGCATCGTTG
TATAACTCATCTCCAACATCAACTTCTTCTTCAATCCTCTGCTATCCTTCAATGTCTCT
30 ATTTCTGAACATATAGGATTTATACCAATATCTTCTGGTTTTTCTTTACAGGAGCTAAT
TTCCAAGCTCTTGTTTCTTCTTACAACTTACATAGTGGTTGAAATTCCTTATT
ATGTCAGTTTATGACACATTGAAGTCGTTTATCAATGTTCTTTGAATTTCTCTCCACTTA
TCCAATGAACCTCTCTTCTTGAATTTCCAAAGTAACCAGCTCTTCTCTCTCTTTAAT
GCTGATATTCCTCTACCAATGAATGTTTTTACAGCATAAACTGTTTCTGGTGGGTCTGTT
35 ATAAAAGTATCAACGCTCTGCTGTATTTCTCTGGAAGTGGTTTTCTTAAATCTAAGGTT
ATAACTTCTATATTTTGTAAATTTAATGCTCAGCAACCTCTTTTATGAAGTTGATTAAT
CTATCGTCAATCAACAACAATATTTTTTTGGAAGATTGAGAGCATTAAAGCAATA
CTTGTTAAGTCATCATCCCTTAACTTAAACATCCTTATGAATAAATCTCTCTTGAG
TTCATTAAAGCGATTCTTGAATTTGTGCATTCTGGTGTAAACGAAACCTTGGTCGTATTG
40 TGTTTTGGCATTGGTCTATTTTTAACAATCTCTTAAATCTCTCTAATAAATCTTGGTAG
TTCTTTAAAGAAACCCCCCTCCCTTACAGCATTACAAACACTATTATCTTTAGCTCCA
ATTCATAGGATTTTATAAATTCATTTCCCTTTTTCAGTAAATCTATTCCATTACTTATC
TTTACTAATCCCTCCTCTTCTAAATTCCTTATAATATCAGCAACTAAAGGTAATGGTTCC
45 TCACCTTAAATCAACAATCTTCCAAAATCGTTGGTTGTTAAATAGCTGACAAAACATTC
TCAATTGATTTGTATATCTGGAATCTCTGACTTTGCTCTAACCTTCTCTAAGATTCTT
TCCATTATTTACCTCTAAGTATTTTCTATAGCAAGCTCCCTGTCCTATTCCCTCATTGA
TAGAGACCTCTATCCAATTTATATTAGAAAAACCGAGATTTTTAATCTATCTGCTATTT
CATTGGCAAAATATATTGCTAAATCTTCAGCTGTAGTTGATGGAATAGGTAATAAATGA
CATCCTCAACAGGAATACTGTATTCCTTATTCTCATATTTAAAGTATAGGGTTTTATCTC
50 TTAACCTCATATATACATGTTTCATGATTTTTTGAAGTATTAATTTGTGGTCTAATTCAT
CACAAATCTCTTTTACAATTTTTTTAATTTTAAATCACATACAAATTTGAAGCTCTC
CAGCCCTCTCTCCATAAAGTTTTACATCTACATAATAAGAATGTCCATGTATAACCCAC
AAGTTGGATGTCCAAATACAATATGGGCTGATGAAAACCTTAAACCTGCATGTAGTCCAT
TTAACTCCAACATCATGTTTTTACACCTTTTTTTGATTGTATTAGTTTTCTCTTTTTTAA
55 ATAATTGACTAAGCCACCAGCAGCCAAATTTCTCTTTCTAAACCTTTTGGTGTTCACA
CTTTATTGTTTTGTTTTTATTGGTTATTACAATCTCTTCTTATCTAAATCAATCTCTAC
TATGTCTCCGTCTTTAATTTTCATCTGTATTGCTATTATTGGTATTAAATCCAACGTTTAT
TGCAATTTCTATAGAATATTCTTGCAAAGCTTTTTGCTATCACAGCCTTAATACCACAGTA
TTTATTGCTATTACAGCCTGCTCCCTACTTGAACCACAACCAAAATTTCTCTCCAGCAAC
60 TATCACATCCCCCTCCTTAACCTTTTTCGGGAAGTTTTCTATCTCCCTGCCATGCAGTG
TGAAGCTAACTCGTAAGGGTCTGTAGTCTTAAAGTAAGGTCTGGAATTATTGCGTCTGT
ATCTACATCATCCCCAAATTTGTGAGCTCTTCCCTTAATAATCATTTCTTATCACCACAA
AAATATTTTATCTTAATTTTAAAAATTAATTTCAAAGAGCTGAAAATGTTCAAATAAA
AATATTCTTTAGGAAATATGGTATCTTTTACAGAAATTAATAAATTTATTAATGGGTATTA
TAGGAGTTTCTATATATTTACTTCAGAAATGATAAAAACATTTATTCTCGGGAGAATTCTA
TTATATTTAGTTATTTGCCACTAATTTCCATGATTTTCTTTTTTTCATTGGTGGAGTTATAA
TTGGTTTCTCTGGAATTAAGCCAGATGGCTTGTAGTAGAGGATAAGAAGCATTAAACTC
CAAATAACATATATGAAAGCCAGACGGGCTCAAATGGAATACCTAATGCATATTTTATAT
TATATTTGTATATATCTAATAAGACCTTAATATCACATAACATAAAACCCCTAAAGCAA
CTCCTTTGTTATTTCCCTTTCTCCCAATAATACCATTAAAAATGGGAAGAAAGTCCAAT

5

10

15

20

25

30

35

40

45

50

55

60

CTACTCTTGTAATGCATTAGCAATGATATTTACAGTATATAATGAATACAAAACCCCTG
CAATTGCTCCAATTGCAGAACCAATTGCCATTGTTTTATTCTTAATTTTATTATATCTC
TACCAATGCTTTAACTGTATTTTCATTTTCTCTCATAGCCCTTAATACTCTACCAATG
GAGTATTCACAATCTTTCAAAGAATAAATAAACTAAGAAAGCAATAAATAACAATCC
ATGCAATACCCCAACCTCTATATTCTCCAGAGACAAATGCTAATATATCTGGGGTTGAAA
TTCCATAATAACCACCAATTATATTTAAGTTATATGTGCAGATTAAAAGAAGTCTTCAC
TTATAGCTAATAAGGTAATTCCTAAATAGTCCTCCTTTAATTTAGCACTTGGTAAGATAA
AGATTGCCCAACTACAAAACCAAGAATTGAAGCCAATATTATTGCTAATATTAATATTC
CAATCCCAACTATTGGATTTGAGGCAATTAAATTGTTTATAGCAGATGTTGCATAAGTAG
TTCCAGTGATAAAATCTCCTCCAATACCGAAATATAGCATTAAACAACCTATCTAAAAATC
CCCCAACTGCAATAGCTCCAACCAAACTGATAATGCCTTACCAAGTTTGAATTCCTG
CATAACCAAAATCCATATTTAAGGAAAGAGAAACAATATAATAAAGCCCAAAACACAATA
AAATCATGGATATTAATCAATACTCATATTTTACCCCCATAAGTTAAATTATGAAGTAG
ATAATAATCTTTTAACTTTTCCAACTCGACTCCAGTAATTCATAAGGTGCTATTAATA
ATGTTGCTATCATTATTATTAAGGAGATAACCTTTCCATAAACCAAAAATCCTGTTCCAA
ATGCTGATGCTAAATAATAAGTTATTAACTCTCAGATATTCCAATTATATAGCCCCCTA
TTAATGCTCCACTTATATGCCTTAAACCTCCAACAATACTTGGCGCAAAGATTGAAATAA
TAATTAATCCCCAGTGGCTGGAACAATCTCTTGCTGAAAGGTAAAAGCCCAAGCAAA
CTCCAGCTAAAGCTCCAGAAAGAAATCCAAGAAAATAATCTTGTTTTTCAACATCAATTC
CCATAGTTTGAGCTAATGAAGGATTCTCCATTGAAGCTCTCAAAGCAATACCAAACTTTG
TTTTATACAGGAGGAGATAAAGTCCAATTAATAGTAGTATAACTACGAAGGTTGAAACAA
ATAAAATTCCTTTAAATCCAAATAATGAAAAATCCAAGTTTGCAAAAACGAATTTTGCTT
GAGTAGAACCAACAATTTGACTTAATATTTTCCAGAGTAAGCCCCAATAACACCCAATAATA
TTAAATCTATAGCAAGAGTTGCAATCATTAAATCTCTACAGAGGCATTTCTTTTATCA
AGGGCTTTAAAGCTAAATAAGTTATTAAACCAACAATTGCCCAACAACAATAAACTG
GTAAAGAAAGATAAGGACAAATACCAACAACCTTTAATAATGTTAAAGCAACATAACTCC
CAACTATCGCATAACTTCCCTGAGCAAGTTTGGACGTTTGTGTTATATAAGTTAGAG
TTAATCCCAAGCCAACAAAACCAAAAGTTGGAGTATATAATAGCTCCTTCTAAAATCA
TTTTCTCACCTAAATCTTTTAGTAAAAGCTTGACCAATGTGTTTCAATTTCTCATGGTTAA
AATTATACCTTATACAGCAGTTATTCTTAATGAATATTCCTTAAATTTCTCATGGTTAA
CAACTCTTCTGCTGTTCCCTCAAATGCTACTCTTCCACTTACAAACATATAGCCGTATC
ACTAATCTCTAAAGCTCTCTTAGCATTTTGCTCAACCAACAATAATGTTAGTCCAAAGTT
ATCCCTCATCTCAATAATCTTTTCAAATATCACTTCAGCGAGTTTGGTGACAATTGAGC
AGTTGGTTTATCTAACATTAAGACCTCAGCATCCCTAACTAAAGCCATACCCATGGCTAA
GAAGTCCCTGCTCCTCCACTAAGCGTTCTGCTTTCTCTTTAAATGTCTTAAAGCTC
TGGGAATACACTTAAGGCTATTTCAATCTTTCTTTTACCTTATCTTTATCTAATACATA
ACCAGCAATTTTAAAGTTCTCCTCTACGGTCAAATTAGCAAATACATTGTTTGTGTTG
TAAATAAGCTATTTTCACTTGTCTTTTGTATGTGGAGGACTTTTGCTATATCTTTATC
CTTAAATATAATCTCTCCAGAAATATTTTTGTTAAACCAACAACGTTTTTAAATGT
GGATTTTCCACTACCAATTAGGTCCAACAACCTGTGGTAATTTTCCCTTTTCTATTTTGC
TTCACATCAAATAGTATCTGCAATTTCCATAACCAGCGTTTAGATTTTTTACTTTTATC
ATATTAATACCAAGGATTTTATTTATCTCCAATGTAAATTTCAACAACCTTTTGGGTCC
GATAAGACATTTCTTAATCTCCTCTTCTCCCTACCTTCAGCAATAATCTGTCCATTAAAC
ATAACATACAAGTGGTCTATATAGTTCAAACAATATCTAACCTATGCTCAATAATTAGG
AAAGTTATTCTTTAGCTTTTAAATCAAGGACGTGATTAAATATATCGTGAGCTAAACCT
GGAGCAACTCCTGCTATTGGCTCATCCATAACAATCATTTTGGATTGTGTCATCAAAGCT
CTTCCAATCTCAACAAGTTTCTATCTGCCCTCCACTTAACTCTCCTGCCCTTTCTATCATAT
AGATGGGATAATTTTAAATTTCCAATATTTGAATGCCTTTTCAACCATTTCTCCTCT
TTTGGAAATCCATTTTATAGAAATGGAATTTAAAGGGCTTTCTCCCGGATTAATCTCT
CCTATTAACAAATTTTCTAAGACCGTCTATCTCTTTTAAATGGCTGAGGTGTTGAAAAGTT
CTAACAATTCGGTAATGGTAGAGTTCTGCTGGTTCTTTGTTGGTTATATCCTTATTTTCA
AAATAAATCTCCCTCATCTGCCCTTTAAATCTCTGTAATAACATTTATAGGGTAGAT
TTTCCACTTCCGTTTGGTCTATGATTAACTGTAACATCTCCCTTATTTACACTTATAGAA
ACCCCGTCTAAAGCTTTAACTCTCCAAAATATTTTACAATATTTTCTGCTCTTAAATC
TCCATTGTATCCCTCAAAAAAATGATAAAAGTTTAAAGAATAAAATTTATAATCTTAGA
ACTTGCAATCTTAAATTTTAAATTTTAAAGTTTAAAGTTTAAAGTTTAAAGTTTAAAGTT
CAGTTGATTTTCCAGTTGTTGAATCCCAAACTCCAACCTAATCCATCCATCTTCTGTT
ACTGCAAGATTCCATAGTTTCCACTTGCTCTGTCATTCCATTCAATTTAATTTAATGAT
CCAGTTACTGACTTAACACCGAAGTCCCTTCTGAGTATTTAACAGTATTTTCTTTTAT
AGTTTGTATAATAAGTCAGCGTCGATTTTCCACCAGTTTATTTAACATTTTCCAGCATAT
GAAATAGCTCCAACCCAGAATGCATCATAGACGTTTAAATGCATACTGGTCAGGCTCTCCA
TATCCTCTCTTTTAACTCTTCTTTTATCTTTTTCAGCTTCTATCCGCTCTGACTGGAAC
ATTGTTGAATAGAGTTTAACTTAACTGCCTTGTGTTTAGCCTCTTCCAATACCTTTTA
CTGTTTGCAGTTCCGTCACAACCAATCCAACATGTTTAAATAATGGTGAGTTATCATCA

-220-

ATCTGTGATAATAATGTTGCAACCTCTTCATAACCAATGAATATTACTCCAGTATCATT
CCTTTTCCAGCAATTTTATTTGTTGTAGTTTGGATTATTGGACTCCAGTCCCCAATGTTA
GGGTCGTAAGGAATTTTCATCAATAATATTTATTCATTTCCTTTAGTTTTTCAACAGTT
5 GCTCTCTCCAACCCATCTCCCCAAGCATCCTTTCTGTATATGACTATTACATTTTTTAAA
CCAAGTTGCTTAGCAACATCTCCAATGGCATTTCCTTGAAGTTATCTGTTGGGCAAAAT
CTAAATACATACTTTTCTCTTCTGGAGTTCTAAATCCAAGCATCTGTGGTGGGGCAGTT
GAACTTGGGGATATTATAACGATTTTATTTGAGTTAATAAATCCTTTAATATTTTTGACT
TCACCACTTGCCATTGGTCCTAAGAAAAAGGTTATTCCTGAGCGTGAAGAGCTTGAACC
10 TTCTGCAAACATATATTAGGGTCTGCTCTTGTATCTTCAACATAAAGTTTTACTTTGTAA
GGCATTCCCTTCTCTTCAAAGTATTTGTTTATCTTCTCTTCTGCAATCTCACAAATATGT
TTTTCATTTGTTTCCATAGGTTGCTAAACCTCCAGATAAATCAACCAACAAACCACTTTA
ATGACATTTTCTTTACTTCTGACTGAGTTGTTGTAGTTTCTGATTTTGTGTGCATCTT
GCTAAAAACACACCTCCTATGAGAATAGCCCCCAATAATAGGGCAATTATCTTTTAAAT
15 GGTATCACCTCAAAATGTTATGGCAATTTTATTTTTATATATGAGCAATATTTAAATTT
TTCGAGATAGATTTAACCAACAATATTATCATTATTTTAAATAACTTCCGTATCAAAAAG
CTTTAAAGTATTAGTAATAATAATAGTAATTATATAATATCAAAAGCGGGATAGTTATGA
AAGAAAGAACCTTTGTAGCTTTAAAACAGATGCTGTAAAAAGAAAATTAATTGAAAAA
TCATTGAAAGATTTGAAAAATAAGGTTTGTAGATTGTGGCTATGAAGATGATTAATTAG
20 ATAGAGAGATGGCAGAAAAATATTATGAAGAGCATAAAGGGAAAGAATTTTATGAGAGAC
TAATAAACTTTATGACATCTGGAAGAATGATAGTTATGCTTGTGAGGGAGAAAAATGCCA
TATCTGTTGTAAGAAAGATGATTGGTAAAACAAATCCTGCTGAAGCAGAACCGAACTA
TAAGAGGAGATTTTGCTTTAACAACCCCGGATAATATAATTCATGCATCAGATTCAAAGG
AAAGTGCTGAAAGAGAGATAAAACTATTTTTTAAAGAGGATGAGATATTTGATAAATAAG
25 CATAAAGGTTTAAATAACACATCCTTCATTTTTTGTATATCCACAAATAATATTAATTAAC
TAATAAGGTGTAATTATGGATGAGAATGATTTAAAGTATATAGAAAAAGTTTGAAGA
AAGCCAAACCATAGAGTTAGCAATGTTTGAAGTATGAGGAGTGAGCACTGTGCTTAT
AGAACCTCAAAAAAGCTCTTAAGAATGTTTGCTAAAACAGTTAATGAAAAGACCTCTAAA
AATATAGTTGTTGGAATTGGAGATGATGCCGCTGTAATTAGATTGAAAAATGATATCTGC
30 TTAGCAATAGCTATGGAAAGCCATAACCAACCCATCATACATAGACCCATATAATGGAGCT
GCTACAGGAGTTGGTGGGATGTTAGAGATGTTTTGTCAATGGGAGCTAAGCCATAGCT
TTATTAGACCCATTAAAGGTTTGGAGATATATTTGGAAGGAAGGGGATAAAGTTAGATGG
CTAATTGAAGGAGTTGTTAAAGGTATTGGAGATTATGGAAATAGGATTGGAGTCCCAACA
35 GTTGGAGGAGAGTGTTGAGTTTGATAGCTCTTTTGATTACAACAAGTTAGTAAATGTTGTT
TGTGTCGGCTTAGTTAAGGAGAATGAAATCATTACAGGTAAAGCTAAAGAGCCAGGATTG
TCTTTAATATTAATCGGCTCAACAGGAAGGGATGGAATAGGAGGAGCTTCATTGTCATCA
AAGGATTTAAGTGAAGGAAAGTGAGGAAGAAAGGCCAAGTGTTCAGGTTGGGGATGCATTT
TCTGAAAAATGTTAATTGATGCTGTTTTAGAGGCAGTAAAAACAGGAAAAGTTAAAGCT
40 ATGAAGGATTTAGGGGCTGCGGGGCTTTCAGGAGCTTCATCTGAGATGTGTTATGGTGA
GGAGTAGGATGTGAGCTTTACTTAGAAATGTTGTATTGAGAGAGCCATTAAGCTTAC
GAAATTATGGTTTCTGAGAGTCAGGAGAGGATGTTATTAGCTGTTGAACAGGAAGTGAG
GAGGAAATAATTGAAATATTTAAAAAGTATGAACTACCTGCATCAGTTATTGGAAGAAACA
45 ATTCAGAGAAAGAGGATTATTGCCAATACAAAGGAGAAGTTGTTGTTGATTTACCATTA
GATTTGTTATGTGAAGCTCCTTTATATGATAGGGAAGGTAAAGAGGACTTAAAGAAAAA
GAGGATGATAAGGAAAAATAAAGATGCCAGAAGATTAAATGCTGTGTTATTAAGAACTC
TTAGAGAGTCCAAATATTTGCTCAAGGAATGGATTTATCAGCAGATGACCACGAAGTT
CAAATAAGAACTGTTGTAAAGCCAGGAAAAGATGCCGCTGTTTTAAGAATAAATGAAGTT
50 TATCCAATGGGAATTGCCTTAACAAGTACTGTAAGTCAAGATACTGCAAACTAAACCCCT
TATGTAGGGGAGTAAATGCTGTAGCTGAAGCTGTGAGAAATTTAGCAACAGTTGGAGCT
GAACCAATAGCTATGCTTGATAATCTAACTTTGGAATCCTGAAAGACCAGAGAGATTT
TGGCAGTTGGCAGAAATGCATTAAAGGTTTAGCAGATGCCGCTGAATTTCTTTGAAATCCCA
55 GTTGTGGAGGAAACGTAAGTTTATACAATGAACAGTTATTGAAGGTAAGAACATCCA
ATAAACCCAACTCCCGCAATATTTGTATTAGGTAAAGTTGAGGATGTTGAAAAAGTTCCG
GGAGTTTTAGATAACAAGATTAAGGAAGGAGATATATTAATAATTACAAATGAAACAAAA
GATGAAATGGGAGGAAGCGAATATTATAAAGTTATACAAATACTGAAGAGGGAAGAGTG
60 CCAAGAGTTGATTTAGAGAAAGAGAAGAAGATTTATGAAGAAGTTAGGGAAGTTGTA
GAAGGATTTGTTAGTGAGGCAGTAGATTGCTCAAGAGGAGGTTTAGCTGTAGCTTTAGCC
AAAATGGCTGTATTAAACAATATTGGTTTAGAAGTTGATTTAACTGAGTATAATAAAAAAT
AATTTAAGGACGATATTTTACTGTTCTCAGAACTTCTGGAAGGATAATATTGGCAGTT
AGAGATGAAATAAAGATAAAGTTTTAAGTAAATTAAGTTCTGCTTATATAATTGGA
65 GTTGGAGGAAGCAGATTGAAATAAAGATTAAACGAAAAGGATGTTGTTAATTTGGATGTG
GAAGAGATGAAAAAGAGGTATTATGAAGCATTTCCAAAGATGATGGGAGAGCTTTAGATT
AAATATTTCTATTTTTTTAGTTTATCTAAGTTTACTACCTGCTTTTATATCTTATCAAC
AGTTAATAAGCTAACATTTCTTCATCATCTTCGGCTGCTAAAATCATTCCCTTCAGATAA
AACACCACATAATTTAGCTGGTTTTAAATTGCAAATAACAATAACCTTTTTTCCAACATAA

ATCTTCAGGTTTATAATATCCTTTAATTCCTGAAACAATCTGTCTCTTCTCATCTCCCAA
ATCAACCATTAGTTTAAAAAGTTTCTTTGATTTTGGTATGTCTTCTGCCCTCFACAACTTC
TCCAACCTCTTAAATCAATCTTTTCTAAATAAAGCTTATATCTATTTGCTCCATTTTCTCC
5 TCCTTTTGTCTTCTTTTATTTTCAATAAAGCTTTTCTTCATCTCTCTATCTTCTT
ATTATCTATCTTTTGAATATAATCTTTGGTTTCTTTAATTCATTCCCTCTAAGCTCTAA
ATCAAGTCTTTCATTCAATTAATTCATAGTGAAGAGATTTTTTAGGCATGTATGGGTA
TAGCAGATAGACAAGAGTTTTACTGTCTTGACAGCAAGTATATAATTTCTTCAATCT
10 TTCTTCATCATCAACAGCCCAAGGCTCCATCTTTTGAAGTAAGTGTTCCTTCAATGGC
AAGATGTAATATATTAACATAAGCATCTCTAAACTTAAAGCTCCTTATGTTTTATCCAC
AGCCTCAAGTGTCTCTTACATTTTCTCAATAGCTCTTTATCTTCCCTCTTTTATCTATC
TTCTCAACTATTGGGACTTTCTTAAACTTTCTATGGGTAAAGGTTAAAGCTCTGTGGGT
GAAGTTTCCAATTATGTTGATGAGTTCATTGTTTATCTTATTTTGAATCATCAATGA
GAAATCACAATCTTTAAAGAGAGGGCTGACATGATTAAGTAGTATCTTAAATAGTCAGC
15 ATCAAAGTTTTTAACAAAATCTTTAACCCAAACAACCCATCTTTACTTGTGCTCATCTT
TCTTCTTCTAAGGTTAGATAACCTCCACTAACTACTGCAGTTGGTAAGTTAAAGGAACC
ATGAGCAATCAACATTCCTGGCCAGAAAACGGCATGATGAACAGTTATATCTTTTCCAAT
GAAGTGATAAATCTTTGTATCTTTCTTAACCAATATTCTTCCAAATCTCTCCCAACAT
CTTTGTAAATGAGATATAGCCAATAGGGGCTTCTAACCACATACATTACTTGATTAGT
20 CCTGGAATTGGAACCTCCAGCTTATATCTTGAATATCCCAATCATGTAAGTCTTT
AATCCAATTCAATGCCATATTTTAAACATGCTCTGGCATTCTTTTGCATTTTTTATATA
CTCCTCTAAGCTTTTAAAGCACTTAACTTAAAGAAGTGATGTTTTGTCTTTCTAAT
CTCTGGCTTTTCTTGAATTAACAAATATGGGTCTTTTAACTCAAACGGCTCTAAGTC
TCTTCCACAACTTCACAGTGGTCTCTCTTGCCTCTCCTCCACAGTATGGGCAGATTC
25 CTCAACATATCTATCTGGTAAGAATTTTTTACAGTTTGGACAGTAAATTTGCTCTATTTC
CTTCTCATAGATATAGCCATTCTCTTTTAGCTTTAGATAAAACTCTTGAGCTGTTTCTAT
ATGATTTTGGCTGTGAGTTTGGCAATGCATCAAACTCTACTCCTAACAAATCTAAATC
TTCTTTAATCTCATTATGGTATTTTTCAACAATCTCCTCTGGGCTTTTTCCCTCTTTTC
AGCAGTTAATGTTATAGGAACCTCCGTGGTTATCAGTTCCCTCCAACGTGGATAACATCTTC
30 CCCTCTCAACTTTAAGTATTTATATAATATCTGCTGGGATGTAAGTGTCTTCTGCATG
CCCTAAATGTAGAGGGCGTTTGTATAGCTAAGGCAGTTGTTATTAGATATCTCATCTT
CTCCCTCTTTTGACTAATAGTGTCTTTCAAAATATTTGTAATAACTATTAATGTATTA
ATGAACGCCTTCTATAGAAGGCATTCAATTTCTTAATAAACTTTAATACCTTTTTTG
AAAGACACTAAATTTCTTTTTTTCTTCCCTAAGATGTGCCTTGCTATAGGGTCATCTA
35 TATTTAATAGTTTAGCAATTGCTTCAAGTTTTTAGTGTTATCTCAACTGTTTCATGGG
ATTTTTTAATATATAAGGGTAGCCATTAAATGATATTTCTTTAATGAGGATAAGACTT
CTTTATCTATTTTATGAAGCTTGTAAATCCAACAACCTCCACAGTTATCTTCAATCTCA
CAAATGTATATATGCAGTGTCAATTTTTGCATAGAATGGCTTGTTTTTAATAAGTTTA
TTCTTTTACCACACTACTTAATGTTTATGCTTTTCTTTCTTTTCATCCCTAATTTAT
40 TAACAAAGTCAATTGGTTCTGAATAACCAGATTTGTCGGTATATTTGTAAATATGGCTA
TATCAGGCATGTTTTATCGAAATAAATGTTTATTTTGAAGTTTTTGATATCTCTATAA
TTCTATCTTTAAATTCGTTAATAAGTTTGTAAATGTTAAATATATTCAACATGCTCAA
CTAATATTTTTTATTTAATTTCAAGTTCAATCTTTGATATAATGCCAATTTCTCCAG
45 ATTTTGTCTTCTCATCAATTTTTTTTAAATTTCTTTTCCATATTCATTATAATCTCTT
CTAACTCTCTCTCATACATCTCTATACCTTTTTTGTGAATATCAACAAAGAAAATAAG
ACCCATCAAAAATGTAATAATCAATATTATAATTTTGAAGACATAAAGGGCTGTTTTTA
ATTTCAAAGTTAGCATATATCTCCTTATTCTATCTTCAATATCCAAAGGATGGGTTATAT
CAATATATACTCCTCCTTAGCTTTTTTACTTTTTCCCTCTGCCGTGTATAAAGCTAA
CGGCCCAACTCCATAGAATGAGAAAGATATGTAATCCAATTTATTACAGCTTCCATCTC
50 CTCCTGCCAATCCCATATCTTTTGGATTTTCAAAATTATCCAAATCCATTTTTCTTCAA
CTTCTTACGATTGATATCATTAAATTTTTTCCATTTTTTTAATAATTTGCTCTCTGTTTT
TTAATAGATATTCAATCATCAATAATCCCTCAATTTTAGTAAGAATTAAAGGATTAGGCA
ATATAACTGTATTTTCTACAAAATTTTAAAAAACATTAAAAATAATCTCCCTCAATCGT
TCCAATAAGCATAGAGGAAGCCTCCATCAGATGAAATCCTAAAGGATTTCAATCTCGCC
CCTACGGGGCGATTGCGTACTCCCTAACACCTCTCGCTAACGCTCGGAGGTGTAATTT
55 TGATACATATTTTAAATATCCCTCAATTTGTTCCATAACCAATTAATCTCCATCTT
GAGCCAACCTCTTCTGCTAATAGCTACTCTATCTCCAACTCAGCACATATTGGAAGCTTT
AATTTTATATCCGCTATATCTCCTTGTGCTGAGGTTATAACCCCGCGGTTGTAGCAGTT
CCAATATTTAGCATTAAACCTCTCCTGTTCTTAATGGCTCTATTTTCAATTCCTCCTTA
GTTCTTACAACCTATCCAACAAATTAGCCCTTATTGTTATCTTCTCTTATAGGAGGG
60 AGAGTTCCAGGCAATCCAACAACACTTCCAGTTAATGCATCTGATTTTGTAAAGTATGGG
TCTAATGTTGTCCCAACCCCAATCAAAACCCCTGGATGAGCTTTTCTAAGTATGGTATTT
CCAGCGGCTAATGAAACAATCTTTGTAGTTAATGGTTCCAGAATGTTTTGTTCCCTCA
GTTACTTTGATTCAGGTCTTATTTCAATCTCATCCCAACTTTAAATACTCCCTGAATA
ATTGCCCTCTTAAACCCCTCCTTTTTAATCCTTAATCTCAGTTCTGTTTGTATG

-222-

TCAAAGCTTCTTGCAACATACATTCTTGGTGTGTCATCAGGGTCTCTCTTAGGTGTTGGA
ATAAAGTCCTGTATTGCCCTTTAACAAAACATCAATATTTGCTTCGTGGTGGGCTGAGATT
GGGATTATTGGAGCGTTTTTCAGCAATAGTTCCTTAACAAATTCCTTTATTTGCTCATAA
5 TTTCTTCTGCTGCTTCTCATCACTAAATCAATTTTATTTTGGACAATTATAATTTTA
TCAATTCTCTAAATCTCTAAAGCCATTAAATGCTCTTTTGTGTTGTGTTGTGGGCATGGT
TCATTAGCGGCTATAACCAAAATTGCTCCATCCATCAAGAAGCTCCAGAAAGCATTGTA
GCCATTAATGTTTCGTGCCCTGGGGAATCAACAAAAGAGACCCTTCTCAAAAACCTCTGTT
TCAGCTAAACAGTTTGGACATCTGGTTTTGTGTTGTGTAAGTTCCACATTGTGGGCATTTT
10 CTTATCTCACAGTCAGCATAACCCAATCTAATTGAAATCCCTCTTCTCAACTCTTCACTA
TGCTGTGTCAGTCCAAACTCCTGTTAATGCTTTTGTAAACTTGTTTTTCCATGGTCAACG
TGTCACACCATTCCAATATTACTTCTGCTGTTTAGCTTGTTTTCTTTGCCATAATT
ATCCCTTTTATAAATTTCTTATTTATCTGTAAATATAAGTGTTTTCAAATATATAAT
TTTGAAAATGCATTTATAAAAGCCCTACGGGCTTTTATATTTATTCCTTAATTTTTATT
15 AACTTTGAAAACACTTATGGTATTTTCACATTTTTATAATTTTAGCTTATAAAGTTATA
CTCGGAGTATCAAAATAGTCAAAAACCTACAGAAATCACCCTACAATATTTAAACACAG
ATAAATAAAATAAAATAAAATAGGAGCTATATTTATTTATTGTTCTTGATTTTCTCC
ACCTTCTAATCTCAACATTCAGGGATTGATTTCTCTCCATATTCACAACCTTAACGTT
AATTGGACAATATCAGGAGCTATTGTGTTTTCTCTAACTGTTTTCTTCTTCTTCTCC
20 TTTTCTTTTGGTTTAAACCCAGGAGGAGCACTCAATAAACTCTAACCTTTCTACTTCC
GTGGATATCTGGTCTCATTTGGGAAACCGCTTGAGTCAGTTCTCTCTCTTATTTGTAATT
GTAGCCCTCTAATCCTATAATTTTCCATCAAACTTCCCAATTTTCTTACCAACTAA
TGGTGTGTTATCTGCCCTCAATTTGATAGCATCTTCCGTGTTTTGGGCTGCAACAACGAA
TTTTGCTGTTGGCATAGTATTCCTCCTATTTTTATTTTGTATTTGTTTGGTTTCTAA
25 TTTTTAAATTAACCTTTAAGTTTGTATAAAACAGATTTTTAAGGGCATTTTTATAAATA
TCTTTATTTACCCCTATGCTTCCCGAGCTTCATCATTTCACTACCCCTTTGGGGTAAAGG
GGCAGAACTCCACTGGGTCAATTGACACGTCCCAACTCCATTGGGAGTCAGGACAATAGCC
AGGATAATTATTGAGACATAATATTTTAAATAATTTTGGTTTTAACTTTCAATGCTAT
TGTGATAATATAATAGAGAATTATAAGCCCTGCAATAGCTAAAAACATGTATTGCGTCT
30 TAACATCCTTTTCTCTTTGTCATATACTCAATTCTACACTTCTCTGAACAAAAAAGTTG
GTCTGGAGGTATTGAGATACCACAATTTAAACAATGTCTGTGCTTTGGAATCTCCATACT
TATCCCTCAATTAATTGTTCCATTTATTATTCCTTTACTAACATTTAAGAGCTCTTCTGGG
GTTCTTTTAACTGCTCACTTTTAAATTTAGCTCTTTCAATAATCTTAGCTGCTAATAAA
TCAACAACCTGATGAAGAACCAGCTTTTAAATGAAGATGATATTGCCAATCAACAAGTTCT
35 TTAGCAGACATTTTATCAAATTTTTTGGCATCTTCATATTTATTAGGGTCTTTGTCATAG
ACTCCATCAACATTTGTCCCTATAACTAACAAATCAGCATTATATAAACTCTGCTAATGAA
GCAGCTACAGCGTCTGTTGTATGCTCGGATGGGTCTCTCCCATGACAGGGATTTTTCT
AAGTTTAAATATAAGTTCTGCTCTTCAATGATGTAGGGACTTTTTTATACTATAATCT
CCTAAAGCAGTAATTAATATCATTGCATTCATTCTGTAGCCATTATTCCAGCTCATCA
40 CAAAACTCTCACTGGCTCCAAGTTCTCTCTCTATATATTCTCTGCTGTTTTT
CCACCTCTACGACTATAGCTACCTCATGCCCTCATCCTTAATCTTTTTAAAAATATTG
GCATATTCATAATTTTTTCAGCTTTTGTCTCTCTTTGGCATCAGACTGAACCTCCC
AAATCAAAAACGATTCTCATCTTCTACCAACCCCATCTTTAAAGAGTTATTAATATC
AAACAAAAATAGCCCTATTTATAGTTTTTGCAAAAGGTATAAATTAATATGAATATTTG
45 AACGCCCTATTTGGGACGTTCAATGTGTGCTTATTTATCTTAATAATGTTTGCAAAAA
ACTATTTTAAATCCATTTAGTTCTAAATATTCAAATATTTCTATTAAATATGCACAAAAA
TAAAAAGGTGTAGTGATATTATACATATAATGAAGTTGGGCTTAACCTCTCAATGCTGC
CTTTACATCTTGGACCTTTACGGTCTTCTCTTTGCGTGCTTAGCTAAATCAACTGATTT
CCTTGCTATCTCTAAGGCAATTTCTTCAAAGCTTCAGCAAAGTATTTCCCTGCCGCTTC
50 ACTAACTCTCTGAGCACCAGCCTCTTTAAGATTCTTACACATGGTGCAACTGGAAGCTC
AGCCATAATACCACCTCAGAATCTTACATTTTCAATTTTTTATTATGGGAGTATATATAT
TTTTCGGAGATATTCTAAATATTTTTGCTATACTTTTTTGAGTATCAATGTGAGTTCAAT
TTTTAGTATTGGCTCTTAAATTAATTATTTGAATATTTTTATATTCTATAATAGCTTA
GGATTTTAAACACTTTCTCTAAATCCTCTTTTTTAGTTTTCAAAATTCCTTGCTTTAATG
55 TATGAATTATATAACCATTAGTTTTTAAATGTTTTGCAAATTTTAGTGTTAAGAAGAGGG
ATTCATCAGGATATAGATTAGTGTCATTGGTTATCAAATCAATTTCTTGGTTGATATCTT
TTTCAAAATCTACGTTCTCAGCCCTCTTTTTATATGGATTATATTATTTGCTTTTTATT
TTAATTCTCCTGTGCTATAGCATAAACCTTTTAGCCCTTTTTGATAACATCTTCGCCC
ATCCACCAGGAGAGGAGCCAATATCTACAACGAGTTTATGTTTCAAATATAAATGGAA
ATTTCTCCATCAACTCCTGCATTTTCTCTCTGAGCGATTTAATGGTCTTTCAATATATC
60 TCTTTAGGTTTTTTAAGTTTTTATGTTTTCTTCAATAACAAGTTCATTAAATTCATCCT
GAAATATTGAGATATAGCTCTCATCCTGCAGAATCTCAATATTTATTTTAAATCCCAAT
CTTTTAGATTAACTCTAAGATTTAAATCTTTAAATTTTCTAATACATATTCTCCAATTA
TTCTTTCAAGTTCTTCACTTGTAATTCGTGATTTCTCTCTGTTGCATCTAACTACGA
AAGATTTATTTTTTAATTTTTCTTTTATTGATTAAAAAAGAGATGGCTTTTTTTA

-223-

5

10

15

20

25

30

35

40

45

50

55

60

TCTCATTAAATGTCTGTTTGGCATCCTATTTCCAATGGAATTATCCTTAGTGAAAATTTTA
AATTATTTTTATTTCTTTGATAATATTTAAAAATCATAAGGATTTTGAGACAAAACCTT
TTAAAATTCCTCTAAATGGTGTCCAGAGAATTTTCTTTTATTGGTAATTTATTAGCT
CCTCTCTTAATTGTGGCTCAAATCCTGGTTTTGTGTAACTAAAGCTACCGGCTTCATAA
AGACCCACAGAACTCAATAATATTTTAGCTAATCTAACTTTATCATCCAATGTTTTCAT
AATTGTGTTGGTTATTAAACCTCACAAGGTATTTCTTTAGCTATCTCTTTATCAACATT
ATCTATTACTAAAACATCAACTATGTCTTTATAGAAGCTATAAATCCCTTTAACAGAGAC
ATCATAACCTTTAGCTTTTCATTAATTTACCCGAGGACCTGAAACAGCAGAATTTCCAAC
TATTGGCGAAACAACCACAACCTTTTTATCTTTTAATAGCTCTTTAATTCATTTAAACT
TAAAAATTGGACCTATGGAAGTTATTGGGATTTGAGGGCCCTATAATAACAAGGTCATT
TTTTATGGGCTCAACTGCCTTTTTCACAAGGTTTAGCATATAGAGAGTTTTTCATAAATAAC
ATCTAAAACCTCAACGTCCCTCTTTCTTTAACCAGAGTCATGAAACTTTAATAAATC
AACCTTTCCATCAACTTTTGCTAAAAATTTTTGTCTCAACCCCTATCATCAGTCATTGGGAT
TACTTTAGCTTTAATCCCAAGCTACTTTCTCCATATCTACAACCTCTGAGAGTTTTATG
TCCCTCTTTAAATAATAAGTTTATGCATTTTAAAGGCTCTATCTTTATCCCTATCCT
TAAAACCTTCATCAAATCCAAGATTTTTTAATTGCTCATGAGTATAAAAAGTATCTTCCT
AACCCCATACCATGTCTCTTCATTAATCAAATCTGCTAAGGTATATAAGACGGTATCAAC
ATCAGGAGATAGATATAAATCTCCTATCCAAGTATCTTCACCAGTATTAACAATAACAGC
CAACTCTTCATTATTAACAACCCCTTTTTAAACCCCTGCAATAACTTTGGTGTCCAGTTCC
TCCTGACATAACAGTAATCACAATATCACCTAATCTTTAGCTTGAATTTATTAATTAAC
TTATTAGCTATTCTATCAGTTAAGTAGTATTTCTTATATTTTTCTTGTTCAAAAAAT
TCATCTATTATTTTTTAATATTTTTCTTTCCATCATATTTTTTGAAGTTCTTTTCATT
TTTGAAGCGTTCTTTTATACATCTTCATATTTCTTATGTCTAAAATTGCCTCTCTAAT
CTATATAACTCTTTATAAGATAAAGCTATTCACAACCCAAATCATGGACTTTTTTGGCA
TTATTTCCCTTGCTCTGGATGGTCTAAATCTGGAATGACAATTAATGGTTTTCCAATGAT
AGGGCTTCCATTATTGTTGAATGCCACCATGGGATACAATAAGTTTCAGCGTTTTTTATA
AGCTCTTTTCATATTTGTTGTTATTGGAATTTATTTCTACATTTTCATTTTTATAAGAGTTT
AAGTTTAAATCTCTCATTAGTTTTTTAGCAACTTCATAACTCCACATACAAGTTTAAACA
TTTAGGTTATTTTTTAAAGCAATTTTTCCAAGTTCTTCAAGGATTTTATATCTATACTCA
AAACCACCAATAACGCTTAATATATAATCTTCTCCATAATTATCAACATCATCAACATCG
TATCTAATTAACGGCCCAATAAATTCATATTTTTTATAATTTTTAGGTTGTATTACAT
ATGGTATAGGGTAAAGGAAATCAGGAACAATAAATCTTTCACATCTCTCATTTATAATG
TTTAGAGCTTTTCATTGTTGGATAAACTATTAAATCAGTTTTTAATTTATATCTCGTGTAG
TTTTGATTACTTATGCAAAATAACTGGCTTTTTTAAAGCTTTGCAGCTACAAGTGTGCTA
TATTTACAATCAGAAATTATCAAATCAGGATTATATTCTCTTATAATATTAATTTCTCTT
CTAATGGCTTTTTTTGGGCTGTATTCTTTATTCAATATACTTGAGGTTATGTCAAATTTT
CCATCCTTTTCTTTAAGTTTTATCTCTGGAAAGGTTTCAAAAACCTTTAAATCCATATTTT
TCAATGAAATTTTTGCTTTTTCCATAGGCAATGTAAGAGATTCGTAATCATTTTTCAAT
GCTTCACCAATTGCGACACATCTCGTTGTATGTCCAAAACCCCTCCACATACTGAGATT
AGAATTTTCATGTTTTCACCCCAAATTTTTAAATGGGTTATAATAACTTCTTACTCTCTT
CTGTAAGGGTTAATTTATTGATTCTGTCCTATTTTTTCTTCTCTTATTTTTCTATCTT
CTAATTCGGAGATAATCTCGAAACCTTTGGTTTGTCTATTCCAGTAATTTCAACAATTT
CTTTTTGAGTAATATGTCCATGTTTTTTTTATTAAATCGATTATAATTTTTTCATCTTCAG
TTAAAAGCTCCATAATACTCCTCTTTTTCTTCCATGTATTTTTTGCATATACACTTA
ACTCTCTAACCTTATCTTTTAGCTTATCATTTCTTTCTTTAATGTTTCGATATATTTAT
TTAATGATTCAATTTTTCTTTATATATTATATTTTCATCTAAAAGTTTTGTATTTGAC
TTTCATATTCTGAAATCCTTTTCATTTAGAACACTAATAATCTCATCTTTATTTAGCAAGT
TTTTATTAGCCTTACTTAATTTATCTTCCAAATCTTTTATTTTTATTGCTAAGTTTTTGA
TTTCTTCTCTTTTTCTTTTTAATTTATTTTTAAGGAGGTTAATTCATTTTTTATATTTT
TAGTTCTTTCTATAATCTTCTTTTTAGAAAATTTTTCTTAAACAAATAATCCTCCAAATA
TTGCTGTTCAAATATTGCGATTATTAGGAGATATTTCAAATTTATTGTTAATGGCTGGCT
GTTCTATGATATTTTGTCCAGGATATGATATGAAAGTGTATTTACAGTAATTGTGAAAG
TTATTTCTCTTATTTAAAGACAAATCCCATACAATAATTTGATGTTTTCCGTCGGTAGTTA
TTTTATAGCCAGAAGGCGTTACAAGTAAAGTTCTTGAGGGGAGAGAATAACTGCCCTG
GTGGGAGAATTTTTAATGGTTGCATTTTTTGGAGTAATGGGGAAGCTCAGTATAAGTT
GCTTAATTCATTTTTTGTCCATATTGCATCATTAACAAAACAATTAATAGTTATATTG
TATAACCTCCTTTAGGTATTGGTTTTTCAAATTCATAGCGATTTCTGTAACCTCCTTCAT
TGTATAAAGCACTGTATCCCTTTACTCCTGCTGATGCATTTATTGTAATTTCTTATGG
TTTGAGGAATTGTATATGATATATGAGATAGGTTTTGTCTTCATTGTTATATATAACAA
AACTTATTGTTTCGTTTATTGTATCGTCTGGAGTTACAATGCAATCAATATTTAGATTCT
TAATTACATAAGCTGAAGATACATTAAGGCCACAAAAAATAATAAAAAAATAATAA
CATCTTTTGTTTAATATATATCACCTTCAACCATAAAGTATTTGTATTTATATAACTAC
TGTTTTTATATAAAAAATTTATCTTATAGTTCTTTGCAAAACATTTATAGAATAAAAAGG
CAATCAATATAATGAACCTCTTCTTAGAGGGAGTTAATCATCCTTAGTTAATTTAAATA

-224-

ACTTTGCAAAGAACATACTTTGGATGGTATTTGCAGAGCCTCTGCAAATATCTCTATTAA
AAAATACCTTTCAATAATATAATATATACATTAATTAATGGGGTTGGAAAAATGATAAAA
GATTATAAAGTGTCTATAGCTATTCCAATAGCCCTTCTTATACTTTCAATTTTGTTAATT
5 GGTTTTAAAGGGATTCCAAAAAGTATAGATATAACTGGAGGGACAGAAATAACAATTAA
GTAATGAAAAACATGGATATAAATCTCTCTAAAAGAGTCACCTTAATGGAATAGCTGAAGTA
AAAAAATTAGAATCAGCTGATGGATATTACATAGTCATTAGATGTAAGAATGAAGATGTA
GATATTGTAAAGCAGAAAATTAAGGAATTTTCCACGTGGATAGCTTAGATAAGTTAAAT
TATTCTGAAAAGACGATTGGGGCTACTTTAAGCTCTAAATTCCTTGAAGAAGGATTTAA
10 GCTGTTGGATTTGCATTTATGTTTATGGCTATTGTAGTTTATCTATATTTTCAGAAATCCA
GTGCCAAGTGGTGTATAATATTATCTGCACCTTTCAGATATAATTATGGCTTTAGGGGCT
ATGAGCTTTATTAGGAATTGAGCTTTCCCTCTGCAACTATAGCGGCTTTATTAATGGTTATT
GGTTACAGTGTAGATTTCAGATATACTGCTAACAACAAGAGTTCTAAAGAGATTAACAAAG
AGCTTTGATGAACTGTTAAAGAGGCTATGAAAACAGGTTTAAACAATGACATTAACAACA
15 ATCACTGCTATGCTAATATTATTAATTGTTGTAAAGCTCTTCATTCCAGTAGCAGATATA
CTGGCAAATATAGCAACTGTCTTAATTTTGGCTTTAATTGCTGACATTAATAACACTTGG
CTATTGAATGCTGGAATATTAAAACTACATAACTGAATATAGAGCAAAGAAGATTTAA
TTAAATATTTAAAAATACTCTTTTTTAAATCTCTAAAAACCTTTTTATTCCCTCTCTCA
TACCATTTTTTGGCTCTCTTAATATTTTCAAAGTTATTAAATTGGCATAAACATCT
GAAGTAAATAAATAGCGGTTATTATCGGTTAATATACAAATAGCTCCCTCCCAACACCA
20 GCTGTGGAACCAATGGATATATTAAACATTAAGCTTTTTCTTTAACCCTCTGCCATCAAC
TTAGCAACTTCCAAATCTTTCTCTCGCTATATGCTTTTGCATATTATAAATTAAATCT
GGCTCTGGAAGCTTTATATCCAAAGTTTTTCTACTCCAATAATAGAAGGAACAAACATG
GCAGATATAACTCTAACATTTTTCATTAATTTTAAATCCTCCTCACTAAATAAATACTTA
AATTCAAATCTTCATAACCAGCTGCTGCCCTGTGAATAGTTAAGCCAATATTGCTATGT
25 GTAAAGCATTCTGCAGTTGCTACAGTTATCATTACCATCACCGTGAGAAAATGGGAATTA
AAGAGTATTATGACAAGTTGGCTAAGAGTTATGATAAGCTATATAAAAAACAAGTATATGA
GGATTGTGGAAGGGAAATTATACAGAAAGAGATTAAAGATGGTGACTTTGTCTTAGATA
TTGGTTGCGGAAGTGGAGAGCAGTTAAAAATTTTAAATAATGCAGTTGGTTTAGATATAT
CATTAGAAATGGCTAAAATAGCAAAAAATAAAACAAATAAGCCAGTAGTTGTTGCTAATG
30 CTGAATTTCTCCATTTAAAAATAAGAGTTTTGATAAGGCAATATCTTTCTTTGGAGCTT
TAAATCATTTGTAATTTAAAGAGAGCTTTAAGAGAAGTTAATAGGGTTTAAAGGATGATG
GAATTTTTATATTCACTGTGGCAAACATCTACGATATAAAATGGATTATAAAAAACATTT
TAAAGGAAATTTTAAAGGTAAAAATGCCATGAAAAAAGAAAAGGAACAATAACAA
AAGTAATTGATGGAGAAAAATAAAAGTAAAAACAAGATTCTATGATTTTAAGGAGGTTG
35 AAGATGCCTTAAAAAAGAAGGTTTTGAGGTAGTTTATACATTTGGGACAAATATTACCA
ATTCTCCATTAGATAAATTTATTTACAAAAGCTTTTTTAAAAACTTTGCATCATACATTG
GATTTGTTGCGAAAAGGTAAAAATAGATAACCGTTTAAATCTTTTACTTATTTTCTCA
ATTTCTCTTTTCCAGCTTTTTTAAATAGCATCATACATCTCAACAGCTTTAGGATTTCT
CTTCCAACAAATTACCAGTAACATATAGCATCAGCTCCAGCTAAAACCTTTCTCATAGGCAA
40 TCTCTGGCTTTCTAATTCCTCCACCAACAATTATATTAATTCAGAGAGTTTTTTTGATA
AGGCTATAGTCTCATTGTTTACTGGGTAAGATGCCCCACTACCAGCCTCTAAATAAGCCC
ATCTCATTCCAAAGAACTTTGCAGATAAACAATACATTGCAGTTATTTTTGGTTTGT
GAGGTATCTCTAATCTCCCCAACATAACCAACGGCTGTTTTTTTTGCTGGTTCTATGC
AGAGATAGCCATTGGGAATTGGCTCTAAATTATATTTTAAATTTGTTATCGCCCCATAAG
45 TTGGGGCTGTTACAACCCAAATAAGTGTGTTGCTGAGTTCAATTAGGCTCATGTAAACACAG
CGTCAGCATATCTTGACAATCCATCAACATTTCCAGGGAATAGAATTATTGGGAGCTTAG
TTATCTTTTTTATTTTTTTAACTGTTTCATCTAAATTAACAATCCAATACTTCTCCAA
CCATTATTGCATCTGCATAATCCTTAACATTTTCAGCTATCTCTCAATATTTTCTTCTT
CTGGGTCTAATAGAGTTAAATAGACAGCTCCTTCCTCTTCAATAATTTGATTTAATCTTT
50 TTTCAACTTTGCCAATCTTTATCTTCATAATCTCACAGGATTTATTTTTATACATAATT
TCCTTTGGATAAATTTTTATCTTAATCTTTAAATAGCCTTCATCTCTTTTATATCGAGT
TCCTCCCAATTATAAAATGCAACTCTATCAAATACAACCTCCTTTTTCATAAAACCTTTATT
GTTGGATTTCTAAATGTAGTCGTCAAATAAAACAAGTCCTAAAATTAAATTTGATAAT
AAAAAATCTATATATGGGAAGAACTATTTGAATGAAGTAGGGATTTTATAAAACGCTA
55 ATAATCATAAGAATAAATAAAATCTTAAAGTTTCTATACCGGTCTTTTTATTTCGTAA
AGTAATTTTCTTTGTCAGTGCTTCAATCTTTATATAACAATACGCCCAAGTAATTTCCA
AATAAAATAAGAAAGTAGGAAGGCAATAGAAAATTATAATAAATAAAGACAATATT
AAGGAAACCAGATATTATAATAAAAAAGATATTTTAAACAATACTGGGTTTATTCCTCTC
ATATATTATCACTTTTCAATAATCGTCTCTTTTATTGCCATTCACAAAATGCCTTGCTATC
60 TCCTCTGGTTTTTATTAATACTTTGCTCCAGGTTTTTAAATCAACAACAGAAATTGGTTCT
CCTTTTTCATTAACCAATCTTATAGTTTCAGCATTCTGCAGTATAGTTCTAATAATATCC
CCTTTATACTCTGCCTCAATTAACACTAAAGGTCTTCTTTCAATCTTTACCCTGCCAAT
ATTGCCTCCCTTGTATTTCCATCTTATCTACAATCAAAACCTTATCTCCAGCTTTTAGC
TCACTGAGATATTTGTTTTATTACCAGGGCATAATATGTATGCATGAACAGGTCCAGCA

TTAACTCTGAATGGCCTTGTAAGCTACGTAAGGGTTCTCAACAGTCTCAGAATGAACAAAG
AAGAGAGCTCTTGAGTAGGAGCCAATTAACATTCCTTCTCCTATCTTCATTAGTGAGCAG
GTATCTATACAAACCCCTGTCTCCACTACCTATTGGCTCAACCTTTGTTACTGTTGCTACA
TCTAAAGCCACITTTCTTTATTATCTCTTCAATTAATTTTGATAACTCCTTTATATCC
5 TCTAAGTTTTTTGGATTAAAGAGAACCCCATCAGTCCCTTTCTCTAAAATTCATAGGCA
ACCTTTGCCTCATCACTGAATTAACACTTGCTACAATCTTAACATCCCTATGGAATAAA
TCAGCTATTAAATTTTCTAATGGAATGATTGTCCAATCTCTCCCTCTAAGATAATGTTA
TCAACAAATCCAAACCTTGCAACCTCTGAAGCAAACTCTTCATCTTCCCTTGATTCAATT
10 GGAATGTATATGGCTGTTTCTTTCTTAAGTTCTTTGCTCTTTTAAAACTCTATGTTG
TCATTTTTATTTACTAAAACAATATCCGCTCTAAGGAATGGGAGGCAACTTTAATATTT
CCAAGTTCTTTAATTTTTTCAATATCTTCTGGTTTCAAGCAAACTACTGGGATTGATGAC
TCTAATGCTGTTGTTACTATCTTCTTTTCTCTTCCAGTTATCTCCAATAACATTAAACC
CATCCAAATTCATAGTTTCAACCTAAGTTATTGTTTTAGATTTTATTGCCTACCCCTAT
15 ATTTAACTTCTCAATTTAATAATTTTCTTATTTTACACGTTGTTCTAATAATAATTATAT
TCTAAAAATAGGAAGATTTATATACTATTAGTGAATAATTTATCATAGTTTATGATATAC
AGCATAAGTTGGAGGGATGAAGATGGAAGTTATAGAAAAGTTATCTGAACCTTCTGGAAT
TGATAAAAAGTCATTGAGGAGAATATTAATTATATTAGAGTTCTCCCTAAGAAAAAGGA
TGTTCTCCAACAAGTTTTGCTGAGAAGTTAATATAAAATCATTGGTGATTATACAA
20 CTACATAAGAGATGTAAAAAGTAATTTAAAAAGAGACCATGAAATTGAGGGATTCAATGG
ATTGACTGAAATGTGGAAGAGTAGCTCCAAGAGCACAATATTGGATTATGGACACATT
TGGAGAGGAGAATCCAAGAGATGCTCTATTTCTGCAAGTGATTTACAATGAGGACATT
TGGAAATAAGTTGGATAACTTACTATTGCTAAAAAGATAATTAACATTAGATGAGTA
TCAAAAAGAGTTACAGAATATGTTTCAAGCTCAGAAATTTGAGGCTGAGGATTAGATA
25 AACGCTTTATTTTTTATATATTTTATATTTTATATTTAAAGTAAATTACAATGCTCTTTAT
TATTTCACTTTTCTAATTTCAATCTTTTCTAATCTCAGCTATGACTAAATCTAAAAA
TATCAAAGCTGTTTCTTCAAAGTGTTTCCCATTTGGTAAATATTTTGATTTCTTCACTTC
TAAAGGAATTGTTAAATCAGCAAACTCTACTACATTTCCACATTACATACAATTGCGAT
AATGTTGTTATTTATATTCTTTGCCCTTTTAGCTACTGTTAAACACTCTCTGTTCTTCC
30 ACTACCCGATATTAATTAAGTAAATCATCTTTTCTATAGGAAGGAGTTGTAGTTTCCCC
AACAAATATGATTTTAAACCAAGATGCATTAATCTCATGGCAAAACATCTTCCAATATA
TCCACTCCTACTCTCAAGGAATAAATCTACTATTGGAATGACGATACCTTTAGGCATCAA
AGAATCCAGTTTATTTTTCCACTCATCGTTTGTATAGAATTTTTTAATATCAATATATT
GTTAGATACTATATCAAGTTCTTCCAATTTGACACCTATCGAAGTTATTTTCACAAATG
35 TATCCAAATCTATGAATTAATTTATTAATAAATAAATCAGAAAGATTTAAGTTATTTAAAA
AATGGTGGGGGTGCTGGGATTGAAACCCAGGTCCAGGGATTTCTCCTGCCGTGGTCCAGC
GCCCTATAGGCAACTGGAGTCCCGATGATAGACCTGGCTACACCACACCCCGCATCAA
TGTAAGATCTTCAAGGAATAAATCTACTATTGGAATGACGATACCTTTAGGCATCAA
GTGCTTATAAATATATAAATTTGTGAAAGTTCTACAACGACACATATAAAAAGTAAAAAG
40 GGATATATAAATTTTACGGTTTAAATACATGGTGTGAGGGATAAATGATATTATTGGAT
GAGAACACAAAGGCGATAGTTTCAAGGAATTACTGGAAGGCAGGGAAGTTTTTACACAAAG
AAAATGTTAGAATGTGGAACATAAATTTGTTGGAGGAGTCACACCAGGAAAAGGAGGGCAG
AACGTCATGGAGTTCTGTTTGTGATACAGTTAAAGAGGCAGTTAAAGAGACAGATGCC
AATGCGTCAGTAATTTTGTTCAGCTCCATTGCTAAAGATGCAGTTTGTGAGGCAATA
45 GATGCCGGAATTGAGTTGATAGTTGTTATTACAGAGCATATCCAGTTTATGATCTATG
GAGTTGCTAAATTACGCTGAAGATGTTGGAGTGAAGATTATAGGGCCGAATACACCAGGT
ATAGCATCACCAAAAGTTGGCAAGCTTGGAAATTATACCAATGGAAGTTTTTAAAGAGGGA
AGTGTAGGGATGGTTTCAAGAAGTGGAACTTTAATTATGAGATAGCTCACCATAAATA
AAGGCTGGTTTTGGAGTTTCAACTTGGCTAGGGATTGGAGGAGACCCAATAGTTGGATTA
50 AGATATAAGGAGGTTTATAGTTTATTTGAGAAGGATGATGAGACAGAAGCTATTGTTATG
ATTGGAGAGATTGGTGGAGGGCTGAAGAAGAGGCAGCTAAATTTATAGAGAAGATGAAA
AAACCAGTTATTGGTTATATAGCTGGACAATCAGCACCAGAAGGAAAGAGATCGGACAT
GCTGGAGCTATTGTTGAGAAAGGAAAAGGAACAGCAGAAAGTAAGATGAAGGCTTTAGAA
GAGGCAGGTGCTTATGTGGCAAAAAATATATCTGATATTCCAAGTTATTGGCAGGGATT
55 TTAGGAAAATAATATCCTATTATTTAAAAATTTGAAAATTATAATACGATAATTGTTAAA
ATTTCTTTTTTAAATAACATATTAAAGAACTAAATGAAAACTTTATATTCTATATTTT
TAACAGTTAAATTTGTAACCTTTTCCACATAAGGGGGATATTATGACAAAAAGAGTTTTGTT
TGAATTGTTTGTGGAAGAAAAAATGTGGGTAAAGCAATAAATATAATGACCTTAGCTGG
AATTACTGGATTTTTCTTGCAATAATATAGGGGATTGTCCCAGATAAGTTAAAAATTT
60 AAGTAAAGAGGAGTTAGAGGATATTGAGAAAGTTATGAAATTATAAGGGATGAGTCTGA
TAAAGCAGTTGTTATTGGGACTGTAGTTAAAGAGGAAAAGCTAAAAAATAGAAGAACT
ATTAAAGAAAAAATGAACAATGAGAGATGGACAGTGATGAAGATTCCAATATTAAAGGT
TAAGGTCCATAGGGTCTAAAGGTGGGATAAATGAAAATCTTGTGTATTATTTCGTTGAA
AGTGAATAATGTTGGAAAGGCAATAAACGCTCTATCAGAAGGAGGAATAACTGGATTTTT
TTATATGATTATAAAGGTATGTCTCCCCAAGATTGGCAGGGATTTTGTTAGATGAAGAC

5 CCAGAGATGGCTATTAAGGCAGTTAGTGATTTAGCACAGAATGCTGTATTAATTGGAAC
ATTGTTAGTGAAAAATAAACTCATGGAAATTGAAAAGCTAATAGATGAAAACTTGCTGAC
TGCAAAATACACGATAATTGAAATTCCTATTGAAGGAATAATTGTAAATATGCCTTAAAAA
TGAACCTTCACATGTGGTGTCTTTAATATGCTAAAATTCCTCAAATAAAAAACGCCAA
AACTTCTATTAAAAATGAGGAGATTATATGAGTAGAAGAGGAAGACCAAAATTCCAAG
ATTTATATCTGAAGAACC AAAATTTAGGATATTTAAACCACATGGAGTTCTCTTACAGA
GGTAGATAAAGTTATATTGAGTGTGGATGAGTTAGAGGCAATTAGGTTAGTTGATTATCT
TGATTACACACAAGAAGAGGCATCTAAGTTGATGGGAATCTCAAGAAGAGTTTTCTGGAG
CTTATTGACAGAAGGTAGAAAAAGATTGCCGATGCTTTAATAAAATGGAAGGCAATAGT
10 TATTGAAGGAGGAGAATATAAGATTAGAGAATGTGGTTTTTGTATGAGGCATAGATTTGG
CATAAAAAAGCACTGTAGAATTGGAGGGAGGAGCTATGATGCTATTGGAAGTTAAAAAT
GTCACAAAAAAATTTGGAGATAAGGTAGTTTTTAAAAAACATTTCAATTACATTAGAAGAA
GGAGAGTCATTAGGGATTTTGGGAAAAGAGTGGAGCTGGAAAATCTGTTCTATTGCATG
TTAAGGGGAATGGATGGTTATGAGCCAACTGAAGGGCAGATTATTTATCATGTCTCTAC
15 TGTGAAAAATGTGGCTATGTGGATGTCCCTTCAAAGCTGGAACCTCTGTAAAAAATGT
GGAAATGAGCTTAAAAAATAGAAGTGGATTTTTTGAATGACAAAAAATACACCTATAAT
TTAAAAAGAAAAATGCTATAATGCTTCAGAGAATTTTCTTTATATGGGGAGAAAAT
GTTCTTGAAAAATATCTTAGAAGCTTACATCAGGCAGTTATGAAGGGAAGGAAGCTATT
20 GATATGGCATTAAAGTTAATCAAAATGGTTAAGTTGGAGCATAGAATAACCCACATTTG
AGAGATTTAAGTGGAGGAGAGAAGCAGAGGCTAGTTTTAGCAAGGCAAAATAGCTAAAGAG
CCATTTATATTCTTAGCTGATGAACCAACTGGGACCTTAGACCTCAAAGCTGCTAAATTG
GTTCAATTCAGCTTTAAAGAAGCTTGTATTAAAGAAATAGATAAGCTTAATCTTAACCTCT
CACTGGCCAGAGGTTATTGCTGAGCTAACAGAGAAGGCAATTTGGTTAGATAAGGGAGAA
25 ATCATAATGGAAGGAACCTTCAGAGGAAGTTGTTAATAAATTCATGGAAACACTTAAAGAG
TTTAAAAAACAGAAACAGAAGTTGAAATTAAGAGGACATTATAAAGTTAGAAAATGTT
TCAAAACACTACTGTTCTGTTGAGAGAGGAGTTATTAAAGCAGTTGATAATGTAACCTTA
AACATTAGGGAGAGAGAAATATTTGGTTTAGTTGGAACAAGTGGAGCTGGAAAAACAACA
TTAGCAAAGATTATTGCTGGAGTTCTTCCACCTTCAAAGGAAAATACTGGTTTAGAGTT
30 GGAGATGAATGGGTTGATATGACTAAACCTGGACCTATGGGTAGAGGAAGGGCTAAGAGG
TATATTGGTATATTATTCCAAGAAATATGCCCTCTATCCACATAGAATCTCTTAGAGAAT
TTACAGAGGCTATTGGTTTAGAATCTCAGATGAATTTGCAAGAATGAAGGCGGTTTAT
ACGTTGGTTTCACTAGGATTTAGTGAAGAAGAGGAGGAGATTTTAGACAAAATATCCT
CATGAATTGAGTGTGGGGAGAGGCATAGATGTCTTTAGCACAAAGTTTTAATAAAGAG
35 CCAAGAGTTGTTATATTAGATGAGCCTACTGGGACAATGGACCCAATAACAAGAAAACACA
GTTGCTGAATCAATCCACAAATCAAGGATAGAGTTGGAGCAAACATATATTATTGTTTCA
CACGATATGGACTTTGTATTGAATGTATGTATAGAGCTGGATTGATGAGAAATGGTAAG
TTAATAAAAGTTGGTAAGCCAGAAGAGATAGTTGCTTTATTAACAGAGGAAGAGAAGCAA
40 GAGATGTTTGGACAGAAGTAATTTTTTTATCCTATTTTTATCTTATTTACTGTTTCAAAG
CTTTTTTGGTTAAAAATGTAAAAATTTCTTTTTTGTATAAGGTTTTATTGCAGTATAAGAA
AAATATTATATATAAATTAATGTTCAAATCTTAAATATGTAGTCATACTACTTTTTAAT
TAAATGGTGTTAAAAATGGAGATAAAGTGGTATGTTAAAGAGGTTTTGAAGATAATTT
AATAGATGCCCTTAAATACTTATGGCTCAGCTTGCGTCTTGGGCTTAGCTGGAATGGGTAA
AATACCATTTGCAAGATATATCTACACAAAGTTGAGGAGAGAGGGAGTTAAGGTTGTTTA
45 TCTTACATCTGATGAAGAATCAAAGACCATTAAATTTTGAGAAGATGTATAATAGCTTTT
TAAATGGAAATAAAAAATCCTATAAAGATTATAAAAAACTTGTGGAATGTAAGTACT
GAATTTACACAAGCCTTAGCAAGAATTATGTTCTTCTATATTGTCAATGATTTAGAACT
GCAAGAATTTAGCAAAAATTACAAGTCCGTATCTTCAAAGTTCCAAGTAAGCTTCTA
AAAGAGTTAAGTGAAGCAATAGAGGAAGAGATTAAAGCTAAATCAGATATTGAAAAAGAA
50 AAAGCCAAAGAAAAAGTTAAAAAAGCGTTTGTAAGTTGTTTTATTATACAGTGTAAT
TATACACTAAAACATCTAACAATTTAATATCTCCTCTTTATTGGGAATTATTGGATAA
CCAACAATATATCATTATTTTTAATCCTCTCTATGCTTTCTCATCATTCAAAGACAAT
ATAAAATCTCTCCAATTACCTCTATAGTTTTTCTTCTATTCTAGATAACCTTTCTATAGAT
TCTAACGCATTCTCATTAACTTTGTAGCATAAGGGACATATATAGCTCTCTTTGAGTTT
55 ATACTGCATTCTTGCCCATACAGATAATAAGCTATAAGGTTATGTTCTCTACAATATCT
TTAACCAAACCTCTCAACTCCCTCAATTCCAACCCAAATATCTCTGCTACATCTCATAGCC
TCTTTGATAACATCCAAAATCCTATAATTTTTAAATTTTCTTTCTTTTTCAGTTAAATAC
TGCTTGTTTCTCTAAAACAACACATAAATCAAAGCCATAAGATGCATAAAGCTCTAACAA
TCAAAAGCATCAACTCTCTAGCTTGAAGTGTACATAACAACTTTTGATATCTTTTCCAA
CTCTCTAAAATCTCTTCATCTTTTATAACCTCATTTTTCAGCATCTATAATATAAATCA
60 AAATATCTTCCAATAAAGTGTCCAAAATCTACAATATCTTCATTATTTTACTTGGTTTT
ATGGCTATTCTCTATCATTGCCCCACCATGAAAACTTTAAATAACCAACTGTCATTTTAA
ATAAAATTAATATTTATTAATTTGCTATAAATAAAGGTGATATCTTGGAAATTTTCAG
AATGGTATTAGATATATTAGAAAAAGCTGAAATTTATGATGTTAGGTATCCAATAAAG
GTTGTGGAGTTTATTACCTTACGGATTTAAATAAGAAGATACACATTGCAATAATAA

5

10

15

20

25

30

35

40

45

50

55

60

GAAATTTATTAGATGAGAGTGGGCATGATGAGGCATTATTCCCAATGCTGATTCCAGAGG
ATTTATTAGCTAAGGAGGCAGAGCATATAAAAGGATTGAGGATGAGGTTTATTGGGTAA
CTCATGGAGGAAAAACACAGTTAGATGTTAAATTAGCTTTAAGACCTACTTCAGAAACAC
CAATATACTATATGATGAACTTTGGGTAAAGGTTTACTACTGATTTGCCAATAAAAAATCT
ATCAGATAGTTAATACATTTAGGTATGAAACAAAGCACACAAGACCTTTAATTAGGTTAA
GAGAGATAATGACATTTAAAGAGGCCCCACACTGCCCATTCACAAAGGAAGAGGCTGAAA
ACCAAGTAAAAGAAGCTATATCTATCTACAAAAAATTCTTTGATACTTTGGGTATTCCCTT
ATTTAATATCCAAAAGACCAGAATGGGACAAATTCCTTGGGGCAGAAATACACAATGGCTT
TTGACACTATATTTCCAGATGGAAGAAGTATGCAGATAGCTACAGTCCATAACTTAGGGC
AGAAGTCTCTCAAAGACATTTGAAATTATATTTGAAACACCAACTGGAGATAAAGATTATG
CTTATCAAACATGCTACGGAATCTCAGATAGGGTTATACCTTCAATTATAGCAATACATG
GGGATGAGAAAGGTTTAAATTCTGCCTCCAATAGTTGCACCAATACAGGTAGTTATAGTTC
CATTAATTTTCAAAGGAAAGGAAGATATTGTTATGGAGAAGGCAAAAGAGATTTATGAGA
AATTAAGGTAAATTTAGAGTCCATATAGATGATAGGGACATAAGACCTGGAGGAAGT
TTAAGGATTGGGAGATAAAAGGCGTTCCATTGAGGATTGAAGTAGGTCCAAAAGATATTG
AGAATAAAAAGATAACCTTATTTAGAAGAGATACAATGGAGAAATTCAGGTGGATGAAA
CCCAGTTAATGGAGGTTGTAGAAAAAATTTAAATAATATTATGGAAAAACATTAAGAATA
GAGCATGGGAAAAATTCGAAAACCTTTATAACCATCCTTGAAGATATAAATCCTGATGAAA
TTAAAAATATACTATCTGAAAAGAGGGGGTAATTTTAGTCCCATTAAAGGAAGAGATAT
ACAACGAAGAACTTGAAGAGAACTAGAGGCAACTATTTTAGGGGAGACAGAATATAAAG
GTATAAATATATAGCAATAGCTAAAACCTACTAAATCTTTCTTATTTTLAGGTTAAGA
TTTATGAACAAAATAAAATTTTATTATTGAAATATTTAGAAAGCTATTAAGAGTGA
GAAATAGGAAATAGGTAATTTTAAAGGTGAAAGAATGGATGTAATGAAAGGAACAACAA
CCGTTGGTTTTAATTTGTGACGATGCAGTAATTTTAGCGACAGATAAAAGGGCATCTTAG
GTAATTTAGTAGCTGACAAAGAGCAAAAAAATTATATAAGATAGATGATTACATAGCGA
TGACCATTGCGGGAAGTGTTGGAGACGCTCAAGCGATAGTTAGGTTATTAATTGCTGAGG
CAAAACTATACAAAATGAGAACTGGGAGAAATATCCCTCCATTGGCATGTGCTACCTAT
TGAGTAATATATTGCAATCAAGTAGAATGTTCCCTTTTAACTCAGATAATTATTGGTG
GGTATGATTTATTGGAAGGAGCTAAATTTATTTTCATTAGACCCATTAGGAGGAATGAACG
AAGAAAAAATTTTACAGCTACTGGTCTGGTCTCCAATTGCCTATGGGTTTTAGAAAG
CTGGATATGATAGAGATATGTCAGTTGAAGAAGGGATAAAATTAGCCCTAAATGCATTAA
AATCAGCAATGGAAAGAGACACATTTTCAGGAAATGGTATATCATTAGCTGTTATAACAA
AAGATGGTGTAAAGATATTTGAGGATGAAGAGATTGAAAAAATCTTAGATAGTATGAAAG
CTAAACCTAAGAAAAAACCAAAAAAGAGTAGAAGAAAGAGCAAAATAAAATAAATTAG
ATATGGAATTTGTAGAATTAAAGCTAAAGGCTAATAAGTTTAAATATAAGATTAAAAATTTT
AAGAAAAATATAGATAAAAAATCTATAAAATCTCTTAATTTAACTAAATATCTCTATTTTA
TGCTATATTTTAAATTTTAAACATTTTTCATAAACAATTACAAAATATTATCAAAATTTT
CAATTTAAACACAGGAGAGATTTTAAAGGTTAAGGAGGAGGATTATTTTGTGACGAGA
GGAAGTTTGAAGAAATATAAGAAAGAGATAATAAAAAAATCACCAAAAGAGGCGAAAT
AGTTGATGTTGAGTTTGGAGGGCTGAAGTCGTTGTCTATGTAAAAAATCCAGAAATTTT
CACAAATGAAATTATTAAGCCTTGCTAAGGATTGAGGAAAGAAATTTCCATAAGACC
AGACCCATCTGTTTTAGTTGAGCCAGAAATAGCTAAACAGAAAATTTAGAAATTTGCTCC
TGAAGAGGCAGAAATAACTAATCTTGTTTTTGATGCAAAACACTGGGGAAGTCATAATAGA
ATCAAAGAAACCTGGATTGGTTATAGGTAAGAGAGGAAAAACACTGGAAATGATTAAAAA
AGCAATAAGATGGGCACCTTAAACAGTAAGAACTCCACCAATACAATCAGAGACAATAAA
AGCAATTAGGGCCACACTTTATAGGGAGAGACATGAGGTTAAAGAAATTTTAAAGAAAT
TGGAAGGAGAATACATAGAGATAGTTGTTAGAGGAGATTATTGGATAAGAGTATCTTT
CTTAGGAGGAGCAAGAGAAGTTGGTAGGCTTGCTTATATGTTCAAACACCAGACACAAG
GGTATTAATTGATTGTGGTATCAATGTAGCATGTGAAGATAAGGCATTTCCTCACTTTGA
TGCTCCAGAATTCTCAATTGAAGATTTAGATGCTGTTATAGTTACTCATGCTCACTTAGA
TCACTGTGTTTTATTTCCCGTTTTGTTTAGATATGGTTATGACGGTCTGTTACTGCAC
AAGACCAACAAGGGATTAAATGACTTTATTGCAAAAAGATTATTTAGAGATAGCTAAAAA
AGAGGGTAAAGAAGTTCCTTACACCTCAAAAGATATAAAAAACATGTGTTAAGCACACAAT
ACCAATTGATTATGGAGTTACAACAGACATAAGCCCAACAATAAAATTAACCTACATAA
TGCTGGACACGTTTATAGGTTTATGCCCCATTACATATAGGAGAGGGGTTGTATAA
CTTAGCCTTACTGGAGACATCAAGTTTGAGACATCAAGGCTGTTAGAGCCGGCTGTTTG
CCAATTTCCAAGATTAGAAACATTGATAATTGAATCTACTTATGGGGCTTATGATGATGT
TCTGCCAGAGAGGGAAGAGGCAGAGAGAGAGCTTTTGGGGTTGTTAGTGAAACAACAGA
TAGAGGAGGAAAGGTTTTAATCCAGTATTTGGAGTTGGAAGAGCTCAGGAGTTAATGCT
TGTTTTAGAAGAAGGATACAATCAAGGCATATTTAAGCTCCTGTCTATTTAGACGGAAT
GATTTGGGAAGCTACTGCTATACATACTGCATATCCAGAGTATTTATCAAAAGAAATGAG
GCAGAAGATATTTCCACGAAGGAGATAATCCATTCTTATCTGAAGTATTTAAGAGGGTTGG
AAGCACTAATGAAAGAAGGAAAGTTATTGATAGTGATGAACCATGTGTAATCTTAGCAAC
ATCTGGAATGCTTACTGGAGGGCCGAGTGTGAGTATCTAAAACACTTAGCTCCAGATGA

5 GAAAAATGCAATAATATTTGTTGGTTATCAAGCAGAGGGAACCTTTGGGTAGAAAAGGTTCA
GAGCGGTTGGAAAGAGATTCCAATCATTACAAGAAATGGAAAGACAAAATCAATTTCCAAT
AAATCTACAGGTTTATACAATTGAAGGATTTTCAGGACATAGTGATAGAAAAGCAGTTAAT
TAAGTATATCAGAAGATTGAAGCCTTCACCAGAGAAGATAATTATGGTTTCATGGAGAAGA
10 GAGTAAGTGCTTAGATTTTGCAGATACAGTTAGAAGATTGTTCAAAAAACAACTTATGT
GCCAATGAACCTTGGATGCTATAAGGGTTAAGTAATTAATTTTATGTGCCTTTCAAACTG
TTTAATTCCTATTTGTTAAATTTTTTCAAAATATTAAAATCAAATCAATTCGGAATGAAAA
TTTATTAATTCATTAATTTTACATTCATCCTTTTTTATATTTGGTTAAAATAAGCCTTTA
GCATTATTTTACTGTTCAATAATTAATTTAAATATATAAACTAAAGGTAAAGCTTTCTAA
15 CACTATTTTATATTAGAAACGACCATACAAAAAATTAATAACTTAATACCAAGAATTC
GTGGGGGAGGGATATACTATGGACTACATAAACTTAACTACAGACCATAATGAAGGTGAT
TTGTTATCTTGTATGGTAATTAAGGAGAAAATTTAGAAAAGTTGGCAAATGAGATTGCT
GGGGAGAGCTCTATTGGAACATGGACTAAAGTTCAAACAATGAAAAGCGATATTTATGAA
AAATTAAGACCAAAGGTTTATGAAATTAAGAGATTGGAGAAGAAAATGGGTATAAAGTT
20 GGACTAATAAAAATTGCCTATCCATTGTATGATTTTGAAATAAACACATGCCAGGAGTT
TTAGCAGGGATTGCAGGAAATATATTTGGAATGAAGATAGCCAAAGGTTTAAGGATATTG
GACTTTAGATTTCCAGCGGAGTTTGTAAAGCTTATAAAGGGCCAAGATTGGAAATGAA
GGAGTTAGAGAACTCTAAAAATCAAAGAAAGACCTTTACTGGGACTATAGTTAAACCA
AAAGTTGGTTTAAAACTGAAGAGCATGCAAAAGTTGCCTATGAAGCATGGGTTGGAGGG
25 GTTGATTTAGTTAAGGATGATGAAAATTTAACTTCCCAAGAATTCAATAAATTTGAGGAT
AGAATTTATAAAACCTTAGAGATGAGAGATAAAGCAGAAGAAGAGACTGGAGAAAGAAAA
GCATATATGCCAAATATAACAGCTCCATACAGAGAGATGATTAGAAGGGCAGAGATTGCT
GAAGATGCTGGAAGTGAATATGTGATGATAGATGTTGTTGTTTGTGGATTCTCTGCAGTG
CAATCATTAGAGAAGAGGACTTTAAATTTATAATCCATGCCACAGAGCTATGCATGCA
30 GCAATGACAAGAAGTAGAGATTTTGGAAATATCCATGTTGGCATTAGCTAAGATTTATAGG
TTGTTAGGAGTTGACCAATTACATATAGGAACAGTTGTTGGAAAGATGGAAGGAGGAGAA
AAAGAGGTTAAAGCAATTAGAGATGAGATTGTTTATGATAAAGTTGAAGCAGACAACGAA
AACAAATTTTCAATCAAGATTGGTTTGATATTAACCAGTATTTCCAGTATCTTCTGGC
GGAGTTTCATCCAAGATTAGTCCCAAAAATAGTTGAGATTTTAGGCAGAGATTTAATTATT
35 CAGGCAGGAGGAGGAGTTTATGGACATCCAGATGGGACAAGAGCTGGAGCTAAGGCAATG
AGGGCTGCTATTGAGGCAATTTATAGAAGGAAAATCATTAGAAGAAAAGCAGAAGAGTT
GCAGAGCTAAAAAAGGCTTTAGAGTATTGGAATAAATAAAAGGGAGACTTATGAGGTTA
AAGTTATCCCTAACTCCTAAACAAGATTTTCTTTTGATAAAATTAATAAACATACTATA
CAGGGTTTTATTATTCTCTTTTAAAGGATACTGAGTTTGGGGAGATGCATAATCAGCCA
40 AGGTTTAACTTTTGGTGTTTTTCTGATATATTTCCACCGAATGATTTTGTAAAGGGGAG
GATAAATATCTACTAATATCCTCACCAGGGAGGAGTTTATTAATGTATTATATGAGAGA
TTAGATAAATTTAGAAGAAGTTAATTTAAATAATTTAAATTTGAAGTTTCTGAATCTAAA
AAATTTGATTTGAAGGTTAAAAATAAGTTTATAAAGTTTCTCAATTTGTTTATATAAG
45 GATAAAGATAGAGGAGAGTATATAAAGTTTATGATGATGATTTTGATTTGATGTTTTTT
GTTCAAAGACTGCAGGATAATGCAGTTAAAAAATATAAAGCATTTTATAATGAAGAGCCA
GTTTTAAATGGTTTTATTTTTGATAGAATATCTCCAAGAGTTAGGAATGGGAGGGTAGAT
GTTTATGTTAGGATTGCTAAGAAGGGAAGAGAGTTTTTAGTAGTTGGAACACATGGAAG
TTATTAGAGAAGATTAATAATAGAAAAGAAGAGAGGAAGTTTTACAAGTTTATAATGGAT
50 TGTGTTTGGGAGAGAAGAAATAGTTTAGGCTTCGGATTCTATAAATCCTATAAAATAAGTT
TGAATATTTGATTTTATAAATGCATAAGAAAAGTTTTTATTTTTTGAAGTAATAAGTTA
TTTAGATTTGTTTTTAAAGATTTTTGACCAATATTTTTAAATTTTCATTGGATAGGAGTT
CTCTGTTAATTTTAATAATCATTTTAACAAAAAGTATTAACCTTAAATGGATTTGGAT
AGAAGGGAGATATTTTTTAAAGATAAAATATACTTTTCATCTTATTCCTTTGATTAAAGGTT
55 TTTTTATTTGCTTAGAAATAAAATAAAGGTTTTTTGTTTGAATTTAATATTGGTTATTA
AGATTATTGAATAGGAAGGGTATAAATATGAGTTATGATACATTTGAATGTAATGGGTTT
AAGAAAAACAGTATTGTATGGAACTGTTTTGGATTAATTTGTGGAAATGTAAGGGATTAT
TAAGTGGACTTGTTAAGAAGAACAAATATTGTATGGAACTCTATAGGTTTTGCATTTAT
AACAATCCCTGAAACGGGGACTTCAAATTCGTTTAAAGAAGAACACATTGTATAAAAAATA
60 AAACATTAAACTTAATTTTTTAAATTTATTAAGAAAAGCAAAATAATTTCTCTTTTGA
TTGTTTAAATTAAGAAAATAGAAAGCTTAATCTCTTGGTTTTACAGCAACAACTCCCAAC
GCTTCTTCAACCCTTTTAACTTTTACAAATCCAACCTTTCTTCAACCTCTCCATAACTCCC
TTCTGTAAATCCTTTCTCTATACCTTTCTCTGGATTACCAACATAATGAAACAATCTT
CCTCCCGGCTTTAAACTCTAAAAATTTCTTTATAGAATCTTCTCGCTGTATAGATGCCA
GCTAAGCTGAACCTTGGAGGGTCGTGGATAACAACATCAAACCTCCTCATCTTTAAATCTC
TTTATGACATCATAAGCATCTCCTAAAATAATTTAATGCCTCCTTTAAACAGCTCTTCA
CTATAAGGGTTTTATTTTAGCTAATTTCTAAAACATTTGGATTTTTTTCTATAGTTATAACT
TCAGCTCCTCTTCTATACGCTCTATAGCTGTATAACCCAAACCCATGCAGGTATCTAAA
ACTTTTTCTCCCTTCTTTACTTTTACGGCATTTATCTTATTTAGTGATCTTCATAAGGA
TTAACTTCTTTAGTTCTATGCATTCTTATTCATTTATCTCAATTTGTTGGTGAATTTGTT

5 GGAACCTAATTATAATAGCCGTTATTTGATATTGCAGCTTTAAAACTTCTCCATCTTTT
ATAAGTATATATGCCCCCATCTTGGCAATCTTCTTTAAAAATGTCAAAGCTAACATCT
CCTTCAGGAAATTTGGCAATCTTTTTTCCCTATCTATCAAAATCTTTCTTTCTTTCT
GTCTTATTTAAATCCAAATTTAAAAAATCTCCTCAGATTGTGAATTTAAAAATTTCTTTA
10 GCTATTTTGTAGGTTATGTAATTCATAGTTAGCACCAAAGTAATTTTACTCAATTCTGAA
TTAAATCGATAAGTATATATTTATTTTATTGCCATAAATATTTATCATGGATGTCAATAA
TCTATTATAATTTATAATCATTAGTATTTTTAATAAGGGGGTTTTTATGGAACTAACGGT
TGTGCAGAGAGAGATATTACAAGAAGTTATAAACCTATATAGAGAAAAAATAGACCAAT
CAAAGGAACAGAAATTGCCTTAAGATTAAATAGGAATCCAGGAAGTATAAGAAACCAAT
GCAAGCTTTAAGGGCATTAGATTTAGTTGATGGTGTTCCTGGACCTAAAGGGGGATATGT
15 GCCAACAAAGTAAAGCTTATAGAGCTTTGGGATTAGAAGATGAGGGGGAGATAATAGTCCC
TATATATAAAGATGGAAGAAAGTTGAGGGAGTTAAGGTTGTAAAAATAGAGTTTGACAC
TGTTTCACATGAAAAATGCTGTTCTCAAAGATACACATTGAGGGGGATACAAAGCACTT
TAACATTGGAGATATTATTAGAGTCGGCCCTACTTATCATATAAATTTATTATTAAATGG
AAAAATTTATTGGAAGGGATGATATTCATAGGATTTTGCTAATAGATGTTTTAGGAGTTTC
AAGTATCCCAATATAAAAGCTGGGAGATGTGGGGATTAAAGAGGTTTGGACAATAAATCC
AAATTGCACTTTAAGAGAAAGTCCCAATTTATTTGCTGAAAAATATATCAGTGGAGCTCC
AGTTGTTGATAACGATAAATTTGGTTGGTGTATAAGCCTACATGATTTGCTGAGAATA
20 AGATAATATTGATAAAAAGGTCAAAGAGGTTATGAGAAGAGACGTTATAACAATACATAA
AGATGAAAAGATATATGATGCATTAAAAATTATGAACAAAAATAATGTGGGGAGATTGGT
TATAGTCGATGATAACAATAAATCGTTGGAATTATAACAAGAACAGATATATTAAAGAT
TATTAGTGGTAAATTTCCAGAGAATTTCCATACTTAATAGAACCTAAGTAAAGCATATAT
ATCATTTCAATCAATACTACACTACGGCTATAACAAGGATAGAGATTTTGTATTAAAT
25 AATTTAACTCAATTTATCTCTTAATCTTAAATTTCTTAATCAATTTTGTATGAGGG
GTAACATGATTGAAATTATAAGACTATGGCTAACCAATAACGGAACTGCATTGCCGTT
TTATTTGGCTGTGCCCTTTTTAAATCAAATAAATATTTGTGAGGGATAGCTATGGTTAA
GATTGTAGATACTACTTTTAGGGATGCTCAGCAGTCATTGATAGCTACAAGAATGAGAAC
TGAAGACATGCTACCAATAGCGGAAAAGATGGATGAGGTTGGATTCTACTCTATGGAGGT
30 TTGGGGAGGAGCTACATTTGATGCATGTATAAGATATCTAAATGAAGACCATGGGAGAG
GTTGAGGGCTTTAAAAAAGAGGATTCAAAACACTCCATTACAGATGCTCTTAAGAGGGCA
GAACCTAGTTGGTTATAGGCACTACCCAGATGATATCGTTGAAAAGTTTGTATAAAAGC
CCATGAGAATGGAATTGATATTTTAGGATTTTGTATGCTTTAAACGATGTAAGAAATAT
GGAACTGCAATAAAAACAGCTAAAAAGGTTGGGGCTGAAGTTCAAGGGGCTATATGTTA
35 CACTATAAGCCAGTTTCATACAAATGACCAATATGTGGAGTTAGCAAAAAAATTAGAAGA
GATGGGGTGTGATTCAATCTGCATAAAAAGATATGGCTGGGCTTTTAAACCCCTATGAAGG
ATATGAGTTAGTTAAAGATTAAAAGAAGAGATATCACCTTCCTATTGACGTACATAGCCA
TTGCACAAGTGGTTTAGCTCCAATGACTTACCTAAAAGTTATAGAAGCTGGAGCTGACAT
GGTAGATTGTGCTATCTCACCATTGGCCATGGGGACATCCCAACCAACAGAGAGTAT
40 CGTTGTTGGCTTAAAAGGAACAAAATATGATACTGGCTTAGATTTAAAGCTCTTAAATGA
GATTAGAGATTACTTCATGAAAGTTAGAGAAAAATATAAAATGCTATTCTCTCCAATATC
CCAAATTGTCGATGCAAGGGTTTTGGTGTATCAAGTTCTTGGAGGAATGCTATCTAACTT
GGTCTCACAACCTTAAAGAGCAGGGAGCTTTGGATAAATTTGAAGAAGTTCTACAGGAGAT
TCCAAGAGTAAGAAAGGATTTAGGATATCTCCATTAGTTACACCAACCTCTCAAATTTGT
45 TGGAACCTCAGGCTGTTTTAAACGTTTTAACTGAAGAGAGATACAAGATTATAACAAACGA
AGTAGTTAATTATGTAAAGGGCTTTTATGGAAAGCCACCAGCTCCAATTAACCCAGAGTT
GTTAAAGAGAGTATTGGATGAGGGAGAGAAACCAATTACCTGCAGACCAGCTGATTTATT
ACCTCCAGAAATGGGAGAAAGTTAAGAAAGAGGAGAGAGAAAGGAATTGTTAAGAAAGA
AGAGGATATATTAACCTACGCTTTATATCCACAGATAGCTGTTAAGTTCTTAAGAGGAGA
50 GTTGAAAGCTGAGCCAATACCAAAAGAGAGGATATAGGAAAGATTTAGAGATTCCGAC
TGAATATATTGTAGAGGTTGATGGAGAGAAGTTTGAAGTTAAGATAGAGCCAAAGATTGG
AACAGAAATTGAAGAGAAAGAAAGTATAACTGCAGAGATGGAGGGAGCTGTTACTTC
ACCATTTAGAGGAATGGTAACCTAAGATTAAAGTTAAGAAGGAGATAAGGTTAAGAAGGG
GGATGTTATTGTTGTATTAGAAGCTATGAAGATGGAGCATCCAATAGAAAGCCAGTTGA
55 GGGAACCTGAGAGAGAATATTAATTGATGAAGGAGATGCTGTGAATGTTGGAGATGTAAT
TATGATTATTAATAAACTTCTCTTTTTTGTGATATTTTGGTGAATTTATGGAAAAAA
GATGGAAATGTCCAAATGTGGAATACAGAATTTTTTGAAGAAAGAGTTGCAATGACTG
GAACTGGATTATCAAAGATATTGATATCCAACATAACGAATATATTGTTATAACATGCA
AAAAATGCGGATATTCTGAATTTTATGATAAGAGTATAGTCAAGAGTAAGGATAATTTAA
60 TGAATATTTTAGATATCTTCTTTGGATAGAGGTGAAAAATCATGTTTAAACAAAGTTTAA
TTGCAAAATAGAGGGGAGATAGCGATTAGAATTATAAGAGCATGTTGGGAGTTGGGAATTA
AGACAGTTGCAGTTTATCTGAGGCAGATAAGAGGCTTTTACATGCTACTTTGGCTGATG
AAGCTTACTGTATAGGTCCTGCTCCAGCGGCAAGAGTTATTTAAACATTGATGCCATAT
TAAATGTAGCTGAGAAAGCTAAGGTTGATGCCATCCATCCAGGATATGGATTTTATAGCTG
AAAATGCTGAATTTGCAAGGGCTGTTAAAAAGCTGGTTTTGAATTTATAGGGCCTAATC

5 CAGATGCTATAGAAGCAATGGGAAGTAAATTAACGCTAAAAAATCATGAAAAAGCAG
GAGTTCCTTTAATTCCTGGTAGTGAGGGGGCTATTGAAGATATTGATGAAGCAATAGAAA
TAGCTGAAGCTATCGGTTTCCTGTAGTTGTTAAAGCTTCAGCTGGCGGTGGCGGAATGG
10 GAATGAGTGTTCATATAGCAAAGAGGAGTTAAAGAAGTTATTGAATCTGCAAGAAACA
TTGCAAAGAGTGCATTTGGTGACCCAACAGTATTTATTGAGAAATACTTAGAAAATCCAA
GACACATTGAAATCCAATTATTGGGAGATAAGCATGGGAATATTATTCATTTAGGAGATA
GAGAGTGTTCATACAGAGGAGACATCAGAAGTTGATTGAAGAGGCTCCCTCACCATAA
TGACTGAAGAGTTAAGAGAAAGAATGGGAGAAGCGGCAATCAAAGCAGGAAAGGCAATAA
ATTATGACAGTGCAGGAAGTGTGAGTTTTTGTATGAAAATGGCAACTTTTACTTCTTAG
15 AGATGAATACAAGAATTCAGTTGAGCATAACAGTTACAGAGCAAGTTACTGGAATAGATT
TGGTTAAGCGGATGATTAAATAGCTGCTGGAGAAGAAATTAACCTTAAAGCAGGAAGATG
TTAAATAAGAGGGCATGCAATTGAGTGCAGAAATTAACGCAGAAGACCCATTAAATGATT
TCGTTCCATGTCTCGGAAAGATAAACTATATAGGTCTCCAGGGGGGCTGGAGTTAGGA
TTGACAGTGGTGTCTATGGAGGGGGCTGAAATTCCTCCTTACTATGATTCAATGATAGCTA
20 AGCTAATTACTTATGAAATAGCAGAGAGGAGGCAATAGCAAGAATGAAAAGAGCTTTGA
GGGAGTATGTTATAATAGGCGTTAAACAAATATTCATTCATAGGGCTGTTTATAGAGG
AGGAGAAGCTTTTAAAGGGAATATCTCAACTACTATGTAGAGCAGAATATGCATAAAT
TAAGAGAGAAAATGGTTAAATACGCATTAGAATCAAGAGATTTATACAGTGTGTATCAG
AGAAGGTATTTGAAAAGAATAAAAGATAGCCCGCGCTGTTGTTGTTTAAACATGTATA
25 TATCCCAATTATGAAAGAAAATGAAGTGAATAACAAAGAATGGTAAGTATCTAAATTT
TATTTTTTATATGCTTAAAGATAGAAGTTATTGAAATTTTCTTAAATTTGAATATTTAA
TTTAATAGATTAATAAGATTAATAATCTCAAAAATCAGAATGTGTTGATAGTAATATTT
ATATAACATAAGGCAATAGTTATTTAAAGTTTCTTTTTAGAAAATAAAAGGTGATAATA
ATGCCAGGAACAAACAAAGTTAATGTGCGTTTCAATTAAGTTGGACAGTATGTTATGATT
30 GATGGAGTTCATGTGAAATTGTAGATATTAGCGTTTCAAAGCCAGGAAAACACGGAGGA
GCTAAGGCAAGAGTTGTAGGTATTGGAATATTTGAAAAGTTAAGAAGGAGTTTGTGCA
CCAACATCAAGCAAGGTAGAAGTTCCAATAATTGACAGAAGAAAAGGACAAGTATTGGCT
ATAATGGGAGATATGGTTCAAATTATGGACTTGCAAACCTTACGAAACATTGGAGTTGCCA
ATTCCAGAAGGTATTGAAGGATTAGAGCCAGGAGGAGAAGTTGAATATATAGAAGCAGTT
35 GGTCAATACAAGATAACAAGAGTTATTGGTGGAAAGTAAATTTTAAATTTTAAATTTAAAT
TCAAAAGTTTCCATTATGGTCTTTATAACAACATTATCAATATATTTCTTTGCTATTTTA
CCCAACTCTCTCAACTCATTCTTTAGGCATAGGGAGTTTTTTAAATCTTTCATCATAG
GCATCCTTTGGCTCAAACCTGCTGAATTGCATATAAGTCACAGTCTTTAACTGTTTTGCT
ATATCTTCAATATCTTCTCATCCATAACTTTTGGGACAAAAGTTGTTCTACACTCAACA
40 AATACATTATTTTTTTGCATAAATCAATAATCTTAAATATCTTATTTTTAATCTCCTCT
CCATCTCTCTGCATTTTACAACTCTTTTACTTATCAATCTACATTTTACATCAATA
GCAACATAATCAATAAGCTTATTTTTAATTAGCTCCTCAATAACCTCTGGATGTGCGCG
TTTGTATCAATTTTCACTGGAAACCCTTTTTCTTTAGCATATCTTGCTATCTCTATCACA
GCATCTTTCTGCAGAGTAGGTTCTCTCCACTTATGACGATAGCATCTGCAATAAAAAA
45 TCTATATCATTAATAATTTTCTCAACTGTCATCCCCCTCTTATGCTCCAACATAAACTTT
AAATTGTGGCAATAAGGGCATTTTCATATTACATCCATATAGAAATATGACAGCTGAAGCT
TTTTTTGGATAATCAATTGTTGATAAATCTACTATTCTGAAACTAAAGCTTTCACTTTA
TCACCTAATCAATTTTAGTCTTTTAGCAAAATCATTTAATCTCATCGTTAATTAAACA
TCCAACATGGGCATAGAGCCACATAAACAAGCCAAATCCCAACCAATTGGAGCCATGA
50 ATATTCCTTCAGCAGCTACAATTGTTCCAATAATATTGTTCCATAACTCCCCAGAAC
GCAACTTACTTGGATATGGCTTTTTCCACAACCTATCTCTAATTCTTGTAACGAATATGG
TTGCATGTCCAGCCAATATCAACTTTAAATAACAAAGCTCTGCAACTCTGCAATTGTTA
GATGTAAGAATACATCAGATATATAGAATATCAGGAAGGAGCTAACAACTCCACTCAGTC
CTAAAGCAGTTGAGAGCATTAAATCTCTCTCATCCTCCATCTAAGTGGAGATTTTGGCT
55 CAACAACGTTATCATAGGCGATTGCCAATATAGGGATGTCATTCAATATAGCTAAGAGCA
CAATCATCAATGCAGTTATTGGATAAATGCCCAAATCAATATGCATAACTCAACAAAGA
ATAAAATCCTTATTGTCTCAGTAATCTATATAAATAACATAGCTTTCCATTCTTTGAAATA
TCCTTCTTGCTCTTGATTGCATCAACAATAACAGATATTCCAGGAGATAATAAACTA
TATCAGCAGCGGCTCTTGAGCATCAGTTGCATTTGAAACAGCAATCCCACAGTCAGCCT
60 TTTTAAAGGCAGGAGCATTAACCTCCATCCCCAGTCATGGCAACAAGATGCCCTCTCT
CTGTCAGTGAATCAACAATCTTATATTTATGCTCTGGGAATACCTCAGCAAAATCCATCTG
CTTCTTCAACAATCTCATCAAAATTTTCTTCTTAAATCTCTCTCTTTTATGTTTCTCA
ATAGCTCACTAATTGATATTATCTTGTCTCCAATGCCCAACATTTCGTGCTATATTCTTAG
CTATAGCTACATGGTCTCCAGTAACCATCTTTATTATAACTCCAAGCTCTTTAATCTTCT
TAACTGCCAAAGGAGCATCTTCTTGGAGGGTCATACAATGGGATTATTCCAGCAAGCT
GCCATCTCCATTTTATAAACAGCTACCCCTAAAGCCCTATAACCATTTTCAGCAAGCT
TATCAACAATTTCTCAACCTTTCTCCTTAACTCTTCATCTGCATTGCATAAATCTAATA
TAACCTGAGGAGCTCCTTTTGAAGCTTTAACTCCTCATCGTTAGTTACCTCTGCCTCTG
TCCTCTTAATAACTGGGTCAAATGGAATGAACCTCTTATTTTGTAGTTTTTTATTTTTT

-231-

5 CCATCAATCCTAATTTCTTAGCCTCATTAAAAATTGCCATATCTATTGCATCAGCATCCT
CTTCCCCTGAAGCAAGAGCGGCAAATAAAACAACATCCTCTTTACTAAATCCATTTAAAG
CTATAATTTCCCCACACACAAGCTGATTCTTTGTTAAAGTCCCAGTTTATCTGAGCAGA
GAATATCAACTCCTGCAAGTTCTTCAATAGCTACAAGTTTCTTAACAATAGCATCCTTCT
10 TTGCTAAATTTAATGCTCCAATAGCCATAGTTATTGATAACACAGCTGGCATAGCCGCTG
GAATTGCTGAAACAGCTAACACTAAAGCAAATTGGGCTGTTTCTATTAACTCTTTCTCTC
TAAACAATTCAACGGCAACCATATTGCTATTAAATTTACTGCTAAAATATCAAATAGT
CTCCTATCTTGATAATCATCTTTTGATAAGAGCTAACTTTTTCTGCTTTTTCAACTAACT
TAACGGTCTTTCCAAAGTAAGTATTTAGCCCGGTAGCTTTAACTATTCCAGTCATCTCTC
15 CTTTTTAAACAATAGAGCCAGAATAAGCAATATCTCCAATCTTCTTCTACTGGCAAAC
TCTCTCCAGTTAAGGCAGATTTCATCTACAATAAATAATCTCCATCAACCAATATTATAT
CAGCTGGAACGATATCTCCAATCCTAATTCTAACAACATCTCCAGGGACTAATTCTTTTG
CTGGAATTATTTGCCATTTTCCATCTCTCAAAACCTTGCATTTAAAGCCATCTTCTGCT
TTAAAACTCTATGACATTTTCTGCTTATATTCTTCCCAAAAACCAACAACACCATTAA
20 CCAACAGTAGTATTAAGATTATAACAAAATCCACCCAGTGTGATTATTGCAGATAAAA
TAGCGGCAATTTCAATCATCCAAGCAATAGGATTCCAGAAGTAAGAGAGAAATTAATAA
TTGCATGAACCTTTTTTCTGGGATTTTCAATATATCCATAGATTTTAACTCTCTTAG
CTTCTTCAGTTGATAATCCAGTTTTTATAGAAGTTTTATATTCTTCTTCAATTTCTCTCA
CATTCAACAACCCCCACAAAAATAAAAAATAATTTATTTAAGCAAAGTATTTTAA
25 ACATCCTTCTCTGTGATAATTCCTTTATCCTTAAGTTTTCACTCACTACTGGTAAAGCC
CCTATATCATTGGTTACCATTATTTAGCTATCTTCTTTAATTTATCTCCCTCTTTTGCA
GTTATAACATCCCTCTTCATAATCTCTTCCATTCTAACATTTGTTATCTCTCTAACATTA
CCAGTTTGCATGTGGTTGAAAGCCCAATCACTACCTAAAAGTTTATAAAGTCCGTGAT
30 GTTATAATCCCTACCAATCTCCCTCACTAACAACCTGGCAGTCTTCTAAACCCATTTCTC
ACCATAGTTCTCGCAACATCTTTCAACCTCTCTCCTGGTGTGGCTACAATAACGCTCCCTT
GTTATATAATCATCAATAACCTCATTTTCTGCTATCTTATCCAATAAAGCCCTTATCACA
TCTCTTTCTGTAATTAATGAAATGAGTTGGTTCTCGTCATTAACTATTGGAGCCCCCCA
ACATTTTTGTTAAGATGTCTCTATTGCTTCATCAATATCTGCATTTCTCTTTAAGTT
35 ATAACATTTCTCTCCATTATCTCTAATCTGTTTCAATTTATTGCTGCTAAAAATTCCTT
TCATGCTTCTCTCTAATTAAGTTGATTTTGAACCCCAACCCATGAAATCTACAATATCC
ATACTTGTAATTATACCAACAACCTTTGTTATTTCCCGCATTTACCACTGGCAATCTCTG
TATTTATTTCTCATTATAGTCATAAGGGCTTTTCTTATTGTAGTTGTAGGATAAACAGTT
ACAATCTTTTATTTTGGGCAATTTTCTGACTCTCACAACATCCCTCACAGGAAATTT
40 TCAATAGTTTAAATTTAAATTTGAATTTTACACATAATATTAATTTTCAATTAACGTA
TAAATGATTATCCTTGTGATGAGTATGAGAGATGTAGAAAAGATTATAAAAGGAATAAT
AAAAGATATGAATCCAAGGTTTAAAGGAAAACCTTAAAGAGATTATTGAGTGAAGAAAA
ACCACATGTAATAATAACGGTAAAAGGCATAGGATAAAAAGGAGAGAGCTTGAGTTT
AAAAGAGATAGCAAGTGAAGATTTAAAAATCCCTATTGTTTTAGAGGTTGATTCCTCTT
45 AGGAGGGGCTATAAAAATCAGTGGAAAAGAAGTAAAAGTTATATCAAAGATTTTGGG
GAAAGAGATTGATATTTTTTTCAGAGAAGGATGTAATGTATATATATAAACCAGAACTAAA
GATTGTTAGAAAAGAACTGCCGACAACAACACAGCTTATATTTAAATTTATCTTTATTTGA
CTAAAAAGTGATAATTATGAAAAGAAAAAATACTATGGGAAAGACCCAATAAAAAAGCT
TTTAAATGACCCGAAAAGAGAGAAAAGATTTTAAATTTTATTTATTTGAATATATG
50 GGTTTGGTTGATGGTATTTTGGGGCGGTGATTTTATCATATTGATGATAAAGATTATTA
TTGGTGAAATTTTGGATGATGAAAACCTGACTAAAAGAGAGAAATTACTATTTAATGCCA
TTTTTGACATTTATAAAATATTTCTGGAGCAGGATTGACTTTATTAGTTGCTGTCGTTA
TTAAGGTTTCATTTTCTGAAGGTAGTTTAAATATTGGCTTATCACTAATTTTAAACAGATA
TAACAATCATTATTTACATTAGCTTGCTGTTTGGAGCAATTTTATATGATATTTATAAAA
55 GATTGTAACATTATTGTATCAACTTCCCTTCAACTTTCCAATACCAGACTGCAATAGCTGT
AGCAACAATGCCATAAATCCCAATATAACTAACACCAATATTGCAAAGGCATCCAAGT
CATACTTCAACCTCTTTTTATAACCAAAAAGATTATTAACCTTTAAGTTATCTAAGTTAA
TATTTAACTGATAATTATATTTATACTTTTATTTGGTGGTAGTATGAATATCTATGTTT
GGTTATTTGCTATTATAGCTCTAAGCTTCTCTGCATTAGTGGGATTAAGATTATCATTTA
60 AAAAGGGAAGTGCCTGTTTGGGAGTCAATAATTACCGTTGTTGCTGGGAGCT
TGATAGTTGTTATCTCCAAAAATACAACCTTGCATTTGCCGATACTATAGCCTTAGCCA
TCTTTATATGTGGGTTGTTGGGCATTTGCCCTCTGTAAGGTTATAGGTGGAGATAATG
AAAAAGCAAAACAGCCAAATTAATGAGATTAATAAAGATGAGATATTTGAGTCTGTTCT
GCATTCAATGAAGAAAAGATGATTGGAGAACTTTAAAGAATTTAAAAAAGAGGGCTAT
AAAAATATAGTAGTTGTTGATGATGGTTCAATGGATAAACTTCAGAGATAGCTAAAAAA
GAGGGAGTTATAGTCTGTAGGCATATATTGAATAGAGGGTTAGGGGGAGCTTTAGGGACT
GGGATTAATGTGCTCTGCTATATAAACCAAAAATCATCATTACCTTTGATGCAGATGGG
CAACATCATCCAAAAGACGTTGAGAAGGTTGTTAAGCCAGTATTATTTGAAGGCTATGAT
ATGGCTATTGGTAGTAGGATGATGGATAAGAATGAGTTAAGAATATGCCATTAGTTAAA
AGGATTGGGAATTTTGGCTTAAATTTTATAACTTATTTGATGGGAGGATTTTGTGTTACA

GACAGCCAAAGTGGATTGAGAGCTTTCTCTTATGAAGCGGCTAAGAAAATAATAGGGGAT
TTAAAGAGTGATAGGTATGAAGTTTCCCTCTGAATTTATAATTTTAGCTAAAAACATGGA
TTAAAGCTTAAAGAAGTGCCAATAAAAACTATATATACTGAATATTCGATGAGTAGAGGA
5 ACTAATGTAATAACTGGGTTTAAATTTTATTTAAGTTGATTATGCAGAAGATTTTITAA
AATGGAAAAATAAGAGTTTAAATATTTTATTTTGGATTTATCTTTCCAACCTTGTATT
TTAAGCCAACTGAGCCACCAACATCTAATAACACTATGTTTATAGCCAACAGAATGAAGG
TTATATAAATCAGATATAAGTCCATGGTAGCTAAAGCCATGCCCATTAATAAAGCTGGGA
TTAATATTGAAACATCAATTGTAACCTCAATGATTTTCATCTCCTTTCCGCTTGAATAC
10 TCATTCCCCCTGAAATACCTGCAATAATTGCAACAATAGCACTCAATATTATTGATGTCT
CTGATAGATACTGTAAAACCAACTCTTTTGAACAAAAACCAACTTGGAAATAATGCAC
AACTATAACAATCCCAGAGCAGAGGAGTCTTTTTCATCCCTTGGATGAATAACTCTT
TATCTCCCAATACTGTTCTTATGGCACTTCCCATAACTGTATCAACTAAAGGTGCTATAA
TCATCGCCCCAATTAATGTTGGAATATTATGCTCTATCAATCCAATAACTCCCATGATAC
15 TTGCCAATATAACTTTAATTATAACATTTTTCGTAATTTTAACCATAGTTTTTGTCTTGT
AGTAGAGTTCTAAAGGAGACAAGCTTGTGAAGCTATTCCCTCCTCCCTACATGAGAATG
TTATGTTTGGCTGGCATTATTGTCAACTTCCATGACCTTTCTCTCCTAAACCTAATTTTT
TTAATTTCTAAACTATTTTTCTGCATCTCTTGCATCTGCGTTCATGTTATGATGATTC
CATCTTCAATTGATGTCTTTAATGGTTCAATTATTGATATTGAGTAGGCATTGTTCTTTT
20 TTAATTTCTCTCAACAGTATTTAGGAATTTTTTGGAAATGATGATTTTCATGTATCTCA
TTCTCTCACCACCAACCAACCTTTATATACCCCTACATCCAATTACATAGTGAACACAT
TAAATAACTATCTAAGTTGGTGATACCTTGAACCTTAGAAATGTTGAACCAAGGTTTTT
GAAAGCATATAATATATTAATGGATAAATTTGGGCTATTCCCATTTACCTATGATATGGC
TGAAAGGTTCTTAAAGATAACTATGAAATGTGAATGAAGTATTATCCAAGTTGGCTGA
25 TCGTGGATTATTGGAAAAGACAGCAAAGAAGGAAGATAAAAGAAAGAAAATTTATAAAAT
AAAGCCATTAACACTACTGAAAAAATTGAAAAGGTAAGTAAAGATAAGTTAATTGGTTTGT
TAAGCAAGGGGCTGATTGATAAGAAGCAGGTAGATTATAAAGTATTACTGTTATTTTT
GTTTTTTAAGGCAATTAGTGATAAATATCTGTTAAAAGTTGAGGAGTTGAAGAAGGAGTT
TGAAGATTTGGATGAAGAAGATATATATGTATTGGCAAATGAGGAAATTTTAGAGCTTTA
30 TGATGTTGAGGGTAAAAAGTTGTATGTATGGCATGAAGTAGCAAATAATCCAGAAGATTT
TATAAATGCATTAAATAAAATTTGTTGAGATGAATAAGGAGAAATTTGAGTGGTTTAGATGA
GTTGATAAAAAGAACTGGACTTCCCTACATTATTGAAAATGAAAATAGGCATATTGTTCA
ACATTTAATTAATTTATTTAGTAGAGCAGATTTTTCAGAAGCATCTTATGATATATTGGG
AGATGCTTATGAATGGACTTTAAATTTATTTGCTCCAACAAAGGCAAAGAGGGGAGGT
35 TTATACTCCTATTGAAGTTAGCAAACCTAATTGCCCATTTGGTTGAACCAAAAGACGATGA
GGTAATTTTAGACCCTGCATGTGGTTCTGGTTCTATGTTGATAGAGCAGTATAGATTTGC
AGGTAGTAATCCAAATATTGTGTTGGTTGGGCAAGAAAGGAATGATGTTACTGCCGTTTT
AGCAAAGTTGAATTTTATACTGCATGGAATTAACCTTAAAGATGCTAAGGTGTTTATTGG
AGATTTCTTTACTAAATCCAAAGTTTGAGAGTTTATTInAAGAAGTTAAAGGTACTGGnAA
40 AGCTGATAAGGTTGTAGCAAATCCACCATGGAATCAGGATGGTTACGATGAAAACACCTT
AAAAGTGAATGAAAAATATAAGATATTTATATGTATGGATTTCCAAATAAAAACTCCGC
TGATTGGGCATGGGTTGATTGATAAATTATTATACTGAAAAAAGGCGGGGATTGTTTT
AGATTCAGGGGCTTTGTTTAGGGGAGGGAAAGAGACAATAAGGAAGAGATTTGTAGA
TGATGATTTAATTGAGGCAGTTGTTTTATTGCTGAGAAGTTATTTTAACTGTCTCTGC
45 ACCAGGGATTATTTAATTTTGAATAAAAAATAAGCCAGAAGAGAGAAAAGGAAGATTTT
GTTTATAAATGCCTCTAATGAATATATTTAAACATCCAGAGGTTAAAAATTAACAACT
CTCTGATGAGAACATTGAGAAAATAGCAAAGGCATATAAAGAGTTTAAAGCATGTTAGG
CTTTTGTAAAGGTTGTAGATATTGAGGAGATTAGAAAGAATGATTATAATCTAAATGTTTC
TTTGTATATCTCTCAATTGAAGAAGATGAGGATGTTGATTTAGGAGAGGTTTATGAAGA
50 GCTTAATAAATTTGCATAATGAGTATTTGGAGAAGTTTGGAGTTGTTAAAGGTTATTTAGA
GGAGATTAATGGGTTGATTAAATAGATATTTTTTGGAGGATTTTAAAGCTGGAAGTTA
ATTTAATTTGTTTGTATTGATTAGAAATAAGTAAGGTGGTTAATATGGCTCCAAATACAAA
TTTTGCCAGTTTAGTTGCAGTAGCTGGATGTGTTTTGTTAGGATATAATTACTATACAGG
CAATATATTTTGTGGAGTTATAGGTTCTTTATTATTATTGAGGCTTTATGGAGCTTAAA
55 TGGAGGTAAAATTTGGGGTATTATATCGTTTATCATATCAGCAAGTATTTCTGTTATAT
AAATTGGGACTTTATCCTTAATTTGTTATTCTATTTCGATTATTGCTTTTATAGTTATGTC
CATATTGATTTTAAATTTTGGGAATAATCGTGGAGGATATTATTACTAAATACTATTTTT
TTTGGTGATAATTATGCAATTTTATAAAGAAGAGAATTTTAAAGAGATGCATGGGTTGAG
AGTTCCAGAGGACTGGGAAGTTGTAAGAATTGGAGATTTTATAAATATATTAAGGTAA
60 AAAACCAGCTGTTATGGTAGATGAAGAAGTTGAAGGTTATTATCCTTATTTATCACTGA
GTATTTAAGGGATGGAATAGCTTCAAAATTTGTAAAAATAACCAATAAGGAATTTATTGT
AAATGAGAATGATATACGCTATTATGGGATGGTTCAATGCAGGGGAGATATTTTTAGG
TAAAAAAGGAATTTCTTCTCAACAATGGTAAAATTAGAACAGAAAAATAAATTTATGGA
CGATTTATATTTATTTTATCCCTAAAGTTAAAAGAAAGTTTTCTAAAAAGTCAACCAA
AGGAAGTGAATTCACACGTAGATAAAAAATATTGAAAATATAAAATCCCCCTCCC

5

10

15

20

25

30

35

40

45

50

55

60

TCCCTTAGAAGAACAGAAACAAATAGCAAAAATATTAAGTGAAGTTTGATAACCTAATAGG
AACATAAATAAGCAGATTGAAGTATTAATAAGGCAAAAAGGGGATGATGAAAAAATT
ATTTACTAAAGGAGTTTTTGAGCATAAAAGTTTTAAAAAATCAGAGATTGGAGAGATTCC
AGAGGATTGGGAGGTTGTTAAATTAAAGGAAGTAGTGGATATACAATCTGGAAAATATTT
TAAATATTTCAGAATTTTGTGAAAATGGTGTAAAATGTTTGAAAATCGATAATGTAGGATT
TGGGAAAATTTTTTGGGAAACAGTTTCTTTTCTTCCAGAAGATTATTTGAATAAGTATCC
ACAATTAGTTTTTAAATCTGGAGATATAGTATTGGCATTGAATAGACCAATAATAGGTGG
AAAAATAAAAATTGGAATTTTAAAGGATATAGATGAGCCAGCTATACTCTATCAAAGAGT
AGGAAGATTTATTTTTTAAAGATAGACAAACAGTTTTTGTGTTTATTTGTTAAT
GAGTGAATATTTCAAAAAGAACTTTCTAAATTGCTTATTGGGACTGACCAGCCTTATAT
AAGAACACCCGCTCTACTAAACATAAAAATCCCTCTTCTCAGTATAGAAGAACAAAAGGC
AATGGCTGAAAGATTAAAAAGTATAGACAACCTAATAGAAATAAAAAGAAAAGAAAAGA
ACAAATAGAAAAGCAAAAAGAAAATAATGAATCTACTACTAAGTGGAAAATTAAGAGT
AAAAAATTTAAATTTTTTAAATAAAAATTTTTATTGTTAATAAAAATTTTGCTGGTGAAT
ATGAAAACCTCTCTGAAATAAAAGAAATCCTAAGAAAACATAAAAAAATACTCAAAGAA
AAATATAAAGTTAAATCTATCGCTATATTTGGCTCTTATGCAAGAGAAGAACAGAAAGAA
ACATCAGATATAGACATATTAATTGACTACTACGAGCCAATAAGTTTATTAAATTTGATA
GAGTTAGAAAATTAATTATCAGATTTATTGGGAATTAAGTTGATTTAATCACTAAAAAC
TCCATCCACAACCCCTTATGTAAAAAATCCATTGAAGAAGACTTAATTTATATTTAATGG
TGTTTAAATGCCGAAGAGAGATATAAAGGCATTTTTATATGATATTTTAGAGTATATGGA
TGACATAATTAACCTTTACTAAAAATATGGAATATGAGGAGTTTATAAACAATAAGGCAAT
AAAATATGCCGTTGTTAGATGCTTAGAGGTTATTGGAGAGGCGGTTAAAAAGATACCCAA
GGATATTAGAGAAAAATATCCTCACATCCCATTCAAAGAATTGGCTGGAATGAGAGATAA
ATTAATCCACCAATATTTTGGTGTAGATTATCTAACCGTTTGGGAGACAGCAAAATATGA
AATCCAGAGATAAAGAAAGAATTTGAAAGATTATAAAGACATTGAGGGGAAGGATGA
AACTCTCTCTGAAATAAAGAAATCTTAAGGAAACATAAAAAAGAAATTAAGAAAACCT
ATAAGTTAAATCTATCGCTATATTTGGCTCTTATGCAAGAGGAGAGCAGAAAGAAACAT
CAGATATTGACATTATGGTTGAGTTTTATGAACTCCGATTATCTCAAATCTTTGAGT
TGGAGGATTATTTAGAGAATATTTTAAATATCAAAGTTGATTTAATTACAAAACTCAA
TTTAAATCCATACATTAAAAAATCCATTGAGGAAGATTTAATTTTTATTTTCAAGTGAAT
AAAAATGCCGATTCCGGAGATTTACGTCCATAATGATATAGAAGAGAATTTAAATAAATT
GTTTGGAAAGAATTGGAGGGATATGAAGGGGAGGCATTTAGCACTACATAATAAACCA
ATATTAGAGGAGCACTAAAAATATAAAGGACACATAGGAGAATATAAAGATGAATTT
ATTGAGAAAGCAATAAATAAATAAATGAAAGGAAAGGAAAGGGAAGGATTTCTAATAGA
ATTAATAATGGAATATTAATAAATAGATAAGGGAAGAAAAGGGCAAGTTTCTAATAGA
GTTAAATTAATTGATTATAAAAAATATTGAGAAAAATATCTTCAATTATGCCACGAATTG
AAATTTAAAGGAAACGACACATTATCCAGATTTTACCCTATTTATTAATGGAATCCCA
ATAATTATTATAGAGGCAAAAAGAGAATTTCTGAAAAAGAACTTATGAAGAGGCGATA
AATCAATAAATAGATATGAAAGGGAAGCTCCTAACTATTCAACTATGTGCAGTTTGCC
ATTGTTTATGGAGATGAAAACTTTATATCCCAACATATCCAAACGAAGAAAAGAGAT
AGATTTAAAAAGCCATACAAATGGAATAAAGAACTTATATTTTATTTAGTAAAGACAGG
TTAAAAAGGGAGAGAGTTTTAGATACATAAAGAACTTTATATTTTTTTAGTAAAGACAGG
GCTGGAAGAAAACTAAAATTTATCCGAGATATATGCAATATTGGGCACTAAAAAAGCT
TATGAAAGAATAACCACTACCTAAACAACAAGATTATAAATAAGGGGATTAGTTTGG
CATTGGCAAGGTAGTGGAAAAACCTTCGAAATTTTATATTTGGCGGAGTTATTTTATAAT
GAATTTAAAAACAAAGACCCCTATTGTTTTTATAATGGTGGATAGGAGAGAGTTAGAGACT
CAATTTAATGATGATATCATTGCCTTACAAATGCGAATTTTAAAGATTGCTTCAAAAAA
ATTAACAGTGTGGAAGAACTTAAAGGAGTTTATAGAGGACATAAAGAGTCAGAAAAATAAC
CCAAATATTTAGAGAGGGGCGTTTATTTGGTTATGATGCACAAATTTGATATAAATAA
TTAAAGGACTTTATAGAATCTTTTGGCTCAATTGATAAAAAAGAAATTTTGATTTTGAGG
GATGAAGCTCATAGAATGAATCAGGTAAATTTGCCACCCTAAGAAACAAAATTTTAAAA
AACGCCATTGCCATTGGTTTTACTGGAAGTCCCGTTTCAAAAAAGATATGAGCACATTT
AAAGAATATGCCATCCACAAGAAGGAGAGTTTTATTTAGATAGGTTTTTTATTGAGGAA
TCGATAAAGAGGGCTTTACTTTGCCTTAACTCTGGAGAGTTGTTAAACCAGAGGATATA
AAAGATATCTCAGAGGAAGAAATAAAGAACTTATAGAAAAATTTGTTGTTGATGAAGAA
GATGCTGATAAGATTGTTGTATCCAAAAAGAAATTTGCCGAGAAAAATAAATTTATCTGAT
TTATTAAGAGTGAAGCAGTATAAAGAGGCATCAAATACATAGCAGAGCATATTTTA
GAAGACACTGAAAATTTAAATTTCAAAGCCATGGTTGTAGCTCAAGATAGAAAATCATGC
ATTTTGTTTAAAAAATTTTAGACGAATATCTTAAGGAAAAATAAAAACTACAATGAG
AAGTGGACTCAGGTTGTTTATACATATTTTACAATGATGATGTAGAAATTTGAGAAATTA
AAAAAGAGATTGAAAAAATAATGGTAAAAATGTAGATGAATTAACAAAAAATGGACT
GAAGATTTTATAAATAAAGAAAAATCCAAAAATTTTAAATTTGCAATAAAAAAATTTGACC
GGTTTTGATGCTCCAATATTAAGAACTATCTACATCCACCAATTTCTTAAAGATTATCTC
TTACTTCAAGCATCTGCAAGGGCAACAGACCAGCAAAAAATAAAAAATATGGACTTAT

5 GTTGATTTAACAGGAATATTAATTGAAAACCTACAAAAAGGCAATTGAGAACTATAACCTA
TACAGAGATGAAGCAATAAATAAGGATATTTTAAACAACTTATTTGTTGAAACATCAAAA
ATCTGGGAGAGCTTTTAAACGAAGTTAAATGAGTTTAAAGAGTTGTTTAAGTTAATTGTA
GGGATTGAGTTTGATGATTTTCATTGTAAATCTAAAAAACAGAAAACTCAAAAGAATTT
10 AAAAAAATTATAAGCAAAATTATCCTAAGTGATAAAATTTGACTATTTCTATGCAAAACTT
AGAGAACTTATTCAATTATTTGAGGCTGTTGGGGCTTATGGAGAAAAGTTAAATTATTAC
GAAACCTATGAATGGCTAAAAATAATATCTGCTGGAATAAATAAGCAGATGAGACCTAAA
AGTTATAAAATTCCTTACAATCAAATAAAAAAGGAAGTAATAAAATATTTAGAGTTTGAT
ACTTATGCAGACATTGCTTCAACCTCAATAATCCTCAACTATTGGAGAATTTAAAAAAT
15 AAAGATGAAATTAATGTAATAGTTGCAGATATGATCTATTATGCTTTAGATACACTTCAA
AATAAAAAAGAGCCAATATATAGGATGATATACGACAGAATAAACGAGTTAAAAACGCA
TATATTTCAAAAACCTAAAAAAATGAGTATGTGATTAAATGAACTAATAAATTCGTTAAAT
GCATTA AAAACCTACGAAGAGGAGGAAAAACATTATCAAAATCAGAAAAGGCAATAAAAA
AATATGCTGTTTTATTTAAAGAATGTAGAGAACTGCAATATTA AAAA ACTTCCACTAACT
20 GAAAAGACCTTAAAAAATTTGGAAGATAAAAAATTAATAAAACCAAGTGATTTTGATAAA
ATTAAGAAATTCCTATTTGTTGATTTGAAAAATGCTATTAAAGAACTGAAAAAGAGA
AAAGTATCAAATAAAATAGTTGAAGAAATTTATAACCAATTTTATTTAATGTGATATA
ATGAAGATAGAAAAATATTAACGAAATATTGAGTAATACAATAAATGAACTAAACCTA
AATGACAAAAAGCAAAACATAAAAAATCAAAATAAAGCCACTTAAAGAAAAATTCCTCT
25 ATCTCATTGACCAATAAGACAATTTATATAAATAAAAAATATACTGCCTTATTTAAGTGAT
GAAGAAATAAGGTTTATTTTGGCTCATGAGCTTCTACATCTAAAATATGGAAAAATCAC
ATAAATGAATTTGAAGAAGAACTTTTATTTTATTTCCAAATAAAGAAGCAATTTTAATA
AACCTTATAAACAACTGCATCAGAAAAATAAAGGAGGGAGTATGTTTAGCATAAGAAA
GATAATAACAATCTCTGACTATGTAACAATGCTGAATATCATAACAGGACTTTTAGCTAT
30 CTTACTAAATAGCTTTTCATTAATCTACCTCTCAATAATCTTTGATTCTTTAGATGGATA
TGTAGCAAGAAAAACTGGAAGTGTCTCTGACTTTGGGGCTGAGTTAGACAGTATTTTCAGA
TGTTAGTTAGCTTTGGAGTAGCTCCTGCTTATCTATTATATAACAACCTTTGAATCAAACCT
AGCTTTGATATCAGCAATAATATTCCTGCCTCTGTGGAGCTTTAAGATTGGCAAGGTTTGG
GATTTTGAATGTTAAAGGTTTTATTGGCTTGCCAATTCCTGCAGGAGCTTTATTGTTAGT
35 TGGATTCTGCCAATTAATTAAGCTATTTAATTAACCTCAATATTGGCAATATTAATAGG
GCTTTTGATGATTAGTGATATAAAATATCCGAAGTATCCTAATAAGATATTTCTATAT
ATTTGCTGTCTCCTTATGTTTGGCTATAGTTGGAATCCACACTTTGCTTTAATGTTGTG
TTAATCTACGCTATTTATGGAATAATCAAATATATAAGAGGTGATTAACAATCAACAAA
40 GAAATCCTCAAAAAAATCCCAGAGAATATTTTAAATAAAGATGCAATAACAAATTAGAA
AATAAAGGAGTAAAAATTGTAGATGTTTTAGGAAAAGGACATAGAGGGGTTGTATTAAAA
GGCATATACAATAACAAGGAGGTAGCCATAAAAAATCCCAAGAACAGACAGCCCAAAAAAC
ACCATAGAACATGAGGCAAGATTTTAAACTCTTAGAAAAATATGACATAGCTCCAAAG
GTTTATGAATTTGATAGCGATTATTTAATCATGGAATTTATAGATGGAGAGGATTA AAA
45 TCAGCGTTGATAAATTAGATAAAGATAGATTGCTAAAAGTAGTTGAGGATATTTTAAAA
ATTACTCTAAACTTGATATCTTGGGGATTGAGCATAAGGAGATACAGGGAGGGAGGCAT
TTTTTAATTACCAATAAAAAACCTACATCATTGATTTTGACAAAGCTAAGGAAAAGAAA
ACCACGAAAAACTTCACCTGGAGCTATAGCTTTATTGTTTGGAGAAGGAAGATAGCAAAA
ACCAATAAGAAAACTCAAATATTGGAATTGATGAAATAAAATTTATAAGGGAGTTTGCA
50 AAAAAATAGAAAAAGCTCTAATGATAAATAAATTATTAAGGTGATGTTTATGGTTAAAA
ATCACAAGAAAGGTAAAGACATCGAACCATAGAAAATGCGTTATTAATTGAAGGACTG
CCAGGAATTGGACACGTTGGTAGATTGGCAGCTGAGCATTTAGTCCATGAATTTAAAGGA
GAGAAGTTTTTAGAACTCTTCTGTTATGACTTCCCACCACAAGTTTTGGTTAAAGATGAT
GGAATATTGAATATATGTGTGCCGAATTCATGCAATTAGAGAGCCAAAGCCAATGATT
55 GTTGTTTTGGGCAACACTCAAGCGTTATCCCCAATTGGTCAATACCACTTAGCTGAAGAG
ATTGTTAAAAATAGGCATAGAGTATGGAGCTAACTTTGTCTATACCTTAGGTGGCTTTGGA
GTTGGAAAGCTATGCCAAGAAGTTAAAGTTTATGGAGCTACAACATCAAAAGA ACTTGCT
AAAAAGTTAAAGAGCATGATATCTTATTCAGAACTGATGGGGGAGGAATTGTTGGAGCT
GCTGGTTTAAATGCTGATGTTTGCAGATTTAAATGGAATTCCTGGAATCTGCTTAATGGGA
60 GAACTCCAGGCTATCTAATAGACCCAAATGCTGCAAAAGCAGTTTTAGAAAAGTTCTGC
AAGCTTGAAAATATAGAGATTAATATGGAAGAGTTGGAGAAGAGAGCCAAGGGCATGGAG
CAGTTTATTGAGAAGATTAAGAAGTTTGAAGAAGAGATGCTAAAAGCTGCCAGGCAAAA
CCACCAAGTGAAGAGGATTAAGATACATTGGATAAACAATTA ACTTTAAATATTATCTT
CTCTTTTTTTAATTTTAAATGGTTTTCCCTTATTTTATTA AAAA ATTTAAATCCATTTTGAG
TGTTAATCTTTCAATGAAGGTGATTATTGTGAAAATCTGGAATAAAATCAATGGAATAAC
TCTAATAAATGATGATTTTTTAAATGTGGATTTACCTAATGAAAGTATTGATTTAATAGT
TACTTCTCCTCCATATAATGTAGGAATTGACTACAACCAACACGATGATACAATTCCTTA
TGAGGAATACTTAGATTGGACAAAACAAATGGTTAAAAAAGGCACTAACTCTTTTAAAAAA
GGATGGACGGCTTTGCTTAAATATCCCATTAGATAAAAAATAAAGGAGGGATAAAACCACT
CTATGCCGATATAGTTAAAAATTGCCTTAGATGTTGGATTAAATATCAAACAACAAATTAT

-235-

ATGGAATGAACAAAATATATCAAGGAGAACAGCGTGGGGTAGCTTTATGAGTGCTTCTGC
TCCTTATGTTATTGCTCCAGTTGAACTATTGTAGTTCTATATAAAGAAAGCTGGAAAAA
GCTTTCAAAAGGAGAATCTGATATAACTAAGGAAGAATTCATTGAATGGACTAATGGTTT
5 ATGGACTTTTCCGGGGGAGAGTAAAAAGAATTGGACATCCAGCACCATTTCGGTTAGAA
CTCCCCAAAAGATGTATTAACTTTTTAGCTATGTGGGAGATACTGTCTTAGACCCATTCT
TTGGGCAGTGGAAACAACAGCAATAGCCGCATATAAATTGAGAAGAAAAGCTATTGGTGTA
GAAATAGATGAGAAATATTTTGAATTAGCAATAAAAAGAGTCTCAAGAGAATGTTGCACT
TTGGAGGGTTTATTATGGAATAAACCACATATCTAAGATTTTAGAAAAAGAGAGGGAAG
10 AATACATTAGAAATAAAGTTGAAGAATATTTAAACAAGGTTTTCTAAGGATGATGCGG
TAAATAAGGCAAAATCAATCATGGAGACTTACATTGGACATAGAATTCAGATGTTATTT
ACAATCTACTTAAAAAATTTTTAAAGATAGCGGATTAAAGTAACACTGACAAAGCTT
TAAATAATAGAAATTTACCAGAAGAATTGGATAAAGTTAAAGATTGATAGCCATAAATT
ATGGTGAATATCTTTTCCCTCCAGATGCAGATGTTATTGTTTATAAAGTTGAAAATAATG
15 ATATAAAAAAATAGCAATCATTTCAGTTAAAAATTTCTTTTAGAGAAAAGATTGAAA
CAACATATTGGAACATAAAATGAAAGAGTCCCCAGTAACCTCACATATAAAGGTATTCT
TAGCCACTCCAGATAAAGACAATGAAATTTCTTATAAATGTCCAAATGGAAAACCTAAAA
AGATGAGAATAATCTTAGAATACGAACCTGATGGAATATATTTCCCTAAAAGAGGACTTTG
AAGAAACAGAAAAAGCAAAACATTTTGGAAAAATTTGTTGAAGACATTATAGAAATTTCTA
20 AGAAATTATAATTTATTTAGATTTAGAATGTAGTTACTTTTCCCTCAACAATCATCTTTT
GAACTTCCATGATGTTATCTAACCATTTATTGGCTATCTCTTTTGCTTTTGGTTCAATAT
CCTTTATATCATAGCTATCTTCAGTTATAATTTCTATATCTAAAGCCTTTGGCTCATTGA
TTGGCTTACCAATTTGGCTTAATATTCTAACATAGCACTCTTAACTCCTTCCAATTTGG
CAATATCGTTTGCTATTAGTTTGGCTAAGATATTGTAGATTTTACCAACGTGATTTACTG
25 GGTTTTACCACCTTGCTGCCTCCATACTCATAGGTCTGAATGGAGTTATCAATCCATTAA
CTCTATTTCTCTCCCACTGAACCATCATCCCCATCTCTGCTGATGTTCCAGTAACCTG
TTAGATAGACACTCTCCCTCTCATAATCATCTGCTGTATTATATGAATTTCAACCTCAT
ATCCATCAGCTATCTTCTAGCTAAATCTTCAACCTTCTTTCTAACCTTTTCAATAACTT
CCTTATATTCCCTCAATATTTTAAACATACCTATCAACAACAGCCATAGCAATGGTTAAAG
30 TTATCTTCTTACCCTCTCTTAATCCCATAACCTTTATGTCCTCTCCTACAGCTGGAATCT
CATTCTTTAACTCATCACTATTTAAAAATCTCTCTGTTTCTAAAACCTAACCTCTGTTG
TTGATAATGGAGCATAACCTACTCCAAATGATGTATCATTAGCTAAAGGAACCTCATCTCT
TTTGTCTCTCAAAGACATCAACTAAATCCATACTTCCCTGCCAATTCTGCAGTCAATAA
TAACATCTTTATCAACATCAACATTTCTTAAACCTTCTTTAAATATTCTTTAGCAGCTT
35 TAACAGCAGTTGTTCTACTGGGAGCTTTATAACTTCATTTTTCTCCTTATCTAAGATTT
CCATTGTTGCTCTCCAGATAATAAATATAAATAGGGCTTACCATTACTCCTCCTCCAA
ACTTAGGATATGCATGTCCCCCTACAAGCTCAACTTGGTCTGTATTGTGGTGCAAAATAG
TTCCAAACTTCTCCATGTACATCTTACATAAAGCCCTACTAACACTCTCAGCAATACCAT
CACAAATTGAATCTGGATGCCCAATCCCTTCTCTCAACAATTTCAAGTGGTCTTTCTT
CAATTGGTTCAACATCTAATTTTTTACAAATTATGTTTCTCATCTATATCACCATGTCTT
40 AATTATCAATAAGTAAATGATAAATAAATTTTTTATATTTAAAGTTAATCCTCTTATA
AAATAGAAAGCTAAAACTCCCTAAATTAGAAAAAATATTTTATTAAATCTCTTTACCA
TCCTTAACCATCCTTTGACGACTTCTTTTCTCCTCAAAACCCAACTCTTTTATAGAATTCTA
TAGCCCCCTTATTCTCTACCCCAACCCACAACCTCAACAATTTCTCCTCCTCTTTTATAG
45 CATATTCAATAGCTTTGTTTATTAGAGCGGTTCCAATCCCTCTCCCCCTAAAACTGGGT
CAACAAATATTTTATGGATTTCGGCAACCTCTCTTTTCTATATTACTTATCCAATTGC
AATCAACAAGCAACAAACCAACAGGCTTCCATTAACTTCACAAACAAAAATCCATCCT
CATCTCTCTTCAACCAATTTAAAAATACCATCTTGCCATTTTTTCTTTTATAATAAT
ATTTATCAAAATCCCCTATATGCTTAAAAATAAGCTCAAGAAAGTCATCTAAGTCATCTT
50 TAGTTACATTTCTTATTGTATAGGTTTATTAAGTTATAAACCTCCATAGCTGCATTT
GACATCTGAAGAAATCATCTAATATTGATTTTAAATGAGCCAAATGGAGTGGGTTTTATAT
ACAATGTGGGCTTTTTTTCACATTTTAAATTAATTTCAATGCTATTATTAATGTAGTTAT
CAACCTCTAAGCTTCTACAACTTCTTTTGAATTTCTAAGTGTAATAATTAGCTGGACTC
TCATAATCTCACAGAAATAATTTAAATTTATTAATTTAACTTTATGAATATATAGATGTA
55 AAATAAAAAATAAAGATTGGTGGCGCGGCGGAGGATTTAAACGAACCTTTTAGTAAAAGG
TTCATCAAAACGGATGCATTGCTTCCCTTAAGGAAGCAATGCCTCTTAGATTAAAGTGGG
GCTGAACGAAGTGAAGCCCCGCTCTGGGGTATACCAATAGGGGCTTTGCCCTATGSGAA
TAAATTATGGTGGCGCGGCGGATTTGAACCCGGGTCGCTGGCTTGAAGGCCAGAGTG
ATACCAGGCTACACCACCGGCGCATGTCCAATCAAGCCCTGGCTAATTGAAGCCAGTGG
60 TGCGGCTCCGGGATTTGAACCCGGGGTCCGGGCGTGGCAGGCCGCTGTGTTACCAGGCT
ACACCAAGGCCGCTCCATTGCAAGCAACAATAACATACTCAGAACTACTATAAATACTTT
TCGGTTTTTATTGTATTAAATATTTAATTAATGTCTTGAATTATAAGAATAGGCGTCAAA
ATAAAAAATAATTTTTTATACTTTGATTTGTTTTATTAGATTATGTTAGATATTGTGAGAT
TACTCTCACTCATGAGACTGGTAGAATTTTACTGGTGATTATTATGGATTTAGGAACTAC
TAAGTATATCATTTATGCAGAACTCATGCTGATGGTTATGTTGAAAACATGATGTTAT

TGGAGCAATATTTGGGCAGACGGAAGGGTTGTTAGGGGATGAGTTAGATTTGAGAGAACT
ACAAAAAACGGGAAGAGTTGGAAGGATAGATGTAGAGCTAACCAATATTAATGGAAAGTC
AATAGCCAAAATAACAGTCCCATCAAGTTTGGATAGGATTGAAACCTCTATATTAGCTGC
5 CACTTTAGAAAACAAATTGATAGAGTAGGACCATGTGTAGCAACAGTTAAAGTAATAGATAT
TGAGGACATTAGGAAAAAGAGAGAAATACATAGTTGAAAGAGCTAAGGAAATATTGAA
GCAGTTGATGAGCAACATAGATGTGAATACAATTATTGAAGAAGTCAAAGAAAGTAAAG
AATGGGAGAAATTATTGAATATGGCCCTGAGAGATTGCCAGCAGGTCCTGCAGTAGATAG
TTCAGACGATATTATAGTTGTTGAGGGAAGGGCAGATGTTTTAAACTTATTGAGGTGTGG
10 CATTAGAATGTGATAGCTGTTGAAGGAACCTCTGTCCCTAAAACCTATCATAGAGCTTAG
TAAGAAAAAGATAGTAAGTGTCTTTACAGATGGAGATAGAGGAGGAGAACTGATTTTAAA
AGAGTTACTACAAAGTTTGTGATGTTGATTTTGTGGCAAGAGCTCCACCAGGAAAGGAAGT
TGAAGAGTTATCTAAAAAAGAAATTATGAAATGTTTAAAGAGTAAATCCCTGCTGAGCA
TATATTGGCTCAAAATATTAAGGATAAACAATAAATTGATGAAAAAGTATGTAAAGATGA
15 AATTAGAAATATGGGGATTCAAACAATACCAGAAATAAAACCTGAAATAAGTATAACATC
TAATGATGATGTGGAAGTTTCAAGTGTGAGTGTAAATCCATCTAATAATGAAGAAGTACC
ACCTAAATATAACAAATACCGAAAGTTTATGAAAACTTATTGAATTAGAAGATTCTAA
AGTGTTAATTATTAATGGGGATAAAGAGGAAATGTTAGTATTGAGGAGTTAATTAATAA
TACAGATAACTATAAATCTATTGACGCAATTATAATTAATGGGACAGTTACTCAAAACT
20 TATAGACATCTTATATGAAAAGACAAATTTAATTTCTGTAAAGATGCAAAAACTAGATAA
AAAGCCAGTTAATTTAACACTCATCACTTTCGGTGATTAAATGCATAAAGATGAGCTGA
TTCAATTACACCAACTCCTTATCTATTTAAGAAAATATATCGAAAAAAATATAATTGCG
ACAATAACGAATTTAAAGAGTATGATGAGTTAAATATCTATCCCCATCATATTCACAGAA
CAAAGGCAGACATATATATACCATCTTTTACTTTCAAGTATTATAGCAAAAAATTTTAT
25 CTGATAATGGGAAAAATCCCAAGAGCGTATCAAACCTTACTTAGAGTCAGTGGAGAAAAA
TAAAAAAGAAATTCACGAAAGAGATGCAAAATAAAAAATACAAATACATGAATATAAT
AATTACGTGAGAAGATGATAATGTTTGCATTACCAATAAAGGGAGGATTTACAGAGCCAG
TAATGAAAGTTTTAGAGAAGGCAGGATTAAAGATTACAGTTAAGGGAAGAAGTTTATTTG
CTAACACTGTAGATGACAACATCAAAGTAATGTTTGAAGAGCAAGAGATATTCCGGAGT
30 TTGTGGCTGATGGTGTGTCAGATATAGGAGTAAGTGGCTATGATTTAGTTTATAGAGAGAA
ATGTTGAAGATAAAGTTGATTTCTATTAGATTTTGGTTTGGATTGCAAACTGGTTT
TAGCCGCTCCAGAGAGCTCAAATATAAACAGCATAGACGATATAAAGAAGGGATGAGAG
TAGCAACAGAATTCCCAACCTAACAAAAAATACTTTGAAAAATTAATAAGAAAGTTG
AGATTATTGAACCTTAGTGGAGCAACAGAGATAGCTCCATTATAGGAATAGCTGATTTAA
35 TTAGTGATTTAACATCTACAGGAACAACCTTAAAGGTTGAATAGGTTAAAGTTATAGATG
AAATTGTCTCATCAACTACAAGATTAATAGCAAAACAAAACAGCTTAAAGATAAAGAGA
AAAGAGAAAAATAAATCAATAGTTATTGCCATAAAAGTGTTTTATTTCTGAAACAA
AAAGTTAATTATGATGAATGCCCAAAGGATAAAGTCGAAGAGATTAGAAAATTAATTC
CAGGAATGGCTGGTCCACAGTTTCTAAGGTTTTATCTGACGATAATATGGTAGCTATT
40 ATGCCGTTGTTAATGAGGATGAGATATTTACCTTAGTTCCTAAGCTTCATGCTTTAGGAG
CGAGAGATATATTGGTGGTGCCTATTGAGAGGATTTTATAAACTTACCCAAAAGTTTTAT
ATACTAAAAGTCAATATGTTGTTATACCTATTCTAAGCCACGATGATAACTACAGGGCTT
TTGCAGGAAAAATTTCTTATATAAAAAATATGCACCTTATAGATGCAAAATTCCTTATAA
45 ATATCAACAAGTGCAAAAGCCCTGTAGGAGTGGGCAATTCCTCCGGATTGCCCATTTTT
TAGCAAGAGATGAAGGAGCTTGAAGACATGGCAGTTTATGTAAAATTTAAAGTTCCAG
AAGAAATTCAAAAAGAGCTATTAGATGCAGTTGCAAAAGCACAAAAAATCAAAAAAGGAG
CTAACGAAGTTACAAAGGCAGTTGAAAGAGGTATCGCAAAATTAGTTATCATTGCTGAAG
ATGTTAAACCAGAAGAGTTGTTGCTCACCTCCCATCTTATGTGAAGAGAAAGGAATTC
CTTACGCTTACGTAGCTTCAAAGCAGGATTTAGGTAAGGCTGCTGGATTGGAAGTTGCTG
50 CATCATCAGTTGCTATCATCAACGAAGGAGATGCTGAAGAGTTAAAGGTATTAATTGAAA
AGGTAAATGTTTTGAAGCAGTAAATTTATAGAACGCTATTTAACCATCAATCAATAGTAT
ATAGTTATTATTATATAAAATTATGAAACACTACTACTAACTTTTTTATAAATTTAAACC
TTCATTAATATTAGGTGATGAGGATGGAAGATGAATTTGTTTATAAGGAAGCAGTAGCTG
CTGAAGTTATTGAAGTCATTGGTAGAACAGGGGTTACTGGAGGAATTATACAAGTTAGAT
55 GTAAAATCTTAGGTGGAAGATACTGGAAGAGTTTATAGTTAGAAACGTTAAAGGTCCAG
TTAAAGTTGGAGACATTATTATGTTAAGAGAAACAGAGAGAGAAGCAAGACCTATTAGACA
GAAGAAGATAAATAATTAACTTTAAATTTATTTAAATCACTGAAACACTATTAAAGGG
GGATAGCTATGCCAGAAATGGAGAACATGCAGCTTTTGTGGTTATGAAATGAGCCAGGAA
AAGGAAAAATGGTCGTAGAAAAAGATGGGACTGTATTATATTTCTGCTCATCCAAATGTG
60 AGAAAAGCTACAGAATGGGAAGAAATCCAAGAAAATTAATGGACTAAAGTCTATCAAG
ATATGAAGGCAGAGTTAAAGAAAGCTCAAGAAATCACAATAAGTTATTTGGCTTTTTGGT
ATTTAATTTAAATTTTTAAATTTATTTTATTTTAAATAACCTTTTATTTGGTGATAA
TGTGAAATTTATTGATTTATTTTGTGGATGTGGGGGATTTTCAAGAGGGTTTCGTGGAAG
AGGGTTTTGAGCCATTGGTAGCTATAGAGTTAAATGAAGATGCCGCTTTTCTTATGCAT
TAAATTTTAAATGGTCAAATATATGAAAAATAAGACCTGGAGAATTCAAATTGAAAGAAT

TAAAGGGCTATGTTGGAATCTACCCATTCAAATTTCTTTTGAAGAGGAAGATATAAAGT
GGCTAAAAAGACTGGGAACACTAAATGAAAAACCAAAAAATTAAGTCCTGTTGTTATTA
ATGATGATATTAGAGAAATTCATGCAATTGAGATAGAAAAGTTCATCAAAAAATAAAAAAG
TAGATGTTATTATTGGCGGTCTCCCTGTGAAGGTTATACAGGAGCTAATCCAAAGAGAG
5 AGAAAAATCCTTATGATAGATTGTATAAAGACGAAACTGGAAGATTAGTTTTAGAATATA
TAAGGATTGTTGGAGATTTACAACCAAAAAATATTTGTTATGGAAAATGTTCTCGGTATTA
AAGAAGTTAGAGGGGCAATAATAAAGAGTTTAGAGAAATTTGGTTATGAGGACGTTTATT
TCAACACTTTAAGAGCTGAAGATTACGGAAATCCATCTGTTAGAAGAAGAGTTTTTGT
10 CAAACATAGAAATTAACCCAGAAAAAACTCAGCCAAAAACTGTTATGAGGCAATAGGAG
ATTTAATGTATAAAGGTAGAGATGTCCCAATCATGAATTCGCCGCTCTACCTGCAAGGT
TTAGGAAGAGAGTCCATAAATTAGGTTGGGGAGATGCATTTATCTATTTCAAAGGAGCCA
ATAGAAGGTTGGGGAATTATATAAGGTTGCATCCACTTAAATTAGCTGAGACAGTTATGG
GTAAGAGGTTCTTTATCCACCCTTATGAAGATAGATTATTGACACCAAGAGAACAGGCCAA
GGTTGATGAGTTATCCTGATTACCATCTATTCGCTGGAGGTATAAGAAGCTGTTATAATC
15 AGATTGGGGAAAGTGTCTGTGGCTTTAAGTAGAGCTATAGCCAGGGTGATTAAAGAAA
ACTTAAAAATAAAAAATGAAAAATAAATAAAAAATACAAAAAACTAAAAAGGTGAGAAA
AATGTTTATTTGTTTGCATAACACATACAGTGCTAAGCAAGTAGAAGAGTTTGGAAAGAA
CGCTTATGGATTGATATCAACACAATAGTTGTAACAAAGGCCAACTGCATCAGCTGCTCA
GAGTGGAAATTCACACTACATAAAATGGCATACAAATTAGGAAAGAATGTTTTATTCTT
20 TGAAGAGTTAGATGATGCTATAGAAGTTTTAAGACCTGAGAAAGTGTTTTAATTGAAA
TAAAAGTATCTGTGATGAGAAGGTAGATTTAATGAACTTGGAGAAAATGATTGGTTGT
TTTCTGTGGAGCTTCAACCGGTTTACAAAAATTAGAGTTAGAGAAAGGTTTAGGGAGATA
TATAGTAGAAAATGAGATTGGAGCTTTAGGTAATTTAGCTATCTTCTTATATGAGATGAG
CAAAAAAATCTAAAAAATTTATTTATTTTATTGCTCTTTTGGCTTCATATTTTGG
25 ATGATTTCAATAAATCTACCAATTACTTTATCTCTTAACCCCTCAACAACTTCAAGCTA
CCTGCACACTCATGACCTCCTCCATCCAAAGATGCCCTCAGGAATCTCCTCCATTAATTGC
TCAACTATTAAGTTTAAAGTTGAAATTTGATTTTTCATGAAGTGCATCTGTAGCTCTAACA
ACTCCAAAGTCAGGGCCATAGGAGAGAGTTATGATTGGCTTATCCTCACCATATTTTTTGA
30 ACTATATAGTCATGAGCAAAATCCAGTTGTTTTCTCTGGAGCTGGGAAGGTAAATTTGTGG
GCATATTTCTCAACATCTAATGTATTTAATAATAATTCCATTCTCTAAGAAATCTGTTTT
AAAGCTGGAATTACTGCCTTCATCTGTCTTTCAACCATCTTCATTGCCTGCTCATACAAT
ATGCTCTAAGTTCTTCATGTCTTCCAACTCTTTTATGTTTGTGCTAATATATCATCA
ACAATTCCTTACCATCCATGAATCTTAAGTAGAAGCCTCAAAATCCATACATAGGGCT
35 ATTTCTCCAAATACTCTCTATCGTAAGTTCTTCCCTTACCGTATTTTTTACTCAATTCA
TTCAATCTGTCAAGGGCTATTTTACATACTGTTCCGCTTCTCTCCTTTAGCATGGTCT
CCAACAACCTGCTATTTCTGGAATATGCTTTATCTCATCTCAACATCTGGATTAATCATC
CTCGCTATTTTCAAGTTCTTAATCTCCAGCGGTTAAATTTGCTATCTCCTCCAACCTAAGTAT
40 GGATTGACATGAGCATCTACGTAGTCATCAACCTCAACTTTTCCATCAACAACCTCTCCA
GGGAAGTGGTGGTCTATTACAATAACCTCTATACCATAAGCTTTAGCTTTGGATATGGCT
GGAATATCTTCATCAGTACTTCCATTATCAATCAATACAATCAAAGGTAGTTTCTGACCA
AATTTCAAGGCATCTTCTATAGAGAATACCAAAATCCTTTGTACATCTTCTAATTCATAG
AATGGTGCTTTTGGACGGCTCCTTTTAAAGAAGTGCCATATTGCATCAACGCTATGGCA
AATTTATCAATTATTGGTAATATTGCCTTTTCTAAAGCAATTCCTCCACAATAACCATCT
45 GTATCTGCATGATGTCTAATAATTATTGGTCTTCCGCTCTAAAACCTGCCTTCTAATCTC
TTAGCAACATCCGCCATTTTGGTCTCAATCTCTCTAAAACCTCACTCTTAAGTAAGTAT
GGAATATCCTTAGCTGGCTCTGCCCTTCTATCAATTTCTTCTCTATTTTTTCTTAATT
TCCTCTGCCTCATCTCCTTCCAATTTTGAAGCTTTATCCTTTCAATCTGTAATCTTCCA
50 TCCCTTATTGTTACTCTACCAATAACATCAACTATGTCTCCAACCTTAAACATCCGGATGA
GCTCTCAAACCGGCTATTTCTAAAGCAGCTACCCATGCAAGTCAGTTCCATCTGTTATG
GTGAATACTGTAGGCTGCTGCTGAACAATCTGAACAACCTCTCCTCTTATATGCACA
ACCTGGTCTCTCATCTCAACTAAATTTTGGGATATGTCTTTATCTGAGACAATGGAACT
TCTTTTTCATATTTAACTAAATCATAGGTTGTTAGTGGGATGTATTTAAAGTCAATCTCT
CTCTTTTCTGGTCTTACATCTATTGCTTGAAGTATGATTTTCATCACAACATTTAAATTC
55 TCCAATCTTAAGCTTATCATGTCTCTTGGTCTTAAAGGCCCTCTAACTTGTTCAATTTAAA
TTGATAAAAGCTCCATACTTCTCAATTCTGTAACTACTCCTTTGTAAATTTTACCTGGC
TCAACATCATAGAATGTTGCCAATTCATCAAAACACATATACATTTCTAAGCCCTTTCTTT
CTCTCTTCTCTCTTTTATGACATTTATCACACAATGTCTATCTTTAAAGTCAGGATAT
TTACCAATTTAGCTCCGCATCTATCACATTTAACTACCTTTCCACTTCCACCACAAAAA
60 TCACATTTTGCATAAACTGGAACCTTTTCTGTCCCTTTACATTTAGGGCAGGGAATTTCT
CCATAATCTAAGTCATAAGTTGCTCTCTTAGAACTCTTTTTCATGTGTGCTTTGGTGAA
AATTCATCTAATAATCCAGTTCCCTCACATACAGGGCATGTTTTGTATTTAACTACTTTC
TTTCTGTTCATCACAAATGGACACTTTACTATCATGTTCTCCCCAGATAATTGTAA
AAAAGACCTTGGCTTTAAATTACTAACATTTATTTAAGTTAATATAATGGATGATTTT
TATATGATTTATTATATAGAAAATAGACAGCAATAGTTATTTAAAAATAAAATATCAAT

5 TGTTATTTATATAGTTTTTCATGCATGTGATAAAAAACAATAAGAAGAATATTTAGTATAG
CTATAAAAAATTTTTAATGGAAGTTTGGCTGTAATGAGCATCTTATTGGCAATGGTAAAG
GCCATATGGGTAGTTAGCAGTTTCTTTTTTAATCCTTTCAATCAACTCATCTAATGTCA
10 TCTTCTCCTTATATGGTTTCTTTAAGGTTGATTTTCTCTAATAGTAACTGTCAATTTGT
CAGATTCCTATTTCTCATCTCCAATAACTACAACGTAAGGAACCCATTTCTTTCTGTCAT
TTCTAATCTTTTTGCTTACACTTTCTTCTCTATCATCAAAATCTGCCCTAATGTTGTTTT
CTCTCAACTTCTCAGCTACTTTTAAAGCATAGTCATAATGTCTTTTCCAGCCACTGGAATAA
CTCTAAGCTTGTATCGGAGAGAGCCAAACAGGCAACATTGGAGCATTTCCTTTTTCAGCCT
CTATAGCAGCTTTTTCCAACAAACCACAAAAACCTCTCAATTGAACCAAGTTGGTGAGC
15 AGTGCAATATTATTGGATAAATCTCTCCTTCATTTGTATGCACCTTTTATATCAAACTCTCT
TAGCACTTCTCAACATCTATTTGACGGTTGGGTTCTCAATAGGCTTCTCTAAGCTGTCTA
TTACAGCAATATCTACCTTACCAACCCAATAGTGTCTTTTGGTAAAATCTCAAAA
TTACATCTTTCCCATATTTGTTCTTATATTCTTTGCTATTTTAAAGAACCAATCCCTAT
GCTCATCAAGAAGTCTTTGTGAATCTAAATATTACTGAATAGCTTAGATTTAAATCAT
20 CCCCAGTTTTTAAACATTCCCAGAACTGTTTTTCAAACCTCTCCATTGCTTGCTCTAAGT
TTAAGCAGACAGTATGCATATCAGGCATTGTAAAGCATCTCAATCTCTTTAAACCAACCA
ACTCCCCCTCTGCTCATATCTAAAGCTGTATGTTGATAATTCATAGAGTTTAAATGGCA
AATATCTTGGCAATAGATACATATCCTTTTTCATCATAAACTGCCAAAGCATGCTGCAA
ATCTTAGCATTAGCTCTTTATTTCTTGTCTAAACCTATACTGCCTCTCTCCAAATTTAT
25 CAGCATGTTCCCTAATAGCAGGGTTTCTAAATCATACATAATGGTGCTTTCTACTGGCA
TAGCTCCCATATTGACAACCTAAGTTATAAACATAATCAGCTAACAAATCTCTCATCAACT
TGCCCTTTGGATACCATCTGAAATGTCCAGGGTCTGATGCTTCCCTATAACTGCAGATAT
CCTTTCTTTAATAAACTTTACATGAGGAGGTTTCATCATGTTCTTTATGCTCTCTAATTC
CCAATTCATGTTTAGCTAAAGCTAACAACTCTTCATCTTTAATTATAJTATGTTGTTTT
30 CATTCAATTCAATAATTTCTCTGTTTCTGGGTTTAAAGTAGAATTTTGATTCTTCTC
CTTCTTCTTTCTTTCTTCTCTTAGCTACAATCTTTCTTGACAACCTCACTCAAAGGATGTC
CTTTACAGCTGATTTTAAATGCCTTATACCATCCAAATGGTGCTCTTAAGACATTATAAC
CTCTCTCTTTTAAATACTCTCAATGTCTTTTAAACCTTAACTGCTGTTTCTGGTGAGG
ATAAATCACTTGATAGATGTGCATAAGGATAAACAACATATTATTGACCTTTAATTGAT
35 TAGCAACTTTCTCAATCTCTTCAACTGCTCCTATTGCAAGTTCTCTGGATTGTTTTCAT
CTTCTCTTTCAACTGCAATAAAGCAGGCTAAACACTCATCCAACCTTACCTTTTAAAGTTT
CTGTTTCTCTGCAATCTTGGTFTTTTCTTTAGCTTCAAACCTCTAAGTAATCAGAATGGA
TTAGTAGCATCTTCATATTATCCCTCAATTAATTTTAGATAAAGATAATTATAAAAGAA
AAAGATATATTAAATATTTTGGCTTGTGTTAATCAATTTATAAGGGGTGTAGTTATGGGGC
40 ATCTAACACTCAAAGATGCGGTATTTTAAAGATAACGTCCTATTGTTGGTGAGGGATT
TTGTTCTATCTCCATTAACTTATTTGCTGTTTGGAAAATCTATAATATGGGGTTGGGCTT
TACTAATATTTGTGTCTCTAATTATGGCTTCTCCTTTTGCCTATGCTTCCACTAAAATAA
GTGAGAGTGGAGGGGTTTATAAATTTGTAATGAAAATTTAGGGAGAGAAAATGGAGTTT
45 TTTGAGCCTATATATTATGGCTCTCTGGAGTTTTTGTCTATCTGGAGTTGTGTCTTCT
TTGAAATAGTTTTTAAACAAAATTTAACGTTTCTTATGTTGGATTATGTTTGATTGTTA
TTTTAACAGCTTTAATATTGGGAGGGTTGAGGATTGTGGGAACTTTGTGCAATCTTTG
GAATTTTAAACGATAACGATTATTTATATATCGTATTTTCAAATGGAATAAAAATTGACA
GCATTGGAGAGTTTAAATTAATAAATGCTATTTTGACAATATATTTGGATTATGGACTG
50 CTACTGGTTGGGAAGGTATAACAATGCCATTGTGAGCATTAAAAATCAAAAAGCTATAG
CTTATGGACTCTTGGTAGGGACTTTTATCATTGGAGTTTGTATCTCCTGTTTCTCTTGA
CCATAGTATCTTTAAATGTAAAAACAAACAACTTAGATGAGATATTAAAGTACTGATTG
GAGATAACCTATTTTATTGGCTGGGATGTTATTAATAATTTCCAGCTGTGCGTTTAGTG
TTTTATTTACTTTATCATATATGCCTTATGGGATGGGAAAAGATAGGATATCCCAAAGG
55 CATTATATAAATTAAGGAAGGAGATTCCATACTATGGAGTTATTTTAAATACTTTATTAG
TTATAATCCTATTAAATTTTGTATGCAAGACTTTGGTGATATGAGTATGTTTCTACAT
TAATAGCCTATTTTCTGCTATATTTGGCAGTGTTTAAAGAATCTTCAGGTAAAAATAAAG
CTATATCATTAACTCTATGCTGATAACTGGATTGTTGATATTATTTAGGGTTTATAACT
TTATTATTCTTTAGTTGATGAATTAATGAACCTTAACTCTATCATTTTGAAAGGTTAAGT
TATAGCGTTTTAATGATATATCTGATTAGGTAAATTTTATAACATCCCATCATAAATA
60 ACAGAAAATTAAGGTTTGGTGGGATTATGATAATTTATAGGGAAGAGAAATGAAATTA
TAAAAAAGGCACCTTGAGAATTTAAACATTCCAGATAGGGTTTATATCTTTGACACAACAC
TCAGAGATTGGAGAGCAAACTCCAGGTGCTCTTTAACTCCAGAGGAGAAAATAGACATAG
CCATAAATTAGATGATTAGGAGTTGATGTTATTGAGGCTGGTTTTCCAGTATCATCAT
TAGGAGAGCAGGAGGCTATTAAAAAAATCTGCTCATTAACTTAGATGCTGAAATCTGCG
GATTGGCAAGGGCTGTAAAAAAGGATATAGATGTAGCTATAGATTGCGGAGTTGATAGAA
TCCATACATTTATAGCAACCTCTCCATTGCATAGAAAATATAAATTAAAAAATCAAAGG
AAGAGATTATTGATATTGCAGTTGATGCCATAGAGTACATAAAGAACATGGGATTAGAG
TTGAGTTTTTCAAGAGAAGATGCAACAAGAACAGAGATTGACTATTTAATAGAAGTTTATA
AAAAGGCAGTAGATGCTGGAGCAGATATAATCAACGTTCCAGATACCGTTGGAGTTATGA

TTCCAAGGGCTATGTATTATCTAATAAATGAGCTAAAGAAGGAAATAAAAGTCCCTATAT
CTGTGCATTGCCACAACGACTTTGGTTTAGCTGTTGCAAACTCATTGGCAGCAGTTGAAG
CAGGAGCAGAGCAAGTACATTGTACAATAAACGGCTTAGGAGAGAGAGGAGGAAATGCAG
CATTGGAGAGGGTAGTTATGAGCTTAATGTCAATCTATGGAGTTAAACTAATATAAAAA
5 CACAAAACTTTATGAGATATCTCAGCTTGTATCAAAATACACTGAAATTAAAGTCCAAC
CAACAAGGCAATTGTTGGAGAGAACGCTTTTCGCTCATGAAAGTGAATACATGCACATG
GAGTTTTAGCTCATGCTTTAACCTATGAACCTATACCCCCAGAGTTAGTTGGGCAGAAGA
GAAAAATAATCTTAGGTAAGCACACAGGAACACATGCAATTGAGGCAAAGTTAAAGAAT
10 TAGGAATTGAGGTTGGTAAGGATATAAATAAAGATCAATTGATGAGATAGTTAAGAGAA
TTAAAGCTCTTGGAGATAAAGGAAAGAGAGTCACTGACAGAGATGTTGAGGCAATAGTTG
AGGATGTTGTTGGTAAGTTGGCTAAAAAGATAGAGTTGTTGAGTTGGAGCAAATAGCGG
TTATGACAGGTAATAGAGTTATCCAACTGCATCAGTTGCTTTAAAGATTGAAGAAGAGA
TTAAGAAGAGCTCAGCTATTGGTGTGGACCAGTAGATGCGGCAGTTAAGGCAATACAAA
AAGCCATTGGAGAGAAGATTAAACTTAAAGAGTATCATATAAATGCCATAACTGGAGGAA
15 CTGATGCATTGGCGGAGGTTATTGTAACCTTAGAAGGATATGGAAGGGAGATAACAACAA
AGGCAGCAAGTGAAGATATAGTTAGGGCTTCAGTTGAGGCAGTTATAGATGGAATCAACA
AAATCTTGGCAAAAAGAGAAAAATGATTTTCATCTCCTTATAAATTAATATAAAAAATAAA
TTATTTTTTATTTTATAAAATTTAATTTATGAATTCAAATAAACTAATTAAAATCTCCAA
AATAATAAATGTTGGAGGCTCCCTTACGGGTTCCCTCCAACATACGACGTGTAACGCA
20 GGATGTAGGATACCCCAAAGATGGTTAGCGTTGCACGCCCCACCCAATATCTCATTACAT
GCAATCTAATATTTATCTTTCTTATTAGAAATTTTAGAGCATCTCTTAACTTTCTT
AATGAGTATCTCAATATTTCTCTATCTGGTAAGACTCCTTCTGGTGGATCAATAACCTT
CCTCAACTGAATTGGAACCCCATCCATTCTATAGGCAGTTCCCTCAACCTCAACTCCAGC
GATTGCTGGTGGAAATGATGATGTTTGCCAATTGAGTTGTTGGTGTTCGTGTGGGTCAAT
25 ACAACCAATGGTATCTTTGCCATGTGCTGTACAGCTTTTTGTGGGAAGTGTGCTCCAGG
ATCTGAAGCGATGTTCAACATCATATCAGTTTCTCTCTTTGCAACAAGTCGTTAGCTGT
TGTCTCTCCTGGGTGTATCTTGGATAACCTCTTGAGAAATCAACACCAAATGGATAACC
TGTAACCCATGTCAAGACTTGGTTGAATCCATTGACGTTGTAGTGTCTCTCATTGGCAT
TAATCCGAATTTGTGTATGCGTTTAAGTCAATAACCAACTGGATAGCATTGTCAATGTT
30 TCTATGCTTACCTCTTGTCTATCGTTACTCCCATAGCGAAAAACAACCTCTCCAAATTTGGG
ATTTTTACAACTTCAACTGCTTCATATATCAAAATCAGCTGGAACCTCCAGCAACTTTATC
TACTTGTAACCTCAAAGCCCTTCAACACAGCCCTCATTGCACTAACTAATTCATAATCTTT
ATGTGGCTCTACTTGTAAATGAATATCTGCCAACTTTGCAGTATCAGTCTCTCTTGGGTC
AACAACAAATCAAAGTCTATCCTCTCTTCCCTCTCTCTGAAAAACCTCTTGCAAAGAC
35 TGAATATCTACTCATATGCCTTGGGTGGGCGTGCATTGGGTTTGAACCCAGAAGATGAT
AACATCAGCTCTGTTTTTAACCTCTCTTAAGGTACAGACGGGATCCTACATCCTGCAC
AGCTAAAAGTGAAGGTCCGTGTCAAAACCTTGCAAGTGTGTCATTAAGTGCCTCACTAA
TTCAGCCAACTCAACCCGTACATATGTGCATGACATTCAGTAGCACTCCATCCATAAAT
40 TAGAGGTAAAGTAGCCTCAGTTAATAATCTTGCTGTTTCTTCAATTGCAGTTTCATAATC
AACTTTTTTGAAATCATCTTTCTGTTTTCTCTCATTAAAGGCTCTGTATATCTTACAGC
TCCCTCAAAGTGCATAAACTTGGCATTTCCAATTCTACACGCATGCTTGTTCCAACTAT
GTGGTTATCTCAACTAAATCTTAAGTCATCACATAATGTCCACAGAACGGACAGAC
AACATTTCTAACAACCTTTTACCATAAGGGATTACCCCTTTTTTAATTTATCTTAACCTC
45 AAAACCTTTTTCTTTCTTTCTTTCTTTTTCAGCTACACTTAAGCAGAGTAAGCATTACA
CAGTATCCTTTCAATGGTAATTTGCTCTTGATAATCTTAATGTCTTCATTGGGCAGACT
TCTACACATTTGCCACACTTATCACATAAGTAAGGGCTGAATTCAATTCTGTTGTATTCC
TTACCATTATGTTCTATCTTACCAAGCTTTAAAGCTCCTGTTGGACAGGCTACAGTACAA
GCTCCACAGACGATACACATTCTTACTTCTTCTCTCCTCATCAACTACAATTGCTTCA
50 GTTGGACAGACTGAAGCACATTTTTTCAAAACCTCAAAGTCCCTCAACAATAACCAAG
CCCTCATCAGTTATTGGGTGTGGTGAGCTTAGTTTAACTCTAAATCTAAAGCATCGACT
GGACAGATATTAACACAGAGCTTACAAGCTGGGCATGATTTTGGTGGAATAACGATTAAG
TTTTCTCATCAACCTTAATCATATCTCCCGACAGACTTCAACACACTTTAGACAATAA
ATACACTTCTCTGCATTAACTTCAAACCTCTTAACCTCCTTCTCTCTTCTTAGGTATT
55 TTCCCAGCTACAAATATAGCATTCCATGGACATGTTTGGGCACAAATACTGCAGTAATA
CTTACTCTTATCGATGACTGCTTTATTATTCTTAAGGTTATTGCATTAAGTGGACAT
TCAGGAACACAAATTCACAACCAACACAGCATCAGTAAGTGCATCGGTTCTTTGGT
GGCTTTATTTCTTCTTAGGCTTATCAATAACTCCAGGTAATGAAATGATCTCTATTGGA
CACACGTCAATACACTTTTGACAGAGGACACAATGCCCTTTGAGTAAGGGAAATCATCA
60 TCAACCTTTTTTATGCCAATAGGACAAGCCTCAGCACACTGCCACATTTCTCACACTTA
TGAGCTAAATAATTAACCTCTTCAACTTCTTCCCATTAACCTCAATCTCTCTCTCCACC
AAAGCTCCGTTGGGCAGACTTTAACACACTCCATGCATAAGTTGCATACCTTAAAACTA
TCTATATCTATTGCTTTGGTAGGACACTCCGCTGACACGCATAACAGACTAAACAAGCA
TCTTTTTGAATTGTTATGCTCATTAATCTCATCTCTCTTAAATTAATACGCTAAATCCC
AAAAAGGATTTAGCGAATCCCCCTGCATAGAGGGAGAGAGCTCACAACTCCCAAT

GGGTTTCGGTTGTGAGCTTATTCTTTAATAACCTCAATAATTTGTTTCCTTTTTCATCTT
TAACTATTATGTGGGCGGCACATGAGTATCAAGGGTCGTAAGCTCTTAATACCATTCTA
TAAAGTTTAATTTTACTTCATCAACTTTAACTGTGCTTTTCTCAGCCATGTTTATCACCA
5 TAAACCATAAATGATTAGATAATCATAATTGATTTTCTTTACAAAAATTTATTTATTTGAA
GATTACTTGAGCTGCCTGTTGGATAGCCTTTTCCATTGTTGGAACGTTGTGTGTTGTAGC
GACAATCATGTTTGCCTTAACAACGATTCCATTCTCATCTGTTTCATAGTTGTGAATTAA
AACTCCTCTTGGAGCATAAACTACTCCAACACCATTTCAGCCTTTGGTTCAACATCTGC
CTTAATGTCTATCTGATGTAATATCATTATCTTCCAATAATATTTTGCCTTTTCACATGC
10 TTCAACTAACTCAATCAACCTTGCAATGATTATATGCCAATGACTGATTGCTGGAAATCC
AAAGATCTCTAAAAATTTCTTTCTGTATTCTTCTGCAAGCGGGGTCTCCATTTTCATCACA
AAGCTTTAGCATCGCTAATGGCCCAACCTTATAAACTCCTTCAGGATAACCGACTTTTTT
GTAGTAAGGGTGTTTTACATAGTTGTATGGAACACATATTTCCCAATATAGTTCAAGTA
TTCTTCCGGTTTAACTCAACTTTTTCTTTTCCATCTGGAGATAAGAATCTTAAGGTATC
15 CTCATAGAAGTTATGTTTCCATCTTTAACCACCTTAAATAATAGGTGTCAATAACTCC
TAATGTCTTTATCTGTTCCATATATTGCTCATTTAATTGTTTATAAGCTCAACACCATT
TTTAGCGTATTCTATCATCTGGTCAGCATCTTTTAATAACTCATCTCTTTCTTCTCAGT
TAATCTCTTTGCTTGGCCACCAGGAATTCAGTAAGTGGATGAATAGCTTTTCTCTCCAAC
TGCTTCAACAATCTTTGCCCAACCTTTCTTAAGGCGATAGCTTGCTTAGCAACGTTCTGG
20 AGCTTTATCTATAACTCCCAACAATGTTTCTTATTGCTGGGTCTGCATCTGGACCAAGAAC
AAAGTCAGGAGCTGCTAAGAAGTAAAAGTGCAATGCATGGCTATGAATCATATTTTCTTAT
GTGCATTAACCTCTCTCAATTTCTTAGCTGGTCTGGAATCTCTACACCCCAAGCGGCATC
AATTGCCTTAACACTTGCTAAGTGGTGGGCTGTTTGGCAGATACCACAGATTCTTGGGAC
AATTCTTGGAACTTCTTCAGCAGGTCTTCCAACAACGAACTGCTCAAATCCTCTCAATGC
25 AGTTATATGCAACTTAACATCCTTAGGTTTTCCATTTTCATCTAAGGTTATTGTAACCTT
ACCATGCCCTTCTAATCTTGATAGGGGCTCAATTACTATCTTCCCCATAAATTCACCCCT
ATTTTATTATTTATGCTTAATTTATTTTGCCTTTCTGTTGATTAAAGCATCTGGTAGTGT
GAATCTGTTCAATAAAGCTACCTTATCTGGAATCTCCAAAGCTGCCTCTCCAGCGTTAGC
CAATACATTAGCTGCGTTAGCTCCTAAGTCTAATGATTATCTGTTTTACCGAAACAACC
30 TCTACATGGAACCTCTGCACTTGGACATTTTGTCCACAACCTGCTCTTGTAGCAATCC
TAAGCAAGTGATCCTTGCTCAAATAAGCATCTTTCTGGGTCTGGTCTTCTTCATGGGT
TCTTTTAAATGTTTCTGGAAATACATCTCTTTTCTTGGACATTCTACACATACGAT
CTTTGTTGGTAATTTTGGTTCTTCTCCATTTAGTAGTGCTATAATTGCATCTGCGATCAT
TTTTGGTGTGGAGGACATCCTGGTATTGTATAATCTACTTTTATGAAGTCCTTTATTGG
35 TTTAACAATCTCTTCAAGTGGTGGAAATTTCTTCTGAAGGTATTTCTCCTTTATTTCTGT
TGAGTCGGTTGAGTAGACATAATTTAGTAATCTTCTTTTTTGTATAGATTTCTTAAACC
TGGAAATCCCTCCATAAGCGGCACAAGTTCCCATGCAATGACAATCTTTGATTTCTCTCT
TATTTCAATGAATTAAGTGCTCATCTGCTCATTCCTAATTCCTCCCTCAACTAAAAATAC
40 ATCTATACCTCAGGAATCTCCTTAGGGTCTGCAATTATAGGGGCATAAACAATCTCTAA
ATTTGGTAAAACCTCCAATAACTTGTCTAGTGAATCTAATAGGGATATGTGGCATCCAGA
ACATCCACACAGTTGTATCATCCCTACCTTAAGTGGCAAGSTAATCACCCCTAAAAAGTTT
AAATTAGTTTTGCAATGCCGGAGAACCCCTTACTTATGGGGCGGTTGTTCTCTCGGTCCC
TTGACGGGTTCCCGAGAGAACTCATCCCTTAAATCTCCGGCTTTACTGAGCTTTGAGAGG
GTTAGGTCCGAGTTTTTCAACTCTTGCACTCATTTTCAATTAACGGCGGAGACGAATTTATC
45 TGCTCAGCGGCAGACATGAAAACATGTCAATTCTGTCTCCGCCAATTCCTAATTCATC
TAATAATTGTTTGAAGCAACCTAACCCCTCTCCTCAGCCTTTAAGTTACCTGTTTCTGAGG
ACACTCTCCTTTCTTCCACCTACAACCATAACCGCATCGGCTCCCTTTTGGAAAGCCCT
TAAAGCGTAGGTAATATCGAATTTACCGGTACAAGGGAGCCTTACGATTCTTACGGTTGC
AGGGTATTGCATTCTACTTGTCCCTGCCAAGTCAGCAGCCCCATATCCTCACTGATAGCA
50 ACAAATGCAATTAATCTGGATCCATACTAATCCCCCTATATATTATTAATTTTATAAA
CTCGATAACAACATGAGAATTAATTTATAATTTAATTTGGATGAGGGCACTTACCCTCT
CCATCAGCACCACTTTGGCATTTGCCCTCGAGTGGTGCCTCATCTGGTTTTGTCTGCCCCC
AATGTTGAGCTCATAACCTACGCCGTTATATTTTGGATTTTATTAGAAATGTAGAGCT
TGTGCTTTTTAATTTATTTTAACTTTCTAATTTTGGTGGAGCTTCTAATACTCCATCAA
55 TGAATGAAATTTTGTCTATCTCTATAGTATCTCAACTGCATTGCTCCACTTGGACATG
CTCCAGCACATGAACCGCATCCCTTACATGCAACGTCATTGACTTGAGCTACTAAGTGT
CATCTTTTTCAACATAGGTTATAGCATTGTATGGACACATCTTAGCACAACTTGGCATC
CTCCACAGACATCTTCATCAACAACCTGCCCTTATCATCTCTATTCTAAACTGTCTTGTG
CCATTGGTATTGAAACAGCACTTGCGGCCCTTTAGCCTGAGCTACGGTATCTGGAAATGT
CTTTTGGTCCCTGAGCAACTCCTGCAATTGCTATACCATCGACCTTTGTATTAACTGGAG
60 CTAACCTTTGGATGCAACTCCTGAGAATCCATCTGGACTGAGCTCTAAACCAAGCATCT
TAGCCAATTTTGGATGTCTGGTCTTGGTGACAATCCTGCTGACAATACAATAAATCTG
CTTCAATTTCTACAATCTCTCCCAATAATGTATCTTCTACTCTAACAATCAAGTTCTTG
TCTCTGGATCTTCCATTATGCAAGCTGGCCTTCCCTAATGAACCTTAACCTCAAACTGCT
CCTGAGCTCTTCTGTAATACTCTTCTGTAACCTTTACCAAAAGACCTGATATCCATGTAGC

AGATATAAACTTCAGTGCTTGGGTCTGCTGTTTAATTAATTGAGCATTCCTCAAAGCAA
ACATACAACAGATTCTTGAACAGTAGTGCTTTCCAACCTTTGCATCTCTTGAACCAACAC
ACTGTATGAATACAACCTCTGTGTGGGTGCTTTCCATCACTTGGTCTTATTTTCATGCCCTC
5 CTGTTGGTCTGCTGGGTAAATCATTCTTTCTAATTCTAATGTTGTTATGACGTTGTCAT
AGACTCCATAACCATACTCTTCTTTCAATGTAGCATCAAATTCATCATAACCAACTGCAC
AGATGATTGTTCCAACCTTTAACTTAATCTCTTCAGGTTTTTGGTCTGATCTTATAGCTC
CTGGACCACAAGCTTTTTCACATAAGCCACATCTTATACAGTGGTCCATATCGATTGTAT
AGACAAGAGGAAGCTGCTGTGCGAATGGGACATAGATGGCTTTTCTTGTTCCTAAACCTA
10 AGTCAAATTCGTTTGGCACTTCAATTGGACATACAGCAGCACAGGCTCCACATCCGGTAC
AGATGTTTTTCATCAACGTATCTTGGTTTTTCTCTATTGTGACTTCAAAGTTTTCCAATAA
ATCCTTCGACATTTTTAACTTCAGCATAGGTGATGAGTTCAACATTGGGGTGGTTGCAA
CGCTAACCATCTTTGGGGCCAAAATTCACAGCGCACAGTCATCAGTTGGGAATGTCTTAG
CAAGCTGAGCCATCCTACCTCCAATTGATGGCTCCTTCTCAACTAAATAAACTTTATAAC
15 CTGCTCTCCTAAGTCAAGAGCTGCCTGAATTCCAGCGATACCTCCTCCAATGATTAAGC
AAGATTTATCAACTTCTACAATTTTTGTGGAACGTCTTCTAATCTCTTAGCTCTTTCAA
CAGCCCCCTGCAACTAACTCCATTGCTTTTTTAGTTGCTTTTTCTCTATCATTATGAA
CAANTGAACAGTGCTCCCTAATATTGACAAACTCCAAGTAATATGGAGATAAACCTGCTT
CITTTATACAATTTCTAAAAGTAGGCTCGTGAATTTTTGGTGTGCATGCCGCGACACGA
20 CTCTATCAAGATTATATTCCTTTATTGCTTCTTTAATCAAGTTTTGTCTGGGTGAGCAC
ACATAAAAGGATAGGTCTTTGCTACACAACCTCCGTCTAATTTTTTCAGCAAAATCTCTTA
CTGCTTCACAATCAACAACACCGTTGATGTTCCGTCCACAGTAACAGACAAATACCCCAA
CTCTGGGGACATAGATTACCTCCAAGAATAGAAATCACAATCAATTAATTAGGAGGAT
AATCTAAAAATATATATTCTTAACTGGCTAATGGAAGTTATTAACAATCTAATAGTC
25 ATATTTAATTTAAGAACGCTTTAATTTAATTAATAATTTTTGTATCGAAAAGTTTATATA
GGTAAAGTTTGTATAACAAGTTGGCGGGGTGGGATAGTGGTGAGCCCCCACCTCACC
GCTGATAACCCGCGCCATAAGGAGCCGGCTCCAGTAGATTAACAAAATTTACAGTTAAAC
ACCCCTCCCCCACACAGATTTTTTATTTACTATTTTTATTGATAAAATTTAAATATATGGA
TTAAATATAATTATATGTCCATAAGGTTTAAATAAATCAAAATAACAACAACTAATAAT
30 TGAATAAAATTTCTAAAAATTTCTATAATAAAATTTAGAAATTAATAACTGCTAAAAAC
TGAGGGGTTAAATGAAAAAAGTTGAGTATTATTTAAAGATGCATTTTATTATGTGCTT
TCAGATGTTAAAAAAGGAATAGTCGGAGGATTGTTATCATCAACCTCTGGAGCTATTGGA
GCAATATTTGGAATTATCTGTCTATTCTATTAATACACAATATTAATCCTAATGATGTT
GTTGGATTGGACAATAATATTTTATTAACCTCTCTAATTGTTGCAAGTTTTGGGTTTTTA
35 ATTGCGTTAATTTATAGGTTTCATACCTGATGGTTACTATGTTAGAGTAATGAAAACCTACT
GTTGAAAATTATGATGTCTCCTCCCTGATTGGGATGATATTGCTGAGTTACTTAAAGAGGT
TTTTTATACTGGATTGGGAATATTATACTCTCAATAATCTTTATGATTGTTCCAATTTTG
TTTATTATATTTGGAGTATTTTTAATATTTTTGCTTTAGTGGGAATTGTTTTATAGGA
ATTGGATTTTTACTTTTGTGTTGATCGACAATTGCACCTTTGATATATGAAGGATTAGCA
40 GAGGTGAATTACTCTGTAAAAGGATTTTCTGGATTTTTGAGTTTTAAAGAAATATTTAGA
ATGATAAATTTAAATATATAATATTGCTTATAATTGTTGGAGTTATAGTCATAGTGATA
AATTTTGTGTGCAACTTCCATTTATTTTATTAATACTTTGCTATATCTCCAGCAAGA
TATTCTACTTTCTCCTCTTCAGAGACGATTGTTGATGTGATATCAGCAGTAATTTCTGCC
45 TTTGTTGGATTCTACACAGCAGTATTCGCAAAAAGGGCTATTGCGTTATATTATAAAGAT
AGAGTTGAAGAATTGAAAAATAAAAACTAAAAATAAAATAAATGGAGATTATTTAGT
AGCTAAGTGATACAATCTCTCAGCAAGTTCAAAAATAACTTCTTTATTTTTTAAACCATC
AATCCACTCTTTTGAATATTTTTAAAGCCGTAGTATGCTCCAGCCATAGCCCCATACAT
AGATGCTAAGCTATCAGTATCTCCTCCAGCATTTATACATTTTAAATGCCTTCTTTAAA
ATTATCAGTTAGTAAGTAGGTTGCTATTGCTGAAGGGACAACCTTCATCAGTTTTTACGCC
50 AGTTCCAAAATAATCATAGATATAATCTAAGTTATTAAGTTTTAATTTCTAATAGTTT
TTTAGCAAATTCCTCATCTATGTCTTTTATGTAGTTGTAGCATTCATCTAACAAGCTAAA
ATCTTTTCTGTCTTTTAAATGCACTACTAACAAGAATGCTATAGCTAAAGCTCCGGCAAT
TGCTGTTTTGTTGTTATGAGTTATTTTTGATGCCTTTATAACTTCTCTTTTAGTTTTTT
TAGATTATTATGAAATACAATTCCTAATGGGTAGATTCTCATTGCCGCTCCACAGCTACT
GCTATCTACTCCAGAGTAGTCATTATTTTCTAATTTATCAATAGCCATTAATGAGGTTAA
55 ACCAATATCTGGTGGATTCTGTTTTTCCATGCTATTAAGCAATTGGCAAATTTTTTAT
ATCAATTCCTTCTTTGGTTAGAGATTTTTATTAACAGATAGCTTGTCTGTATCATCTGT
CCATTCTCCTTTGTTTGTGCTTCCAGCTAAGTAGTTTTTTGGTTCAACATAGGAATCTAC
AAATCCATACAGCTTTTTATCTCTTCTTTGTTAGATTTTCAGTTGGCATTCCTAAAGC
ATCTCCAATAACTGCCCCAAAGACAGAACCTAAAAATTTATCTCTCATTTTTTACCATAAA
60 CTCATCACCAACTAAAAATCAATAAATACTTTTTAAAGATAATAAAATATTTAAAAAAT
ATGTAATGGTGGCATGATGAAGATAGGTGTCTCAACGTTATTTTTTTGGGAGTATCCAAT
GGTTGAGATTTTTTGACATATTTAGGATATTGGAATTAATGTATGGAATTTTTTCCAGA
GAATCCAGATTTTTGGGATAATAGGTTTGTATTTAGATTATATCGCTGATTTAAGAAAAGA
ATTTTTAAAGTTTGATGTTGCTTTACATAATCCCCATATTGAGCTAAACCATCATCCCT

AAACCCCTTACGTTAGAGAGGCCGTTATAAAAGAACTTTATGGAGCATTGAACTGGCTAA
ATTTTATAGATGTAATTAATAACCATACACCCAGGAAAAAGACCAACAAACAGGTCCTCC
AACAGATGAAGAATATGAAGCATTTTTTTAAATATTTGGATAGAACATTAGAAGTGGCTAT
5 GAGTCCAGAGGAGATGGAATGGATTCTAAAAAGATATGATGAATTGTTGTATATGACTTT
GGATTTTGCACATGCTAAAGAGTATATGGAAGAGTTTGGAGAGCGTTATTGATTATAT
TAAACACACTCACATATCTGGAGTTGTTAATAGAAAAGACCACCTTCCATTAAGAAAATC
AGAAATTGACTTCTCTCCTTACATAAAAGCTCTTTTAGATTATGGGTATAACGGAATGTT
10 TAACTTAGAGCTTGATGATAGAAGATTAGAAAAAATCCGGTAACAAAAGAGGAAAAAAT
AGAAGAGGTAATAAAGGATATTGAATTTTATAGAGAGTATTATTTAATTATTTCTCTATTT
TAACCAAATCCTTTAAGCTCTTCTGGAACATTTCCATAAGCAACTGCTGGAATTATTGCTG
GCTGTCCATTGTTCTCTAAACTTCTGGATGCCCTAACACAAATTTAACAAACTCTATGG
CTTCTTTTTTATGTGGTGCATTTGTTGGAAGTGTATACCATAAACAATTGGTTTGCAT
15 TTATTGTTTTATTCTTTGCAATTATTTTTAAAGCCACTTTTTTGTAAGTGTCTGCATATT
CGTAATATCCTAAATTAATTTCTTTGGAAGTCTATATATTTTTAAGTGGTGTGGTTTG
CAACACTCTTGTAGATAAAGAGGTAATCAAACGCTCCAGCTTCTAATGGAGCTAATAAAT
CTGTCTCCTTACTTCTAACAAACAATTTGTTAGTATCTACATCTAAGCTTTAGGGACTA
ATATCAAGTATGTTCCGTTATTTTCTCAACTTTTATGTTTGAATGCTTTAAAACTAAGT
20 TGTCATAGATTGTTGGGTCTTTATAATAGAGTCTGTCTAAGTGCAGGACCATTTGGGTT
TGTAACCAACACGGGTCTATCGTTAGGGTTTGAGAATCCAATTTAACATCTGGTCTCTGTA
AAATCTTATACCAATTGGTTGAGTTTATTTCTGCTTTATATTTACTTTTATCTGTATAAG
CCAAAACAATCTCATTCTTGGCAACATAACATACCAATCTGCATCTTAGGCATCATCA
TTTGAGGGATTAAAGAATAATCAGCTGAAGCTAAGATATCTGCCTTTTTTCTTAAGTCAA
25 TTATCTTTCTTACACATGCAACACTTCCAGCTGGTCTCTTTCAACATCAACATTTGGAT
GTTCTTTTTCAACATCTTTTCTACTCTTCAAAAGGCACAGATAAACTTCCAGCGTGA
ATATCTTTAAACAATCTTTTCTGGGCTTCCAGAGTTTGTCTGTCCGACATTTTCTGTT
CCATACAACCACATAGGACTGTTCCAACTATTAGCAATATTGAGATGACTATTAATCTTT
TTATCATCTATATTACCTTTTTTAAATAGATTTTCAAAAAGTAAAGATAATTGATTTTCA
30 ATTTAAATATTATATTCAATAGTGATTAACAAAATCTATAAAATATCAAAAATCCAA
AAATAAAATTAACATAATAAAATCAAAAAAATAATGGTTGGGGGATTATGAAAAATGCT
TTAATAAATGCAACGACAAAAAATTTGAAATCATTGAGAAAAGTGTTTACCAATAACT
TGGGGATTGTATTGGCATAATAAATTTGAAACATGGAAGTACGATGCCTATGATGAAAA
AACGTTTTTTGCTTTGGTAGTGGAGTTTACCAGTTATAGGAGGACATAGGTTGATATTT
35 TCTTTTAGGTCTCCTCTCTGGGATGGTTTTTATTTTTTATCGATGGGAGGGGCAGGATAT
CAATTCAAAAGCACTGGATTAAACAATGTGGCAATTATTGGAAGATGTGAAAATCCATCC
ATATTGGTAATTGAAAACGATGGACAATTGAGAATAGATTTTATTGAGGTTAAAGAGGAA
CTTAAACCGTTTATGAAGTTAGCAATATATTCTTGAATTATACAAAGACAAAAATTTG
AGGATGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTG
40 ACAGTTAGAAATGGTAAATTTGTTGAGGGTTTCCAGAGGATTGGGCAGGAGGGGGAGGA
GGTTCTGTTCTCTATAGAGCCCATACATAATGGGAATAGTGTTTTTTGGAGATGAAAAG
GAAGATAAAGAGGAAAAAGAGAAAGCTAAAAAGATTATTGAAAGCTATTACAAAAACCA
ATGAGTAAGGTTGTTTATAGCATACAAAAAGTATAGGTATGATGAAGAAACAAAAACT
GGAGGAACGTTTGGAAACAATTGGCTTTTGTATAAAGAGAAAGTGCCAATATTTAATTGG
45 AGAATGCCATATAGATAAAGAGGATAGAAAAAGATTTAGAAAAAATACTTAATTTT
TATCTTGAATATTTAATAAAGAACTATTGAGCCAAAAAGATGGGCTAATTGTGGAGAA
CCATGTCTGTTTTATGTAAAAAGTATAGAAATAAAAAACAAAGTGGATTATGAGCCGTAT
GCATCAAATGGAACTTTATTGGGAATATTTGATTTATATGAAGCGGATAGGGTTGTAAAA
ACAGCTGATGCATTGGGTTTGTATGCAATAGAGATTGGAAATCTAAGCTGCTGGGTTTTT
50 GAGCTTTTAGATGTTGGTTTGTGTAAGGAGGAGGAGCTAAATATAAAAAAGCCAAATTTT
GACTATAAAAAAATACTAATGACGATGATGAAGAGATTAGAGAAATATCAAAACATAAT
GCCGAACAAGCTATAAAGTTTATGCATAAATTAGCAGAGAACTCAAATGATTTATATAAA
ATTTTATCATTTGGGAAAGAGAAAGGCAGCTAAGATATTAAATGAGAGATTTAAAAAGTAGA
GTTAATAAGATTGGCAAAAAATTTAATGACTTTGCAGTTTATGTTCCATTTGGGGATTGG
55 GGAGAGATAGCCCCAAATCTCTATTGGACTCCTGGATTTTTTATGCCATTTGTTATTTCAG
GGAAGATATTTAACTTACTACAAACCAGAAATTTAATGAGCCAGAAAAATTAGCTGAGTTG
GTTGTAGAAAGTATAAAATTAGAATTACCAATAGAAAACCTTGGTATTTGTAGATTCCAC
AGAAAGTGGTTAAACCAAGTATTAAAGAACTGGTTAAAGAACTTTTAGGTATAGAAAGAT
ATTGTAGAGGATTCAATAAATCTTTATAGAGAGATTGCGAATATAACAAAAAATTGGA
60 TATCCTGCAAAAAATTGAGAGTGAGAGGGTTAAAGATTTGATTATTGCAATGGCTAAGGAG
TTTGGTAATGAGGAATGGACTAAAAAATTTGAAAAAAGAAAAATGTAGATGAGTATGTA
AAAAGAGTTTAAATAAATACTCTGAGTTATTGGGTATTGATTGGAGAATTAGTTAATTA
CTCCCTTGCAAGTCCAGCATCTTCAAACCCCTGCCTTAAACCTTTACCAGCCATTCTTGT
TAAATATTCTGGTTAAATAAATAAATAGACATTTTCCAGCATGTTCTTCAGCTCTTCT
TTTGGCTAACCAATCTAAGCTTTTATCATCTTTGCCTCATCTCATGAACAAATACTTC

5 AATTATATGCTTATTGTCATTAAATTGAGCCAACATTAAGCCAAGAGATGCCTCATGAGC
GCAGACTTTGCTCTTCTGCTTTCCAGGCATTCCCTAAGGCCATAACTATATCACAGCC
CTCCTCTTCTAACAGCTTTTACATGCTACAGGTAAATCTTTTATTCTGGAACAGTTT
TCTAATAATTTAATATTTGGAGAAAGTCTTTTAACTTTTTATAGCTATGGAAGCCAT
ATCCACCCTTGCAAATGTTGTATCTACAATTCCCACCTTTTTGTCAAATTTTCACTTA
TTAATCTTTAATCTTTACAATATATGCTTACTTTAATAAAACCGTCCATTAGATAGTCAA
AGTCAATTTCTTTATCCCACCCTGCTTTTTGGAAAATACTCATAAAGCAAACCTCAATAA
CTTTTTTAGGGGATAGTTTATTATTAGTTCCTTAATTTTATCTACTTCTACTCCATACT
10 TTGGCATTGCCAAACCACCAATAAAACAATTGCATCTACTTTATTTAAGTTTTCAAAAT
CTTCCATCTGCATGCCTATATCTTTAATAACAAGTTTTTAACTTTGTTTAAATCTCCAT
CTGGGATAAAGTAACATTCTTTATCTCGTATTGCATAACCAATAATTACGAAAGGGTT
GGCAGACACCAACAGAACCGACAAATGCAACCTTCTCTATATTACTATCTCTTACTAAAG
TTCTAAACTCTCTTAGCATTGGAGAAAGCCATTTTCTTCTTTTAAATAGTTTAAATGTCA
15 TGATATCACCCAATTAGTAGAGAGATTAAAGGATAATTTTCATAGATTATGAGCTGGAA
TGTTATAGTAATCTCTTAGTAGTTTGTAACTCTTAACACATTAAATTTCTCACAGCTT
TCTTTTCTTTATCTAATTCAGCAAATTTTTTTGGGATATAGTCTTTGTATTTAATACTG
CTTCATTCAGGTCATATTTTTTATAAATCTTGATAAGATATACGCAGAAATTAATGCAT
ATATATTTCCCATGTCCTAAAGGTGTTGTTAAACCTTACTTTCTCCAACGCCTGCAACAC
20 ACCTCTTCTCGTATATTTCTCCAATAAACTCTCAGAAATTAATTTCCATTTATTTTTG
ATGTACATCCACAGACTCTAACGTAATCACTACCAAAACATTTTTTATGTATTTTGTGA
GGTATGTCCTAATACTCATGGTCGTTTTTATAGTATGCACATCCAACATGATATAGTCCAT
CGTCTATAGGAGTTATCCAAGTATAACCAATCATAGGTTTCTCTTATGTATCTTTATTT
CATCAATAAAGAATTTATCAAATTTTTCTGGAGATTCTTCATTTTCATAGGCTATTAAAA
25 ATTGACAGGTTTAAATATCATTTTTATTTATCATACACATTGCCTAATTGAAGTACTT
TAGCACATCCAGAAGCATCAACGACCAAAATCATAAAATTTAGTTTCAGCTTCAGTATTA
ATTCTCTCACTATAACTCCAGTATCAATAACTTTTGTGTATACCTCCTTATGACTGGAT
TAAATTCTCTATTTGTAACCTACTGTTCTTGGAAACCAAGTCTTCAATTAGTTTGGATTTAT
TTATGACATAAAATTTTTTATTAGGATAGTAGTTATCTCCACCAATATTTACTTCTCTTA
30 TCTCTCTAATTATATAATCTTTAATGTTTATATTTACCGTTTTTAAACTTTTTTACTG
TTAAATCTCATTTTTTATGGAAAATATAAAATTCATACTTTTGCAGCCTCTAACTAATA
CATGGTCATAAATATTTATGTAAAAACCGTCTTCCGAAAGTAATCTGTACAATATAGATC
CTGACAATCCCGCTCCAATAATACATACTTGCATAAATCACACCCTTAAACCAATACAAC
AGATTTAAATTAAGATTTCAATATATTTTACTATAATAAAATTAATCATTTCAAAATTT
35 GACATATGAATTAATATCAAAATAACAAATAGTTATATTTAATAATTTCTATGAAAATA
TTTATAAGTCAGAAGTTATAAGATATTATAATATTATTAAGTTCTTTTATCTATATATGC
GCATCCTAGATAAGGGTGAGAAAATAGAGGGTTTTCAAAATGTTTTTATATTAATAATTT
TTAAGAATTTTCAATAATAGTTTAGGACTTCCACAGTTTATATATTTGACTGTTAAAA
AGAATAACTCTAAAATCCATTATATCAGCAATAAATTCATTCTTAAAGTCTATAGTAAA
40 AAAGATTAAAAATAGAGGATTAGTTATTTATTATCTCATTGTAAGTTTGCAGGTCAAAG
ATTATGTCCTTGACTTCTTCTGATGATGCATCTTTAGCTTTCCATTTATTAATCCTTGG
AGCTTCATTGCTTCAACGAATTTTATGACTTTAGGTATTACTGGTTCTAATCTATAATCA
AACTTTATATGCTCAATTGAATCTTTCTCAACATTTTCGTTTGTTCGAAGCCATCTAACA
45 GATGCTTTAACAGCTAAATCTCTGTTTTTGTAAATTTTCATCTGTCGCATCCTTTAAGAGT
TTTGCAAATGTATACTGCTTCTCTTTTGTTTTTTAAAGGCATTTTTCAGACGCTGCTAAA
CAACAGCATGGATGGTTTGGCCAAGTTCCTCTGTAGCGCTTGGTAAATCTTCACTGTGG
GCAATAACTTTCCAATACCCTTATTTTTTATAATTTTCAAGGCATTGGCTCCCATGCAATA
ACTGCATCCAACGCTTTTGGAGCTAACATTTGAGGCATTGTCCCTGTCCCTTACAATTT
50 ACTAACAAAACCATAGCACTCTTGTATTAGGGTCTTCAGTATAGGTTATCCCTTCTGCT
TTTAAAGCATCTTCTATCATAACGTATTGAATTGATGTTGGTAGTGGATGTCCTATTTTA
ACCTGCTTTCTTCTTTATGTTGTTCTTTTATCCAATTAACAACTCTTCCAGTTATTT
ACTGGAATATCCTTTCTAACAACAACTGCAGAATTCGGTATGCAAATTCATTATGACCT
TAGCCTTTGTTCCCTTATCTATGTAGAATATTACTGGTGGGTATCCTAATAAAGCAACAT
CAACCTGTCCTGAGTCATTAGGTTTATTACTTGTCTCCACCTTCAGTAACCTTTAACAA
55 CTTTCACATTAGCTATTTTTTATTCTTTTATACAACCTCATATTCCTCTTTATCTTTAA
CTGCTTTCAAGCATATTTCCATATTTTATCTTTTAAATAAATCTGGATTGTACAGGCTACAA
ATAGGGAAGCATGATGGTCTGTTGGCAAATATGCAACTGTCAAAGTTGGAACCTTCTGAAG
TTTCATTTTGAACACATCCAGCAAATAGTACCAAAGATGAGATTAGCAAAGCCACCAACA
TATAAATCTTTTCAATAATACCACCTCAAATTAGTCAATCATCAAACTTCACTAATTA
60 AATTGGAACAAATAAAACCCCAAAGGGTTTTTAAATACCCTTTGTTGAACAATTTTTATT
TTGATGATTGACTATATGAACATAAGTATGAACATAAGAAAATTTTACTATGCAATATA
TAAATTTTTTATTTTTTATAGATAATTTATCTTATAAGAAAATAATAATAGGATAAGA
AAATAAATTTATAAAATTTTAAATAAAAAAGCATTAGATTTTAAATCTCTTTATGCAAGT
CTCCTAATTTATCTTTTACAATATCAAAGAGCTGTGAAATGGACATTTTATAACCT
CTAATCTAACAATCTCTGGATATAAATTATATTAGCAAGTCTTTTTTTAGTGTTTCC

-244-

TCATCAAAAGTTGTCTGGTCAGGACCAAGAACAATAATATCTGGTTTTAACTCTAATATT
GGCTCTAATTTATTTTCAAACCTCCCAATATTGCTTTATCAACAGGCTTTAATGCTTCA
ACCATCTCCCTCCTTTGTTCTCCGGAATTATAGGTTTTCTACCTTTAATTTCTTTTACA
5 GTTTCATCCCTCGCAACAATACTATTAGCTCATCTCCTAACTTTTAGCAAATTTTAAT
ATCTCATAATGTCCAGGGTGAAGAATATCAAACGTTCCAGCGGTAACCTACCTCTTTTTC
ATAACTATTACACCATTTCTTTTAAATAGGACATTAATTGCCCTTGAAAAGGGCAACTT
ATAACCAATTATCAAAGTTTAAATTAATATGGCACTTATAGAAGCCTTTTGGGCTTCTA
AATATTCCCTTAATAGATGATTTAACTTTGATAATTAGCTAATGGACATGGGGTATCCACA
10 CCATAGAGGGGCTTCGCCCTCTATTGGGATACTCCCAATCTTACTAATTTACACCTC
CGAGCGTAAGCGAGGAGATGTTAGGTTTGGTGAAGCTTTTACTAAAAGGTTTATCCCAA
TAGGGGTTTCCCTTATGGATGTCGAATGTTCCGGCAGTTACTACTCTTACTTTTTTCAT
AATTATCCTCTTAGATTTTTTATCCCTATATTTTGCCAAATAAAAGGCGTTTAAAGCCC
CAACGACTAATGGACCAATAGCAAATCCACTGAGTCCTAATGAAAGGGGCGCCATTAAAA
15 ACGCAATAACTACAAGGACTGGGTGAATATCTACTTCTTTTTAACTAAATAAGGTCTTA
TAACAAAATCTGGAGCTATGGAAGGAAGAGTTCCCCATAAATAAACATAAAAAGTGCCT
TAGTATAGTCATGTATTAATAAGAAATATATAGCTATTGAGATATACACCATCCATCCTC
CCAATATTGGTAATAAAGCAAAATTTCCGGTTATTATCGCAAAATACTCTGCATAAGGAA
CCCCAAGTATAAGATATCCGATGTAGGATAGGATAGTTATAATTATAGAAAGTGAAACAC
AGCTTATAAATAAATTTTTGTAGGAGTCATGAAGATAACTTAAATAAATTCTCATCTTTT
20 CTTTATATTCATCAGGCACAAATGAAATTATCAGGTTTTTGGCTTTATCCCATCTCTTA
GAAAGTAGAATGTTAAGAACAAAACCATAATTACTTTAACTATTAAATATCCAACATCAA
TAATCTTTCCAGAAAAGTACTAACCATAATTTTTATAAATTCGTCAATATACTTTGCAA
TTATTTGTTTATTATTAATTTCTTTCTAACATAAAAGAAATATATATGGAGAGGATTT
25 CATTAATATATGGCTCTATAGATTTAGTATTGAAAGATAGTATGATTTCCATGAACGTTA
GTAGGGCGTAAATTGTAATTGTCATAATTGGAAGGATATATATGCTAATTGCCAAACCTG
CTGATATGGTTTTATTAAATTTTTTTCTTAATATGTTATAGACTGGCAAAGCCATATATG
CAAAGGCACATGAATAAGCTAAGACATCAATAAACGGCCAAATATATATAACAACATTA
TTAACAATCCAACAATAACTCCTTTCCTAACGTATTTGAATTCCTCAAATCTCATAGTAT
CACGTGATAATTATGAAAGTTTTAATGCCAAGTATATACTATCCTTATATTGGGGGAATC
30 ACCTTACATGTAGAAAATTTGGTAAAGCGTTTTAAAGATATTGAGTTTCATATATTAACC
TATGATAGTTTGAAGAAAACGAATATAAAAATGTAATTATTATCAACGTCCTCCTCACTTA
AAAAAATTTAGGGGAATTAGTTATCTTATAAATGCCTATAAAATAGGAAAAAATATCATT
GAGAGTGAAGGTATTGATTTAATTCATTCCCATTTATGCGTTTCCACAGGGTTGTGTTGGG
35 GCTTTATTAAAAAATAAACTATCTATTCCACATATATTAACCTTTCACGGAAGTGATGCT
TTAATATTAAAAAAGTCCATAAAGGGGAGATATTTTTTAAATATGCCACAACCTAATTCC
GATAAAATCATCTGTGTAAGTAAATATATAAAAAATCAATTAGATGAGAATTTAAAAAAT
AGGGCTATTGTTATATACAACGGAGTAATAAAGAAATCTATACAATGAGGGAGATTAT
AACTTTGGATTGTTTGTGGAGCTTTTGTTCACAAAAGGAGTCGATATTTTAAATAGAT
40 GCAATAAAGATATAGATTTTAATTTTAACTCATAGGGGATGGGAAGTTATACAAAAAA
ATAGAGAACCTTTGTTGTTAAAAATAATTTAAGCCATATTGAACCTTAGGAAGAAAAAGT
TTTGATGAAGTAGCTTCATTATGAGGAAGTGATGTTTTTAGTAGTTCTTCAAGAAGT
GAAGGTTTTGGAATGGTGGCTGTTGAAGGAATGGCTTGCTCTAAGCCTGTAATAGCCACA
AGGGTTGGGGGGTTGGGGGAGATTGTTATTGATGGATATAACGGACTATTGGCTGAGAAA
45 AATAACCCCAATGATTTAAAGAAAAAATCTGGAGTTAATAAATAATGAAGAAGTAAAGA
AAAACCTTTGGGGGAAATGGAAAAGAAATTTTCAAAAAAATTTCTTGGGAAAAATGTGTA
ATGGGTGTTAGAAAAGTGTATGAAGAGCTAAGCGATTAGACATAAAATTTAAATATAAGA
ATTTTTATTATAATTCATATGTTATATAAATGATAATCCATAATAAATAAATGATTA
TAATATTCCCTTCACTTAACTTAAATTTACCGGTGATATTATGGTTTTTGAAGAATTTAT
TTCAACTGAATTGAAGAAAGAAAAGAAAGCATTACTGAAGAATTTAAAGAAGAAAAGGA
50 AATAAACGATAATTCTAACTTAAAAAATGATTTACTTAAAGAGGAACTCCAAGAAAAGGC
AAGAATTGCAGAATTAGAAAGTAGAATCCTAAATTAGAATTAGAGAAAAAAGAGCTTGA
AAGAGAGAATTTACAGTTAATGAAAGAAAATGAGATTTTAAAGAAGAGAATTAGATAGAAT
GAGAGTCCCTCCATTGATAGTTGGAAGTGTAGTTGATAAAGTAGGAGAGAGAAAAGTAGT
55 TGTCAAAAGCTCAACAGGCCAAGTTTCTTAGTTAATGTCTCTCACTTTGTAAATCCAGA
TGATTTAGCCCTTGGAAAGAGAGTCTGTTTAAATCAGCAACATTAACAGTTGTTGATGT
ATTGCCAGAAAATAAAGACTACAGAGCTAAAGCAATGGAAGTTGATGAAAGACCAATGT
TAGATATGAAGATATTGGTGGATTAGAGAAACAATGCAAGAAATTAGAGAAGTTGGTGA
ACTCCCATTTGAACATCCAGAATTGTTTGAAGAAGTTGGAATTTGAACCACCAAAAGGTAT
TCTGCTTTACGGACCACCAGGAAGTGAAGACATTATTAGCTAAAGCTGTTGCTACAGA
60 AACAAATGCTACCTTTATAAGAGTTGTTGGTTCTGAATTGTTAAGAAGTTTATTGGAGA
GGGGGCTTCGTTAGTTAAAGATATATTCAAATTTGGCTAAAGAAAAAGCTCCTTCAATCAT
ATTCATAGATGAGATTGATGCTATTGCAGCAAAGAGAACAGACGCTTTAACTGGTGGAGA
TAGGGAAGTTTCAAGAACATTAATGCAGTTGTTGGCAGAGATGGATGGATTGATGCAAG
GGGAGATGTTAAGATAATTGGGGCCACAAACAGACCTGACATTTTAGACCCTGCAATATT

5 AAGACCTGGAAGATTGATAGAATCATAGAAAGTCCCAGCTCCTGATGAGAAGGGTAGATT
GGAGATATTGAAGATTCATACAAGAAAGATGAATTTAGCGGAAGATGTCAATTTAGAAGA
AATAGCTAAGATGACTGAAGGATGTGTAGGGGCTGAGTTAAAGGCAATCTGCACAGAGGC
AGGGATGAATGCAATTAGGGAGTTAAGGGACTATGTAACAATGGATGACTTTAGAAAGGC
AGTTGAGAAGATTATGGAGAAAAAGAAAGTTAAAGTTAAGGAACACAGCACACTTGGATGT
TCTCTACAGATAAACCTTTTTTATTTTTTACTATTTTAATTTTTATTTTAAATGTAAAA
CTAAGCAATTAATAATTTTTGGTGACATTAATGAACACCTATGGGGATATGTTTAGAGTT
ACAGTTTTTGGAGAAAGTCATGGAAAGGCTGTTGGAGCAGTTGTTGATGGATGTCCAGCT
10 AATCTGCCTTTTATCTGAAGAGGATATCCAAAAAGAGCTTGACAGGAGAAGACCAGGGCAG
AGCATCTTCTCAACACCAAGAAAGAAAGAGGATAAAGTTGAAATCTTATCAGGAATTTTT
GAGGGGAAAACTACTGGAGCTCCTATTTGCTCAATAGTCTATAACAAAAACATGAGACCT
AAAGATTACTCAAAAAATTAAGATACACCAAGACCTGGACATGCAGATTTAACCTATAGA
TTGAAGTATAAAAACTATGATTATAGGGGAGGAGGAAGGGCAAGTGGTAGAGTAACGATA
GGGCATGTTATTGGAGGAGCTATTGCTAAAAAGCTTCTATCTTACACATACAACATAAAA
15 ATTATTGGTTATACCATAAAGATTGGAAAGATTGAAGGAGATTTAGCTACTATAAAAAAT
CCAGAGGTTTTTGAAAAATGAAAAATCCTTAGAGAGATTAATAGAGATTATTGAAAGTAAT
CCATTGAGATGTCCATCAATGAATGAGAAAGAGATGGAGGAGTATGTTTTAAAGGCAATG
GAAATTAAGATAGTGTGGAGGAGTTGTTGAAATGTTGCATTAAATGTTCTGTTGGA
GTTGGAAATCCAATATTCAATAAGTTAAATGGAGAATTGGCAAGAGCTTAAATGAGTATA
20 AATGCTGTTAAAGGAGTTGAGATAGGGGCTGTTTTAAAGCGGCTGAGATGTATGGAAGT
GAGATGAACGATGAGATGTATTTTCTGATGACGACAAAAATATAAGATTCAAAACAAACAAC
TGCGGTGGCATATTGGGAGGAATTAGCTGTGGAACCTCAATAGTTTTAAGAATTGCAGTA
AAGCCAAACACCTTCAATAGGTAAAAAGCAAAAAACCATAAATTTAAAAACCTTAGAAAAAT
25 GTTGAATTTGAAATTGAAGGAAGACACGACCCAGTTATAGTTCCAAAGGATTGTTCCAGTG
GCTGAAGCAATGGTTGCTATAACCTTAGCTGATTTGATGATTAAGGGAGGATTTATTTCAT
CCGTCTAGCTTATAAAATTTTTATATTTTTTATTATCTATATTATTATTATTTTG
TTTTTATTTATCTTAATTTGGTTTATTTAAAAAGAAATGGGTGAAAAATGAAGTTTATA
TTTATCACTGGAGGAGTTATATCATCATTAGGTAAGGAATTACAGCAGCTTCGTTAGGG
30 AGATTATTGAAAGCAAGAGGATTCAAAGTTAATATGATTAAGATAGACCCTTATCTGCAG
ATAGATGCAGGAACAATGTCTCCTTATGAGCATGGAGAGGTTTTTGTACAGAGGATGGT
GCAGAGTCAGATTTAGATTTGGGGCATTATGAGAGGTTTTATTGATGAGAATTTAACCAAA
AACAACAACATAACAACAGGAAAGATATATTGGAGTGTCTTAACAAAGGAGAGGAAGGGA
GAGTATTTAGGAAAGACAGTTCAAGTTATCCCTCACATAACAAATGAGATAAAGGATTGG
35 ATTA AAAACCTTGGAGAGGGGTATGATATACTATCGTTGAAATTGGAGGAACCTGTTGGA
GATATTGAAAGCTTACCTTCTTAGAAGCTATAAGGCAGTTTAAAAAGGATGTGGGTAAA
GAAAACGTTTTATACATCCATGTTTCTCTTTTACCTTATATAAGAGCTGCCGGAGAGTTG
AAGACAAAACCTACTCAACATAGTGTAAAGAGCTAAGAAGCATCGGAATTCACCCAGAT
ATATTAATTTGTAGAACGGAATGCCAATAAGTGATAAAATTAGGGAGAAATTAGCCCTA
40 TTCTGTGATGTTGATAAAGAGGCGGTTATTGAGGCAAGAGATGCAAGAACAATATATGAA
GTCCCTCTTAATTTAGAAAAAGAAGGTTTAGGGAAATTAGTTACCAAAAAGTTAAATCTT
CCAGATAGAGAACCAGATTTAGACGAATGGAGAAAGTTTGTGATAGGGTTATAAACCCA
TTAATGAAAGTAAGTATTTAGTTAGTTGGGAAGTATGTTGAGCTAAAAGATGCTTATTTA
45 AGTATTACAGAGGCATTAATCCATGCTGGAGCTAAAAATGACACTAAAGTTAATAAACA
TGGATACATTCTGAAAGATTAGAAAGTGAAGAATTTGAAGAATTATTAGATAGGTATAGA
GAAGATAATCAATTAGATGGTATCTTAGTTCCAGGAGGATTTGGAGATAGAGGAGTTGAA
GGTAAATAAACGCTATAAAATATGCAAGAGAAAACGACATTCCTTTCTTAGGTATATGC
ATGGGAATGCAGTGTGCAGTTATAGAGTTTGCAAGGAACGTTTGTGGCTTAGAGGGAGCG
AATTCAACAGAGTTTGATGAAACACTAAGTATCCAGTTGTTGATTTACTGCCAGAGCAG
50 AAGGAGATTGATGCAAAAGGAGGAACCTATGAGATTAGGAGCTTATCCAGCGATATTGATG
GAGGGAACCTTAGCTTATAAGTTGTATGGAAGAAAGGAAGTTTATGAGAGACATAGACAT
AGGTATGAGGTTAATCCGGAATATCATGAGATATTAGAAAATCATGGCTTAACAATTTCT
GGAAAATCTCCAGATGGAAGATTGGCAGAGTTTATAGAAATCAGCAAAAATAGATACTTC
ATAGCAACACAGGCACATCCAGAGTTTAAATCAAGACCTAACAAACCACATCCATTGTTT
55 GATGGGTTAGTAAGGGCTCTTTGGGAGAGAAGATTAAATAAATTAAGAGTTAATCTTT
AAATAGCTTTTTCTTTTTTATAGATGTTGTATGATGGTCAAAATCAACGAAAATAACTGT
TTTATTATTCTCATCAACGGTGAAAACAAGAACAAAGCTTTATCGATATGAACCTTTTT
AAAATCATTTAAAGGATGTCTTAGGTTTTTATAATGGTGTGGATTTTGGAGTAACTCTTC
CATTTTTCTTTAATATTGCTTTTAATTTCTTTTTGTCTCTCTTTGAAAGTTTTTGAAGTAT
60 TTTATCCAATGAAGGCATTTATTCGATTTTATACATTTATTCACCTAAATATCTCTTTTT
TAGATTTTCAATAGAGCCAATGTATATAGGTTTTTTCATTTTTTATCAATGTTTCTAATTTT
TTCAATATATTCTGTTTTAGTTGCTCTCTAACAGAAATCTGCATATTCTTCTATTAT
TTTGTATTATAGCCTGGCTTTTATCTCTTAAATTTGATTTTGTCTTTGACTATATTATTAT
TCTGTTATTTTCATCAGTAATATCAACTATTGCTTTAACCATTAAATCACCTTATTAAT
GTGGCATTAAATGTGATATTAATATTATACAAATATTGTATAAATAGTTTTATGCTTCGA

-246-

TAATAAAAAAGAATTTCTATTGAGATTTTATGAAACTTTGTAGAAAAATAAGAAATATGT
TTTTCAAAATTAATTAATCTGGATTGCTATCAACTGAAATATATAACTGCCCTTTTGG
TTTATTATAGACATAATCTCCACTAACTTATAGAAGGTTCCCTGCTATTGGTGTTCAGC
5 GTCTTTTTTACTTAATTTTATACTGGATTCTCCACAATACCTCAAACCTGAATGAAGG
TAAATCTCTTCAACCTTTCCATAGACAACCTATAGCTCCTGCCTTCATCTCTCTCCAAC
TCTCACATCAACATCTCCATCAATAATAATTATTCCCTCCATTTTGATGAATTCAGCCAT
TATTCCAACATTTCCCTTTTATATGTATGAGACCTTTACTCATAAACTCTCCAATCTCATT
TCCAGCGTTTCCCTTCAACAATAATTGTTCCCTCCACTCATACCTCTCCAGTCTCCCTATA
10 CGCAGAACCAACGTAATCTCCTGCATTTCCTTTGATTAAAGCTCTCCTCCTTTCATATT
CTGTCCAGCCCAGCTCTCAGCATTTCCTTAACAACATCTTTCCCTCCCTTCATCTCTGC
CCCAACATACATTCCAGCATCTCCTTCAACAACAATCTCTCCCTTTGTCATCTTTGAACC
AATGCTTTTAAATTTTGGACTTGAGTTTAAATTACAATCTTGCTTCTCCTTCAATATC
ATTTAATCAACATCAAAGATGTCAGCAACTTAAATCTTTTTCTTCCCTGGACTAACTC
15 AATGTTTTTTATTTCTCTAAGCTCATGTTCTCAATAACTTCTGGCAATACTTTATCCAT
CTCTACTGGAACAATAATTTCCCTTTTGAATGTTAGAATTAACCTCTTATACCATCACC
GGCTTATTATTTTTTATCAGTCAATTTCTCAACTATAACAGCCGTTCCATATGCATAGT
AGGTTAATCTGGAAGTGCATAGTTTTCATCAGATATGATTTCAAGTTGTAATTCATTAG
AGATTCCTTATTTCCAATAACTGCATTAGCTCCCATATCTTCAGCTACATCTATTAATCTT
20 CTAAGGCATCGTCTGGGTCTACCCATAGCCGATTACAACACCCAAATATTTTACAATTT
TAAAACCTTCTAAGTTGTCAGTTGTGGAAGTTATCATCAAAATCACTTAAAAATTAATTT
TTAGAAAGAAAAGGATATTTAGTTTATATCAGTTGCATCTATCTTTATAACTCTCCAGCT
GTTTGCATATTCATCTGAAACTGGGTAGTTCTCTAAGTTAACTGAGTAGTATCTTCTAAA
CTTCTCCCCAACATCTTTAAGGACTTCATTCAATTAAGTCTCTCCACCTGCACATCTAC
25 ATAGATTGTGTCTCCAAAGACTTCTTTAACAACGTTTCCATCCTTAACAACACTACTTCTCC
TCCCTTCAATACATACTTAGCATATCTAATGCCTTTTCAATCTTCTTACCATCTTTCTC
TTCTGGGTCTATTGCATATATTGCTATGTCAGCCTCAGCTCCAACCTCTAAGTGTCTTT
TGTCTCACTCAATCCTAAACCTTAGCTTGGTTAGCTCTTGTATTTTTTGCTATTTTATA
TAAGTCGTATTCTTTATCAGCATCCGCTACATGGCTTCTTTGCTGTGCCCACTTATGAAC
30 TTTGTTGTATAACCATTCATCCCTATACCTTCTTACTCATTAAACCATGCAATAACTCTTGG
ATATCTTGTGAAAGGCCCTGCGTTTGGATGGTGGTTGTTAATAATACCTTATCTGTGTT
TGATCTTGAAGAGTTCTAAACCAATTGCCCATTTGGACAGCATAAACTGGACCTTTTTGG
GCTGTAAATGAAAGGAACCTCCAGAACCTGTCTCAAGCTCAACATCACAGTTTGGCCA
CTTCAATCCATTAGTCATGTGTAATCATACTCCATTGGTCCATCTGCAGTCATTGTTGT
35 TGTTCATCTAAGGTAACCTGTCCAACATCAATAACAACGTTTGTGATTTATTTACATA
TTCAGCTATCTCTATTGCCTTACTTTCAAAGTCTTCCATGAAGTCCCTCCATAGGAGTG
AAATTGGCAATGTGTGTTGTAGTATGATGTTTCCCTCTCTCCAACCTCTTGGTTTTGCCTC
AACGCCCTTCAACACACTTCATTGTCTCTAATGTTGTCTCCAGTTTCTCTGGATGTCTTAA
40 GTTGTGTTGGATGGACGTGGATTGAGTGAGGCAACCAAGTAACCTCATTAACTCTGTCTAA
ACCTCTAACAATCTCTCTTGGTGTTATATCAAAGTATGGAACCTGGGTCTCTAAGCTATG
AACGTTTTTACCCCAACCCCAAGCTTCTGTTCTCTGGATTAACTATCTTTATAGCAAA
TCCTTTTAAACAGCCTTTAACAGCCATGCAACAAAAGCAGCAGATGCCTTAATGTCTCCTTC
TTTTAAATACTCTAAGACCATCCAGTTGTTTCCAAACAATGGCATTGCTGCCTTGTCTAT
45 TTGTGGAGTCTCCATAAATTCCTCATGTGTGTGCTTGTCAATCAATGGGGGCATTGCTGC
CTCAATGACAGTTGTATAACCCATTCTGAATATTGATAACCTGTTTTATAGGTTGATGG
AACTGAAAATCCTGTTCCAGTTCTTAATCCTTTTTTAGCATAGATTCTCTTTTACTATC
TTCTGGTCTGAATATTCTTCCGACGTTAACCTTTGCCCTGCAACGTGGCTGTGTGAATC
GATTCCACCAGGCATTACTACGCATCCAGATGCATCAATAACTTTTGCATTATCAGAGAC
GCTCTCAACTATCTTTCCATCTTTAACACATATATCCATTTTTTCTCCATTAAATCCCAT
50 TAATGGGTCTATAACAATTCATTTTTTATGATATATTCCATCTTATCACCATTTATTAA
TATTTGGTTTATTCAACAGCTTCAATGTATTTTTTCTCATTAAAGACCTCATATCTAAA
AATCTTTCGTCTGTCTTCTCAACTTCAACGTAAAAGCCAGGATATCCTTTAAATGTCGGC
ATTCCAGTGCTGTGTGTCTGGTTTAAACAACACAGTTTGCCCAAGGTCCCATTTGGGATG
TAAATCATTCTTCTGGCATTCTTTAGTTGCTTTTTTACATAAACTACAACCTCTCCA
55 TATTCTGACTTAACTTTAACTTTATCTCCTTCTTTAACTCCTAATTTCTCCATATCTTCT
TCGTTGATATAAACTACTCCAGCAGCTTTAACATACAAATCAAGGTTTTTCCAGCCTCC
ATTGCCCTCCCCTTGCCAAATAGTTCTGCCTGTGTTTAAAGAAAACTTCATTATCTCACCA
ATTTAGCTTATTTCTTTTAAAACTAACTCTATAGCATTAACCTGGGCATGCTTCTATGC
AAGCTCCACATCCACCACATAAATCTTGATTGACTACAGTAACAACCTCCATTCTCAACTC
60 TAATAACTACATCATCACTGTAAGGTCCTTTTCCCTCCCAAGTTTCTGGATGTTTAGCAT
TAACTGGGCATGAGACAACACAGTTTCCACATCCGTGGCATCTTCTGGATAAACTACCA
ACTCATAAGCTTTCAATTTCCCTCACCTTTTAAATGATTTTTTAAATATTCTTTAAGGTATTTTC
AATTTAACCCTTAACTTTTTTAAACGCTTCTTCCATGCAATTGCCTTTGGTTCTTTTC
AAAGTTAATTTCTGTCTCTTAACTTTTATAGCATTAACCTGGACATGCTTTAGCACAAGC
TCCACACAACACAGAGGTTTTGATTTACAATGATTCTTGGAACTTTTTCTGCCTGTCT

5

10

15

20

25

30

35

40

45

50

55

60

TTTTGGTTTTGGGAATTCTAATGCACTACATGGACATATGGAAATACAGGCTCCACAAGC
GTTACATGCATTTACATCGATTATTAACCTCTCTTTGAATGGCTTCTCAACTTCAATAGC
TTCAGCTGGACAGATAAAGGCACACCATCCACAGGTTACACATGCATCTTTATCAATAAC
TGTTTTTCTGTAAATATCCTCATACAACCTTAGCTTGTGGAAATCTCTTCATCATTGGACA
CTTGTAACAGATAACCTCAATAGCATCATGCGGACAGACGAATTCACAAACCTTACAGAA
GACACACTTATCCTTATCAACTTCAATATCAGTTATTGGTTTTGGGTTTGATGGAGTTGG
GTAGTTGTATTTTAAATTAATAGCATCAGCTGGACAGTATTGAGCACAGATTCCACATAG
AACACATTTCTCTTTGTTTATGTTTATCTCTCCGATAACAACTTCTCCCTCTCTGCCAA
TTCTCTTTCAACAACATATAGCCCTTGAGGACAAACCATTTACACTGCTCACATAAAAC
ACACTTGTCTTGATAAACTTTAATATCTCTCTTAATTTTGGATATCTCTCATCTTCTTT
TATTGATTTACCATTGATTTTCAAATCCAATGCATCAAATGGACATGCTGAAGCACACAT
TCCACATAAAACACAGACATCTTTATCAATATCCAATTTTGGAGCTATTATGTCTCCTTT
AGCAATAGCTCCTAAAGGACCCATAGCAATGGCATTAACTGGGCAGATATCTGCACAGAT
ACCACATCCAACACATAGTTTCATCGTTCCAACAGAGTTCTCTTTTTTCTACTTCACCATC
TCTATATATGTTAAATCCATTTTCATAGACCTCTTTTATTGCTCAATCATGGTTATTCC
TCCTTAATGAATTTTAAAGAGTTTGTGGACATCTAAATATGCAAGATGCACATAGATGG
CAGGTATCTTCGTCTATACCAACAGTGAAGTTATCAAGTGTGAGTGTGCACACCCCTAAA
CAGGAACCGCAAGCTATGCAGGAATTTTCATCCAGAAAAGTTTTATACCATATAATTCT
TTAATTAAGTTCTTTGCAAGCTCTTTATTATCAGTTAAAGAATGAATAAACTTTGCTCCA
TATTGTTGGTGGCATTTCCTCAATAATTTTGGCAACATTAAGATTTTTCTTTGGATAC
CTCCAGAGAGATAATGAGAAACGATTGACCTATCGCTCTTAATAATTTTTGCTATTTC
TTCTGCAAAAGCCCTTTCTTCTTAATTTTCATTGCCACTATTGCCCTTTATCCGGAGAGA
ATATGCTCTGGCATCGTCTCACATGGACATTATGTTAGTTGATGATTTTCATTTATAAAT
ACTATGTATGAAGTTTAAAGTAGAACTTTTTTATATAGGTGTGTGTCTTGCTCACATATT
TATAAATAGTTCAACATATATGAATAAAAGTTCTATTTTTGGTAGAAAAGCTTTATATTG
GTAAAGCTAATAATATAAAAAATACAACCATAAAAATAAATATTATAATGATTAGATTA
GAAGAATTTACGGTGATGATTATGAGAGAGATTCTAATATCCGAATGTATAGAATTATTA
AGATCACATAAATTCATCGTCTCAAAACCACTGGGAAGAAGTTGCTTTGATATGGTAGCA
AGTAAAGAGGATATTAGATTAATTTTAAAAATTTTAAAGAATATAGACAGTTTAAAGTAGA
GATCAATCAAAAGAATTAAAGAAGATTAGCAAAAATACTGCATGGGACTCCTTTAATAATA
GGCATTAGAACAAGAAACGCCCTTATGGACCATGGAGTTGTTTATGACAGATATAATATA
AAAGCAGTGACTTTTGAAACGTTTCAGAGATTATTTAGAAGGAAGCCCAATGGTTTAT
GCAATAGAGGAGGATTTTTTGTAAAGATAGATGGGAAGGTGTGAAAGAAGTTAGAGAG
GCTATGGGTATCTCAGTAGGAAAGTTGGCAGAAAGTTGCTGGTGTTCAGAAAGGCAATC
TATAAATATGAAACTCAGATGGCAATCCTTCAGTAGATGTGGCTTTAAAAATTGAGGAG
TTCTTAGATGTCCGTTAGTTAAAGGTATTGATTTATTGAGCCTGTTGATGATGAGGAT
GTTGAAAATAAATTAGAAAATTTAGAAGATTTTAAAGAAAGAGCGGATAAATTTTCTAAAC
GAATTAGGATTTAAATCATTGTTGTTGAAAAGGCTCCATTGATGCAGTAGCTGAGAAG
GATATGGATAACAATCTAAATATCTATTAACAAATATTGAAGAAAAGATAATGAAGAA
GTAAAGAGAAAGGCGTTATTCGTGAGAGAATTCTCAAGGTATTAGATGGATATTCCTA
TTAATATTGGAAGAAAAGAGAAAAGAGTATAAAACTTGCCAGTTGTTAGTATTGAAGAG
TTAAAAAGATGGATGATGCCCTTGAGTTGATTGAGCATATAAAATCCATGTTAAGAGAT
ATAAGATAAATTTAAAAAATTGATGATTTAAAAAGTAAATACGGAAATTTTTGTACAT
TTGTTTTCTATGTAAACTCTATAAAACACGATTTTTTCATTTTCATATTTAAAAACCAAT
TCTATAATCTTCAATTTATATGCTGTCTCTAAATAAACCCCTCATCTCTCCATTGCCCTT
TAAAGCCCATAATCTAATAACAACCTTCAATCTTTTAAATGTCTTATAACCCAAAAT
AACTCCTTTAATATTTCCCTTTTCATCGGTAATGTAGGATTGGACAATAATTCATAATAA
CCACTAATATTACGTTTAAATAGTAAAAAGTTAAAAAGATAACGGGATTTATAATTCC
AATGGTTCTCCAATCTTTGGAACATATGACCTCAACTCCTAAAGCCTCTGCTTTTTTCACA
AACTCATTACATCCACTTCAATTAACGGGAATGTATTATAATGCATTGGAATAACAATC
TCTGGATATATTAGCTCAATAGCCACTAATGCCCTCATCAATTCCCATTGTGTATCTTCCA
CCAATTGGCAATAAAGCTATTTGTGGAGCGTAAATCTCTCCAATTAACCTCCATATCTCCA
AATAAGCCAGTATCTCCTGCATGATATACTCTATCATTTATAATAAATCCAGCAGCAACT
CCCCCACTTATTGTTGGAGAGATATCTGATGAGTGCTCAGCTTTAACCATTGTTAATTTT
GCTCCATTTATCTCTATAGTCCCCCAATGTTTCATTCTCTGCACAACTCCTCTTTCT
GATAAATAGACACTAATCTCATGGTTTCGTTACTACTGGAACATTGTAGTTTGTAGCTAAC
TCTTCAGCATTTCTAAGTGGTCTGCATGGCCATGAGTTACTGCTATTACCTCAACTCCT
TCCATTATTTTCATCATAAGGCAATCACATAAAGGATTTGGAACAAATGGGTCTATTAAC
ACATTATCTACTTTAAAGCATGCATGACCATAACCATGTTATCATCCTCTCACCTCCACAT
AATAATTTTAAATGTTAAGCTATTTAATTTTATTATGTGGGGAAATTTCTCAATCTGAT
AAAAGTGGTTTATGATGTTTAAAAATTAACATAAAATTTCAAAGCTTAAAAAATAA
AATAAATGGTGAAATATATGAAAATAGTGGGAATTACTGATTTACATGGAAAATTACCT
CCAGCAGTTAGAGAATTTAAAGATTTGCTGATGTTTTAGTTGTTGTGGGGATATAACA
CACTTTGGTAAAGGAATTGAGGTTATAGAGAAATTGGCTGAGTTATCAGATTATATGGAA

5 GTTCTATGCGTTCCAGGAAATTGTGATACTAAAGAAGTTATTGATGAGTTGAATAGCTTT
AAATTAAATATAGATAGAAAAGTGAAAAAATAGAGAATATAAAATTTTGTGGAATAGGA
GGGAGTAATAAGACCCCTTTTAACTCCAAATGAATACACCGAAGAAGAAATATACAAT
AAGCTCATAAATGTGGTTAAAAACTTAAAAATATATTTTAGTTAGCCATGCCCTCCA
10 TATAACACAATGGCTGATATTGTTGATTAGACAAAGATATCCACGTTGGAAGTAAAGC
ATTAGAAAGATAATTGAAGATTTTAAATGAAAAATATAAGATTCTGTGCCTGTGGGCATATA
CATGAAAGTAGGTGTATAGATAAAATTGGAATACAATAGTTGTGAATCCATCTCCAAAG
AGTTATTTTGTCTATGACACTAAAAAGAAATATGGTTGTTTTAGATGATTTAATGGATTT
TAAAAATTTTGGAGTAAATACATTTCCATTTTAAATTGCAAACTTTTATACTTATTA
AAGAATTTAAATAAAAACACAAGGTCACACTTTAAAAAGTTGTGATAGTTATGGATG
AGAGGAAACAATTATTGTTTAAATGCAATATTTGACATATATAAAATCTTCTTGGTGCTG
GATTGATATTGTTAGTTGCAGTTATTGTTAAAGTTGCCTTCTCCGAAGGTAGTTTAAATA
15 CTGGTTTAACTATGTTTAAATGACATCATAGCAATGTTTTATCTAAGTTGGCTATTG
GGAGTATCTTGTATGACATTTACAAAGAATTATAAGTTAATCCTTTTGATGGATTAGCTT
TCTTCCAAATTTCCAATACCATATAGCCAATAATGTTGAGAATACAACCATAAAGCCAAT
TACTAATAACACTAATATAGCAAGGCGTCAAATTTTCATGACCATCAACTCCTTATTTTT
AATCTAATTAGACCCAAATATTAACCTTTTTGTAAGAATATAAAATATCATATAATG
ATTTTTTTTATAAACTTATCATAAAAGGTTTTCTTTAGACTTATAAGGTTATAGAGTT
20 ATTTTGTATGATACAAAAAGAAATATGGTTGTTTTAGAAGATTTGCTGGATTGTTAAA
ATAAAAAATTAAGTTTTGATTTCTATATATGATATAGGTAAAGAAAGCAGTTATGGCT
AAATAAACGCTTAATGGAATGGGGCTTTTGTGATGATGAGGATGTTGTAGTTGTATTT
GAGGTTGTATTTGAAGGTGGTGGGAAATCGTAATGAATGACGTCAACAATACATGCGATA
TCTCCACTTTGTTGATAAGAACCCCAATTTAATCCCCAGAAACATTAAAAATAAGTGTA
25 TTATTACTGTAGTACTTTATACACCATACCTGGATAATTTGGATTGTAATGTATATCT
ATAGTAATCCGTTTATAACTTGATAGTCACTAAAAGCTTCATCTTTGGGAATATTTTT
TGATAAAGTATCTCCCACTACTAATATTCTTTACAGTTATTTCTATGGCATTATAGTCC
TCTGCAAAAACATTTTGACACAAAAACATGGCTGACAAAATTAATACTAAGTATATTAAC
AGTTTATTAATACCTACGTATATTATCTCATATTTTACCAGTAGATATACAATATCAT
30 GAAAATAAAATTTATTTAATTAATTGCTCATTTAAAAATGTTTTCAATTTGAATTTAGAAC
TTAATTTAATATATTAATAATAAAAAATTCATCAAAAAATTAATAATAGTATTAATATG
GAAATATTACTCCATTCCTTCAATGCAATCATTCACCTTAGAACCTTTTCATCTTC
AAATGGCTTTTCTTGGATTGCAAAACCAACAGGAATTCATTTATATCCCCACATGGAAC
AACTCCAGCACACAAACCGCAGATATTAGCTGGGACTGTTAAACATCATAACTATACAT
CTCCATTGGTGTAAATTTTACCTAATTTGTGTGTTAACTTAGGAAGTGTGCTCCAC
35 TATAATATCAACATCCTTCATAATCTTAATCATCTCATTTCTCATTAAATTCCTTGCTT
TAAAGCGTTTTTGTAGTATTTACCCTATACCTTTCTGACTAATCATTGAACCAATCAT
AATTTCTTTAAACTTCTCTCCACAACTTCTCTATTTTATATCCATATCTTCTTCC
ATCGTATCTTCTGTTGGATGAGAAGAACTCAACGTAGTTGATTAAATAGTAAGTTGGCAA
TGCTAAATCAACATATTTATAGCTTAATCAACAATCTCACAACCTAAATCTTTAAAGAC
40 TTCAATGGCTTTTCTACCTTATCCCTTATCTTCTCATCGGCAACATCCATAAACTCCTT
AACAACCTCAACCTTAAAGCCTTTAATATCTTCTTTTCAAAGGTTTTGTCTACCGT
TGTTGTGTCCTTAAATCTTTACCTTTAATGATATTTGTTAATAAATGCATCTTCAGC
TGTTTTGTAAAGGTCCTATTTGGTCAAACTCATTGCCAAATCACAGAGGCCATATCT
45 GCTAACAACTCCATAAATTTGGCTTAAATCCAACACTCCGCAATGTGAAGCAGGGTCTCT
AATACTTCCCTGTGTCACTACCTAAAGCCATATCACATAAATCTGCAGATCTGCAGC
AGCACTTCTGAAGAACTTCTCCAGGAATCTATCTTTAGCCCTTGGGTTTTTGTGG
TCCAAAATAAGAGGTTTCTCCACTACTACCACATGCAAACTCATCCATATTTGCTATTCC
TATTATCAATCCACCATTCTTTTAAATCTTCTCTATAACAGTGGCATCGTAAGGGGCTAT
50 GTAGTTTTCTAAAGTCTTTGATGCACATGAGATTGTATAGCCCTCAACGTTTATGTTTGC
TTTAACTACAATAATCTTTCCATATAATGGCTTTTTCTTAGCTTTTTCATCTTTTCTAA
TTTTTTTGCTCTTTCTAAACTTTTTCTGGTTTTTACCTCAATTAGAGCATTAATATCTTT
GTTGATTTTTCTATTCTGTCCAATACTCTTCAACTCTCTCAACAATCATCTCATCACC
GTAAATTTTTTGGTTATAATATTGACTTATATTTATTTATTTTTTGTATTCCATTTC
55 TCCAAATATTCTTATTTCTTTCTCAACATCTACATCATTAACTCTTCTAACAACCATAATT
AATTCATCATTCTCTACTCTAACATTTCCATACAAACAACTCTTCCCTAATATTTCA
TCTTCCACCATTTCTATAGTTAGGTTCTTAACTCCTCCCTATTCAATTTTAAACATCTTC
TCAACTCTTCTATACATAAGCCCTACATAATAAGTTCCAGTCCCATCATCTACAACAAA
TCAATCTTAAATCTCTTCTGGCTCAACATCTCCACAAATAGGGCAGTTATAAATTTCCA
60 TCAATCTCTACAACCTCTTTCTACAATTTGGGCATAAATAAGAAAGAGAGTGTCACTC
AATATCTTAACTACAGCCCTCTAACTCAACAGTTTCTCCGCTTCAATATCTGCTATA
AACTTTCTATTGGTTTTTATTTCAACCCCTTCTGGATTATAAATTATCTTCCATATTTT
CCAATAACCAATCTATATAATCTCCCTCTCTTAGCATAGGCATGTAAATTTCTACA
ATATCTCTTCTTTAATCTCTATTTCAAGCCAAATCATCCCATAACTCAACCTTATCTT
CCAGTTCCATCTTCTAACAATAAATTTCTTACTTTTCTAACCTTATCTTCAAATTCAT

TCATTAACCTCCATAATCCTCAACAACCTTGAGCTATTAAATTTATATCGTTCAGTCAACA
TCTCTATTATAAATATCTTCAATTTTGCAATATTTAGCTCATACTCTGGAGCTTCAATG
TTTTTCATCTTTAATAAATCTGTTTCTAATGTGGCAACTAAATCAGTTCCTTTTATTTCTCT
TCTCTATCATAAAACGTCTTAACCTCTACAGTTTGTTATTCTAAGTCCCTCTCTTTT
5 ATATTTTCCAATAAAGCAGTTTTTCTCTCCAAATGAACTCTAAGTCTACAGTGCCTG
TTATCTAATATAATATCTTGAACCTTTGCTATCTCTCCATCCAAATCTACGCTTTTTTTA
TTACTTATGGCTATAACTCTACCTTTAACACTCACCAGTTCTCCATCTTCATATTTTGTT
AAATCCTCAATATTTACTTCTTCACTCTCTATTTTTTCTCTCTTTTTTAAATATCTCTACA
10 TAATTTGCGGTGCATTCTAAACCCCATATAAACCTTCCCTTATATAGCCCTAACTCTA
ACGTAATCTCCTCTACCAACATCGATATCTGTTAGATTATCCCATAGGTAACCTCTTATA
CTTCTGTCTCATCTCTAACAATAAATGATTTTAAATTTTCCAATACTACCATCAGTCTTT
TTAAATTTCTTTGATTGGAAGAGCTGAGATAAATCTCTCTTCAAATGTTGCTGTCATTCCA
GGACTTAGCTCACCATATTTGATGATCTTTAATCTCTGGAAGTTCTCTTCATAGTTT
15 TCTAATTTTTTAAATCTTAGTTTCAGATGTTGAACTCAACTCTAAATTTATTTCTCCATTTT
CTTGCTCTTGCTCTTTCAATTTTAAACATCTCCAACCTTTTACATCTAATTCAGCCAAA
TCGTCCTCATAAAGTCAATCTTATAGTTCTGACTTATCCGCTATTGTAATTTCTTTGTAT
TTCCCTAAACTCCCATCTCTCTCTTTTGAATGTTTTTATTTCAGAGATATCAGTTATACT
CCAGTTATCTCAACGCTATCTGTCCCTCTTCAATATCACTAATTAATAATTTCTTCATCA
20 TTTTTTCTTCTCCATAAACTCCATGTTCTTTTGCAATCATCATTAAATGCAGCATCTTTC
AATATTATTCCTCCGTTTTCTTCAATTTTTTTATCAATCATCCTATCTAATTCCTCCTCA
CTAATATTCAATGCTTCAGCAACCTTTTTTTTGAGTTGTTTAAATCTTTCATAATCTCCT
ATCATAAATCATCACCATAAAAAATTTATTTGAATAGAATTTCTATTTAATTTCTTCAAT
TTTATGAGCCATGAACATACCTTGCAATATTTCCACTACATGGAAAACCATATCTCA
25 CATCTCCTGATTTCTTCTTTAACATTTAAATATTTTAAAGTTTCTCATAACCTCTCAAT
ATACTAACTTAACTCCCGCTTTTCTTCTTCCAAATCTCAATTACTTTTTTCTATTCTA
TGCTATAAGATAGAGACGAGTATGGACATGGCTCTCTGATACTTTATATTATTTATT
TCAGCATATAACTTAACTTCTCTTTCAGGAATTAAGTTTAGTGGTTTGATTCTCTTAACA
AACCCTCCTCTTCAAATTTCTTTACCAAATGAATAATTTTTTTATATTTCCCTCAACA
30 TAGTTTCATTAATAATTTGCTGCGCAGAAATCATCCAAATATGCCCTATAGCCAAATAATCA
CAGCCTTCTTTTAAAGCATGTTTATTTAATAAATATCTTCTAAGTACTCCACAAAAGGAA
CATGGTTTCCCTATATTTAATTTGCTTAAATAATCATTTTTTACAATTTCACTTAAGGTA
TAACCAATCTCATCCTCAAATTTTATAATCTTTAAATCTAAATATATTCTTTACAAAAT
TCTTTAACGTATTTTTCTGCTATGTTTCTTAAACCTTTTATTTCTTCTCCACAAAAAAA
35 CAAATTAACCTAGCGTTTGAATATGTTTAAAAAGCTCCTTTAAATATATGCCATAACT
AAGCTATCTTTTCTCCACTAATTTCAATGCCTATTTTTTACATTGTTTCTTATAATATCT
TTCCCTAAAACCTTTTTAGCTCTCTCTTCAATATCTTTTTTAAACATTTCTTTACATAGA
TGCCTATTTGAGTACTTTTGATAATAAATGCTTCGTTTCCACAGCTACATAGCATAAT
TCCCTCAAATTAATATATGATTATATAAATGGCAAATTAATAATAATATATAATATAA
40 CATAACATAAATTTTTTAAATGTATAGTTATGTGGGGAATCCAACATTTGGTGATTTTA
TGGAAAAATGGGAGTTAAAAAATTAGCAGTATGTTTTAATTGTAAAAAGGAGGCAGACC
AGATAATTGAGATTTACACAAATCAGGCATTTGTTAAATGTAGCAACTGTGGAGCTACAA
GATATTACATATTAAGAAGGGTGGGATTTGAAGATGAAAGTATAATTGAAGATGAAAAA
45 AAAAAAGAGGCTACACAAGATTTGCAATAACTGAGACGAAATGATTGTTAGATGTAGAA
ATTGCGGATTTACAAGGTTTATCAGTTCCATATATTAGATATCCAGAAAATAAATGAT
TGTGTATAATTATTTACAAATATGAACAAAACCGAAAGGTTTATATAGAATTTCAACGG
TATATTATCTCCAGTGAGAAAATATTATAAAAAGATAAAATAAACGGAGGGATTTTTAT
GGTTAAAGAATTAAGTTGCTGAAGCATATCAAGGAGATGTAGGGAGGGGTATTGCAAG
50 AATAGACCCCTACACAATGGAAGAATTTGTTTAAACCAGGAGATGTTATTGAAATTTGA
AGGTCCAAAAGGAAAAGCTTATGCCATAGTTTATAGAGGTTTCTTAGAAGATGCTGGAAA
AGGAATTATAAGAATTGACGGTTATTTAAGGCAGAAATGCTGGAGTAGCTATTGGAGATAG
AGTAAAGTTAAGAGAGTAGAGATTAAAGAAGCTAAAAAGGTTGTTTTAGCACCAACTCA
ACCAATTAGATTCGGCCCAAGGATTTGAGGACTTTGTTAAAGGAAGATATTGGGACAAGT
55 GTTAAGTAAAGGTTCAAAGTTACTATTGGAGTTTLAGGAAGTCTTTAACATTTGTTGT
TGTTAGTACAACACCACTGGACCTGTTAGAGTAAGTGAATTCACACACGTTGAGTTAAA
AGAAGAGCCAGTCAGTGAATCAAAGAAACCAAGTTCCAGATGTTACCTATGAAGATAT
TGGTGGTTTTAAAGAAGAGGTTAAGAAAGTTAGAGAGATGATAGAATTTCCAAATGAGACA
TCCAGAGTTATTTGAAAAATTAGGAATTGAGCCACCTAAAGGAGTTTTATTAGTTGGACC
60 ACCAGGAAGTGTAAAGACATTATTGGCTAAAGCAGTTGCTAACGAAGCTGGAGCAAACTT
CTATGTAATTAACGGTCCAGAAATAATGAGTAAGTATGTTGGAGAAACAGAGGAGAATTT
AAGAAAGATATTTGAAGAAGCTGAAGAGAAATGCTCCAAGTATAATTTCAATTGATGAAAT
TGACGCTATAGCTCCAAAGAGAGACGAAGCTACAGGAGAAGTAGAGAGAAGATTAGTTGC
TCAGCTCTTAACCTTAATGGATGGATTGAAGGGAAGAGGGCAAGTTGATGTTATTGGAGC
TACTAACAGACCAAACGCATTAGACCCAGCTTTAAGAAGACCAGGAAGATTTCGATAGAGA

GATTGTTATTGGCGTCCCAGACAGAGAAGGTAGAAAAGAAATCTTACAGATACACACAAG
AAACATGCCATTAGCCGAAGATGTTGATTTAGACTACTTGGCAGATGTAACACACGGATT
TGTGAGAGCTGATTTAGCAGCTTTATGTAAAGAGGCAGCAATGAGAGCTTTAAGAAGAGT
5 ATTGCCAAGTATTGACTTAGAGGCAGAAGAAATCCAAAAGAAGTTTATAGATAACTTAAA
AGTCACAATGGATGACTTCAAAGAGGCATTGAAAGATGTTGAGCCATCAGCAATGAGAGA
AGTTTTAGTTGAAGTTCCAAATGTTAAGTGGGAAGATATTGGAGGATTAGAAGAGGTTAA
GCAAGAATTGAGAGAAGCTGTTGAATGGCCATTAAAAGCTAAAGAAGTATTTGAGAAGAT
AGGTGTAAGACCACCAAAGGAGTGTGTTATTTGGACCACCAGGAAGTGGTAAGACATT
10 ATTAGCTAAAGCTGTAGCTAACGAAAGTGGAGCAAACCTTCATAAGCGTTAAAGGGCCAGA
AATCTTCAGCAAGTGGGTTGGGGAATCAGAGAAGGCAATAAGAGAGATATTCAGAAAGGC
AAGACAGTCAGCACCATGTATAATTTCTTCGATGAAATCGATGCTATAGCACCACAAAAG
AGGTAGAGACTTGAGCTCAGCAGTTACTGATAAAGTTGTAAATCAGCTATTAAGTGAATT
GGATGGAATGGAAGAGCCAAAGGATGTTGTTGTTATTGCAGCAACAAACAGACCGATAT
15 CATTGACCCAGCTTTATTGAGACCGGGAAGATTAGATAGAGTCATATTAGTTCCAGTTCC
AGATGAAAAGGCAAGATTGGATATATTCAAGATACACACAAGAAGTATGAAGTTAGCTGA
AGATGTTAATTTAGAAGAATTAGCTAAGAAGACTGAAGGATATACAGGAGCTGACATTGA
GGCATTGTGTAGAGAGGCAGCAATGTTGGCAGTTAGAGAGAGTATAGGAAAACCATGGGA
TATTGAAGTAAAACCTTAGAGAGTTAATTAAGTACTTGCAGAGCATTTCAGGAACATTTCAG
20 AGCTGCTGCAGTAGAGTTAAACAGCGTTATTAAAGCTACAAAAGAGAGAGAATCTGCTGA
AGCAGGAGAGTTTAGTGAGTTAAAGAATGCTATTGGAAAGATAATTAGCGTTTTATCTCC
AGCTAAGGAGAAAATTGAAGCAGTAGAGAAAGAAATCGACAAATTCCTTGAAGTTATAAA
CAAAGAGGAATTAAGAACCATCAGAGAAAGATGAAGCAGAGAAGTTGGCAAATACTTAAA
GGATATATTAGGCAAGTTAAAGAAATGATAGACAACATCTACGAATTAGAGAACAGTT
25 AAATACCTTAAAGAACAGTTTCAGCTGAAGAGATTGATGAGATAATTAAGGACAT
AAACATTATCCAAAAGATTCAACACATCATTGGATGAAGTCAAGAAATATATTGAAGGACAT
TGAAAGTATAAGATTGAAAGTTTCAACAAAAGATGTTAAGATTAAAGAAAGAACACTTCAT
GAAAGCCCTTGAGAAAATTAAGCACTCTGTAAGTAAGGAGGATATGAGAGTCTATGAGAA
ATTAGCTCAAGAGTATGGAAGAGCTACGTGAGTTGAAAAGAAAAGGAAGAAGGTAAAGA
30 AGTGATTTAAATTCCTAAAAATTTTCTTTTATTTTATCTACTGTTATCGCTATA
TTTAAATGATTTTATGTTTCTTTTACAAAACATCCTATCTATTAGGTTTGAATTTGGT
TCATATTTATCATGGATTTTGGGAGTCAATAGGATGTTTTGTGGGGAGTTGATATTA
GATAAACTTTATTTTCTCATTAACTTTTCACTTACAGTCTTATTCTTATTATTGCTT
ATTCCAAATCTAAAAGGTTTTGGGAAGTTATCTGCAATTATTGGAGGATTTATAGCATT
35 ATTTTCAATATTTTGGATATCCTTCATTAGGAATTTTGGTTGCTGGAATATTGTCACCA
ATTATAATATTAATAATTAATCGGTGAAATAATGGATAAAAATATTTAGCAATTATTT
TTGTGGCTGTTGGGACTTATTTAATAAGATACATCCCAATACATTTACATAGCAAAATAA
AGAATATCGACGAAAAGGTTAAAGAGATAAATGAGATACTAATATACTCTTCAACTTCAG
40 TAATCTCCGCATTATTTATCACATCTTTTATAAAATTTCCAATTATCTTTAGTAATGTTT
TAATTAGCACAACTCTCACTAATATTTGCAATAGTTTCATACAAAAATGGAATAACTTAG
GAATATCAATTTTAATTAGTGTAGTTATTTACTATTTAGCGTCTAAATTTTAAATAAGTA
TTTGAAGTGATATTTTATGTTTTGCCAACTACTAAAGAAGAGATGGATGAATGGGGATG
GGAAGAATTGGATATTTATTATTGTTACTGGAGATGCCTACATAGACCCTATCTATTTGG
45 AGCTTCTGTTGTTGGAAGGTATTTGGTAGAGCATGGTTATAGAGTTGGGATTATTGCACA
ACCGATTGGAAAAATTTAGATGATATAAAGAGATTAGGAAAGCCAAATTAATTTTGGC
AGTAAGTCTGGGAATTTAGATAGTATGTTAGCTCACTATACACCACAAAAGAGGTTGAG
GGATTTTGAAGTCAATGTCTAATGAAGGGATAAGAAAGAGAGACAGATAGGGCTACAATTGT
TTATACTAATTTAATAAAAAGGGCTTTCAAGGGAGTTCCATATAGCTCTGGGAGGGATTGA
AGCTTCTTTAAGAAGATTTCCCATTTATGACTATTGGGATAATAAGTTAGGAAGAGTGT
50 TTTAATTGATTCAAAGGCAGATATTTAATGTATGGGATGGGGGAAAAGAGTATTTTAGC
AATAACTAAGGCATTAGAAAGTGGAGAGAACATAAAGACTTAGAAATAAATGGAAGTGT
AGTTAGAGTTAATGAAAGAAAGATAGGGGATATAAAGGAGAGATATGAGACAAAAGAACT
ACCTTCTCATGAAGAAGTTGTAAATAGCAAAGAAAAATACGCTGAAATGCATAGAAAAAT
AATGACAATGGATAAAGTTATTTATCAAAAAGTTGGAAATCAATATTTAGTTCAATTTCC
55 ACCAATTTATTTAAGTGAAGGAAATGGATGAAATATATGAGATGCCTTTTGGAGAGAAG
AGCTCATCCCTCCTATTCTTATGTCCCAGGAATTTGTCAGTTCAATTTTTCAGTTGTAAC
ACATAGAGGTTGTTTTGGTGGCTGTTCTTTCTGCTCAATACTACATCATCAAGGTAAGGT
TATTCAAAATAGGAGTGAAGAAGCATCTTAAAGAAATTAGAAAATTTATGAATCATGA
AGATTTTAAAGCGGTTATTTCAAGATATTGGAGCTCCAACAGCAAAATATGTATAGAATGGG
60 ATGTAAAAAGGTTTAGCAGATAGATGTCCAAAAAATTCCTATATCCAGAGCCGTGTGA
GAATTTAATCATAAATCATAAACCCTAATTAAGCTCTATAGGAAGATTAGAGATATCGT
TGGAGATGATGTTAGAGTTTATGTTAGAAGTGGGGTTAGATACGATTTAATAATGTATGA
TGAGGAATATGGAGAGGATTATATAAAGAACTCTCCAAATACCATGTCTCTGGAAGATT
GAAGGTAGCTCCTGAACACATCTCTAAAAAGTTTGTAAAGGCTATTCAAAAACCTGATGG
AAGGTTATTTAAAAAATTTTATAGAGAAATATAGAGAGATAGCTGAAAAGTTGGAGGAAT

-251-

5

10

15

20

25

30

35

40

45

50

55

60

TAAAGAAGTTTTGCCATATTGGCTTATTGCCCATCCAAACTGTTCTATTAAAGAGATGAT
TGAGTTGGCAGAATTTATCCATAAAAACTGCTATTCAAGGCAAGTTCAGGTTTTTAC
ACCAACACCTATGACACTATCAACAACAATGTATCACACTGGCATAAATCCAATAACTAA
TGAAAAAGTTTATGTTCTTACACTTATAGAGAAAAGAAGATTCAAAAAGCTATCTGCCT
ATATAGGGAGGAAGAAAATTGGGAAAAGGCTTTAGAAGGATTTAAATGGTTGGATATAA
GGGGGTTATTTATAGGTGGATTATGGAGCAGATGGAAAAGAAGAAAAGCAGAAAAAGA
TAAAAACAAAAGAATAGGTTAAATTAACTTTAATTTTTATTTTAGTTTTATTTTCAAA
AATGGCATAAAATTTAATGTCAATTTCTTTTTTAAATATAGAATTTTCGCAGTTTATAT
ATATTCTATGGAGGTATTTATCTCTAAAGGCATCATATTTCTCATAAAGATTTTCCAT
AAAGTATAAAATACTGTTTTATATAATCTTTATTTTCAAATATTCATGTCTCTAAATAAA
TTAAGAATGTAATATGATTGAAAATCTCAAAAAAAGATAAAATCAAAAAGCTCTGGGAGA
GAATGAAGGTTATTAGAGACTCTATCCACAAAGATATATTTTAGATGAAAAGAGCTGG
AGATTATTGATAGCGAAGAATTTAGAGATTGAGAAATATAAAACAGACTGGTTTAACAT
ACTTAGTTTATCCATCAGCAAATCATACAAGGTTTGAACATTCCTTAGGAACATATGTTTA
TTGCCTCAAAAATAGCAGAGAAGATTAATGCAGATGTTGAGCTTACAAGAGTCTCCGCTT
TATTGCATGATATTGGACATCTCCATTCTCTCACACATTGGAAATTTGTGGCTACAGTC
ATGAAGTTTTTGGCAGAAAGAAAATCAAACATATGAATTTAGATAACTTTTCAAAGAGCG
AAATAATTAAAACCTTAAATAGGAAAATTTAGAGGGTAAGATAATTTCTGGAGATGTTG
ATGCTGATAGAATGGATTATTTATTGAGGGATAGCTACCACACAGGAACAGCTTATGGGA
TGATTGATTTACCAAGAATTTCTGAGGAGTATAACACCTTTGAGAGTTTTGGAAAAGTTA
AGATAGGGATATTAAAGAAGGGAATTCAGCAATTGAATCGCTATTAGTTGCGAGGCATC
AGATGTATTTCAGCTGTTTATATGCATCCAACAGTTAGAATAGCGGACACTATGATAAAGA
GGGCAGTAATAAAAGAAATACAAGAAAAAATTTGGATATAAAAGATTTAGCTAACATGG
ATGATATTGCACTTGTTTCATTTTGGAGATTTCTGAAAATTTTATGATGGAGAGAAATAG
ACAGGAGAAATCTCTATAAAATCTCATCACCTATAGTTACTTTGATTTAAATCCAATAG
AAAAATGGATTTTGTCAATTTAGATGAAAACAAATATTATCATTAGAAAGTAGGTTTT
ATGAGGAATTCGGATGGGATATATTTATCGATATCTATCCAATTCCTAAAATGGAAGAGC
ATAACGTTTTATATAATCTCAGATGAAGGCGTTAAAGATTGGATGAAGTTTCTCCATTAG
CTCAGAGCTTAAAGCCCTCTGAGATGAGATTATGGAATATTTCAATCTATGCACCAAAAG
AAAAAATTAAGAGCTTAGAGAGAACAATGTAAAGGACAGGATAAATAAAATCTTAAAG
AGTTAGATGTTAAGGTTGAAAGCAAGTTAATTGACATTTTGAAGAATATGGGACAATTA
CTGGAAAGAGAAGATTTTATAGAGATTGCTAAGGAAAGAGGCATTTACCAAAAGAGTTTT
ACAATGAATTGCATAAATTGATATTCTGCGGTTTAAATAAAGAGAGATTTAATAGGAGGA
CGTATGTTTATTGTTTAAATAAATTTGTTAAATTATAAATAGTTTATAAAGTTCTTCAGC
TAAAAGTTTGTATTTAACATACTTTTAACTCTTTTTTTGAATTTTCTTTATCAACAT
AGTAAGGAATTTCTAAATTTCTAGTGATTGTTTGTGTAGAACCTAATATCATCAACATTT
ACTCTTTTATTAGATTTCAAATAATCCATCAATTCCTTTGCTTTATATACTCTTATTG
CCTTTTCAATCCATTCTTTTTCTCTCTAATGTCAATTTTCTGCTTTTTGTTCTGCCT
TAATTAACCACTTTGGTTTTTTGTATTTGTGTTTTTTCATAATTTTCGCCCATTTTTGTT
TTAATATATTTTCTTTTCAATTTTATATCATCAAATAACACTTTTCAATACCTTTCTTTTT
CACCTCATTAATAAATTTATCTACATCCTTAACATATTTCTTCATAAGTTATATTTTCAAT
TTCGTTTTTAACTTTTACAATCCAATCTGGTAGAATATCTTCTCTCTGACTCAGCTTT
TTACTTCTTAAGTATTTTTTAACAATCCTTTTTTACATGTTTTTTCATAATCACCCTAA
AAATTATTTTTCTTTATTTCTTTTTTTGTTTTCTATATTTTCTCCTTGCTCTTCAAC
CATTTAAATATTCCCGCTTCAATAGCCTTTTCTAATCTTTTTCTGCCTCAATCAAC
CATTTTGGTTTTTTGTATTTTTTATATTTACTTTTATCAGTTTATGCACATTTAAACC
TCTCTTAATCCTCCTCTATTTAACTTTTCTAGATTTCTCCTCAATAATTTATCAAATTC
TCATCAGCCATTTTTTCAATTTTATCTTCAACTTCAATTAACCATTTCTGGTTTTTAAAT
TTTTTATTTCTTTTTATTTTCGTGGTTTCTATAATAACTACTAAATTTTTAATTTTGAACA
TACTACTATATAGAATTTATATTTAATATATAAATATCTTTTTCAAATCTTCAATTTCA
GGAGTCTGATTTTAAACATATGATTTCTATCTTAATCCCAAAAAACCCCTACCAATTAA
ATGAGATATTCTCAAACACTCTGGAATTTTACTTTTAAAGCTTCGTTTTTTAATAACATT
TTTAACAAATCTTTGTCAGCTCCAACATACTGAACATAAATATTTTCCATTTTCTCTGG
CTCTGGAAAGCTGTTTATAAGCTTTATCCTTTTCATCAGCATCATCAAAGTATTTTTTAAG
GGCTAAGAATATCTCTCCTTGTGGTACTTATCAATAACGACAATAACTGGTTTTTC
AGTCTCTTTATTAATTTCCCATAAATCAGCTATATTAATCCTCCAAAGTTATCCAGC
TAAAAAATTTACTTTTATTTTTTATAATGCTTTTCTTTAACAATATCTATTATCTTCTC
TGTAACATCCATCCATCCTTCTTAAATTTTCTAAATAAATGCCGTCTATTATTCTATT
CCCCCTCATATACGTGCCTATTAAGATACACACTTTATCTGCCTTATTAAAGGAGCGTC
ATCAAAACCTATAACCTCTACTTCACTCTTCAAGCACCACAAATTTTAAATATCTCTC
CCTATATTTTAAATGAAGTTTTTATATATATAAGTGAGAGCATGGCTAAAAAATGTTTCT
GTATAAGCGGAAAAAATTTTGGCCCTAAATTTGTTTGGAAAGAGATACTCTAAAAAATCA
TAAAAAAGAGAGATTTAAAAAATATAGGCTATATCTTCATCCAGCGGTTGCAGTTGATG
GAATTATTGAGAAAGATAATAAATCCTGCTAATAAAAGAAAAAATAATCCATTTAAAG

-252-

5 GTTGTGTTTGGCCCTTCCAGGAGGTTTTGTAGAATGTGGAGAACTGTTGAAGAGGCAGTTG
TTAGAGAGATTAAAGAAGAACTGGTTTAATACCAAAGGTAAAAAGCTTATTGGGAGTTT
ATTCATCTCCAGATAGAGACCCGAGAGGGGCACGTTATCTCAATCGTCTTTATATTGGATG
10 TTATAGGTGGAGAGTTGAAAGCAGGAGATGATGCAAAAGAGGCTGAATTCTTTGATTTAA
ATAATTTGCCTAAATTAGCTTTTGACCATGAAAAAATAATTAAAGATTACATGAGGTGGA
AAAATGGTTAAGTTTTGTCCAAAATGTAACAACCTAATGCTACCAAAGGATGGAAAGTTA
AAATGTGCTGTCTGTGGTTATGAAGAAGAAACAACAGCTGAAGGAAGTAAGGAGTATGAA
TACAAGGAACACTTAGAGAACAAAGAAAGAAAAAATTACTGTTATTGAAAGTGAGGGATTA
15 GAGACATTACCAACAACAAGATCGAATGTCCAAAATGTGGGCATAATGAAGCTTACTGG
TGGCTACAACAAACAAGATGTGCTGATGAACCAGAAACAAGATTCTATAAGTGAAGAAA
TGCGGTGATACATGGAGAGAGTATGATTAATTTATTTTCTACTTAATTTTCTTCTAACAG
CTATATAGAGATTACCCAATAAAATTAGAGATGTAACCCTTATAATTGGCTCTAATATCC
ATAATGATTTATCTTCCGTTCCCTATCTGTAAAAATAACCTTATAACTTCCCAAAATGAAA
20 TCCACCAAAATTCTATTATTTTAAAAATATCCCATTCCTTCCCTTTAAATCTTAAATTG
ATGCTAAAATTGTAAATAATATCATACTGCCTAATATCCATTACCTGTTTTTCCATTG
ATTCTCCATAGTCAGATATTGCTCCATAAGCCCCAATGATGAATTTTCAAATCTGCCAT
TGGAAAACCTCTTTTATTAATTCATTTCATTGTTATAGGTTGGATGCTTCAATGTAGG
TTCTGTTATTCTCAATGGATATTCTTAGATTTCTGTATTCTGCAAGGACTGATTTATAAT
25 TGAATTGGTCTATAATATACTTATAACTCAAACCTAATAATCTTTTAGTTTATTTCTA
AATCTTTATCTTTTATACCCTATCTTCTTTTATCTTAAAAATTTATGACTTAAAAATTT
CTTCTTTTTTAAACATCACATAATAGCACTTCTCTAACATCTGTTTTTAAAAATGATGTTT
TTGATAATTGGAAGTTTTCTATCGTTGTGTGTTTGTGTTAGAAATTGAGTTTTAAGGAATA
TTGCTAAACCTTTAAAAATTTCTTTATCTATTTTTTTAAATGATACATCATCTCTAAATC
30 TACAATCAGTAAAAGACAACAAATTAATGATATATCATCAAAATATACATGAGATTTAA
ATGTTGAATTATAAAATTTCTGCTATATTAAGTTGTGACACTAAAATAAGTATTTCCCT
CAAAAGTTGTACTTTTAAAAATGAGATTCTTTATTAATAAATTTGTGCCACTAAAATTAATA
TATTCCCTTTAAAAAGCGGTGACACTAAAATAAGCATTCTTCTCAAAAATTTGTGCTATAAA
AATCAACATCTCCATTAAAAATTTGTTCTTATAAAATAAACACTTCCCTTAAAAAGTTATGA
35 CTCTAAAATAAGCATTTCATTAAAAACGGATATCACAATTTGATATTCCATATTTACAA
AAAATCTAAAATCACCATTAAATTCACATTATAAATATCAACTTTTATATTTATATTCA
CAACAATTTTCATCTCTTTTTTTCAATATAACCTCCTTTTAGTTCTTTATCCTTAATCA
TTTCATAAATATTCAAAAATATCAACATTCCCTTCAACAACACAATCCTTTAACTTAAAAAT
CCTCTCCCTTCTCCAAACATTCAACAATCTATCAATAAACTCCCTACTGCTTATAACCT
40 CCTTTTCCATAATCCACATTTTATTATTAATAAAATAACAAATTATAAAAAATATATATTGC
CAAAGTAATTATTATTAATCCTACAAAATTTCAAATGGTGAATCTATGCCAGCAAAAGT
ATTGATAAATGGATATGGTTCAATTGGGAAGAGAGTAGCCGATGCAGTTTCAATGCAGGA
TGATATGGAAGTTATAGGAGTTACAAAGACAAAGCCAGATTTTGAGGCAAGATTAGCCGT
TGAGAAGGGCTACAAGTTGTTTGTAGCAATTCCAGATAATGAGAGGGTTAAATATTGTA
45 AGATGCAGGAATTCAGTTGAGGGGACTATATTGGACATTATAGAAGATGCTGACATAGT
TGTTGATGGAGCTCCTAAGAAGATTGGAAAGCAAACTTAGAAAATATCTACAAACCTCA
CAAAGTTAAAGCTATATTGCAAGGGGGAGAAAAAGCAAAAGATGTTGAAGATAACTTCAA
CGCTTTGTGGAGCTACAACAGATGCTATGGAAGAGATTATGTAAGAGTTGTTTCATGTAA
CACAAACAGTTTGTGTAGGATATTATATGCTATAAATTCAATTGCAGATATAAAGAAGGC
50 AAGAATCGTGTAGTTAGAAGAGCGGCAGACCCAAATGACGACAAAACAGGGCCAGTAAA
TGCTATAACACCAAAACCCAGTTACAGTTCCCTTCCATCATGGCCCTGATGTTGTTTCAGT
TGTCACAGAGTTTGAAGGAAAGATTTTAACTTCAGCTGTTATCGTTCCAACAACATTAAT
GCATATGCACACTTTAATGGTTGAAGTTGATGGAGATGTTAGCAGAGATGATATTTTGA
AGCTATCAAAAAAATCCTCAAGAATTATAACTGTTAGAGCTGAAGATGGATTTAGTTCAAC
55 AGCTAAAAATAATTGAATATGGAAGAGATTTAGGCAGGTTAAGATATGACATAAACGAGCT
TGTGTCTGGGAAGAAAGCATTAAATGTTTTAGAAAATGAAATATTCTTAATGCAGGCGGT
TCATCAAGAAAGTATAGTTATTCTTGAAAATATTGATTGTTAGGGCAATGCTTCAGAT
GGAAGAAGATAACTTCAATCAATTGAAAAGACAAATAAAGCTATGGGTATCCAATAAAT
CTAATTTTTCTTTTTTATTTTTTACATTATATTTATGACTCTAAATATTTGAGTCTATAA
60 TACTACAAAAATTTTTAATATTAGTAAAAATACTTTTAAATAAAAAGAAAGTGTATCTT
CATACTCTTAACCGAAAGTCTTATATATCATAATACTAATCTAAATTTTAGTATTAACAG
GTGGTATTATGGACGACATAGATAGGAAAGCTATAAGCTTATTAATGGACGCCACCTTAA
TGAGTGAGGATGAAATTGAAAGGACATTAAAAATATTAAGAAACATGGCAAGGATTAAAA
AAAGAAAGGAAAGAAATTTAAAAATCAATAAGAGACGTTTTAGATTACTGGGCTTGTCAAG
CTTATAAGTCTTCAATGAAGGCTTAAGTATCCTATTACGTCCTTTTTTAAGGAAATTTTT
TAAGTTATAAAATTGAAAGCAAAATTAAGATAAATACTCCTATAATCCCTCCGACTGCTA
TTATCAATAAGTTTATTAATTCAGTGTATATGTGTAATCCAAGGAAATTTAAATTC
CTACCAAAATCAAACCAACAAATTGTATTTATTGCTAAGTATCTTAATATTTTAAAGGTTA
ATTTAAAGAATAAAATCCCACTATAATTATTAATATCAATAAAATTTATGCTCTAATC
CCATAAATATCCACCTCATAAAATAATATTATTAATTAACCTAAATAAAAACTTTTTGTGT

5

10

15

20

25

30

35

40

45

50

55

60

GATTCATGATGATTAAAAATTGTATATATTACAAAGAGAGGAAAAAATAGCTGAAGAAA
TTAAAGATGTTTTAGATTATTACCCTATGATAATAAAGTAGAGCCTATAAAAGATTTTA
AGATAGAGAGAAATGAGGGGGGCTTTATATTTATAATGGCACTGGAATAGTTTTGAGAA
AATTTTTGGATGAGATTAAAAATGATAAATTTAAAGACCCTTTTGTATTATTGGCAATG
AAAATAAAGAGCTCATCCCTATACTATCAAACCATTTAGGTGGAGGAAATTATTTTTCCA
AATTAATAGCTAACAATATCAATGGTAGAGTTATTTTTACAACCTGCAACAGATGTCAATG
GTAAAGTTGGCATTGATGAACCTCCAAGATGCTATTTTTAGAAAACCTCTAAGAGAAAAC
ATATTTTAGATATAAATAAGAAGATTTTGGAGGAAGATGTTAGCTTAACCCCTCCAAAGT
ATTGGAAATTAAGAAATTTGAATGGCTATAAAATTAGCTATCATGATAAGTATGAGGTTG
TGGTTGATGACTCCATAAGATTAAAACCTTTAAAAATAGCTGTTGGCTTAGGAGCGAGAA
AAGGCATTGAAAGATATAAAGTATATTGGGCGGTAAAAAAGCTTTATTTTTGAGAAATA
TTCCAGTTTGGAGAGTGGATGCCTTTGCCACAATAGAAGACAAAAGCATGAAAGAGGAA
TTTTAGAAACAGTAAATAAATTTAAAAAACCCCTAATTATTTTTAAAAGAGAAGAAATTA
ATGAAATTTATGAAAAATAGATTTGGAAAAGTCAGAGTTTGTATATAAGCACTTAGGAG
TTTATGGAGTTTCTGAGCCAGCATCAATATTAGCTGTCAAAAAATTAACAAATAAAGATT
TTGATAGCATAAATTGATATTAAAAAAGTTTAAGAGAAATGGGGTTACTGTAGCAATAG
CTACTGAAAATCTTTAATCGTCTCTTTTTAAATATAATGTATAAGTTGGGAATGCAAAAT
CAATTCCTTTTCTATCAAATTCCTCTTTTATTTTCAAATTAACCTTCATTTATCGTGCTAA
TATACTTTTGATAACCATTTATATCTGCTGTTTTTAATATAATAAACTACTTGGATATTTA
GACTCCAATCTCCAAATTCCTTAAATAAACTGTTATTGGTTTCATCCTCTACATTTGGAT
GTTCTAAGAGGATATTTTTATAATTTCTCTGCTTCTCTTATTTTTTCAACTGGTGTAT
TATAAGTTTACTCTATAGTTGTTGAAACCTTCCACTTATTTTTAGATGGAACATTTTGAA
TAATTTTCATCTATAAGTTTGGAGTTTGGAACTACGATTATTGAGTTGTCTGTTGCCCTTA
TCTTTGTGCTTCTTATTTCCAATATCTTCAACAATTCCTACTACCACCCTGAAAGTTATCC
AATTTCCAATCTTAAATGGTTTATCAGTTAAAAATTATCAAACCAGCGATTAAATTAGAAA
CAAGATTTTGAGACGCTAAAGCCACAGCTAAACCACCAATACCCAAACCAGCAAGTAAAG
TTTTTATATCATACCCAAGATTGCTCAAAATTAACAACAATCCAACAACCCACACAACCTA
ATCTAACGAGCTTTTTGGTTAAAAACAACAATTTGGTCATCAACATCTTTTTTGTCTTTT
TTGATATTGTTAGGGCTAAATACCTTTCTACAAGTTTCAATAAGAAATCTGTCAAAAAATA
CAACAACACACAATATAAAGGCAGTTAAATCCCTTCATTTACTGCTGTTTTTAATGAGG
GGAGAGATACAGAAAATTTACTCCAAAGTAAATCCAGATAATATTATTGCTATTGCTA
CAGGTAGAGATAAAGCCCTAATTAGAAGTTTCATCCAATTCCTATACCGCTCTTTTTATGCA
ATTTATCTGCAAGTCTTTTCGATAAGTGCATTTGCATATTTCCCAATAACAATAAATAAAA
TAATTGAGATTAGAGACAGAAATAAATTATATACAGTATTGTGCATTAAATCTCACTTA
TCATTTGAGTTATTGTCTATTACCTCAGTTAAAAAGAAAAATTAATAAATAAATAA
TTTATTGGCCAACCTTTTGCTCTATTTTTTGTCTTCTTCTCTCTCTCACCATACAATA
TTTTTGCTATCTGTTTTAATGTTTCAATACCCTTTGCCTCAGTTCTTAAGAGAGGGCAT
AGGCAATAACCTTGTCTCCAAATTTCTCTTTAATCATCTCTAATCTCTTCAACTGCAACT
CTCTTCTTGCTCTACAGAAATCACACTGAACATCCTCTGGAATGAGTTGATTTACAATAA
CTGCATCGATTGGAATACCATACTTTTGAAGAGCTTTCATTGCCCTCTCACTCTCTAAGA
TACTCATCTCCTCTGGAATAACCACTAATCTAAATGCAGTTCTCTCTGGGTCTGATAAGA
TGTTTCTTGCTCTAACTATTCTCTCTCTCTCTCTAATCTTCCAACATCTTATCGT
AATCGATATCTTCATCTTTACCTCCAAATGGTAAAGCTTTTTATCATCTTTCATAAATC
CGCTCATCTGCTTCTCAACTTTATAAGCTTTGTCTATATACTTGTCCATAACCTCTGGCA
TTCCTAAAAACCTTAAAGTGTGTCCAGTTGGAGCGGTGTCAAATATACTACATCAAACCT
CATTGCTATCCATATATTTGAGGAAAACATCAAATGCAGCACTTTTCATCAGTTCTGGGG
AGAGAGCGGCCATCTCTAATTTGGTCTTCTAACATCTCTCTAAGAATGGGTTTTCTTCAA
TTTTGAGCTTTTAATTTTTCTTTATACCTTTCCATAGCCTTCTGTGGGTCTATCTCTACAA
CATATAGGTTGTCTAGCCCTTAACCTTTGTTGGCTCATGTCCAACTCTTGCTCAAAGA
TATCTCTCAAAGAGTGAGCTGGGTCTGTTGAGACGATAACAACCTTCAGTCTCTTTTTCAG
CCAAATAAACTCCTGTTGCAGCACTCATTGTTGTTTTTCCAACCTCTCTTTACCTCCGA
ACATGATGTATTTAGTTCCATCTCTTTTCCAATTTTTTCTCTGTAATTCCTCTCAATG
AGTTTATTGAATCTTTAATTTTTGATAACATTTATTTTCAACCTCTTATTATTATAATGA
TTTTAATCTTGTAATTAGTTTCATCAACATCGACCAAAGTATTTATACAACCATCCCTTAA
TAAAGGTTGTCTTGTGAAGGAATACCTTTTCTTGATAACATGTTTCATCCCATAGATAA
ATCCCTATTGCATGCGACACCGAAAACGGCTTCTGGCTTCTCTTCTTTAAATTTCTCTT
TAAAAACGTAGAACCGAAGTATATAAACTTTATACCCCTTTTCTTTCAGCAACTTTTTAT
AATTTCCCTACTCTACATCTATTGCAAAATATACATTCAACACCCCTTTGGCGTTAGCTT
AGCTGGGCATTTTGTATCTCTGAGGCAATGGGGCAATATTAAACTCTCTTCTTAGCTTT
TTTAAATCTATCTCATATAATTTATTGTAGAATCTATACCTACCCTATAAAATGTGTC
TTCAGTTCTCTATAAGGAGGAATATCTTCAATAGTATTGAATAGAGGTTATCCATCAAAAA
TAAAGCCAAGCTTTGGGAATATCAATTTATCTTTTTTAGTAATATATAGCTAATGATTAA
AATTAGGATGAATGATATAAATGCCAGTGCAAAATATAGCTATTGTTATCATTCCAACAAG
TTGTAAAAATCCATCTAATCCTAAGATGCTTATCACCTCAGATATTCCAAAAATTTATAA

AAATTAATAATGGTTGATAGCATGATAACTCTATGTAACAGATTTACTGAATATAAATGTG
GAAATGTAGCTATAGTGGTTGATGTTTTAAGGGCATCTACTACAATAACAACACTCCTAT
CATTATAGATGAAGTATATATAACTACATCAACATCTAAAAAGAAAATGCCATATACA
5 TTGGAGAGAGAAAAGGAAGAAAGATAGAAGGATTTGATTTTGGAACTCCCCAACTGAGA
TTTTAGCAAATAAAGATATTATAAAAGAAAGATATGAAAATGGAGAAAAGGTGATTTTAA
CAACCACAAATGGAACGAGGGTTTTAAAAAGCTTAGATGCTGAGCATATTTTTATAGGGG
CAATTGTTAATGCAAAGTATGTTGCTAAGGCGGTTGAAGATTTTGAAGATGTGAGCTTAG
10 TCCCCTGCCATAGAGAAAATAACTTTGCAATAGATGACTTTATTGGATGTGGAGTTATAG
CTAAATATCTAAATGGAGAGTTTGATGAATTTATCAAGGCTGCTTTAGAATTAACATAAC
ATGATTGGATGTCTTTGATTTTAAATTCGTCATCTGCAGAGAATTTAAAGAATCTTGGTT
ATGAGAAAGATGTTACGTTTGGCAATATTGGAATAAGTATAGATGCAGTTGGAATATATA
AAAAAGATAAGAGCAAAGTTGTTAGATTTAAATAAAATTTTGTGATAACATGAGAAATCGA
15 TATAAACAGAATAGAAAAGGAAGAGGATATAAAATTACTTAAAGAAGTGAATGGAATGG
ATTTGTTTTTTATCAGTATGATGATGAATTCAGCAAAGATAGATATGAAGAGGTTAAAGC
AATAGCTGAGAGTTATAAATTAAAGGTATATTCTGGAGTTAAATAAAGACAGAAAGTTC
TAAACAATAAGGGATAAGGTAAGGTAAGGTTAGAAATAAATGCCACATTATATTGATTGA
AGGAGGGGTTTTAAAGATAAATAGGGCTGCAGTTGAGTTGCATGATGTTGATATATTATC
20 AACTCCTGAACCTTGGAAAGGAAGATAGTGAATAGACCATGTATTGGCAAGATTGGCATC
AAATCATAGAGTTGCTATTGAACCTCAATTTTAAGACTCTTTTAAATAAAGATGGCTATGA
AAGGGCAAGAACCTTTGCTATTTTTTAGAAACAACCTTAAATTTGGCTAAGAAGTTTGATGT
GCCTGTGTATATCTACAGATGCTGAAAATAAATATCAGATAAAAAATCCTTATGATTT
AAGAGCTTTTTTAAATACGTTGGTTGAGCCGTTGTATGCAAAAAGATTATGGAACTGC
CTATAAGATATGTGATTTTAGGGATTATTTGATGAGAGATAATGTTGTTAGATATGGAGT
25 GGAAATTATAAAGAAGAAAAGAATGAAAAAGAATAATTATAGTTTTTACGATTATT
AAAAATTAAAAATGATATTGAAACGCCCTAAAGGCGTTTCATCAGTGCAATTATATATCTAA
ATATCTGCAAAAAGTTATAAATTACTGTGCTATTGATTGATTTGGTTAGGATTTAAAT
TATTTAATTGATTTAACACCTCTTCTTTTGGCTATTGCAGAAACATCTATCTCTTGCTGAA
TATCTATTGGAATATTTACTTTTGTATGAATAAATTAAGTCTATATCTCCCTTAATCT
30 CAATAGGGATTTTTGTGCTTTTTCTTTTAAAGCTACTTCAACAAGTTTTTTATTAGATA
TTGTTACTGGCAAAGTGAAAGTAGTATTTCCAGAGGTTATTTAATGTTACTCTGCTCTC
CGTGCTCAATATATCTTATCTCCACCACTAAAGCATAAATATCAAAATGAAATTTGTAT
CTATGCTAATACCAATAGGATTTGGATTATCAACCAACACTTGAATTTCTATCTTTGTG
TATCTGCATCTACTTTTTGAATTTTCTGCCCACTACTTCAATCTTTGGCTGCTCCAAAC
35 ATCCAGAAAAACCCACTGCCAAACATACGGCAAAAGCTAATAGGAGGAGTTTTTTGACAC
TCTTCATAATATCACCAATATTCATTTTTGTTATAAAACATATTAATATCTTTTCACAA
CAATATTAATATAAACTAAAAAGGTTGAACTTTGAGAGAGATTTATAGACAAACAATC
CATTTAGTTTTTTGGAGTTTTAATAGCATTTTCAGTTTTAATATTTAAAAACAATTAATA
40 ATTCCATTAATTGTTAGTATAGTTATTGGTATCTGCCTATATTTTTTATGTAAAAGATAT
TACATACCAATAGTATCAGATTTATTAATCTCTGTAAAAGAGAAAAAGAGGATGAAAA
GGAGCGATATACTTTGCTATTGGTATGTTAATCTCATTAAATTTAATTGATGATATAAAA
GCTGTATTTTTTTGGCATCTTGGTATTGCTGTTGGGGATTCTTTAGCTACTATAATAGGC
ATTAGAGGAAAAATAAAAATAAATACTTTGGAACAAACGGTTGAGGGATTTTTAGCATTT
45 TTTATCTCTGCCTCATTAAATTTTATATCCATTTTATGGAACCTTATGGGATTTTCGTAGCT
TTAACTCTCAGCATTTTATGAATTTGTAAGTAAGAAAATAAGAATAGATGACAATCTCTAT
CTTCCTTTTATTGTGGCATTATTAATCAATCATCAATAAATATCTGTTCTCTAATGAAC
TTTATATAAAAGCCAAAGGCTTTTATAAATACCTTATTTCATTATTACAAGATTTGATGA
TTGATTATTCTAATAGGACTTTTCGCAGGAATAATTATTTATTCATARTGACACCCTAAA
50 GGTGTCTAAGTTCCAAAGTTTAAACATATAAACTGCGAAAGTCCATTCTAAGTATTTACC
CATATAGGCCCAACTCTTTCATATCCTAACTTTCTATAATATTCTCTAACTCCAATACC
ACTGTACCAAAAATCTTTTCTTTCCAAATCTTCTTTGGCTATTCTCTCTGCCTCTTC
TAAAAGTTTTCTTCCATAACCTTTATGTTGCCAAGTTATTTCTTTCAAATCCTTAGTTAA
TGGTTTTCTTGCCACAGACATGGAGTTGCCTAACTAACATTGTGTTATCGTCAATCTC
55 TTTCTAAATGGTTTTATAAGGCTCTCTCAATCTTAAAAATGCTATCAAGATATCGTTTTT
CACATCTTCATAGGATAGGAATATCTCAGTTCCCTCCACTTGCCTCATATTCTCTCTGCA
TAGTTTTATATGCTCAATATCCGGCATTATTCCTTTTTTATACATGACATGTCCAACCTC
TCTGCATCTTATACACTTACATTTAATTCATGCTTTTCCATGTATTTATAAACCAACTC
TCCCAATTTACTCTTCTTAACTCCATCAACTATCACAGTAGCTGGAATGTCCCTCTGAAT
60 CCTGGAAGTTCTAACCCATTTTGGCATTATTGATTTTGCATAGCTAATTATCTCTATTGC
CTCTCTCTCTGTATGGTTTTACTCTCTCTCTTCCACATTTTCATAGAGTTTCAGTTCC
TTCAATAACCAACATGGATAGATTTTAAACCATATCCGGCTTGAAATCTGGGTTTTTCAA
GATTTCTTTAAACATTTTTTTTATCCATCTCCATATCTGAGCCAGGCATTCCAGGCATTAG
ATGATAAGAAACCTTTAAACCACTATCCTTTAATAGTTGGGTGGCTTTTATAGTGTCTTC
AACTGTATGCCCTCTCTTACAGAATCTAAAATCTCAATTATATATTGTTGAACTCCCAA
CTTACCCCTGTAGCTCCCAACTTTAGCATCTGATTTATTTCTTTCTCCACAATAATC

5

10

15

20

25

30

35

40

45

50

55

60

TGGCCTTGTTTCTATACAGAGAGCTACGCATCTATGTTCTGCAGTTTCATTTATCTTTTG
GGCTTCCTCTAAGCTACTTGCATCAACGCCATTTCATGGCATCTAAGCATCTCTTAATAAAA
CCAATCTTGATATTCTATATCTCTTGCTGGAAATGTTCTCCCATTTATAATTAATCAAT
TTTATTTGTTGGATGCCCTACCTTTTCCAACGCTCAATCCTTGCCCTTTGTTGTAATA
TGGGTCGAAGTTGAACATCAAACCTCTCATAGTGGCTGGCTCTCTTCCAGTGAGCTTTG
TGGCACATCTCCAAATACACTTCCAACCTCTCCGGGCGAGAAGATACATTTTCCATGAGG
GCATTTTCTGGAGATGTCATCACTGCTACAACAGCAACACCAGAGATTGTCCTGACAGG
CTTCTTTCTTAATATTGGGATTAATATCTTCTTTTCTCTTCAGTTGCATACTGCAAAAT
CTCAGAGTTTGATGGATGCCCAATACCAATTCTATGTATTCTTAAACACTCTGCCTTAAT
CTGTTCAATTCTCTTTTTATCCAAAGGTTTTCCTTTGTTGTATTCTAAGATTCTTTT
AATGATGCATCTCATTAATTTTGCCCTTTTCATCCATGATAATCACCATAAATTTTAAAC
TTACATATATGAATATATTTATAAAATGATTTATATATAGAATTTTCGCAACTTATATT
TTTAAAAAGGTATTTGGATGCCCTTAGGCATCAATATTCAATAAAACATTTTATTCCTGC
GAAAGTTCTATATAGTTTATTCGGCAATGATTATAATGTTATTGTATAATTGTAGTATTT
GGTTAATAAAGTAGTGGTGATTAATGCTAACTCATGTTGATGATAAAGGCGTTAAGAT
GGTTGATATTTCTAAAAAAGAGATGTTGAGAGAATATGTGTTGCTGAAGGATACATAAA
ATTAACCAGAAACAATTAAATTAATAAAGAACAATAAATAAAGGGAATGTCTT
AACAACGCAAAATAGCTGGAATCTTGGCAGTTAAAAAACTTATGAGCTAATTCCAAT
GTGCCATCCTCTACCAATACTTCAGTTAATGTTGATTTGAGGTATTTGAAGATAAGAT
AAAGGCAATCTGCTCAGTAAAAACTACTTATAAGACAGGAATTGAGATGGAAGCTTTAAC
TGGTGTCTCTATAGCTTTATTAACAATTTGGGATATGGTTAAATCTGCTGAAAAGGATGA
GGATGGGCAGTACAAAACCTGCTGAGATTTTGGGATTAGGGTTGTTGAAAAGATAAAGAA
ATAGTTTATTTAGGGGATTGCAATGATTGATTCTAATCTTGACATTGTTCTTTGGGTTAG
GATGATTAAAGAAGGGATTGAAAAGAAAATCTAAATCCTTGGGATGTTAATATTGCTGA
AATTGCCGATTACTATATACAAAAGATTAAAGAGCTTAAGAAGTTTGATATTCGATTATC
TGCCGATGTTATCTTGTGCTGGTATATTGTTGAGAATGAAATCTGAAGCTTTATATGA
CGAATGTAAGGTTGAGGAAGAAGAGGATTATGATTATTGCGATGATTATTATGATTATGA
TGATATAGAAGAGAAACCTAAAAAAGGCCAAAAAGAAAGAAAAGATAAAGATAAAAA
TAAAAAAGTAAAAAACCAGTTACTGTTGATGAATTAATTAACAATGAAAAAGAGCT
AAATAAGGTTAAAAAATCCAGAAAGAATAGAGAGAAAAAGACAAATGAGGTTGAAGAAAT
TATAGAGGAGCTTATAGAAGAGGATGATATCTCCGATATAATAGCTGAGTTGTTAGATGA
TTTGATGAAAGAGGGAATTATAGTTTATCAGGAAAAGTTTAAACAAGAGAGGATAGGGT
TAGATACTTTATCCCTTCTTTTACTTAGCTAATGATGGAAGGCAGAGTTGATTCAAGA
AAAATTGTTGGAGAGTTGATAATTAACCTTAAATCTTTTTTAAATCATTCCTTTTACCT
TCAACTCATTTATCAGGAATCTTGGCTCTCTCAAAATGCTCTCTACCTTTAATCAAACCTC
ATAGTTGCATTTACCCCACTTTTGGCTGTTAGTTTATTTTTTAAATCACTCGAAGGATCT
AAAGAAGAACCTTTGGCTCCAGAAATAATACTATATCTTTATCTCCTTGAACCTTTGTG
GCTATTGCATACTCAACATCATTTATATCAAATATATTTATGTCATCATCAACTACAATC
ACATGCTTCAAACCTTGGATGGGAAGCAAATGCTGCCAATATAGCATTTTCCCATCTCCT
TCTGTCTCTCTCTATCTGAACAACAGCATGAAGCCAGCAACAACCTCCCTCAGTTAAA
ACAATATTTTTTACTGTCCGAACGGTATTTCTAATCCCTCCCGGTAATAAGCGTGGAATATAGGT
GGCATTTCCCATCAATGTTTATGTTCAATCCCTCCCGGTAATAAGCGTGGAATATAGGT
TTTTCTTCTCTATAAAGTTTCTCAATCTTAATTATTGGCTGCTTTCTAACAATATCATAA
GTTCCAGTTATATCTACAAAAGGCCCTCATCATCAACCTCTGGCAATATCTTACCCTCA
ATGATAAACTCTGCCTCTGGAACATAACAAGCCATTATCCAACCTCAAAAACCCCTATCTCT
CCTCCCAACAAAGCAGCTGCAAAATTTAGCTCATCAAATGTTATATCAGCAGAGGTAGAG
CCAGCCAACAAAACAGCTGGATGAACTCCTATAACTATAGCAACATCCAAATATCCCTTT
TCCTTTAGAGCTTTTATATATAAAAAGTGTAATGCCTTTGTTCAACCATTCTTATAACT
AAATAATCATCTTTAACCAAAATCTATGAATTGATAAGTTATAGCCGTAATCTTTATCA
TAGACAACAACAACCCCACTTGTATATAAGCTCCCGCATCCTTCTCGTAGTATATTGGA
ATTGGCCAGTTTTTAATATTCTCTGGGATTTCAACAATATATTTCTCTTTCAATTTATTG
TTTATCTTTAATTTCTCTTTTCTTTTCTTTTCCATTGCATCAAGCATAAAGAATATAAAA
TCCTCCTTTTTAATTAATAAATCTTTGAAAGGGTTCCCTACTGCAAAGATTTCCAACA
ACTTCAAATCCATTACATCTTTTATATAAAGTGGTTTCCATCATATTTTTTAAATATT
CTTGAAACTCCAACTTTTATCGGCTTTGTCTATTATAATGGGATTAAGTTTATTAATG
ATTTCTCTCATGATACCACCAAGTTTTTATAGTTTGTGCAAGTAATAAATTTATTA
AGGAAAGTTTAAACGCCTTCCAAAAGGAAGGCGTTCATAAATACCTTTTTATCCTAAAT
GTTTTGCAAAAACATATATATATCTTAGCCAATTTAATATTAATCTTATTCTTTGCT
TAATATTTAAGTGATAACATGCACAAAGAGCAGTTAATGAAACTTCATCAATTTTTGT
TTATGTTGTAAGAAATTTATGGATGATAATTTAGAAAATACTGACAAATGAATGTAAGAA
ATTATTTAAATTTATGAGATGTTAGACATTAGGCCCATCACATTTCAGACTTAAAG
CGAACAAAAGCAGCGATATTACTGTTATCTGCTTGTGTTGCCAGTTACTTAGCCAATA
TATGGATAATGTCCCAAAAACCTTAGCCAAAAAATGAAGAAAACGCTTTTAAACATTT
AAACAGTTGTAAGAAAACATTATTATATAGAAGAAATGAAAATAACGGTGAAAGTGC

-256-

5 TGAAAAGGAAGAATAATTTAAAGGTGATATTTTATGTTTGACCCAAAAAATTTATTGA
TGAGGCAGTAGAAGAAATAAACAGCAAATTAGTGACAGAAAAGCAATAATTGCCCTTAAG
TGGAGGGGTAGATAGCTCCGTCGCTGCCGTCTTAACCCACAAAGCAATTGGAGATAAATT
AACAGCTGTTTTTGTGATACTGGATTGATGAGAAAGGGAGAGAGGGAAGAAGTTGAAAA
AAGCTTTTAGAGACAAGTTGGGATTAAACTTAATTGTTGTAGATGCAAAGSATAGATTTTT
AAATGCCCTAAAAGGAGTTACAGACCCAGAGGAGAAGAGAAAGATTATTGGAAAGTTATT
TATTGATGTCTTTGAGGAGATTGCTGAAGATATAAAGGCAGAGGTTTTAGTGCAAGGGAC
TATAGCCCCAGATTGGATTGAAACACAAGGGAAGATAAAGAGCCATCATAACGTTGCCCT
10 ACCTCACGGAATGGTTTTAGAGGTTGTTGAACCATTGAGAGAGCTTTATAAAGATGAAGT
TAGATTGTTGGCAAAGAATTAGGGCTACCAGATAGCATCGTCTATAGACACCATTCCC
AGGGCCAGGATTAGCTGTTAGAGTTTTAGGGGAGGTTACAGAAGAAAAGCTAAACATCTG
CAGAGAGGCAAATGCAATAGTTGAGGAAGAAGTTAAAAAGCCAACTTAGATAAAGATTTT
ATGGCAATACTTTGCCGTTGTTTTGGACTGTAAAGCAACTGGAGTTAAGGGAGATGAAAG
15 GGAATACAACCTGGATTGTGCTTAAAGAAATGGTTAAATCATTGGATGCTATGACAGCACA
CGTTCCAGAGATTCTTTTTGATTGTTGAAGAGGATTAGTAAAGAATTACATCAGAAAT
TCCAAATGTTGCAAGAGTAGTGTGATATAACTGATAAGCCACCAGCTACAATTGAATT
TGAATAAAAAAATTTTTAACTTTTTTAGTTTTATTATATTGACATTAATCTAATTTAACT
ATTTTGGCAATTTAAATATTATAATAGTATAATTGAGTGATAATATGATTGCTTAGGAT
20 TAGAAGGAAGTGCAGAAAAAAGTGGGCTAGGGATTGTTACCTCTGATGGAGAGGTTTTAT
TTAATAAACTATCATGTATAAACCCCCAAACAGGGTATTAATCCAAGAGAGGCTGCTG
ACCATCATGCTGAAACATTTCCCTAAGCTTATAAAGAGGCTTTTGAAGTAGTTGATAAAA
ATGAGATTGATTTAATTGCATTCTCCCAAGGGCCGGGATTAGGGCCGAGTTTGAAGGTAA
CTGCAACCGTAGCAAGAAGCTTTATCTTTAACATTAAAAAAACCATAATTGGGGTTAATC
25 ATTGCATTGCCATATAGAGATTGGTAAGCTAACTACAGAGGCAGAAGACCCCTCTAATCT
TATATGTTAGTGGTGGAAACACCCCAAGTTATAGCTTATGTCTCAAAAAAATATAGGGTAT
TTGGAGAGACGTTAGATATAGCTGTTGGTAACTGCTTAGACCAGTTTGAAGATATGTGA
ATTTGCCACATCCCGGGGGCTTATATAGAGGAATTGGCAAGGAAAGGGAAAAAGCTTG
TTGATTTACCTTACACTGTTAAAGGCATGGATATAGCATTCTCTGGATTGCTAACAGCGG
30 CTATGAGAGCTTATGATGCTGGAGAGAGATTGGAAGATATCTGCTACTCCCTACAAGAA
ATGCCCTTCTCAATGCTAACTGAGATTACAGAAAGGGCTTTAGCTCACACAAATAAAGGAG
AGGTCATGCTCGTTGGTGGAGTAGCGGCAATAACAGATTGAGAGAGATGCTCAAAGCTA
TGTGTGAGGGTCAGAATGTTGATTTTACGTCCCTCCTAAGGAGTTTTGTGGAGACAATG
GAGCTATGATTGCATGGCTTGGTTTTATTGATGCATAAAAAATGGAAGATGGATGAGTTTGG
35 ATGAAACAAAGATAATTCCAAATTATAGGACTGATATGGTTGAAGTTAATTGGATAAAAG
AAATTAAGGCAAGAAGAGAGAAAGATTCCAGAACATTTAATTGGTAAGGGGGCAGAGGCAG
ATATTAAGAGAGATAGCTATTTAGATTTTGATGTAATTATTAAGGAGAGAGTTAAAAAAG
GCTATAGGATGAGAGATTAGATGAAAATATAAGAAAGAGTAGAACTGCAAGAGAGGCAA
GGTATTTAGCATTGGTTAAAGATTTTGGTATCCAGCTCCATACATATTTGATGTTGATT
40 TAGATAACAAGAGAATTATGATGAGTTATATCAACGGAAAGTTAGCTAAGGATGTTATTG
AGGATAATTTAGATATTGCATACAAAATTGGAGAAATCGTTGGAAAAGTGCATAAAAACG
ATGTAATTCATAATGACTTAACATCACTTATATTTGATAAAGATTTATATATCA
TTGATTTTGGTTTAGGAAAGATTTCAATCTTGATGAAGATAAGGCAGTTGATTTAATCG
45 TCTTTAAAAGGCTGTGTTATCAACTCATGAAAAGTTTGATGAAATCTGGGAGAGAT
TTTTAGAGGGTTATAAAAAGTGTTCATAGTAGTGGGAGATTACTGGAGTTAATGAAGG
ATGTTGAAAGAAGAGCAAGATATGTAGAGTAAATATTTAAATTTTTTAACTGGTATGAT
TTTTCCACTTATGAGTAAAAAAATGTAAAAATAGAAGTATTTATATAATGACCAAAATAC
TAAAAAATTTTAAATCTCTTCTGAGGTGTAAGATATGGTAACAAAGGAAGATGTTTT
AAATGCCCTAAAACAGTTGCAGACCCGCACATGGCAATAAGCATTGTAGATATGGGATT
50 AATTAGAGATGTGGAGGTTGATGATGAGGGTAATGTAAATTTAAGCTCATTCCTACAAA
CCCTTACTGTATGAGTGTATGGCAATGGCTTTTCAAGGCAAGGAAGCAGTTAAATCATT
GGAAGGTGTTAAAAAAGTTGAGGTTACTGTAGAAGGGCATGTAATGGAGAAGGACATTAA
TGAGATGCTTAAAGAGAAAGAATAAAAGTGATTCTTATGAAGAAATTTGAAATTATTCTT
TTTTTATTATAGCCGTTTTAATCTTTGTTTTCGGATATTTGTTGGAGCATCTCAACCT
55 TTATATTCTGAAAATCCAGTTATCCAATTTTCAAAAATCCAAAACCTTTTACAGTTGAA
AATGTAAATATGCCAGTTACTTACTATGGCAGATATGTGGAAAGTATATTGGTTATCAG
ATAACTCCCCACAATGTCAATGAAGAGGCAAGAAAATGTTTCTATAAATATTTTAAGTTA
AAAGATAAAAATCCTAAAGAGGCTGAGAGATATTTAAAAAGAGGACTATTTTAAACAGAG
TATCTAATATCTCAAGCAGATAAAGAACTGCTGAAGTAGATGAAAAGAACATCACTTTT
ATTGTTTGGAGGTATAATTTGAATTTCCACTTTATAATCTATCTAAGGGTTGGAGAGGA
60 GCATTATGCCAAGCAGGCTGCTTAAAGACCTTATATTTAGCTTATGAAGCTACTGGAGAT
GAGAGGTATTTAAATATGCAATTTAGCCATAAATGCCTTCAAAGTTCTGTGAAAAA
GGAGGGTTATTAATAATCAGAATCTATAAAAAATAAAGCTACTATTGGTTTCCAGAGTAT
GCATCTGAAAATCCACCCTATGTGCTAAATGGGTTTATCACAGCCACTCTATGGATTGGA
GACTTTGGAACAAAACAGGGAACGCTGATGCTCTATACCTTTACAAAGAAGGTTTAAAA

-257-

5 TCAATAAAAAACATTTCTTCCAATGTATGATGCTGGAGATTGGAGTTATTACGATGCTTTA
GGTCATAGATGCAATAAACATTATGAACATCTACATAGACTGCAGATGCTATGGCTTTAC
AATAAACAGGAGATGAGATATACCTAAAATACTACAAAAAATGGAGAGAATAGTTACAA
10 TTCTAAATCCATATCATAAATCCTCTCTATATTCTCCTTATGGATTTTATAAACACCCCTC
TTCATCCAAAACCTCCCTTCTCAATCAATCTCCTTGTAACTCTTGGGACTGTTTTATTCC
TAAGGCAACTCCTGGCCTTTTTAAATCATCAATATAGTCAGTTCCATAACAAACCTTAA
AGATTTTTTAACAACGCTCTTCATTTACTCTTGATGCTAAAATTGAAGGAAAAATACCATA
15 TCTCTCTCCCTCCAAAACCATATTCCCACAATGATGCTTAACGACCTTTTCTGGATTCAA
TCCAACCTCTTTAGCCATTTCAGAAAACCTCTTAACTGCTCTTCTGTTGAACCTCTCAGC
ATGAATTTGGATTGCACAACCAATATCTTTTGCCAAATCCATACAATATTTTAAAACTCTC
ATTTGATGCTTTCCAAACATCTTCACTTACAGGATAGTGAGGCTTCCAACTTCAACCAAT
TCCTACAATAAAATCATACTCCTCAACAAGCTTTTTTGCAATAATTAAGGCATCAACAAT
TCTTTGTTTTGCCTCCTCCAAGCTCATAAATTCATCAAGTATGTTAGCTCAGCTGGATG
20 AACTCCAATAATCCAAAGCTTTAACTGGTGTGTTTTGTTTTATTATCTCAACATCTCT
AATAAGATGTCCATTGATGCTGTTAGGTTCCATCAATGTTGGTTTTATTAAAACTAT
CATTACCTTTCTCCAGCGTTATAGAATGTTTTAGCTACCTTTTCAGCTCCATAGCCGTG
TTTGTCTCAACATGTATATGATTGTCAGTAACAGGCAGACTTTTAGAACATCCATATT
TTCACCAGATTTAATTTAAATTTTTCTAATTTATACCTCTGAGCGTATTTCACTAAATTTA
25 TACTGCAGATTTATGCAGCTTTAAATCCTATTTACATCTCTTTCTTTTGCTCTGAATGT
TATTATATGCTTGTATCTTCTAAGATATCTTCAATAATCTCAGTGTCTCATACAAATA
GGATATAAGCCTTGCATTGTCTGTCTCAATAGTTCGGATGGAGAGATTGAGATGCTCTAT
AATCATCTCCTTAAGTAAATCCATATTTATGTCGTATTTTGCAAGACAAATATTGGATT
CACTATGTATCTATCTAATCTCTTCTAAAATTTTTCTCTTTTTTTCTTTTGTAATCTTATC
TACTTTGTTAAATACAGTTATTATTGGGGCTTTGCAATTAATTTTACTTAAAATTTTATG
30 ATTTACCTTTAATTTTTCTTTAATTTCTTCAATATCATCGGACGCATCTACAACAATTA
TATCAAAATCGCTGTCTGCACTCTCTTCAATTGTTGATAAGAATGCCTCAATCATAAATGG
GGGCAAAATCATCAATAAATCCAACCTGTATCGGTAACCAATATCTTTCTCTTAATACCTTT
TATAGCCCTTGTGTTGTAGTTAATGTTGTAAAACCTGATTTTTTGATTCTTTGTTCTC
TCCAGTTAATGCATTTAATAAGCTGGTTTTCTCTGCTACCCTTCTATGCTCCCTGAGCTTTCTAA
35 AGTATCAAAATTTAGCCCTTCCCTTTCTGCTACCCTTCTATGCTCCCTGAGCTTTTCTAA
TTTTCTTTTTATTGTTGCTATCTCCCTTTTTACCTTTTGGTAGTATTTTTCACTTCTATA
ATCCCCATATCCTCCAAATCCCGGCTGTTCCCCCATCTTTGCTAATCTTACTTTCTCCCT
TGCCCTTGGTAACCTCATCTGCAATTCTGCCAATCTAACCTGCAATTGAGCTTCTTTAGT
TCTTGCAATGCTTATAGAATATCCTTAAACAAGCTCAATCTTATCAATAACTTCAACTTT
40 AAATTTCTTAGCTAAGTTGATTTTTGTGAAGGAGTTAAGATATTTCCAACCTATAACAAT
CTCTATATTCTCCTCTTTAATATTTTCAGCGATTCTTTCACTAATCCACTACCAATTTG
ATACTTTGGGTCAGCTTTTCTAATTTGAAGTATTGTTTTACTGGGTTATAGAGAACTTC
AGCTAATTTCTTAAAGCTCCTCTATACCTTTTCTATCAAATTTACTGTCTTTTCTTAAAT
TAACAATGCCCTTCTTTAATTTCTATCTCCCCATTTAATTTTTAAATTTTAAATTTGTTA
45 AAATATATTATGGAAATTCATATATATAATCTTGTCTTATTAAAAAAGAAAAATAGAGTC
TAAGTCAATTTATAAAGACTCATCTTTATAACAAGCGTTAAGAAATATGGTTTCGAA
GTTATTGAAGACTAAAATATTCAATATATATTGCAATTGTTACAATAGTTTATCTCATTA
ATAAATTTTTAATAAGCTCATAGTTTCTTGTAATAAATTTTGTAATAAAAAAGGCATAA
ATGAATGCTTTTAGGATGTTCAAAATTTCTTAATTAATTTTAATAACTTGCAAAACAA
50 CTATGATGGTGAAAAATACAATAGATGTTAAAGAAATATTAAAGAGAGTTAGATACAACCA
GAATTAAGAGACTATCCTTTAATGAGTGGAAAAGAGATTTTGTGAGGACTAATTTTAAGG
GTTGTTGTGGGATGCCTTCACAGATAAGCCAGTTGAATTTAAGGAACAATTAGAGAGCT
GTTAGATAAAGGAAATAGAGCTGAGATAATTGCCACTTTAATGCTGTTATGAGATGTGC
AAAAAGTTAGTTGAATATTTAAAGAATTAAAACCAGAAAAGATTGGAATTTAGGATTT
55 CAGCCAGCGTTAAAGAGATTGTTAATACCTTTAGTTCTGAAAATGTCATAGTTAGTGATT
TAAATCCAGAAAATGTTGGAAAAATAAATATGGGCTAGTAGCTTTAGCAAGAGCTTTAG
TTGTAGAACCGAGGTTATTTTATTAGATAAACCGCTAAATACCTTATTTCTGACCTTCTC
TCCGAGATAAAGCTCGGAGCTTCCCTTAGCGACAATAAATGGTGAATCCAACCTAAAAGTT
AAATTCAAAATTTAAAACTTAGTTTTGCTGTCCAAATTTAACTCCCAACTCATCCAA
60 AATCTTTTTAGCTATTTTTTCTCAATAATTGAAGCCACTTTTGAAGGGTTGTTTATAAT
ATCCTCAATACTTCTAATTTCCAGCATTATACAGCTTTCTTGCTCTAACCTTCCAATATA
CTTTATGCTCAACAACCTCAATAATATCTTCTTAGCTCCATATTCTAACCTTATCTCCAA
CTTCTCTGGAATGTCTGAGCTTTTACCAATTAATTTAGCAATCTCTTTTAAATGCATGCAT
TATCCAAACAGCATTTTCAACCTTATATCTCAAATCCCTGGTTCAATCTTATATCTCTT
TAAAATTTTATCTTCTGGAACCTCATTAATCCAATCATACAGCATCTTAGCTGTTTTAAA
TGCCCTTAATCCCTCAATCTCAAAGCTTTTTATTCCAAGAGAGTCCATTTTATCAATTA
ATTTAACTCTTCAGAGTTATAAACTCTTAAATTTGGCATCATCTCCAAGGTTTTGAAAT
TAGGTAGAGATAATAAATCTCTTCTTCAATCTCCATCTCTTCCAATCCATCTATGATGAA
TTTAGCTGACAATGGGTCTATGTAGAGTTCAAGAACTCTCTTTCTAATCTGTTGGCAT

-258-

AAAATCAATAATAAACTCATTCTCTCCAAAAATCTAATGACTTCATTAATATTTTAGC
AACTTCCCTCAAATTTCCATATTGATGAGCATAGAAGGTATTTCTTATAAACCATCTAA
ATCATACTCATCTCTAATCTCTCCAGTAGCAATAAGTCCATAAAGTTGAGTTCTTAAAC
5 TGCTTGATTGAGAGCTTTGAATATATTGGCTCTGGTTTTTGGCTCAATGCCGTGATAAGC
CCTTAAATAATCTCTATCATTCTTTGCTACGATTATCCCTTCTCCATATGGGTCTAATCC
TGGTCTTCCAGCTCTTCTATACATTGTTGGATTTCATTATTGGGATGTATCTCATCCC
TTTATTTGTAAATCTTGTAAAGTCTTAACTATTGCCCTTCTACACGGTAAGTTCAGCCC
AGCAGAGTTATGCACTATAAATCCATTGGCCACAATATAATGGCTGTTGCTTCCATCGTC
10 TGGCAGTTCTATGTCATAGGCATACTTGTCATTTACTTTTATCTTTTTAATTTCTTTAAT
TCTATCCCAATAAATGTCTCCATCATAGCATTCTTTTTTCCAGCTATATCTCATCTCTTT
ATGAATTGGCTTACCACAAATTTGGACATTTTTCGAGATTTACTAAAAAGTTATACATCTC
TTCTAAGTTTTCTTTATCTTTTATGTGTTTTATTAGGAGACTCATTAAAACTCTGCCTTT
TTCATTTAAAGAGTAATAATTGTTTCCATTAATTTTTTCTCTTACAATAAAGTCAAAATA
15 AGGATTTTTCTCTTTGAATAATATTCTTTATAGTTTGTAAATTAATTTTTTCCATCCAA
TAGTTCAAAAAGTAATTTTACACGTTTTTATTTAACTCTCTCTGCCTTTAGTTCTTGG
TTTAAACATGGTCAAATCAACACTAAATCCACAATCACACCATATTTGGCAATCGGAGT
GAAGCGGAGAGCTACAAATCCGAAGGAATTTGTCCAATTTCTTTATTTTATGATTTTCT
TTCTAATTTTCTTCTCTTCTCTTCTCATGTCTTAGTGGGATGTTCTATAAAATCTTTTAT
20 ACTCATAAAATCTCTAATTGTTAATACATAAATGTCTTTACATTGTATTCTTTGCCATT
TGTTGGAGATACCATAGTTTTAGTTTTCTTTTTTCTAATACTGCTATGAATCCCAAATCT
TAACAATACAACTGTAATTGTTCAACCAATTTTTCAGATATTGAATAGAATTCAATGTT
TTTTCTATTTAAGTATATATATCCATCACTATCAACAATCCTGCAATAAGATATGCTAA
CTTATCCAATGGAAGATTACAAAATGCATCAATGTTTTGTTATCTTTTGTGAGCATATT
25 TAATTTATTAAAGATTTTTCTTAGTTTTTTCGAGTATATATAATGAGCAACACCTTTTGA
TATTCTACATTTTCAAAAAGTATTTTTTGTGAAGTTTCAGAATCATCAAAATTTGGGGGATA
TTTTGGATTAAATGCAAGGTCTGGAGTGGCTTTAAGAGTATTTTTTCTATAACTCCGGT
ATAACCATCTCCTATGAAATATCCAATGAAATAAAGGTCTCCATTAGATAAATCAATATC
TTTCTCCTTAACTCTTATTCTATCAACTGTGCTACATAATCTCCAACCTTTTAAATCCTT
30 TGCCCTCTTTTTCTTTTAAAGAACCATTCTTTTAACTAAAAATATATGATTTGGAGTTGT
AGTGATTTCTAAACCATTACTGTTTTTACAACGATGTTGTATTCTATGCTGTGGAGTTTT
ATGGATTTTCCAACCCTACTGTTTTATCTCCTTTCCACATAATGCAAAGACTTTTTCT
GTCTTTATTTAATTCAGTAATTTTCTAATCCGCTCTCTTGCAGTATTTTCAGTGTTTGC
ATTTAGGCAGAGTGTAGGAGTGCAACAGATAACCTTAATTAACCTCTTTCTAAACGCATC
35 TTCAACAATCTTTCTATGCTGATAAGTTAAACCAGCATGATGAAAGGCAGAGCCGTTTAA
GATGCATTTCAGCTAAGGTTTTACACATCTCAGTTGGTGGCTCTAAGATAGATAAAATCTC
TTCAGCTATTTCTTTAATCTTATTTTTCTCTTTCAGTTAAAAATTTCTTTAAATTTAA
TTTTCTTTGGCCTATTACGGCATTCTTTTTGGTGTGTCAGAACTAAACAGCATCCTCC
40 TTCCTTTACACAATCAACAATAAGTTGTAAATATCGTTATTATCAACTGCCTTTTATCTC
TCTAATTTCTCCATTTATAAACTCTATGGCTTCATTTTTGTAAATGCCTTTTTTCAACTC
AACAGGTCTCCAATCATCAACTATAAGCTCAGCATTAAAGCCACTCAGCCAACCTCATCTGG
ATTTCCAATAGTTGCAGATAAACCAATAATTTGTACATTGAACCTTTTTAATTTAGTCAA
TAAATCTCTAACGTCCCTCCTCTTGTTCATCATTAATTAGATGAATTTTCATCAACCAC
45 AACACAGAAACATCATTAATCCAGTCAATTTTATGTCTCCATAGAGAGTCAAGTTTCTC
AGCTGTGCTTATAATTAATGATATTTGCTTAAATCCTCATCTTCATCATAATCCCTAT
TGATAAGGCTATTCTCAACCCATACCGCTCATATTTGCTTTTAAACTCCTCATACTTCTC
TGATGCCAATGCCTTTAAAGGCATATGAAGTATACCCTTTTTGTTTGTAGGATTTTTATT
CCCATCCAATAAGTGATTTATTAAAGCCATCTCTCCAATTAGTGTTTTTCCAGATGCTGT
50 TGGAATAGATATTAATAAATTTTTATTCTTATCCAATAATCCTCTTTCCAATGCCTTTTT
CTGTGGTGGCCTTAGCTCTACAATGCCAAAATCCTTTAAATCTCTAAGATTTTATCCAT
CTTTATACCTCCAGTTAAATCTTTTACGAGAAATAGCTACAAATCCACCTTCTCCATAA
CCTTCTTTAACTTCAACCTTATCAACTTATCAATTTCTTTAAAAATCGTTGTGTGGCT
TTTATATTTTAAATCCTAATCTTTTAGCATTTCTATAACTTCTTAGCTGATAAAAAA
55 TTTGCATCTTTGTAGAATTTACTTTTTTGCTTTTTTCTTCATACATCTTCTCTAAAAAG
CTATCCCTATCAATAATTCCAATAATTATCTTTCTCCTCTTTTTTAAACCCCTTTTTGCC
TCTTCTATCATCTTTTTTGGATTTTCTGCAAACTCTAAGACAGTATTTATTAATAAATAA
TCAAACTCTTCATCTTTGAAAGGCAATCTTCACCTTTTGCTATTATAACTTTTATCTCCT
CTCTTTTCAGCTATTTTAGCCATTTCTTCGATATATCAACACCAATTTTATATTAAAA
60 GGTTAGCAAACTCTCCGGTTCCTACTCTCTAATCTTAAACCTCTCCTTTTGGAAATATGT
CTTTTAAATGCTTCAATCTCTGATTTATAAATAATTTTCAATTTTCATCAAAACCATTTATCG
TATTCTCAGCGTATTTATCAAAAACATTCATGGTTATTTCCCTTATTACAAATCTTAA
CATTTTATAATATTACAAAATTATAAATATTATCATTGAGGTGATAAATATGGCAACT
ATAACTATAGATGATGATGTTTATAAAGAATTATTAAACTTAAAGGTAGAAAGTCAGTT
TCAGAGTTTATAAAGAATTGTTGGAAGAGAGAAAGAGAAAAAATCTGGATGTTTTTATG
ATTGCCTTTGGTTCAAGAAGTGAGGAGGATGTAGAAAAATTAATAAAGAACTTAAAGAG

5

10

15

20

25

30

35

40

45

50

55

60

GCAGAAAAATGGATGCAGTCATTGATACAAGTGTAATAATAGAGATATTTAGAGGAAATA
AAGATACTCTATATCAAATTTGTGATTACAACGTGAAAATAACATCCATAACAGTTTTTG
AGTTATATTGTGGTAATCTAAAAGAAAATGAAATGATAATGATTGACAGCTTACCAAAC
TAAATTTTGATGATAAATCATCAAAGATTGCTGGCAATATATTTAAAAAATAAAAAAG
AAGGCAAAATTCATCAGTAAAAGATTTATTAATTGCGTCAATATTTTATTAACCTACGA
TAATGATTTTAAATGTTTGAAAAGTTTCGGCTTAAGAGTGAAGATTTTATAATAATTTA
ATTCAAATTTTAAACCCAATTTTTTTATTTTTTTTAAATTTCTTTTTTATCAATTTCAATA
TCTTTACCAAAGCTAATAAAATTTATTGCATGAACGTCTTTTCATAAAAGTTAGGATAA
ATTACATTAAATCTCCATCTATATATCTCAATAAACTCTCATTTAAAAATAAGCTATAG
CCCTCATTAACCTAATCTATAGCTCTAAACGGATTTTTTACCCTTACTTTAACTTTAAAT
TTTATACCTTCTTTCTTTAAATGTTATAAACTATCCTCTGTGAGCTAAATCTTATGCCA
ACTAAGTTTTTATAATTAACTCTTTTTTACTAACCATTACAAAGTTGTCGTAGGCAATT
AAAAATATGTTAAATCACAACCTCCCAATCTCTGACTTTAAAAATCTCTCATCTCCCAAC
CTATAAATCCAATAGCTGTCAACCCCTAAGACATCAACAAACCCCATCTTTAGCAAT
TTTAAAGCGTTATCAAAAGAGGTTATTATTGGATTTCCAAATAATATTTTGCAATCTCC
CCACTCACAATCCAGAACTGTAAAAAGTGATTTTTTAATCTTTTGCTATATGAGTTG
TAAGTTTCTAAAATCTCTAAGCCAGCATCAGTTAAACCGTCCCATTGGTGAGGAGTAA
TAAAGCTTAACCCCTAATCTATTCTCCAATCTTTTTAATTGAATATTAAAGAGGAAGGC
TTTATATTTAATAACTTAGCTGCCTCATTTTGGGATTTTGTTTTATGTAAGGCAATTA
AGTTTTATTTGATTTGGAGTAATTAATTTTCTCTATATTCAATGGTTAAATCTACTTTC
ATAATTTACCAGCCAATATTTATCAATTTGGCGTCATAAACCATTACTGCATCTCCAATC
ATATAAACTCCATCATCTTTAATCTCAATCTCCAAATCTCCACCATCTAAGTGAGCTAAA
ACCTTATTTTGTTTTACCAAGTTGTGAGCCATAATTACAGAAGCTGTTGTTCTCTGT
CCGCATGCAGTTGTGTATCCAGCTCCCTCTCCAGGTAAACAATCCTAATTTCAATAGGA
TTCAAACTTTTACAAATGCACATTAATCTCTCTGGGAATGCTTCATGGTGTCTATC
TCTTTCCCAATAACATCCAAGTGTCTCTAACAATACTAAATCTATGTTGTTATCTTCA
ACAAATATAACCGCATGTGGATTTCCAACATTAACGACACTCAACTTGACCTTAGGTAAA
TATGGATTCTTTAATTTAACTCTCCATTCAAAATTCATCATCTCTTTATAACCATCA
ACAACCATTGGTATATCTTTAATTTAACTTTGGAACCTCCATATAAACTTTAATCTTC
TTTACTTCTCTCTCTATCTCCATTTCAGATACTCTTAAGCCCCCTTTGTCTCTACT
TTTAAAGGATTTTTTTTCAATTTCTCTCATAAACGTATTTTGAAAAACATCTAATTTCCA
TTACCACACATCTCTGCCTCAGAGCCGTCAGTGTAAATATTCTAAATCTTACATCGTAT
TCATCAGATGTTGGCTTTTGGATGAAAATAACTCCATCAGCACCTACTGAAAAACCTCTT
CTACAAATTTTCTTGAGAACTCTGCTTTTCTCTCTTTAACTTTTTCCCGCTCAAAT
TCATTAATAACTATGTAATCATTTCCCAAGGGCATGCATCTTTGTAAATTCATATTTTCA
CACCAAAAATAGTTATTTGTAGCTCTTTGTAAACATTTTGTAAATAAGAAAGGCATACT
TTCCTTAGTTAGTTTTTAATCACATTTGCAAAAGAACTATTGGTTTTTTAGTGTTGAGCTA
CCCTATATTTACTCTATTCAAATTTGTTTCATCGATTACAACAACATCTTTAATAGCTA
CTACAAGTTTATAAGGAATTAAGACGTTTCTTCTCTCTCTCATTATTGGGCTGTGTT
CAGCTGGTCTACTTCTAAAGAAACCAATCTACCAACTTTTTCATCAAACACGATATCTT
TAACTTTTCTATTACGCTACCCTTATTTCTATTATATCTCTCTCAAACAATAACTTAG
CTGGCATTTTTTTCCATTTTATCCCCATTAGATTTTTATATTTATAACCCATCTTTTTTCA
AAAGCATTTTCAGCAAGTTTTTAAATCATCTTTAGTATTTATATGAATATCAGCTCATCAA
TAACCATAATTTCTTCTTTTGATATCCATGCTTTGGGGATACAACATTTATCCCTGCAG
GAACCTAAGCCGTTGAAATCAATTGAGGGGTTGGATATTTTCTTTTGAATCATAACAG
CTAATGCTTCAACATCTGGAGTCTTAGCTTTAATACAATAAAAAATAATCAACTATACTAT
TAATAATTTTCGATTTTAAAGTTAATTAAGTCAGAGCTAACCACTAAGAATGGTTCTGAGA
AATATCCAATACATTCAATTTAAATCTCTATATAACCTTTACCAGATGTGTCTATAACTA
CAATATTTTGTAACTTTATATGCTGAATTTATATATTCCTTTGTCTTTGGTGTATTTG
GAGAGGTAGCGATAAAATATATTTTACCTTTGATTTTAAATAAGGGAGAGACAACATAAT
CTATAAGACATCTACCACAAAGCTTAATCAACGGCTTTTCAACTCCACCCATTCTTGTTC
CTTTACCACCAGCCATAATTAGAGCATCCATTTTAAACCTCTAAGGTTATTTATAATAA
ATTGATTTAATCTTTATTAAGATATTTAAATTTAAATTTTGCAAATATTTAGCATAAAT
GTTAAGTTGTGTTAGCTAATATTTAAAAATAAGGTATATTTAAAAATGTGAGAGACATGT
GCTCTATAAGTGGATAAATTTGTTAAAGACAATCAAATATCTGCTAAATACTCCATAGATA
TGATGAAGATTTTAAAGCACAGAGGGAGAGATAACTCTGGGCTGTTGTTGGATGATGAAG
TTATATATTTTAAACGATTTTGGAGATGTTGAGGATTTAGAGGAGGAGATGATTGGAACCT
TAAGCTTGGCTCATAATAGATTGGCAATTGTTGGGAGGTATGGAGTTCAACCTATTCCAA
ATGAGGATGAACTATATGGTTAGTTTGTAAATGGAGAGATTTACAATTATATTGAGTTGA
GGGAATATCTAAACAAAATCATGAATTTAGGACAGACAGTGATAATGAGGTTATAATTC
ATCTATATGAAGAGGAGAAGTTGGAAGAGTTGGATGGAGACTATGCCTTTGCCATATATG
ATAAATCTAAGAATGTTGTGAGGTTGGCAAGGGATATGTTTGGAGTTAAGCCATTATTTT
ATGTAGATAGGGATAAATACTTTGCCTTTGCCTCTGAAAGAAAGCGTTGTGGCATCTAC
TTATAAATATCGATGGCTGTGAGAGAGATTTAGATGAGCTAAATAGCAAAATCAAAACAT

-260-

TGAAGCCAAATTCACAGTTGATTTATTATTTAGATGATAATAGGTTTGAAATTATTGAAG
GCTTTAAAAAGTTGGAGTTAAATTACATGAAAGAGAGGAGTTATGAGGAGGCTAAGGAGT
ATTTAGATAGAGCATTGAAAACTCTGTTTAAAGAGGGTCAGGGGTTTGGACAAAGTTG
5 GAATTATATGCTCTGGAGGAGTTGATAGCTCATTGATTGCTAAATTAGCATCTCTATACT
GTGAAGTTATATTGTATGCCGTTGGAAGTGAATAAGTGAAGATTTAATCTATGCTGAAA
GATTGGCTAAAGATTTAAATTTAAAGCTAAGGAAGAAGATTATTTTCAGAAGAGGAGTATG
AGGAGTATGTGTTTAAAGGTAGCTAAGGCAATAGATGAAGTTGATTTAATGAAGATTGGAG
10 TTGGAAATCCCTATCTATGTAGCTTCAGAGATGGCAAATGAGGATGGATTAAAGGTTGTTT
TATCTGGGCAAGGAGCTGATGAGTTATTTGGAGGCTATGCAAGGCATGAGAGAATTTATA
GGGAGAGAGGGGAGGAGGAGCTGAAAAAGAGCTATTGAAGGATGTTTATAATTTATATA
AGGTAAATTTAGAGAGAGATGACCACTGTACAATGGCTAATGGTGTGAGTTGAGAGTTT
CTTTCTTAGATGAGGAGTTGTTGAAATTTGCTTTATCAATTCCTATTGAATATAAGATGT
15 CTGAACTTAGTAACAGACCTTACGCAGAGTCTAATATTTTATTGAAAAGTGAGCCCATAA
ATGGGCTCAAAAAATACCAATTTAAATATAAAGTGGCTAAGGTCTGTTAGAAAGAAGATTT
TGAGGGATGTTGCTTCCAGTATTTGCCAGATTATATTGCCTATAGACCAAAGAAAGCCG
CACAGTATGGAAGTGGTGGGAGAGAAGATGATTTATAAGGTTGCTAAGAAATATGGATTTT
CAAAGAAGAGAATTAATGAGTTTATAGATATGTTGAAGAGGAAGATTGTAGTGAATTTT
20 AAAATTATAAGCTAGTGTGATACCTATGTTTAAAGAAAACCATGATTGGGATGGTTCA
TCTAAAACCATTTGCCCTGGTAGTTATCATTACAATGACAACCTTTGATGATATTGTAGTTT
TGCTATAAAGAAGCTAAAAAAGCTGAAGAAGCTGGATTTGATGCTGTAATGATAGAAAA
CTTTGGAGATGCTCCATTTAAAAAAGAGGCTGATAAGATAACCATGTCATCAATGGCTGT
AATAGCAAAAGCTATAAAGAGGAGGTATCTCTCCCATTTGGGAATAAATATCTTAAGAAA
CGATGCTATAGGGGCTTACTCCATAGCTTATGTTGTTAAAGCAGATTTTATTAGAGTTAA
25 TGCTTATCTGGTGTGCTTTACAGACCAAGGAGTTATCGAAGGCAAGCTTATGAATT
AGCCAAGCTAAAAAAGTTGCTTCCAAGTAAGATAAAGGTTTTTGCAGATGTTTCATGTAAA
GCATGCATATCATTATATAGACTTTGAAAGCTCATTTGTTGGATACCGTTGAGAGAGGTTT
AGCTGATGCTGTAATTATCAGCGGTAAGAGAACGGGAAAGGAGGTTGATATTGAAAAGCT
AAAATTAGCTAAGGAATTGGTTGATGTTCCAGTTATTGTTGGTTCTGGAACAAATTATAA
30 CAACCTAAGAATCCTCTGGAGCTATGCAGATGGTTTTATAATTGGGACATGGATAAAGAA
AGATGGGAAAGCCAATAATGAGATTGATATTGATAGGGCTAAAAAGATTGTAAATTTAGC
TAATAAATTAAAAATGTGCTAATTTGATAGAAAGTTATATATAGAAGTTCTAATATTTT
TATTTATTGACAAGAAATGAACAAAAGTAGGATAATGGTGATATTATGGACATAGTTGAG
AAAGTATATAAAGAGGGGATATTGAAGTTGAAAGAAAACATTCCTCAAATAATAATCAAT
35 TTAGTAGTTGCAGGTTTAAATTTGGGTATTTGGCATTTTAGTGTTTATTCCAATTGCTGAT
ATGCTTGGAAATCCATATTTATTTGGATTAACTGCTTTAAAGCCAATAATCTCAGCAATA
ATAACCATAGCTTTAATTATTGCTTGTGTAAGAGTTACTAAAGACTTTGGGGAGTTAATG
GATGGAATAGCAGATATAATTGCTGTAAAATTAGCAGGAAGTAGGGTAAATGAAGAAAAA
40 CTTAAAAAATACAGAAGGGGCTTAAGAGGATTAGCATACTTAATCGTTGCTATAATAGCT
TATTTATTCTTCTTGCCTGTAATTTAGGAATAACTCCAGTATTGGCTGGAATAGTGCTT
ATAATATTAGTTTTATGGGCAGTTACTGTGCTTATAAATATAGGACATATATTCTCAGAA
GAAATTGAAGAAGGCATTAGAATAGCTACAGAAAAATTAGAAAAAGCATTAGAAAAGTCA
GTAAAAAATGAGGAAAATGAATAAGGGTTAATTATGAAATATAAAAAATATCCTAATTAAT
45 ATCTTTTTTACTGATTTTTTGGATATTTTTGGCTTATCTTTTACCATACTATCTATTTGTT
TTTAAATTTTTTGAAGAATTTTATGATGGACTTTAAAGCATTGGTGCAATTTTTTTA
ATAGTTTTTAGTTATCCTTCCATTATTAATCTACTTTTATTGCTTAGGGAAGTAAGGAAA
ATAATAAAGAATTTCTATAATTTTTTAGCAAAAAACATATATATCCTAACTTTAAGCTT
CTTTTATCTTCATTATAAAGGGGATAGTTATGGGGCATTATTTATCAACTTATTTACAT
ATACAATAATTGCTTTTATATTTTCAGCAGTATTGTGTAATTTTTAATGAAGAAGATGA
50 TTAATTATAAATTTGGCTATGATTTGCATAAAAAAGAGAAGATTAAAGTTCCAGAGATGG
GGGCTTAGCAGTATTGTTTTCTAATGCTTTATTTATCCCATTTGTAAATCCAATTTTTG
TTTTACCAATAATTACTGCTGGAATTATAGGAATTGTTGATGATATAGCTAAGCTCTCAC
CAAAGAAGAAATTAATATTGTTATTTATTTCTGGTTTGATAATAGGAATTTTGTTTTATA
ACAATTTCTATGTTAATTTGATAGAAATTTGATTATTGCTTTAGGAATCATGATTTTCT
55 CAAATTTAATAATATGTTAGCTGGTTTTAATGGATTGGAGATAGGAATGGGAGTTATAG
CTTCTATTTCTTAGCTTTGGTTTTATTCTTAGATAATTATACAACCTGGATTTTATCCG
CTTTGATATTTCTGTCATCCTATTTAGGGCTATTGATATTTAACAAATATCCAGCAAAGG
TTTTTCCAGGAGATGTTGGAAGCTTACCAATTGGAGCTTTCTTAGCTGTCTTAGCAGTAG
TTTATAAGGAATATATCCCATTTTATAGTTATAATGATGCCCTATGTGATAGATGCCCTCT
60 TAAATATCTAAGTGCTGGGGTTATGAGTAGGGATGAGCATAAACCAACCACTCTCAAG
AAGATGGGAAGCTATACTATATAGGTGGCTATCTATCCCTACCAAGGCTTATATTGAAGT
ATAAACCAATGAGAGAGGCTCACTTAGTTACAGTTTATGGATAATTGGGATATTCTTTG
GTATAGTTGGGATTTTAAATATCATTAATAGCATGATGGTGATTGTTTTGAAACCATAGG
AGGAAACCTCCTATTGGGATACCTCCCGTCCATTAAGTTAGGGCTTTTCAGCCCTAATTAA
TGTCATTATTAATAACAATAAGTTTTAGTTCGGTGATTGTTTTGACAATAGAGGAGATA

TTAAAAAGAAGTTTAAATGAAATAAAGCCTTCAAAGGAAGATATGGAAAACTGCAACTT
AAAGCTAATGAAATCATTGATAAAATTTGGGAAATAGTCAGAGAGAATAGCTATCCAATC
TTAGAGGTTTTATTGGTTGGCTCTTCAGCAAGAAACACAAATTTAAAGGATGACTATGAT
ATTGATATTTTTGTATTGTTTGACAAATCAGTTTTCTGAAGATGAATTAGAAGAGATTGG
5 ATTAATAATAGGAACAGAGGCCAATAAAGAGGTTAAACGGCTCTTATAACATAAACTATGC
CTCTCATCCCTATGTTAATGGTGAAGTTGATGGTTATGAAGTTGATATAGTCCCATGCTA
TAAGATAGACTTTGGAGAAAAAATAATATCTGCAGTTGATAGAACTCCATTGCATCATAA
ATTTTTAATTAGTAGGTTGAATGAAAGGCTTTGTGATGAAGTTAGGTTGTTAAAGGCATT
10 TTTAAAGAGTTTGGGATTATATGGTTCTGACGTAAAACTAAAGGATTCTCTGGCTATTT
ATGTGAGTTGTTGATTCTACACTATGGTTCATTCTATAAACTCTATTAAAGAGGCTCAAAA
TTGGAGAATTGGGAAGAAGATAATTTTAAAGACATATTTGAAATTTATAAAGATTGTTGA
TATTAATAAGCTAAAAAAGTTTGATGAACCGTTTATTGTCTATGACCCAGTAGATTTAAA
TAGAAATGTAGCCTCTCCGTAAAGCAAAGATAACTTCTGCAGATTCTATTCTACTCAAG
15 ACAATTTTTAAAAATCCTTCTATTGAGTTCTTTAAGGACTATGCTAAAAAGTTAGAGGA
GATTTTGGAAAAATAGAGAGCATGGATATAGATTAATATTAATAATCCCAAGGGAGAATGT
TGTTGATGACATCATCTATCCACAGATGGAGAAGCTTCAAAAAAGTATAAATAAGTTAT
TGTTAAAAATGAATTTGTAATTTGAATAGCAAGTGTTTTCAGATGATAACTATTGCTA
TCTGTATTGGGAATTTTTAGTGTATGAACACAAAAATTTGCTTTGAGAGAAGGGCTCC
20 CGTATTTGAGAAGGAGAGGGCAGAGAGGTTTTTAAAGAAGTATGGTAAAGTTTTATTAG
GGATTGTAAGTTATTTGCCTATACAGAGAGAGAATATTCTCACATAATCGATTATTAA
AGACATTGTTAATGGGAATTTACAGAATATCTCTATTCCGAAGTATGTAATCCAAGAAA
CGGAAAGATTATTGAGTTGAATAGCCATGGAGAGCACAAAGCAATTTAATAAAGAATGCCA
ATGAATTTTTGGATTCTTTAATGAGATTAACGATAAATTTAAAGAGGTTAGTTGGTAAAA
25 TAAAAACAAAACAATTGATAAACTAAATTATCTGATATTATATTAACTTAGAAAAA
ACTTAGAGATTTTACAAGATTTAAAAATCAAAAATGGAGTTTTTAGAGTTTGATTCCCAT
ATAAAAATGTTGGAAGTTGAAAGGAGGTTATGATAGTGAAGGATTACAAGAGATTGCAA
GCTACAGCACATATTTGAGAAGAATAGCAAGTGAGAAAAAAGGTATCTTAGAGAGGGTTA
GACATGCCTTAGTTGCCATATAAATTTGCCTTAGCCCATTTAACTGAAGATATTGGAACA
30 TAAATTTACCTCCAACTTGCCTTTAGATGGTTCTTATAAAAAGATAATGTTTGAATTTT
CACCTTATTTAGTCACAACATATAAAGAATTTTTAGATATCTTAGAACCAAGGGTAGAG
GGATTTTAACATCCTATACAATATCCCTTATAGTTATTGATAAAGGAAAGAGAGAATTTA
AGAGAATTAAAGTTGAAGACAAAACATATGAGAAATACATCAAAGAGAAGTTTGGAAATG
CTATAATTACATCAATAAAAAGGAATTTCTCAAAAATAAGATTATAGATGACCAGTATG
35 TTAGGAGAGTATTAGCTATCGGCTATCTCAACACTTACAAAGATGAGATTGAAAAAGCAA
TAAATGAAAAAATTGATAAATTTGCTTAATGAAGAAGAAAAAATACCTTAACAGATATT
TAGAACTCTGCTTATTATTTAGAGAAGAGGCAGATATAAGTGGGGGAATTTTAGACGTTA
GATGCATGGAAGAAAGAAAATTTAAAGAGCTTGAACCTAAAGAGATTTTGGAAAAAGAG
GATTATATAGAGATGGAGAACCAATTGAACCGTTAAAAAAGGCAATTAAGATTAATAATG
40 AATTATCTAAAAAATATCAAAAGATATTTTGATAAAGAGATTTTCTGAAGATGTTTTTA
AATTTTATCTCTACAAAACACCAGATGAGAGGGCAAGGAGTAATTTGTTCCCATCTATTA
TGATTACTCCACAGAGAGGATTTTTATCTTGGATGAGTGTTGATGGGATTAATTGTGTGG
ATGTTTTAGATTTAAAATTTAAATTTGGAGGAGGAGTTGCCAAAATATCAGATTCCTTTAA
45 AGAACATTGGTGGAGTTGCTTTATACTTAATTCACCACTGGGATGCTGTGGAAAGATTTA
ACTTCAAAAAGAAGGATATTGAAGACTTACTTAAAAAATTTGCACTCATAGAACCAATAA
AAGAAATTTTAAAGGATAAAAATGTAGATGTTAGCAAATTAGAGAAATTTGGTAAGGTTA
AAAAAGAGAAACTAAGAAGTTTTTAGATTTATTGAGTGGATTATAAGCTTAAATGGAC
ATTAATTGCTCCTGAAAGGAGCAACTTAATGGACGGGGAGTATCCCAATAGGGGTTTCCC
50 CTATGGACTAAGAGGTTTTTAGATTTATTGAGTGGATTGTAGCTCCTTAAACAGTAACATA
TGGGATTAATTCAACATTCTCTTTTTGTAGGTTTTCTTTAGCTCCTTCAACCTATCAAC
AACAACAAAACTTTATCAACAATCCACCATTTTCCCTAATCTCTTTAACTGCTTTTAG
CACACTTCCTCCAGTTGTAGTAACATCCTCCACAATAACAACCTTATCTCCTTCTTTTAG
CTCTCCTTCTATCTTATTTTTAGTCCGTAATCCTTAGGTTTTCTTTCTAACAATTAATAG
TGGTTTTTGAGCAATAATTGAGACAGCTGTAGCTATAGGGACAGAACCAAGCTCTACTCC
55 AGCAACTTTTACATCTTCATCCTTTATTGCTCAGCAATAATTTCTCCAATAACTTTAA
AATTTCTGGGTTTGTGGTGGCTTTTTATGTCTATGTAGTAGTTACTTTTTTACCAGA
GGCTAAGATAAATTTCTCAAATCTTATACAACCAACCTCTTTTAGCAGGTTTATTAATTT
GGATTTTTGTCCATAATATCACCAAATGTATATACTCTGCTCTTTAAGATTTGTTTAA
TTCTTTTAAAAAAGTTTCTATAATTCTGTAGCTTAAGATAAAAAAAGTTTTGTCTATTTA
60 ATATCTTACTATTAAGTTTAAAAATTTACTTCTTCAAAATTTATAATTTTCAGCTTTA
AAAGATATAAAATCCCGTTTTTACTTCTAAGAGGCTGATTTAATCAATAGAAATTTAT
GAAAAAGAGATAAAACCTTATTGTTTCCATTCCAAATCGGTCTGATTTAATCACTAAAA
ATAATAATCTATCTAATTTCCATTCTCCAAGAGGCTTATTTAATACAAGAGCTTACAG
AGTTAGTGTATGTAATCAATGACTATAATTTCCACTCCGAAACGGTCTTATTTTAATT
CTCACATTGAAGTTTTTGAACCATACATGAGACCAGATAACGAATTTCCATTCCGAAAC

GGTCTTATTTAATTACTTTTGATAACGCTGGAGAGGTTAGAGATTTTATGTTTCCATTCCGAAACGGTCTTATTTAATTAACCTTTCCTAAAGTTTATTTCTTCTAATTCACACTCAAGTTTCCATTCCGAAACGGTCTTATTTAATGATGTAATGTAGTTATTGAAAAGAAAAATGGAGAATACTATGTATCGTTTCCATTCCGAAACGGTCTTATTTAATTCTCCAAATCCTCTAAAAATCATCTACAAAGTAGTTGTTTCCATTCCGAAACGGTCTTATTTAATTATAGTATTAACCGTAAAAAACATAAACGGGTGATAAAATAGTTTCCATTCCGAAACGGTCTTATTTAATTTGTCATTATTTTAAACGCTTACAATGGACACAAGTTTCCATTCCGAAACGGTCTTATTTAATGGGACAACACCCTGTAGATTGTGTCAGAAAAACTTCTGTTTCCATTCCGAAACGGTCTTATTTAATGTATGGATTCAATTATATGTTTATGTTGGGAAATGCCCAAA TTGGTTTCCATTCCGAAACGGTCTTATTTTCTCAATATCAAAGAAGAACTCATCCAAATCTTTAAACAAAAATGGTTTCCATTCCGAAACGGTCTTATAGGGCAATCATTCCAAACATACTTCAACTCTCCTAATATTTAAGCTTTTCTACACCACATTTTCTAAGGTAAGTAATACTCCATAATATAAACCCCTTAGTATTTAATCTTCCCTTCCATAATAAACTGAGTATTTTATCTCCTTAAATTCAAAAATTTAACTTGTCTGTTAGAGAAATCTTATTTCCCTTACTAATTAATCTTAATTTTAAAAATCTGAATAATTCAATAAACTCAAATATTCTAAATAATCAAACAGCTAACCCCTTAGAAATTAATTTAAACCTCTAAATAAATAAATAATTCCTAAATCTCTCATTTCTAAATTCCAAACCTTATACAACAAGACAATCAATAAATCAATTAACAAAATCTCAATTTCTAAATTCCAAACCTAATAATGTAATGATAGAATAACGATAGATATTATAAACAATACTATAAATTAATTAATCTACAGACTCGTATATAAACATTTTGTGATAATAAAGCTTTATTAAGTCAATTATCCTATTATTACAACATAATTATTACAACTAAGATAAAAAATACTGCTGGTGATAGGATGCCACAATAAATGTAAAAAAGCTGATTTAGAGAGATTGGTTAATATGCCCTTAGAGGATGAATTTATTGAAGAGAAATTTCCAATGATGGGTGTTGAAGTTGAAGGAATCTTTGAAGAAGATGGAGAAAAATTTATTCAGTTCTCAATAAACCCCAATAGAC CAGATTATTTAAGTGCTGAAGGTTTAGCAAGAGGTTTAGGGGAATTATTGGAATAGAAA CAGGATTAAAAAATACGACATTGAGAGTTTCAGATGTAAAATTATATGTTGAGAATGTTTAAACAAGACCATACATAGCAATGGCTTTGGTTAAAGGGGTTATTGTTGATGATTATGTTTAGAGAGCATAATTAACCTTCAAGAAAAGCTCCACTGGGTTATGGGAAGAGATAGGAAAAAAGTGGCAATAGGAATTCATGATGCAGATAAAGTTAAGCCTCCATTCTACTACAAAGAAGTTAGTGGGGATGGGATTAAGTTTGTTCATTAAATTCAGATGAGGAAATGACACCAAGAGAGATTAGAAAAACATGAAAAAGGAATAAATATGCTCATTTAATCAAAGATGATAAGTTCCAATAATATTAGATAGTGAAGGGATGTTTTATCTATGCCACCAATAATTAATGGGGAATTAACAAGAGTTACAACGAAACAAGGAATTTATTGATTGATGTTACTGGAACGTGATAAATATGCAGTAGAAAAACTCTAAATATTATTGTTACTGCATTGGCAGAGAGAACTATGGAAAAATACATGCTGTTGAAGTAATTAAGACAATCAAAGCACTATATATCCAAATTTAAAGAGGATGTCTTAGAACTACTTCTGAATACATAAACAAGGTTTTAGGAGCCAATCTAACTCCTGGGACTATAATAAACTACTTAAGAAGATGTAGATTAGACGCTCAATTTGTAGATAACAAAATAAAGGTTTTTCATCCCTGCCTATAGAGTTGATATCTTTGGAGAGATTGACATCGCTGAAGAAGTAGCTATTGCTTACGGATATAATAAGTTCTCTGGAGAATATCCAATTATTGGAAC TATTGGGGAACCTTAACCAATTAGAAAAGAAATGTGACTTTATAAGAGAAATTTATGGTTGGATTGGATTCTATGAGGTTATAAATTTAATGCTTTCAAATGATGAGGTTTTATTTA AAAAGATGAGAATTGAAGACAACAACCTATATAGAAGTTTTAAACCAGCATCTATAGAGCATAGAATCGTTAGAAAAAGTATCTTACCATTGCTAATGGAACTTTGAGGATAAATAAACATAAAGAGTTGCCACAAAAGATTTTGAGATTGGAGATTGTGTTGTTTATTGATGAAAATGCTGAACAAAATCAAGAGTTGTTAAAAAATAGCTGGAGTTATTGTAGATAATGAAACAAACTTTAATGAGATAAAGAGCTATGTTGAAGGTTTTATTGAGAGAGCTTAAATGAGTAGAGCTTGATAATTTGAACATCCATCATTCAATAAAGGAAGATGTGCTAAAAATATTGAAAGATGGCAAAATTTATGGCTACTTTGGAGAGATTCATCCAGAGGTTATTACCAACTTTGAATTAGAATTTCCAGTTGTTGGATTGAGTTAGAGATTGAATAATGATAAAAGAGGATGAAACTCTTTGACCTACTTCAGTAAAAATAAATTTTAAAAATTTTAAAGGAATTTCTAAATTC TAAATATATGAAATTTTGTGGTGTTCGTTATGGCAGTGGCATATAGTAAATTATACGA ACTTATTAAAAATGTTAAGGATGAAAAAGAAGCTGAAGAAGCTGCAAAATAATTGAAGATTCTTTGAAAAGCAGTGTAAGAGAATGTATCTAAAAAATTTGAAGAACAAAAACCGATT TTAAGTTAGAACTTAAGAAGAATTGAGAAAAGAATTGACAACAAAAGAAGATTGGAATTAATCGGGGAAAAAATTTTAAGATATGTTGATAATAAATCAACCAAGTTATTGAAAAAATCAATCAATTAGATAAGAAAATTGATGAGGGATTTTATCAATTGATAAAAAAGTTGATACTCTAAAAAGAGATATTATAATTATTGCACTTATAATAATTAGCCAATTATGCCCCAAGCATCATGAAAAAATCTATCCTTTTAAAAATAAGCTTTTAAAGTGAAAACATGCTTAAAAATCTACTATATAAAATTTGAAAAGTTAAGAAGTGGAGAATTAGAAGGATTTGAAGTTTAAAAGAGCATATCCAAAGCTTGGATGAGTTTCAATATCAACAAATAGTTGAGAGATTAAGTTTCAAATTGAGCTTGTGAAAAATACAAACCAAGGTTAGGCCGGCAATAGACCCAATGTTTCAACAGAACTTGGTATCTATAGGAGATTGGATGATTTTGAAATTGGAAAGCTTTGGATTATCCAGAAATGCTGTATAAAATCTTTTGTGTAAGATGTTAGAGTAGCAATAGACAGAGAGCATTTAAAGAAGTTGAAGAAATGAAGGAGGAGTTAAAAATAAAGGAATTTATGCAATAGTTTTACCTTCTGGTTTCATTCTGAGTTTAAAAATGTGAAGAAGCGATAAAA

AGAGGGTTTATTGGATATCTAACTAAAGAGGAGTTTGACAAGATATTAGAGCTTGAAAAA
GAACTGAAAGAAAAAATTAGACATTGGCACTTTGGATATGATGAATATTATGAGAAGATA
ATACTTCCGTAGGGGCATAACCCCATATTGGTTACTTCAAATCTCTATTAAAGTGGGGTT
5 GCCTTTGGCAACCCCGCTCTTGGGTATACCACAGGACTTTCACAGGAATAAATTTCTTAT
TGAACATAATGATGCTATAGACATCATAATTCCTTATATTGAATTATAAACTGTGAAAG
TCCTGTGCCAATAGGGCGAAGCCCTATGGTGATGAATATTATGAAAAAATAATCCTATAA
TTAAAGTTTTTTGGTGTCAAACCTATGTATATAATAATAGCTGGGATTGGTAGAGTTGGTT
10 ATACATTAGCTAAATCTCTATCTGAAAAAGGACACGACATTGTTTTAATTGACATAGATA
AAGATATCTGCAAAAAAGCATCTGCAGAGATTGATGCTTTAGTGATTAAATGGAGACTGCA
CAAAGATAAAAAACATTGGAGGATGCTGGAATAGAGGATGCAGATATGTATATAGCAGTTA
CTGGAAAGGAGGAAGTTAATTTAATGAGTTCATTATTAGCAAAGAGTTATGGGATTAATA
AAACCATTGCAAGGATTTTCAGAAATTGAGTATAAGGATGTTTTTGAACGGTTAGGAGTTG
ATGTAGTTGTCTCTCTGAGCTTATAGCTGCCAATTATATAGAAAAGCTTATAGAAAGAC
15 CTGGAATCTTAGATTTGGCTATTGTAGGTAGAGGAGAAGCAGAGATTTTGAATTCATAA
TTCTGAAAAAGCTAAGGTAGTTAATAAAAAAGATTAAAGAACTTGGAAAGACCTCAAGATT
ATTTGATAATAGCCATATATGATGGGGATGAGCTGAAAATTCCTAGTGGAGATACTGAAC
TAAATCTGGAGATAGGGTTTTAGTTTTAGTTAAGAAAGATGCCGCTGATGCTATAAGAA
AGATGTTTTTAGAGGAATAAAATTAATAATGAGGGAAATCATGAAAGTTAGAGTGAAAGC
20 TCCCTGCACATCAGCAAATTTAGGAGTTGGTTTTGATGTGTTTGGTTTATGTTTAAAGA
ACCTTATGATGTTATAGAGGTTGAAGCAATAGATGATAAAGAGATTATTATTGAAGTAGA
TGATAAAACATCCCTACAGACCCAGATAAAATGTTGCAGGAATTGTAGCAAAAAAGAT
GATAGATGATTTTAATATTGGTAAAGGAGTTAAATAACAATAAAAAAAGGTGTTAAAGC
TGCTAGTGGTTTTGGGAAGTTCAGCAGCTTCATCAGCAGGAAGCTTATGCTATAAATGA
25 GCTATTTAAGCTTAATTTAGATAAGTTAAAGTTGGTGGATTATGCTTCTTATGGAGAACT
TGCCCTCTCCGGAGCTAAACACGCTGATAATGTAGCTCCAGCTATATTTGGAGGCTTTAC
GATGGTAACCAATTATGAGCCATTGGAAGTTTTACATATACCAATAGATTTTAAGCTTGA
TATTTTAATAGCTATCCCAACATCTCAATAAACACAAAAGAAGCAAGAGAGATATTGCC
AAAAGCTGTTGGACTAAAAGATTTTAGTAAATAACGTTGGAAAGGCTGTGGAATCGTTTTA
30 TGCCCTATATAATAAAGATAAATCATTTATTTGGAAAGATATATGATGTCTGACAAGGTTAT
AGAGCCAGTTAGAGGAAAACCTCATCCCAATTTATTTCAAATTAAGAAGAGTTAAAGA
CAAAGTTTATGGCATAACAATAAGTGGTCTGGCCCTTCAATAATTGCATTTCCAAAAGA
AGAATTTATTGATGAGGTTGAAAATATTTTGAAGATTATTATGAAAATACAATAAGAAC
AGAAGTTGGTAAAGGAGTTGAAGTTGTTAATTTTGGATAAGGTATATATACTTAAATTT
35 ATATATATTAATAATGCCGTAAGACAATTATAAACGTTAATTTGAGGATAATATGAGGCT
CAAAAAGAGATTTAAAAATTTTTCATCAGCAGAAAAGAATATGAAAAGATTGAGGAAAT
TTAGATATTGGCTTGGCTAAAGCTATGGAGGAAACAAAAGATGATGAATTATTGACTTA
TGATGAAATAAAGGAATTATTGGGAGATAAATGAAAGTGTTATTTGCTAAAACATTTGTT
AAGGATTTAAAGCATGTTCCAGGGCATATAAGAAAAAGAATAAAGCTAATAATTGAAGAA
40 TGTCAAAATCTAACTCATTAAATGATTTAAAGTTAGATATTAAGAAAATAAAGGGCTAT
CACAATTATTATAGGATTAGAGTAGGAAATTATAGAATAGCTATTGAGGTTAATGGAGAT
ACGATTATTTTTAGAGAGTATTGCATAGAAAAGCATATATGATTATTTCCCATAAATTT
TATCTTATCTCCCTTTATAAATTCCTTCATAAACTCCTTAACTCTCTACACTCAACAA
AAACAATCTGGGCAATCTTGCATATTTGTAGATGGTTATTGGATTAAAACTTGCAATTA
45 AATATTCTGGTCTTCTTCATAGCCAGGGTCGTGAAGTGCAGAGTATAAAGTTGCCCCCA
TTCTTAGCAGAGAACTCCTTGGATATGCAAAGCCAGCTACATTTTCTGGGATTTTATAT
AATCAGCTACCTTTACAATATAAACTCCTCTATCTAATTTTATGTGTTTCTCTTTTCTAG
AGTTGAATATCTCTATGTAGTTTGGTAGCTTTCTTTTCTCATTGAGAAATCAATAACCC
CTTCTCCCTCTATTTTAAATATCTTCCAACTCTCAAATCTATCCACATTTGTTGAATCT
50 GCTCCTCTCTAAATATCAAAAAAGTTTTTTGATGTATTGCTCCTATAATCATTAATT
TCACCACCATAGGGCTCTGCCCTATTGGTATACCCGGGATACATTAAGAAGGGCTTACA
GCCCCTTTTAATGTCTCTTGGAGATATACCAATATAGGGCATAACACTCTTCTATTTCAA
TTTTCTAAATATCAGCTCATCTCTTTTATAAACAATGTATTACTTTCTATATCTCTATC
AATTAAACAACCTTGCCCAATCCAGCAGTTACTTCCAATTTAACCCCTGGCATAAAAGA
55 GACTTGAATACCTGTTTTTAACATTTATCTCCCATTAATACTCCCAATTTTCTAACGCTCTC
AACCCTTTTACTCTTTATATTGACTTTAACTGGTTTTATCATCAAATCTTAAGTTGGCAGT
TATTGTATTGCAACCAAAATGCAGTTCTCTCCAATTATACTATCTCCAACATAAGATAG
ATGTGGAATTTTTGTATTTTATAAATTACTTGCCTTAACTTCAGATGAATTTCCAAC
AAAAGTATTTCCATTAACAGTATATGGTCTTATATAAGCTAACGGCCCCACAACAGC
CCCTTTTTAATAATTGCAGGCCCTTCAATAACTGAATTTGCTTTAACAATTGCTCCCTC
60 TTCTATTATAACCTCTCCTTTAATAACAACATTTTCTTCAATTTTCCCTTGATATCTGT
ATTTATTTTATCCAGGAGATATTTATTTGGCTCCAAAATGTCCCATGGTCTTCCAACATC
GTTCCAATAACCATTTAACTTAATTCCTTTAACTTTTCTTCTTTAATAAGATGTTTTAT
TGCATCTGTAGTTCTCTCTCTCTCTTTTCAGAAATCTTTGTTTTTTCAATTAATTCAAA
AATCTTTTTGTCAAATTTGTATATTCGGGCATTTATTAATTTGATTTTGGGTTTTCTGG

-264-

CTTTTCTTGGAGTTCTATAATAATTATTTTCATCATCTAAACTACAACCTCCAAAGTTTTC
TGGATTTTTTACCTCTTTAACAGCAACAGCATATTTGTATTTTAAAAATTTCTTCTAAGTC
ATCTTCAAAGATAATATCCCCATTTATAACTAAAAATTCATCATCTACATAATCCTTGGC
5 TGTAAAACCTGCCTGTCCAGTTCCATCTATTTCTCCCTGCTCTAAAAATTTGATTTTTGG
ATGGTTTTTAAAAATAATCAACAATCTTTTCTTTTTTATACCTTAACAATTAAGTAAATATT
ATCTACCAAATCCTCAACTTTTTCAATAATATGTTGTAAAATTTGGCTTTCCAGCTATAGG
AATCATTGGTTTTTGGTCTGTTCTCTGTTAGAGGTCTTAATCTCTCCCTTTCCCTGCACA
TAATATTATGGCATCCATTTATATCACCAAAATTTAAAAATAGTTTTATAAAGCACTTAA
10 AGCTTCTTTAACTAACTTTATCCCTTTTTCTAACAACCTCTTAGCATCTTTGTTATTTTT
TGCTCAACTCTAACCCTTATGTATGGCTCAGTCCCGAAGGTCTTATTAACCCATCC
ATCTCTAAGTTAAATCTTGCTCCATCAACGGTCTCAGGAACGTTTTTAAATAAACTCTC
TCCATTCAACCATATATCTTGAGAAAGCAGCTAATAGCTTATCAAAATCAGCTAATCTTCC
CTCCCTTAAATTTACATAAGATGGGATTTTCATCCAATATTTTCATATAATTTTTGTTATA
15 GAAATCTAACATCTCTAAAACCTCTCAGCCCACTCAAAATTCATCTGGAGTTAGATGGAT
ATCAGCATGAATCCACGTTCCACTTGGCTCTCCACCAAAAACAGCAGAGTTTTTAATCAT
CTCTTCAGCAACCGCCACATCCCCAACTTTTGTCTTATTATCTCAACATCTAAATCTTT
TAAATACTCATCAATAATCATTGAAGCATCAACTGTTGTAAACAATCTTTTGTTCAGT
TTTTTCAACCATATATCTTGAGAAAGCAGCTAATAGCTTATCAAAATCAGCTAATCTTCC
CTTTTCATCTATTGCTACCAFTCTATCTGCATCTCCATCGTGTGCTATGCCAATGTAGTT
20 ATCTCCACTCATATTTAGGCTTTAATCATATCCATAGTTTTTTTGGAGTTTTTTTCATC
TGGCTCTGGTAATCTACCAATAAATCTCCCATCCATGTGACTATTAAGTGAAGATAACATG
ACATCCTAAATCTGTAATAAATATGGAGATACTAAACAAGCAGAGGCGTTTTGCACAATC
AATAACCACATTAATTTTTCATTTATCTCAACATTTTTAAGAATATGTTCCATATAGTT
CCTTATCGCCCTGCTATCTTCCCAATCTCGCCAACACTATGCCACTCAACTTCAATAAA
25 ATCTTCTTTAAATATAATCTCCTCTATCTCATCTCTCTCTTTTATTAAAAAGCTAAACC
ATTTTTATTGAAGAGCTTTATTCCATTGTATTCTGGAGGGTTGTGAGAGGCAGTAATCAT
TATGCCAACATCATAATTTCTGTGCATTAAAACCTAAAACCTGGTGTGGGACTATGTTTAT
AGTTGTAACCTTCCCCCCCCACCATTTAAGATTCTCTGCTGTTAATGCAGTTTTCAATTAATTT
TCCTGTAGTCTCTGTATCTCTCCCAACTACAACCTTTCTTATATTTTTTGGCACTGCTAA
30 TCCAACCTTTATAGGCAATTTTTGGAGATAAATTTTCATTCTTATCCAGAAGTCCCAAA
TAATCTTCCCATTTAATCACCTTTTGCTATAATCATTAAAGATAAATAATCAAAACATTTTG
TAATAATTGAGGTATTAATGAACGCCCTTCTATAAGAAGACGTTCAAGTGTCTTATTAA
TTTTAATACTTTTGAAGACATTAATAATTTTAAACATTAAGTTTTATATATATTGTCA
TTAATCATTTTTTGAATCAATATCATGGGTGTAATGTATGATACTATTAGTAAGCCCTAT
35 AGATGTTGAAGAAGCAAAAGAGGCAATAGCTGGAGGAGCAGACATTATAGATGTGAAAAA
CCCCAAAGAAGGTTCTTTAGGAGCTAACTTTCCATGGATGATTAAAGGCAATTAGGGAAGT
GACACCAAAAGATTTATTGGTGAGTGCTACAGTTGGAGACGTCCCTTATAAGCCAGGAAC
AATTTCTTTCAATGCTGCTGTTGGAGCAGCAATAAGTGGAGCTGACTATATAAAGTTGGATT
GTATGGAGTTAAAACTACTATCAGGCAGTTGAGTTAATGAAAAATGTTGTTAGAGCTGT
40 TAAGGATATTGATGAAAAAAGATAGTTGTAGCAGCTGGTTATGCTGATGCCTATAGAGT
TGGAGCTGTTGAGCCATTAAATAGTCCCAAAAATTGCGAGAGATGCAGGTTGTGATGTTGC
AATGTTAGATACTGCAATAAAGGATGGAAAAACATTATTTGATTTCCAAAGTAAAGAGAT
TTAGCAGAGTTTTGTTGATGAAGCTCACAGCTATGGATTGAAGTGTGCTTTGGCTGGTTC
AATAAAAAAGAACACATCCCAATTTTAAAGAGATTGGAACGACATAGTTGGTTAG
45 AGGAGCAGCTTGTAAGGAGGGGATAGAAATAACGGCAGGATAGATAGAGATTAGTTAA
AGAGTTAAAGGAGCTTTGTAAGTAAATTTTTATAATTTTTAATTTTGTCTTTTATA
ATGTTAGGGAAATTTTATTAGTATGATTGAGTATCAATAGAAAAGAAGTATAAAGAAC
AAAAATTGCTTATTAATAGGCGTAGAAATGATAAAGCCCGGTCGCCTAGCCAGATAGCA
TGGGCGAGATGATGAATATGTTGCATCCATATAAGAAGAATAAAAAAGAATGGGTATT
50 CCTTATGGTTGGTTGTATGAAAAGTATATTGTTGAAGGTCTGAGTGATAGGGAAATTGCA
TATTTGATTGGTTGTGGTAAGGCAACAGTTGTGCGAGCAAGGCAAAAGCATGGTATATAT
AGGGAAGATGTAAAAATGTGTGATGATTATACTTTAGATAACATTTCTGAAGATTTCGT
ACATTTATCGATGGATTGTTACTTGGTGACGCATGTATTACGAAAAAGGAACTTATTG
ATTACACAGAATAAGCGATATGATTGGTTAGAATATGTCAAACATCGATTCCAACAATTT
55 GGGCTTAATGTATATTTTCACTGTTATAAGTATAAGCGTAGAACTTCTGAGGTAATTGCT
GATTATATGTTTTATCAACGAGTAGGTATGAATTTGTTAGGCAATTAAGGGAAAGATGG
TATCCAGATGGAATAAAAAGGATACCGAATGATTTGGTAATAAATGATGAAGGATTAGCA
CAGTGGTATCTTTGGTGATGGAAGCTTAACAAAACAGAAAAATGGTTATAAGTTAGAAFTA
TCTACACATGGCTTTACATTGGATGAAAATAAGTTTTTGCACAAAAAATAAAATTTATG
60 TATGGATTTGATTTTCGTATTTCAAAGAAACATCAATACAGATATTTGAGGTTATTTAAA
AGTAAGCAAGTGCATGCTTTTTGTAGTATAGTTGAACCATTTATACCACCTTCATATAGG
AATAAAGTAAGATGTTTACATGATTACCAATGGTTGAAATCATGGGATGTAATATAGAGC
CCGGGTCGCCTAGCCAGGATAGGGCGCTGGCCTGCGGAGCCAGTTTTTTCAGGGGTTCAA
ATCCCCCTCCCGGGCGTTATTTTTATTTTATCATATAAAGAATTGGGTGAAAAATAATGTTT

TTAGGTAATGACACAGTAGAGATAAAGGATGGAAGATTCTTCATAGATGGGTATGATGCA
ATTGAATTAGCAGAGAAGTTTGGAAACCCCTTATATGTGATGTCAGAAGAGCAAATAAAG
ATAAATTACAACAGATACATTGAAGCTTTCAAAGATGGGAAGAAGAGACTGGGAAGGAG
5 TTTATTGTTGCCATGTCATATAAAGCAAATGCAAACCTAGCTATAACAAGATTGTTAGCT
AAACTTGGCTGTGGAGCAGATGTTGTTAGTGGAGGAGAGTTGTATATAGCAAAGCTATCA
AACGTTCCCTTCAAAGAAAATTGTTTTCAACGGAAATTGTAAAACAAAAGAAGAAATTATA
ATGGGTATTGAAGCAAATATAAGGGCTTTCAATGTTGATAGTATAAGCGAATTAATCTTA
ATAAATGAGACAGCAAAGAGTTGGGAGAACTGCTAATGTAGCTTTTCAAGATAAACCCCT
10 AATGTCAAATCCAAAGACACATCCAAAGATTCAACTGGTTTAAAGAAAAACAAGTTTGGT
TTGGATGTTGAATCAGGAATTGCAATGAAAGCAATAAAATGGCTTTAGAGATGGAGTAT
GTGAATGTTGTTGGAGTTTATTGCCACATTGGTTCTCAATTAACAGATATAAGCCCATTT
ATTGAAGAAACAAGGAAAGTTATGGATTTTGTGTTGAATTAAGAAGAGGAGGAGTTGAG
ATTGAAGATGTCAATTTAGGGGGAGGTTTAGGAATTCCTACTACAAAGATAAACAAATC
15 CCTACTCAAAAAGATTTAGCTGATGCAATAATAAACACAATGTTAAATACAAAGATAAA
GTAGAGATGCCAAATCTCATCTTAGAGCCTGGAAGAAGTTTGGTAGCTACTGCTGGCTAT
CTATTAGGAAAAGTTTATCATACATAAAAGAAACACCAGTAACAAAATGGGTTATGATCGAT
GCTGGAATGAATGACATGATGAGACCGCAATGTATGAGGCATATCATCATATAATAAAC
TGCAAAGTTAAGAATGAAAAGAGGTTGTAAGCATAGCAGGAGGTTTATGTGAGAGTAGT
20 GATGTTTTTGGTAGAGATAGAGAGCTTGACAAAGTAGAGGTTGGTGTATGATTGGCTATA
TTTGATGTTGGAGCTTATGGAATTAGTATGGCTAACAACTATAACGCAAGAGGAAGACCA
AGAATGGTTTTAACAAGTAAGAAGGGAGTATCTTAATTAGAGAGAGGGAAGCTTATGCT
GATTTAATTGCTAAGGATATAGTTCCACCACATTTATTGTAATCCAATCTTTAATTTTTT
ATCTATTCTTTTTATTTTTTAACTGAAAATATTATAAAGAGCATCTATTAGATTTAAAG
25 GAATCCATCTAAAATCCTGTTTTTTTACAAAAGTTTTATTAAAACTAATAAAATCTAAA
CGCCTTCCTATAGAAGCCATTCATTATATTCCTCTTACTATAAGGTTTCGTTCAAAGGTTT
TATAAAAAATCTTAAATTATACATTGAGAATTATAATTAAAGTTAAGTCTGGAATATTAT
TAATATTAATTAGGATATTTATTTCCCAAAGAAAATCCTAATAATAAAAGAAAATTGGTG
AAAGGATGAAAGAAGTTGCTATAATTGGGGCTACTGGCTATACTGGGGCAGAGTTATTGA
30 GATTATTAGCAAATCATGAAAAGTTAATGTAACATATATAACCTCAAGAAAAGAAGCTG
GAAAGCATGTTTTTAAAGTTTCATCCTCATTTAAAGGTTTGAAGGATATAAAACCTAT
GTTTTACTGGAGATATTGATAAGGTTGATGCTTATTGTTGATTACTGCACTCCACACG
GAGCTTCAATGGATATAGTTCCAGATTTTATTGAGAGAGGGATGAAAGTTATTGACTTAA
GTGGAGATTATAGATTGAGGATTTAAGCTTGATGAAAATACTATAAGATAAAACATA
35 AAGGATTACCTGATGTAATAATTTGCTTATGGATTGCCAGAATTACATAGAGAGGAAATAA
AAGAAGCTCAACTGTAGCAAATCCTGGATGTTTCCCAACTGGAGCTATTTTGGCAGTAG
CTCCATTAGTTAAAGAGAATTATATAGAGGAAAGGATTATTTGATTCAAAAACGGGAG
TTAGTGGAGCTGGAATAAAGCTCAACGGAACCAACCCACTTCCCAATGTAATGAAAATA
TAAACCCATACAAAATAACAACCCACAGACACACTCCAGAGATTGAGAAGGAGTTAAAAA
40 AGCTTGGAAAGGCTAAGGTTTTCTTCACTCCTCACTTAGCTCCAATAACAAGAGGAATTT
TAACAACCTGCACACACATTCTTAGCTAAAGATGTTGATAGAGAGGAGATAATTAAGATTT
ATGAAAAATCTATGGGAGTGAGGTTTTGTTAGGATATTTTCAAGAGATTCCAAAAT
TAACATGGGTTAGAGGAACAACTTCTGTGATATCGGAGGATTTGAGATTGATGAGCATG
GTAGATTGGTAGTTATCTCAGCAATAGATAATTTAGTTAAAGGAGCGAGTGGGCAAGCAA
45 TACAAAACATGAATATAATGTTTGGATTGATGAAAAGAGGGGTTATTGATGTAGGGT
TAAATCCATAATTATTTTTAATTTTTTGGCGATGTATTAAGTATATTTTATCTTCAAT
ATTAAGAAAATAACTCCTATTTTATAATTGCTACCACTACAACAAGTTTCCATTCOGAAT
CGGTCTGATTTTAAATCATCTGGATATAATTCTCTAATAATCTCTCAATTTTATTTCCAT
TCCGAAACGGTCTGATTTTAAATCCTCTCCAGAGGAGGCGGAGAAGGTTAAAAAATAAAGT
50 TCCATCCTCCAAGAGGCTGATTTTAAACAAATAAAGGAATAAACAATCT
TCAGAATATTTCCATCCTCCAAGAGGTTGATTTTAAACAAATAAAGGAATAAACAATCT
GCATTACCTACAACCTGTAGAAAAAATTTCCATCCTCCAAGAGGCTGATTTTAACTGAAT
TCCACGCCCCACCCTCTTAATTTCAAAGACCCCCATTTCCATCCTCCAAGAGGCTGATTT
TTAACATATTTATAGAAAGAACTTAAAAAAACAGGATTCAAATTTCCATCCTCCAAGAGG
55 CTGATTTTAACTAAATTTAAATCTATCGATATACAACCTGTAAAAAAGATTTCATCCTCA
AAGAGGCTGATTTTAACTTTGATGAAACGGAATATTACAGGTTTGAATATACTGTTAA
ATTTCCATCCTCCAAGAGGCTGATTTTAACTTTAATTTGAAAAATATAGTGATGAATTT
TTATATGAATTTCCATCCTCCAAGAGGCTGATTTTAACTTTTAACTCAATAAATA
CAGCATCTCCCAAGCAGTATTTCCATCCTCCAAGAGGCTGATTTTAACTCAATAAATA
60 GCACTAAAAACGAGATTTTATTCTTTATTTCCATCCTCCAAGAGGCTGATTTTAACTCA
TAACTCTCTAACTATATCTGATAATAAAGGCTCATTTCCATCCTCCAAGAGGCTGATTT
TTAACTAGGTTTAAAAAGGTTGATTTTGAAGAGAAATATAAAGGATTTCATCCTC
CAAGAGGCTGATTTTAACTAGGCAATCATTCACAACATAATACTTCACTACTCTTAA
TATTTAAGCTTTTCTATACCATATTTTCTAAGGATAAATAACCATCTTACAATAAACA
CTTTTAGTATTTAAATTTTATCTCTTAAACAGAGTATTTTATCTCTTAAAT

CAAAAATTTAACTTGTCTGTTAGAGAAATCTTATTTACTTACCTAATTAATCCTAATTTT
TAAAAATCTGAATAATTCAATAAACTCAAATATTTTAAACAATCAAACCAGCTAACCCTT
AGAAATTAATAAAAAATCCTTTGAACATAATTAATAAATTTCTAAATACTCTTATTTTCAAA
5 ATCCAAACATATTCAACAAGACAATCCATTAACCAAAACAACAAAATTTAAAAATCCTAAAA
CCCAAATTAATAAATTATAAACAGACTTCTATAAGTAATTTGCCACACTTCGTAATAACTT
AAAGGTGGTTATGATGTTTATTGGCATTGATGATACAGACAGCCCAAATAAATACTGCAC
TACTTATATAGCGACATTATTAATAGAGGAGTTAAAAGGTTGTGGCTATAGCGTAGATAT
10 GCCAAACTCATCAGAATGAATCCAATGGTCAAATATAAGACAAGAGGTAACGGAGGAGT
GGCAATACATATATTAGATGAGTTATATTCAAAGATAAAGAGGAGATTAAAAATATAAC
CATTAGTTTGGTTGAGAAATATACAGATTTTGAATGTGAAAATACAAACCCAGGCATTGT
ATTTTATAGACGAAGCAAAATACAAAGAAAATAGAGAAAACTTACCAACTATTACAAAAA
AGTTCTTTATGACATAGTTAGCGTTGATTATGCTGAAAAATTTATCTTAAAGTTGGAGG
GGAGTTTATAAAATATAAGTTAGGGAGGGGTATAATTGGAGCTTTGGGGGTATATCATC
15 AACTCCCCATACACATATGAGCTTTTAGCTTATAGAAAAAAGAGATGTGGGGAAAAAA
GAGAGAGATTGATGAAAAAGTGTATAGAAATGGATAAGGAACTTTTCTTATACCTT
TGACAACTATGATTATGAGAATGAAAAATCTTAATAGCTCCAAACACACCATGCCCTGT
TTTATTTGGAATTAGAGGAATTGATGCTGAAATCCTATTAAAGGCCATGCATAAAATTGA
AGGAGAAAAAAGCTGAAAGATTTATGATTTTAAACAAATCATGGAACCGACCTGCATTT
20 AAGGAAGATGAATATTAAAGACATCTACCCAAACACTGGAGTTATTGTTTATGGAAGAGT
TGTAGAGGAGCCGAGAGATATAGAGGGAGGACATGTAATATTTAACTCTCAGATGGAAC
TGGAGAAATCGATTGTATGGCTTATGAACCAACAAAAGGATTTAGAGATATTATAAGAAA
GCTGATAGTTGGTGATTACATAGCTGTTTATGGAAGCTGTGAGGGAGAAGCCATTAGGGAT
AAATATTGAAAAAATAAAATCTTAAAGTTGGAGAAGAAATTTGTTAAAGATAAGAGATG
25 CCCATACTGTGGAGGCACGTTAAAGCAAAAGGGTAAAAAGCTGGATACAAATGCAAAAA
ATGTAAAAAAACTATTGCCTATGATGAAATTAATAATGATAGAGTTGAGAGAGATTTAA
AACTGGATTTTATGAAGTGCCTGGCTCTGCACGAAGGCATTAAAGTAAGCCAATACAGAT
AATAGATTTAATTTAATTAATAATTTAAAAATCTTAGAGGTTTTTAGTATGGATATAAA
ATATAAATTAGCAAGTTATAGAAATTTGCTCCCCAGAAGAGACATTTGAAAAAATTCAGA
30 GGCATTGAAAAAGATTGAGACAGTAGAAATTAATAATATACAGCATTTAGATAAAGTAAA
TATCCCTGTCTATTATTTAAAAAGGAGAGTTGTTGTAGATGGGAAAGAGGGAATAGCCAT
ACATATGGAAAGGGGGCTAATGATATCCAGGCAAGGCTCTCTGCATGCATGGAGGCGAT
AGAGAGGTTTTTCAGCAAGTTATGATAAAAAATAAAGTTAAAGAAAAGCCAGATAATCCAAT
AAATGTTGAAGATTTAATATTGCCCAATATGCAGATAAAAAATGTTAAAGAATGGGTTGA
35 AGGGATTGATATCATAAATAATGAAACTATAGATGTCCAGCAGACGCTGTTTTCTACCC
AACATCTGGAAAATTATTTAGAGGCAACACTAACGGCTTAGCAAGTGGAAACAATTTAGA
TGAGGCAATTTTACATGCTACTCTGGAGATTATTGAAAGGGATGCATGGAGTTTGGCAGA
TTTAGCAAGAAAAATCCCAACAAAGATAAATCCTGAAGATGCAAAAAACCCATTAAATCCA
40 TGAATTGATTGAGAAATATGAAAAAGCTGGTGTAAAGATAATTTAAAGGATTTAACATC
AGAGTTTGAGATTCCAGTTGTTGTGCAATAAGTGATGATTAAAGTAAAAACCTCTAAT
GCTGTGTGTTGGTGTGGATGCCACTTACATCCAGAGATAGCTATTTTGAGAGCTTTGAC
TGAAGTGGCTCAAAGTAGAGCCTCTCAATTACACGGGTTTAGGAGAGACGCTAAATTGAG
AGAAGAATTTACATCAAAAATTCCTTATGAGAGATTGAAAAGAATACATAGAAAGTGGTT
45 TGAGTTTGAGGGGGAGATAAATATTGCAGATATGCCAAACATGCAAGATATGATTTAAA
GAAGATTTAAAGTTTATAAAGATAACTTTTCAAGATTTGGATTGATAAATTGATATA
TGATAGATTTAAATAGGTTGGGGTAGATGCTGTAAGAGTAATAATCCCAAAAATGGAAGT
TTACACCATAGATAGGGATAGATTATCAAGAAGAGCTTTTGAAGGGTTAAAAAGCTTTA
TTATTAAAAATTTTAGTATATTTCAAAATATTTTGGATTAAAGTATGGACTTAATGAACGCC
TTCTTATAGAAGACGTTCAAATTTTCATTATTATTTTAAATTACTTTTGAAGACACTAA
50 TTAATGAGAAAAGTGCTTTAATTCAAAAACATTGAGTTTTTTGTTTTTTCTTTAAAGAA
CTCTTCTAATATTTTCTCTCTTTTATTAAACCAACTGCATCAGCTCTGCACTGCCACACA
AGCTCTAAACTGTGGAATGTATTTTTCACATTCCTCTCAACTTTTTTTAGCTCTTCACA
TGTTGGAGGCTTTAAATGGCTCATTTTATATAGGGGGATTAGAGGGATGATATTTTGTAT
ATAAACAAAATCCTTCAACTCTTTAGCTATATCTACCACATGATTCATATTTATCTCTGG
55 AATTAAGACGGTATTAATCTTTATTATTAAATCTTCATCATAAGCTTTTTTTATCCCATC
TATTTGATTCTCTATCAATATCTTTGCCCTTCAATCCCATATGGAAGCTTTTTTATCATA
ATAAACCCATTCAACTATTTCTTCAAATCTCTGGGTCTATAGCATTACAGTTACAGT
AACTGTCTTTACATTTAAATCAGCCAATTTTTTATAGTATTTATTTAAAGCAAAACCGTT
60 TGTAGAGAGGCAATTTTATAAGGTTTGGGAACCTTTTATCAATAATTTTTAAGGTCTCAA
TGTCTCTTTATTAAATAAACTATCTCCAGGTCCAGCAATACCAACAACCTTAATGTTGG
AATCTCTTTCAACACCTTGTTTAAATAACTTTCAACATCTTCTGGTTTTAATACTGATAA
AGCCACACCTGGTCTATGCTCACATGCTTCTTTGCCCAAACCTCTTCTGCAGAACTTACA
TGCAATATTACATCTTGAGCAACTGGGAGATGAACCTTCCAACCTTTATCGTGAATTTT
TTCGTTAAAGCAGGGATGAACTTTTGTTATATGGGCAAAATTTTGACATTTTATTTTGTCT
CATAATATCACTGCATAAATTTTCATTTTTTGAACATTACTAAATTGAAAAAGGACATAT

5

10

15

20

25

30

35

40

45

50

55

60

ATTAATCTATGCAATTTCTAATATACATTTGAATATACAAATTTGTATTTCTAAAATAAA
AAATAGATAAAACAATTAAACAATCGCATGTTCAAGAATTGGATGGGCTATAGTATATAAT
CCAATCAATATTATAATGCTGCCACTTATTAGAGGAAGTTTGTACTTTTCTATTTCCA
ACATATTTTTTAATCAATTCCTTACTTTCAACAAAGGCAACTGCTAAGCCAGTTAATGAG
ATTGCCAGCCCCAATGCTAAATATCGCAACATAAAATTAAGCCATCAATTAATTTCTGTAT
GATATTGATAATAATAAAACCGCTAAAGCTGCTGGGCATGGAACTAAGCCAGCAGATAAT
CCTAAAGTGATAACTCCCTTTTTTGTATCTACTTTATGTTTCATGTGGGTGAAGATAACTT
CTTATTATCCAAATTCCTACGGCAATTAATATTAAACCTCCAACAACGCTCATCATATCA
TGAACCTACATCAACATTTAAGCTCTCCAATAAATAAATTGATAAGATTCTTAATAAAAAAT
ATTACTGCTGTGTGGGATATGGTTATTGTAGTTCCTAATAGGATGGCATCTTTTAAATCT
GCTTTAGTTCCTAATATATAGGCGGCAACAACACTTTTTCCATGTCTGGCTCTAAAGCA
TGCAACATTCCGAGTATGAATGCAGTGATTGCGTATAAAAGTTCCTAATCATCACCATA
ATAACTACTTTTTATATATCTTTATTTTTAGTAATACTTAATATTACCTAAGTTGCCCTTA
CTATTTAAATAGTTTTATTACTAAAAAAGAAAAATTAATCATTATTAATAAATGTCTTTAAT
TTAAATAGTAATAAAAAATATGAAAAAACAAAAAATACTCATTAAATAGTAACAAAAATTA
AAGTTTTATTTTTATTAATAATAAATACCGTTAAATTTATATAAGATAAAGAGTACTATAA
ATGTGTAAAGTTTTTTGAATTATATTCAGGGGTGATAACTTGCACATAATGGAGGGATA
TCTCCCAACCAATGTGGTGTGCAGTTTGGTGGGTCTCTCAGGTATTGTAATTGCCTACCG
TATTGTTAAATTAATAAACTACTTGAAGAAAGTCCAGAAATGAAGCCATTAGTTGCAAT
ATCTGGGGCATACATGTTTATATTGAGTTCCTTAAAGATGCCATCAGTTACTGGAAGTTG
TTCTCACCCATGTGGTAACGGTTTAGGGGCAGTGTTATTCGGTGTTCCTAATACTGCTGT
GTTAGCGGCTATTGTTCTATTGTTCCAAGCGTTATTCTTAGCTCATGGAGGTTTAAACAAC
ACTTGGAGCTAACGATTTCTCAATGGGTATTGTTGGACCTGCCGCCGAGTGATTGTATA
TAGATTATGTATGAAGGCAGGTTTAAAGCTCTACAGTTGGAATATTCTTCGGCGGATGTT
TGGAGACTGGCTAAGTTATGTCACAAGTCTGTTTCAGTTAGCACTTGCATTCCCAATCCC
TTCATTACACGCGGCATTTACAAAATTCATTGTAATTTATGCATATACACAAGTTCCATT
GGCAATTGCAGAAGGTATATTGACAGTTATAATATGGGACTACATTAAGAAATTAAGACC
TGACTTATTGTTGAAGTTAGGAGTAGTTCCAGAAGAGGAGTTAAACCATATTTAACCCC
CTCTCCTGCAGGAGGTGAGTAAATGGAAACAAAACATATAATTTTATTGGCAATAGTTGC
AATAATTAATGCCTTACCTTTAATAATCTATGCAGGTAAAGGTGAAGAAGAGGATACTT
TGGTGGTTCTGACGACCAGGTTGTGAAGTTGTGGAGGAATTAGGATATAAACCATGGTT
CCATCCAAATATGGGAACCAAGCGGAGAAATGAAAGTTTATTGTTTGCTTTACAAGC
AGCTATTGGAGCAATAATTATCGGTTACTATATCGGCTATTACAACGCAAAAAGACAAGT
AGCTGCTTAATTCCTTAATTTTTTACTTTTTTAAATTTTAAATTTAAAGGTGGGTTTTA
TGAAGCATAACATTGTTGATAATGTTGCTTTTAGTAACAAATTGAGGCATGTTAATCCAA
AATTAAAGGTTATATTTGCCCTATCTTTACTTTTTAATATCTGTTTTTCAACTTCGTTTA
TAGTTCATTAAATAATTTTTTATAAATTCAATACTACTACTGTTTAAAGCAAAAGTCC
CAAAGAAGATTTATGCCGTGTTGTAGGTATTCTCTTGGATTCCGTATATTAAATTTAG
TAATATTTGCATTTTTTATTGGGACAGTTGAATGGTTTAAATAAATGTTTTTGGCTTTG
AAATTCCTGTGTATAAAGATGGGATTGAATTAGGACTTTTATTATTTGGAAGAATGCTTG
GTGGAGTTAGTAGCATGTTATTTTTGGCTTTTACAACCAATGGTTGAATTATTTTATA
TATTTAGAGAGTTGAAGATGCCGATGTTTGTAGTTGATATGATGCTTATATATAGAT
ACATCTTTGTTTTATATGAAGAATATGAAAAGATGAAATTTGCTCAGGAATCAAGATTAG
GAACCTCAAACCTTAAATCAACATACAAATCTCTTGGTGCCTTAGCCGCTCATTGTGTTA
TTAGAGCATGGGAAAAGGGAGAAAACTAAATATTACAATGATGTCAAGATGTTATGATG
GAAAAATAAAGTTATTGCAACAATTGAAATCCCTCAATTAATATATCTTATTCATTG
CAATATTCGATATATTTTAATAATATTGGCTTATTTAACAAGGACTTTACACTAACAT
CATACATAAAAAATTTAGGTGGAATAAATGTATATAGTTGAAACAAAGGATTATATTTTA
GATATCCTGATGGAACAGCGGTTTTAAAGGAATAAATTTAAAGTAAAAAAGGAGAAA
TGGTCTCTTTACTCGGCCCTAATGGAGCTGGAAAATCAACCTTATTTTTACACTTCAATG
GAATTCCTAAGACCTACAAAAGGAGAGGTTTTAATAAAGGCAAGCCAATAAATATGATA
AAAAAGCTTGGTGAAGTTAGAAAGACGGTTGGATTGGTGTTCAGAAATCCCGATGATC
AGATATTCGCCCTACAGTTAAGGAGGACGTGGCATTTGGACCTTTAAATCTTGGCTTGC
CTAAAGAAGAAGTTGAGAAGAGAGTTAAAGAGGCGTTAAAGCTGTAGGAATGGAAGGTT
TTGAAAATAAAACCTCCTCATCTTAAAGTGGAGGACAAAAAAGAGAGTGGCTATAGCAG
GTATTTTAGCTATGCAGCCTGAGGTTATTGTTTTGGATGAACCAACAGCTGGCTTAGACC
CTGTTGGAGCATCAAAAATAATGAACTTCTATACGATTTGAATAAAGGGCATGACCA
TAATAATCTCAACGCATGATGTAGATTTAGTTCCTGTCTATGCTGACAAAGTTTATGTTA
TGTATGATGGAAAAATTTTGAAGGAGGGAACACCAAAAGAAGTTTTTAGCGATGTTGAGA
CTATAAGAAAGGCAATTTAAGATTACCAAGGGTAGCTCATTTAATTGAAATTTTAAATA
AAAAGGATAATATTCCAATTGAATGGGGATTACAAATTGGAGAGGTTAGGAGGAATATTG
TAAATATCTAAAAGAGAAATGTTAATTTAATTCATCATTCTGCAGTTAAAAATCCTTAC
ATCTTCTTTATTTAGTTCCTTTTAAAGCTCTTCTCTTTTTCTTCATTAAGATTAT
TACACATCCTCCCCCTCCAGCTCCAGTTAATTTTGGCCCAAAACCAATCTATTTCCCAAT

-268-

ATCTACAATTCTATCAAGTTTTGGTGTGAGATATTTAGCTTTTTTAACAACCTCGTGGTT
TTTAGTCATCAATTTCCCAAATCTTCTTTATTTTGGATTTTTAAAGCTTCATCAATAAC
TTTGTCTATCTCTTTAAATATCTCATCTTTATTTTCAATCTTGGCAACTTCATTAACATA
5 CTAGCAGTTTTTTTTCTTCTTTTTTTCAGCATAAACAATTAACAACTTGCAATTTTTTAA
AAATTCTTCAAACCTCTCTTTAATTTTTCTAAACTTGTTGTTTTTATTTCTAAGATACC
TTTATACGTTATTGTGGAAGTGTCTGTAATGCTTGCCTTACCTTGGATTTCTTCTCAAC
CATATATCCAAGTTTTGCAATCTCATCATCTTTAAGCTCTTTATTATAAAATCCAACCTTAC
AGCTTTTATAGTTCCAATTGTTATTGAGGCAGAGCTTCCCAAACCAACTTATTGGAAT
10 TTTGAGCTAATGTTAATTTTTAAACCAGTTTTTGGCTCTATATTTAAATAATCTAAAGT
GTTTTTAATTGCACAGAGGCAGTATTTAAATCTCCAAAGTTATTGGATTGATATTTTT
TATCTCATTTAAGTTCAAACCTTAAGCTTTTATTCAAGTCATTTAGGTTTAAATATCTCT
ATCTTCTTGTGTTTTCTTTATTTCTATGTTGATGTTAAATCAATAGCCATAGATATAGC
TCTATAACCATAAAACAACCTGCATGCTCTCCGAATAGTATAACTTTTGATGGTGTTCAT
15 TATCATAACAAGCCCTATTTTATCTTTTATTTTTATGTATTCATTAAACGCCCTCTCTTG
TAGTTCTTACAACAATCCTCTTATATCTTTCTCCACTTTTATCAATAACCTCCTCCAAC
TTCTCTTGTGCTACAATCTCCTCTCCATTAAAGCACTGCCAGCATAGGTGTGAGTGAAAG
AAACAACCTCCTTTATATCTTCATCATTTGAGCACTCTATTTATAAACTGCTGGATTAT
CAAAGGCAAAATCATCATTAAACTCTTCCCTCTATTTTTGCAAATCCTAAGTTTTTAT
20 ATCTCTTATCTCCATATTTTTCAGTTATCTCATCCCATCCCTTGTAAATAATAAGTCAA
ACATTGTGTTATCCACAATTCCTCTGTTATATTTCTTTTTTCATAGAATACAAATCTT
CGTAGGTTAAAGTTTTATCTTTAATCCTTTTTTATAGGCAATTTCCAAAATCATCAG
ATAGTGGTTTTAACTTATTATCTTCAAATGCCTGCTTTAATGCTTCTTGTCTTTTTGT
GCATATCTTTCCATAAATTACAAAGTCAATATCTGAATTTTTGTTGTTAATTTTTAACA
25 ATAAAGATCCGCTAACTCCCATGCTTTAATTGGAACCTCCATAATCTCCAATATTAGAG
CTAATTCTCATATTTTCTTCTAATTCATTTAAATTTATTTCTCGTTAATAATTTTCA
TTAATCTTTCTTTTGGTCTTAAATCTTTTAAACATCTTCTTTTGGAAATAGCATGCATTA
AAACATTGATTGTTTCATCATAATATAAGTATTTGCTAAATTTTTCTCTAAAACTTAT
AGGCAATTTTGTCTTTCAGCCATCTTTATATACTTTCTTCCATTAACTCTCTAATGTTAT
30 TATCTTCTATTTTAAATCTACAACTCATATGGGACATATCTTAAAAATGCAAAAAATT
TATTTTTTGGATGGGCATAGGTATTTACTGCAAAATATAAACCTTCAGTCGTTTCTATAA
AGTCCCTAATTCATACCTTTCATGATACCACATTTGATTTTATCTTTCAATTTCTTTTGT
AACAACTTCAGTATATAGCTTTCTCAATAACTCAATATCTAAATTAATCTCTCCATTTT
AACTATGAATGGGATGATATATTCTTTAATATCTTTATAGAACAATTTTGAATCTTTTAT
35 TATGTAGTCTTTAAATGAGGCGTTACTTATAACTAAAGCACCAGTTTGTGATATATTC
AATTATGAGTTTATAAGCTTCATCTTTTGTATTTAGAACTTTAATATTGCATTTCATTGGC
TAAAAATCTACAAATGTCTTTTCTTTGATTTTATAATATGTTACTGTATCCATCACTGT
GATAATATTTTAAATCCAGCATTTTAAATCTTTTGTATGATTTTCTATGGAGTTTGG
40 TGAAGATTGTGCATATTATTTAAACACTTATAGCATCTATAATAACAATTTCTTGA
TGGTTTTGGTGGATAAATCTTCTAAATATCTTTTCTCTTTAATATATTCTCCAAGATA
AGAAACAATCTCACTATCTACCAAAATATTCTTCTAAATCATCTACTGTTGTAAATCTTGT
TGAATACCATGAAGGTGATGAAAGATTAGCAAGCTTATTTAATACATCTTTCTTTATTTT
CATTAGTCGTTCTTTTCTTTTAGTTTGTGTATAATCTTTTAAATGTAATTTCTTCAATC
45 TATTTTAAATCCATCAGAACTTTCAATAAATATCCTTCTTCAATGTTTCTAATCCAAA
GTTTTTACAGATTCTTTTAAATTCATATTTCTTCAAGTTCTTTTGTATTAACCCC
TATAGCTTTTGTCTATCTTATATTCATCAGCATCTCTAAACCCCTTACTTAATGCATCGTT
GTATTCGTAGGCATCTTAAATCCTCTATTTAAGGCATCTTTATATTCATTAGCGTCTCC
AAAACCTGCTTTTAAACGATTTTTTAAATTCATCAAAATCACTAAAACCTTTTTCTATTGC
50 AAAGTAATATAGTTCAGCATCATTTGAAAATTCCTGATTCTCCAAAATTCATAATATAA
ATATTCTATTATATATTTATCGTCCAATCTTTGTGCAATTCCTTCTTTTACAAGTCTTCT
AAGTCCCTCAATAAAACCAAGGCTTTAGCCTTTTATACTCTTCTATAGATTTAAATCC
AGATGATTTGTATTTTTTATATTTCTGTTGATATCTCCAACTCTAAGTATTCATAACTC
CTCAGCACTTAATCCTAAAGATTTTGTCTCAATTAATCTTCCAATGTTTGAATCCATC
55 AGAAGGAATATAAAATATAACCCCATTTCAACAAAGAAAATATGCTTCTAAATTATC
TTTATATCTGCAAAATACGTGTTTCCCAAGGACTCTATGCGCTTCAAGAAATCTTCAAC
ATTCTTAACTTTTACTTTTGGTAACTCTTCTATTTCATCCACATCAATATATTTTATTAA
ATTGCTCTTATTTTATTTAGTTATCTTATCAATATTGCGTTTTTCACTAATCTTATAT
TTATTAATATTTTATTTAGTTATCTTATCAATATTGCGTTTTTCACTAATCTTATAT
60 TTGTTTCTACACCAAGTCCATATTTTAAATGCAACTGCTCCCTGATATATCAACATTCCTA
ACCCGTTTATTGTTTTTGCATTAACTTTTTGTCTCTTTCAATAAAACCGTCTCCAATG
GATTATAAATTAATCCATAACCACCATATCCTCTCTCAACTTCTCTGCTTTAACTATTG
GTTCAACATCAATATTCGATACATTCCTATTGGAGTAGCGTTAATTATTATATCAACTC
CATCTAAATCCACATCTAATCCACTGAATTTAACTTCTTCAACCAATTTCTTATTTAAT
TTCTGCTATTCTTTAGCTAATGCTTCAGCTTTTTCAACGGTTCTATTGGCTATTATTA
TGTTATTATCTTTGCTAATTCAAATGCTACAGCTCTTGACGCCCTCCAGCTCCATAAA

5 TAACTATATTTTTGTCTTTAACTCTTCCAAATTTCTTCTCTAAAGCCATCCTCGCCCCAA
TACCATCAGTATTATAGCCGATTGCTTTCCCATCCTCTATTTTTATAGTATTAACAGCCC
CAATTAATTGAGCATCTTTATCTATCTCATCCAAATACTTCATAATCTCTATTTTTATGAG
10 GGATTGTTACATTAAATCCAACATTTCCAAGGGCTTTAGCCCCATCTATTACATACCTTA
AATTTTCTGGCAACACATCAAATGCAACATAAACATAATTTAATCCTTTATCTTTAAAG
CTGCATTGTGCATAATTGGTGAGAAAGAATGTTCTACAGGATGTCCAATCAACCCAATAA
CCTTTGTTTTAGCATTTATCATATTATCACATTAAATTAGTTTTTATAATTAATAAATGT
15 AAATTACAAAGAGAAGGTAAAAATAAATATCAAATAACACAAAAGTGTATTTTTTTA
ATTAATTTAAACAACCTTCAGCTACCTTTTTACCTAAGTTTCTTGCTGTTTCTAATCCAATG
TCATCATTTTTTACAATCTCCAGGAGCTTTTCTACTCCAGTTCTCCATAATGAGCTGTT
GGGTCGTTATCACCACAACATATCATTGAATGGATTAAGAAAAAGTTGTGTATCTGTGA
ATTGTTGTTTCTTGCCACCAATTTCTACTTGCTCCAACCTGCTACAGCTCCACCAACTTTA
TTTCTTAATTGAAATCCTATTCTTAAAGGTCTTGACCTGTCCATCAACATCTTAACTGA
20 GCTGAAACCTCTCCGAAATAAAGTGGCGAACCAAGAATAATCCATCAGCTTCTTTTCATC
TTCTTCAATATTTTCAACATCAATCAATTTATTGGGCATTTTCTTCTCTTTACACATA
TTACATCCGATACATGGATTTAATTCTTTATCAGCTAATGAGATAAATCTGTTTCAATT
CCTTCTCAGCAATAGCATTTAAAGCCTCTCTAATAAGGGTTGTATTTCTTCCAGGT
CTTGAGACTACCACTTATCCCTATAACTTTTCTACTCTCTCACCTATGGACATAAATCTG
ACCTAATGTATTTTTATCAGAAATAGGTTTTAATAGTTTTTCTCATTTCTGTTTTCTCTA
25 AAATAGGTTAGCCATTTTTTAAACATTTCTGATACCAATCATCCACAACCTTTCAATAATA
TCGCTCACCCCTATCCAAATCAACAGCATTATATATATACTTATACCCAACTTTCTCCGTC
ACTTTTCTTCTATCAACTAAACCAATTCATCAAACTCTTAAAGCTTTCTGAACAGTA
GTTCTGTCTCTATTAACCTCTCTCAGCTATCTCTAACACACTACCTCTCCATTTCTTAAG
AGGTCAAAATAAAGCTTTATTTCAATCTCTTGCAATCCTAAAATACATCTCATTAATCT
30 TCAATTGTAAATTTTTTAGTCTATTTATAATAAATCTTTTCATGATATCACAATGAAT
AATTATTTATCACCTATTATCTTACATAAACTCTCTCTCTCGGCCCATCAAACCTCT
GCAAAAAATATTTCCCTGCCAAGTTCCCTAATAATGGCTTTCCATCTTTAATAATAATTGTC
TGAGAACAGCCAACTAAAGAGCTTTTTATATGTGCATCTGAATTCCTTCTAAGTGTGTA
AAATTTCAAATTTTTTGAATAAGATGAGAGAGAAAGTTATAATATCATGCTTTACTGAT
35 GGGTCTGCATTTTCATTTATAGTTATTTCCAGCGGTTGTGTGAGGAACATAGATACTGCT
ATTCCATCTTTAACTTTTGATTCCGAGATTGCTGATATTATATAAGGAGTTATATCTACC
AATTCCTCTCTTTTGTGGTTTTTTATTTGATATTTAAATAGCATTTTTTATCACCACAAG
ATTTATATCCGCAATACCCAATTAATTTTTGATATGTTTTGATTGATGTGATAAGA
40 CCTTAATTAAATTTTAAATATTAACCTGAATAGTTATAATTTATAGTTATAATTTAATA
ATTTAGAACATGGAGGGAAGATTATGAATATCAAAACATAAGATACCAATTTTATTATTG
GTTTTATATATTGCTCTTGGAGTATTTATACAATATAATGGAATCTCAGAGTTTAAAGTCT
TTACCGTCCCAATATATGGTGGAGACTACTATTATCAGATGGGTGTTATTTGGCATATT
AGAGATGGAGGGAATCCATTAGAGAGCTCTTCAATGATTGGTGGAAATGCCAGGTTATCTT
45 CCATTATATGCTTATCTCTGTGCTAAATTTTTGTGATTTACTCAATTTAGATACAATGAAA
GGGATACTTTATTTCTGTAGTGCTATTTATTATGACGAGTGTTATATGGTTTTATTTG
TTAGAGTTTTTATTTAAAGATGATTGGGTTGCTTTAATTGAAGTAGTTTTAGCATAATGT
ACTAAACTATATTGAATACTTAAACTATAAATATGGATTATTTCTTTATAAAGTCGTTAA
AGAGTGTAGTAAAGAACTAATAAAAAAGGAATATCATAATCACACTGTCACTAACTTAA
50 ACTTTATTATTACATTTCTTTAATTTTAAAAAACTTAAACAGAGTGAAACAATGCTA
AATCTCCTATATTTAATCTTAGGTATAATCTGCGGAACATAACTGGTTTATTTCCAGGC
ATTCATCCAAATAATATTGTTGCTTTATCATTTCTTAATTTTACCTTATTTTGGATTAGAC
AATTATATCCCATTTTAAATTTGTTTGGTTATTACTCACTACTTTATAAATTTATCCCT
55 TCTGCTTTTTTAGGAGTCCCTGATGATGAAACTGCTGTTTCTGCTTTACCAATGCATAAA
TTAACTTTAAATGGAAATGGATATGAAGCTATTGTATTAGCTGGATTGGAAGTTATTTA
GGAGTAGTTTTTCAATACTCATAAGTTTATTTTAAATGTCAATTTTGCAATTTTGATGTT
AGGGCATTTTACTGCTCAATTAATAATTTATCCCTTTTATTTTAAATGCTTTTATTCTA
TATCAAAATTTTACAGCAAAATCAGTTTGGGAGCTTTTGGTTATATTTCTATCAGGAATT
60 TTTGGAATTGCAGTTTTATATTGCAGTGAAGCATTTAATATAACCTTAACGGCAATATTT
ACTGGGATGTTTGGAAATCCACTGCTTATAAATAATTTAAAGACATACAAAATAAAAGT
CAGATGATGGCATTTCTGATTTTGAATTTAAAGTTTTTAAATCATCATTTTTTGCATCT
GTAGCTGGATTTTTTAGAATATTTTTGCCTGGAATAAGTGGAGCTCAGTTAAACTATATT
TTAAGTAAATTTTAAATGAAAGGGATTTAAAAAACTTTATAGTGTCTCAAGGGAGTATT
ATTTTGTCTAATGAGGTTTTTCCCTATTGGCAGTTATTTTTATTGGAGTTGGAAGAAGT
GGAGTTGCAAGGGCGATACAATTACTAAATGCCAATATTAATATAAACACAGCAATATTT
TCTATTTTGATATCTTCAATAGCCATAATTATCTTGTTAAATTTATCAAAATATATT
CTTCTTTTCATTAGAAAAGTTAATTTTAAATTTTATCGTTATTTTTATTATCTTCTGC
TCACTGTAGTAATTATTGGAAGCTATAACACTTACTTAATTTATCATATTATTGTTTAT
TTAACTGCAATTTATATAGGGCTTTTAGCAGTGAAAAGTAACACTAATTTATCAAAATATG
ATGAACGCTTAAATATTTCAACGATATTATATTTTTTGGAGGGATAAGATGGACTTAGA

GGGACAGATTTTAAATAAAAGAACAATAGTTTCTTTTGTATATCGTTGGGCATAATTTT
ATACATATTATCAAAAATTGATTTAGATAAATTAGTGTTAATTTTAAAAAACAACATT
TTTTATTATTTTTGCAGTAGTAATGTTTATATCTCAATCCTAATTAAGTTATCGTT
5 GGAAAATCTTTTAAAAATACCAACATTGATTTAGAATTAAGATGCATTTTAAATATA
TTTTTAATATATTATCTTTCAATGTTTATAAATTCATTAGTTCCTGCTAAGTTAGGGGAT
GTTTATAGAGGATATCTATTAAGAAAGAAAACAAATGAATCAATATCTTTAGGAGTTGGA
ACTGTTTTTCATTGAAAGAGTTTTTGTATTTAGTAGCTATGATTTCTCTTCTATTTATCTCT
GCCTATTTATCATTTAAATCAGATATTCCAAAGGAAATTCCTTATTCAATAAAATGGGGG
10 GTTATTATAATCTTATTCTTGATTATTTGATTTTTGGTTTTTAAATAGTTAATAGTAAG
ATAAATTTAAAAATAAAAAATTAGAGGCAATATTGATGAACCTTTGAAAAGGGCTTAAAA
GCGGTGAAACTAAATACCCTTCTTTATTAAATACTTTATCATTACTGGGTGGTTTATT
GAGGGACTAACTGTCTATTTTATATTTCTATCATTAATCTAAATTTAGAAATCTTATTT
GGAGTATTTTCTGATTTAGCATCTTCGTTATTAAGTCTATCCCTTTAACACCTTCTGGA
15 TTAGGGGTCGTTGAATATGCATTAATTTATATATTAAGAACTAAAAATATAGATTATAGT
GGAGCTTTTGCAGTCCTTATTTTATATCGTTTAAATATCATATTTCTCAATGTTTTGTTT
GGTGGGATAATGTTTTATATCGTTGAAAGAAATATTCTAAAAGAACCTAAAAATGAGAAA
TATTAAATTAAGCTGATTTTCTAAAACACAATAAAAAACATAAATACCTAATTATCAAT
TCAATAAAAACAATAAGAGTGTTATTGGTGATAAAATGAACTCACATTGATTGATTAGT
20 GGAAGATAATATTTAGTAAAGAGTTAAGTGAGGAGGCAAAAAATGCTGTAGAGGAAGTTT
TAAAAAATGCAGACAGCATATTTCTTAAAGGTGTTCCAAAGGGTAAAGAAAATGAGGCAT
CAAAAAATAAAGCTATGAGTTTGAAGGAAACATTTTAAATTAATAAATGCTCTGGAA
CTTACACAAGAGCTCATGAAGGATTAATTAGATTGAGAAAGCCGTTAGCTCAAAAAATTGC
GAAGAACTTTAGAATTGGAGTTAGAGGAATTGAGATAGATAATTATGTAATAACAATTG
25 AAACAGATGAAGATAAAGCTAAAAAATTAGAAGGCATTAAAGTTCCAGAGTGTGAGGCAA
AAGTTGAAGGAAACAAAATTATCTTAACCTTTTAAAGGACATTGGAGAGAGTGAATTAAGAA
GAAACATTATAGATAGAGCAATAAAGTTCGTAAGAACAGAGTTGGAGAAAGAAAGAGG
ATTTAACATTCAAAGTTTGTAAATTTCCACCTGGAACAATAGTTAGTGAATATAAGGCAA
AGAGAAAAATAACATTTGATAAAGACCCAACAGATGTTGCTGAAAACTTGGATGGGTTA
30 AAAAATTTCCAGGAAGAGGACAGTGGTTCTATACTCCACCAATAACAGCATTTGTTTAGAG
CTTTAGAGGAGTTAATAGTTGAAGAAGTTGTTAAAAGATTGGATTTCAAGAAATGCCAT
TCCCAAAATCATTTCCATTGGAGATTATGTATAAGATGAGATATTTAGAGGGCTTACCAG
AGGGAATGTATTACGTATGCCCACCAAGAGGGAGCCAGAGCTTTTAAAGAGTTTGTAA
ATGAGATGATGATTAAAAAGAGATTCCAATTGAAAAATTAATAATCTATTGAGAGATC
35 CAGGTTATGTGTTAGCCCCAGCTCAGTGTGAGCCGTTCTATCAATCTTTGAGGGAGAGG
TTATTGATGTTGATAAACCAATAATGTTCTTTGATAGAAGTGGATGGACTTATAGATGGG
AAGGAGGAGGGGCAAGAGGTTTAGACAGAGTTAATGAATCTTGAGGGTTGAGTGTGTTT
GGATTGGAAGTCCAGAGTTTGTGAAGAAACAAGAGACAAAACATTAAATATGCTGAAA
AATTAGCTGAAAAGCTTGATTTAGAGTATTGGGTTGAGGTTGGAGATGACCCATTCTATT
40 TGGAGGGTAGAAAAAGGAGGATAGAGGAATAGAATTTCCAGACGTGCCAAAGTATGAGA
TGAGGTTGTGTTTACCGCATATAAAGATGAGAGGAAGGGAGTTGCTGTTACATCAGCGA
ATGTGCATGGAACACACTTCGTTGAGGGCTTTAGAATTAAAGATTATAAAGGAAGAAGAG
TTTGGACTGGTTGTACTGGATATGGAATAACAAGATGGGTTGTTGGTTATTTAGCTCAAT
ATGATTTAATTTTATGACTGGCATCCAATAATAAAGAAGAAGATTAAAAAGCTTCCAG
45 AAGTTCCTCAATTGATAACTTGGCCTAAGAAGGATGAATAAATTTCTTTAATTTTTTAAC
CTTTTGGTGATAATATGAGATTTTATAATAGGGAGAAAGAACTTAAGTATCTAAAGATT
ATGTTCAATTAGAACCAAACTCTATATTATTTGTTTATGGTCCCAAATCATCAGGTAAT
CTACCGTAATGATGAGAGTTATTAAAGATTGGAAAATAGTAATATTGCTTTTTCTACT
ACAATCTAAGAAAATATGCGACCCCCACAAAAGATGAGTTTTTGAGTATATTTTTTGAAA
50 AATCAGATAAAAAATATCTATTAAATAAGTTAGAAATTAATCTGAAAATCTTTAAGTTTG
GTATAGAGGAAAATTTTGATTTTAAACAACATAAACTAAATGATGTTTTTGCTAAATAA
ATGAGAGCATAAATACAGTTATAAAGATGGAAGGAGGCTGTTTGGTCTAGATGAAC
TTCAAAAATTAATAATATTTACTTCAATAGTGGAATCTTTATTAAACGAATATTTA
ATTTATTTGTCTCTTTAACTAAGATGGAACATCTATGCCATGTTATTTGTTTAAACATCTG
55 ATACTTTATTTATTGATAATGCTATAGAACTCTTCTCTATCAGAAGCATCAGAGTATT
ATCTAATAGACTGGCTAAAAAAGATGATATTAAAAAATCCTAAAAGAAGAAGGATTTA
ATAAAAAAGAAATAGATTATTGCCTAAATTTATTCATTACCTTATGAGATTTCTCAAT
TAATAAATAAATAAATAAATTAGGATTATCAGTTGAAGAACTATAAAGGATGGATAAATA
TTGAAGCGGATGGGATAAATAATTTAATAGATACTCCGATTTAAATGAAGAAGAGATT
60 ATAAAGTCTTTCTAAATTTAAGGATAAATAAATAAATAAATAAAGATGTTAAAAA
AAGAGGAAATGAATATATAAATTTTTAATTGAAATGAGATTTTGTGTTTATGACGTTA
TTAATGGGATAATTAAGCTACATCGGTAAAGAAATGGTATGCCATAAAGAAATTTTGG
ATAAATAGGTGATTTAATGATAATTAATAAATAAATAAATGGATGTTGTCCATTAGATGT
TTATGAGCAAATTAGGGGAGAGAATACATTTTTGTTAGAATCAGCTGAAGGAGTTCCAAA
GGTGGCAAGATACTCAATCTTAGGAAAAGCTGAAGGAAAAGTAATTTTAAAAATGGAAA

5

10

15

20

25

30

35

40

45

50

55

60

GCTGAAAGTTGAAAGCTTTACAGAATTTGGAGATAAAGCTAAAGATTTAGAAGGGAAATA
CGAATGTCCCTTAGACGCTTTAAGAGAGGTTAGAAATGAATATCTTAAATACATTGATAT
ATCTAACATTTAGCCCAATACCAAGATTTAAGGGGGGCTTTAGTTGGGTATTTAAGCTATGA
TATTATCAGATACTGGATAGATTTATCAAATATCAACCCAAAGCCAATAAATGATTTAA
ATTTCCAGATGCAGAGTTCTTTATTGTTAAGGACTTTATTTTCATTTGATTTAAAGAGAA
AGTAATTAATTTAATAGCAGAGGATGATGAAGGTATTAGAGAAGCTTGAAGAATTATAAA
AAATGCAAAAATTGGAAATTAATGACAATAAAGAAGAAAAAAGCTACAGAAAAAAGGACTT
AAAAATAAAATCTAACATGAGCAAAGAGGAATTTATTGAGGCGGTTAAAAAAGCTAAGGA
ATACATTTTGGCTGGAGATATCTTCCAAGTGGTTTTATCAAGAAGGATAGAGATAGATTT
AGATAACTTAGACCACTTGAATAATTACAAAAAAGTTAGAGAGATAAATCCTTCCCCATA
CATGTATTACTTAGATTTTGGAGACAGAAAGATTATAGGTTTCATCACCAGAGATTTGGT
AAGGACAGATTATAAAGATAAATAAAGGCTGGTTATAACAAGACCTATAGCTGGAACAAT
TAGGAGGGGGTAAGACAGAAGAAGATAAAGAGTTAGAGAAAAAGCTGTTAAGTATGA
GAAAGAGAGGGCAGAGCATGTTATGCTTGTAGATTTAGCAAGGAATGATATTGGAATAAT
ATCAAAATTTGGAAGCTGTTGAAGTTACTGATTTTCATGATTATTGAGAAATACTCCCATGT
TCAGCATTTAGTAAGTAATGTTGTTGGGGAGTTAAAGACAAATTAATGATTTCATTCTTAGC
TGTAAGAGCTACCTTCCAGCGGGAACCTTAAAGTGGAGCACCAGGTCAGAGCGGATGGA
GATTATTGAAGAGCTTGAATAAAGCTTGGAGAGGACCTTATGGTGGGGGAGTTGGCTATTT
CGGATGGGATGATTTAATGGATTTGGCTATAACAATCAGAACCTTTGTAATCTCGAAAAA
TAAGGGATATATTCAAGTTGGTGTCTGGAATTGTAGCTGATTCAATCCAGAAAAATGAATC
GGAAGAGACAGAGAGAAAGGGAATGGCTAACGTTAAGACGATTGAGAGTTTATTGAAATG
ATAAGTTTAGAAATGGTTTATAGCAAAAAAATTAATAATATGATTTAAAGATTTGGTG
AAATTATGGCAATTGCTTATGCTTAAGTTGTATGAATTAATTCATAAAAAGATTAAAGGATG
AAAGAGAGGCGAGATGAGTTATATAATGCTATAATAGAGATTATTAAAGAATCCAAAGTTA
TTGTTAAAAATGAGTTAAAGGATGAGTTGAAAGATGAATTAGCGACTAAGAAAGATATTG
ATTTAGTTAGAGAAGAAATGAAGGCAATGGAAGAGAGAATATTAAGATATGTTGATAACA
GATTCAATCACTTTTAATTGTTTCAGTTGATAATCTTATTTGCTATAATCATAACGAATC
CTAACGCAATAGAATTAATAAAACTATTATTGGTTTTAAATAAATTAAAAAATCCAATA
AGGAGGGGATAATCATAATTAAAAACTAATTGAAGCATTAAAGACAGGCACAGGATGAAG
ATTTTAAATATTAATAAATATAGAGCTGTCAATGAGACATCATGAGTGGGTGCCGTTAG
ATGAGATTGTTAGAAAGGCGAAGATGCCAGAAAAGGACGTGCTTTACAGATTAAAGAGGT
TGAACAAATTTGGATTTGTTGTGAGGAGCACTTATGGTTATGCTGTCTCAATGGGAGGCT
ATGATGCCCTTGCAATAAATGCTTTTGTAAAAAAGGTATCTTAAAGCCATAGGTAATA
AGTTGGGAGTTGGTAAGGAGGGGGATGTTTATACTGTCTTGCTGAGTGATGGGAGAGAGG
CGTTTTTAAATTTTATAAACATGGAAGAAGCTTGTCTTACAAGAGGAAAGAGGTATAGAG
GATATTGGCTGATAAACATCATATAAGTTGGCTCTATGTTTCAAGATTAACAGCTGAGA
GAGAGTTTGAGATTTTAAATGAGTTATTTCCAATAGTTAAAGTCCCTGAACCAATAGAAT
GGAATAGACATGCAATTTATGAGTTAAAGTTGTTGGAGAAGAGTTAAAGAGATTAGATT
TATCAGAATTTATGAGTAAAGAGGAGATTAAAGATTTATTTCTGGAAAAATTATTGAAGAGG
TTAAAAAGGCTTATGAAATTTGGCTATATACATGGAGATTTGAGTGAATTTAATATTTTAT
TAGATGAAAATGGGGATTTTGTATTATTGACTGGCCTCAGGCAGTTCCCTAAATACCATC
CAGATGCTGAATTTTACTTAAAGAGGGACATTTGGAACGTAATAAGATACTTTAAAAAGT
ATAAGATTGCAAAAGAGGATGAGAAGATTGATGTTGATAAAATCTTTGAGTATATACTA
AATAACGGTTTTGGTGAATCATGAGTATCTATAATGAATTATATAAATTAATGCTTGAA
TAAGTTAAAGATAAAGAAAAAGCTAAAAAATACTCCAAAAATAAGTTGAGTTAATAGAA
GAAGGGTCATTGGAGATTAAAGATGGAAAGTTAGTAATTAAGCTGATTAGATGATATAT
TTTGGTGGAAATTATGGCTATTGCCTATGCTAAGTTATATGAAATTATAGCTAAATATATT
AAGGATGAAAAAAGAGCGGAAGAACTGTATAATGCAGTTGTAGAAGTTATTAAAGAAGAA
AAAAATTATTGTTAAGCATGAGTTAAAGACGAGCTAAAGAATGAAGTGGCTACAAAAGAA
GATATAATGCTTGCAGAAGAACGAATATTAAAGGTATGTTGATAATAGATTCAATCAATTA
GACAAAAAATGACAGTTGGATTTGTGATTTTGATACTACTCTATATATTAAACAAATCCA
AACGCTATAGAACTAATAAACTACTATTTGGAGTTAAATAAATATTAAATAAGTGAAGT
TTTATGGCATTGATGAAATTTGTGATGAGATTATTTGAATGAGGATGCCAAAGAT
TTTGCTTATATCTTAAATTAAGTTATTTGAATGAATTTAAGAACTTGAAAAATTTAAAT
TTAAATAAATTTGGGATTATTAAGAAAGATGATTTGTCATTTTATGGAAAGAACTACCCA
TTATTTAAAGTTTATTATTTTCAATGAAATTTCCGATTTTAGGGGGAGAAAGAGAGT
ATTTTATTTTAAAGAGTATTGGGCTATCTCCAAGAATTACATTGAATTTCTTAACATAT
AAAGAGAAGATAAATTAGGCAATGAATTTCTAAAAAGATGTATAAACTTTGTCCCTAAA
GAATACATAAGTTATATTCCCAATTAATTTTGGGAAGGAATATTATTTTAGAGGAGTT
TGTTTAAAGAGTATGTTTCTGCTTTAAATGGACTTTATAAGATTGGTAAGAAAAAGAAA
GTTAAAAAATTAATTATTAACATGGAATTACCTGATGAGAAGGATGTTAAAAAGTATAAG
AAGAAATTTGGCAAAAGAAAAAATCTATTTAATAAAAAAATTAGAGAACTATGAGATAAAT
TACTTTAACTTAAAGTTTAAATAACAAAAATTTGAATGTCAATATATATACGTTAAACAA
TCAGTATGGGATAAGATTTTAGGTTTGTGTTGGGGAGGGGATTGAATTTAAATATTATCCA

-272-

ACATTGGTTAATATCGCTTATTCATCTGAAAAAGTTGATTTCCTTAAAGCCATTTTTTATA
TTTGTGATAAAGGAGATATTTCTGTTTATGCAAAAGTTCCCTAAACTTATTTATTTAAAA
GATGGATTATCTTTAAATATTTTAAATCTAAGAGGGAAGTATGTATATTTTCGGTAATTGG
5 GAAAAAGATAAGTTTGGGAAATTATTGAAAGGGGAGTATTATGACAAAATATTTGATAA
TATTGGTGCTCCTCTTATTTTAAAGTAGTAGTTTGGTTATTATTTTGATTATATAAAG
TTAGTGAGAGCAATCCTATTAAACAATAACATTTAAAATTAATAAAGCTGAAAACATTT
CCTATAAACTCAGTTTGTTCATTATGGCAATATAAAACAAAAGTATGAAGGTAAATATTT
ATTTAAATGGAAATTTAGCATATACAATTGATGATTCCAATGATGCCTCTCCTGCATATA
10 AGAAAAATGCCTCTATAGATATAACAAATTATTTAAAGATGGAGAAAATGTTTTAAAG
TTGAAGGGATGAATTTAATTGGAAATGAAATTATCACCCATATTATGTCCTAAAGATA
TTTATCCAAATGAGCCGGCTAAAACCTCCAATAGATTTTAAATTAATGATTTATGCTTTGT
TGATTATTTGTTTTTTGATTTATAAGAAGTGCTAAAAATTAAGAAAATTTAAAAATAATGT
TAAAGAAAAAGTTGATGCATGAAATATTGTGAATTTTATAAAGTTATGAAAAATAACATA
AGGATACATAACCTACAAACCTTAAGGGTTGTATTATGAGAAAAATAAAATTAATTATCT
15 TTCCAGGATATTATATCCACATATTGGTGGATTAGAACTCATGTAGATGAATTTACTA
AACATCTTTCAGAAGATGAAAATTACGATATTTATATATTTGCACCAAACATTTCCAAAGT
ATAAGGAATTTGAAATAAGACATAACAATGTCAAAGTTTATAGATATCCAGCATTTGAAA
TTTATCCAAATATCCAGTTCCAAATATTTTCAATATAAAATTTTGGAGAATGTTTTTTA
ATTTATATAAAATTGATTTTGATATTGTAATGACAAGGACAAGGTTTTTTTCAAATACTT
20 TATTAGGATTTATTTTCGCAAAATTGAGATTTAAAAAGAAGAAGTTAATTCATCTCGAGC
ATGGTAGTGCAATTTGTTAAGTTGGAGAGTGAATTTAAAAATAAGTTATCTTATTTCTATG
ATAAAACCATTTGGAATAATATTTTAAAAAGGCAGATTATGTTGTAGCAATATCTAAGG
CAGTTAAAACTTCATATTAGAGAATTTTGTAAATGACAAAGATATTTCCAATAATCTATA
GGGTTTTAGAAATGAAAAAATTTAGAGTATTGGAGAAGATAAAAAATCAAGGAAAAAT
25 TTAATAATAAAATAAACTATGTTTTTGGTGGAGGTTATATAAGTGGAAAGGGTTGAAA
ATATTATAAAAGCTTATGTTGATTTGCCAAAAGATTTAAAAGAAAAATAATTTTAATTG
TTGTTGGATATGGAGAGGATTTAGAGAGGTTAAAAAATTTGGCTGGTAATTTTAAATA
ATGGCATTTATTTCACTGGAAAAGTTGATTTTGGAGAAAGCAATTGCAATTGTGAAGGCAT
CTGATATTTATATTTCACTCTTCATACAAAGGAGGGGGCTTATCAAGCTCTTTACTGCAAG
30 CGATGTGTTGCGGCAAGCGATAGTTGCAAGTCCCTATGAGGGGGCTGACGAAGTAGTTA
TAGATGGATATAAATGGCATTTTTATTGAAGACAAATTTCTCAGAGAAGAGATTAAAGAGGAA
TTATTAATTAATAGAAAACAACAATTTAAGGAAAATTTATGGTGAATGCAAAAATTT
TTATAAAGAGAATTTTAACTGGAAGAAGTCAGTTAAGGAATATAAAGAGATTTTGTAGA
GATTAGTTAATTAGGTGGTATTAGTTGAGTTATAAAGAAAAGGCAGTTAAAGGCGTAAGT
35 TGGCATCTTCTTTTATATTTCTTAGCTGCTCCAATAGCATATTTAGTTAGAGTTTTATAT
GCAATGAAATTCCTAAGTTAGATGTTGGACTATTTTATGCTGTTTTAGATTTTTTTAGT
ATGTTAGTAGTTTTTAGGGCTTTTGGTTTAGATCAGGCATTTAAGGTATATTTCCAAAA
TATTTAGCAGAGATAGATTAGATATGTTGAAATCATCAATCGTTTTTGTAGGAATTTTG
CAAACAATTTTAGCATTTATTGTTGCATTTTATAGTAGTTATCTTGCACCATATATTGCA
40 GAGTTTATATTAACAATCAAGGGCAATTTACCGGAAGATTGGATTTAGTTATTAATATT
TTAATCATTATGGCAATGGGATATTTTATTTTAGATAGTATCGTAGCGTTTTTTTCAAAT
ATATTAACAGGCTTTCAACTTCAGAATTATGCAAGTTCAACAAGAGTCGTTAGAATATTA
AGCGTTTTATCTTTTTCATTAAATTTTATTTATCTTTTTAATGTTTCATAACGCTTATGTT
45 CCTCCGATCTTACCTTTTGTATGGCTGTTGTTATGATTATTATTTATGGATATATTGTA
GTTAAAAAATATTTCCAAAGTTTGCTAAAGAAAAGTTATATTTTCAAGGAAATTAATT
AGGAATTTGTTTTCTTATGGGATGTATGTGATGATAGGTTATGCGGGAAGTTTGATATTG
GGATACTTAGATGGGATTTGTTTAACTATTTTACTGGCTTAAATGCAGTTGCCGATTAT
AGAAATGTTGCTATGCCAAGTGAATATTCTAAGTTATTTTGCCTTTTCTGTTGGAGCA
50 GTTCTCTTCCCTATGAGTTCTGAGTTATGGGAAAAGGGTTAATAAAGGCATTAAGTTAT
GGTGTGAGAAAGTTTTTTGATTTCTCTGATTATTGTAACCCCATTTGGCTATCTTGATG
GCATATTTTCCAACTGTTATCATCAATATTTTATTTAATCCCAAGTATTTATCCGCGACC
CCTGCTATACAGATTTTAAGTTTTGGGGCAATGTTTTTAAACATTTAATTCATAGGGTTC
AATATTTTAAATGGCATTGGAAGACCAACATATCAACAAAAATTTTGATATTGGAGCA
AGTTTTAACTTAATATTTAATATTTTGTAAATTCCTAAGTTTGGGATTATCGGGGCAGCC
55 ATAATACTGTATTTGGATACTTTATAATGTGGATTTTCCAAATATGGTTTTTAAATAAA
CTTTTAGAACCAATTTCTAAATAAAAAATGGATTTTAGTTATTTTAGTAGGAATTTTT
AGCTTAATCCAGTTATGTTTCAATAGGATTTGATTGATAATGTTATATTACAGCTATTT
GTTTGTGGAGTTGTTTTTGAATATATATATTAGGAATTTTGGGCTTAAGATAATA
AATATATATGAGGTTAAGGATATATCTCCAAGATTATAAAGAGTGAGTAAATGATAAG
60 AGAAAGTTTTTTGCCACCATTTAGGCCATGTATTGGTGAAGAAGAGATAAATGAAGTTAT
AGATACATTAAAGTCAGATTGGATAACTATGGGTCCAAAACATTAAATTTGAAGAATT
GTTTAGAAATTATTTGGAAGTAAATTTGCAATATCCTTAAATTCATGCACAGCCGGGTT
ACATCTGTCATTGGTTGCATTAAATATAAAGGATAAAGATGAAGTCATAACTACACCATA
TACCTTTGCAGCAACTGGGAACGTTATAGTTTCATCAAAGGGCAAAGCCCGTATTTGTTGA

-273-

5

10

15

20

25

30

35

40

45

50

55

60

TATTGATAAAGAAACCTATAATATTAACGTTGAGGAGATAGAAAAATGCCATAACTGAGAG
AACAAAGGCAATAATTCTGTCCATTATGCAGGACATCCATGTGAAATGGATGAAATATT
AAAAATAGCAAGAGACTATGATTTATATGTAATTGAAGATGCTGCACATGCATTGGGGGC
AGAGTATAAAGGAAAAAAATAGGTACTATTGGAGATACAACATCATTACGCTTTTATGTC
AACAAAAATATAACCACTGGGGAGGGGGAATGGTTACTACTGACAATGAAGAGATTGC
AGAAAAATAAAAATACTGCGACTACATGGGATAAGTAGAGACGCTTGGAAAGATACTC
ATCCGAGGGCTCATGGTACTATGAGATTATCGAGTGTGGTTATAAATATAACATGACCGA
CATTCAGCATCAATCGGAATACATCACTAAAAAAGCAGAGATAATGAGAAAAAGAAG
AGAAGAAATCGCTAAAATTTATAATGAAGAGTTTGAAATCTTGAGGGGTTAATAACTCC
AACCATAAAAAACATGTTAAACATGCATGGCACTTATATCCGTTGTTAATAAATATCGA
TAGATTGAAGATAAACAGAACCAATTTATTGAAGAGTTAAAAAACAGAAATATTGGAAC
AAGTGTTCATTTTATCCCATTACACTTGCATCCATTTTATAGGAAAACCTTTGGATATAA
AAAAGGTGATTTTCCAAATGCAGAGTGGGTTTATGAGAGAGAGATTTCCTTGCCAATATA
TCCAAAAATGACTGATGATGATGTAATTGATGTAGTTAATGCGGTTAAAAAATTGTTTC
TGAGAACAGATGAGGATGATATTATGGAAAAGATAAAAAATTGGAGATAGATATGTTGGTA
AAGGTGAGCCAAACATTTATTATTCAGAGGGGGGATTAAATCACAATGGGGATATCGATA
TAGGTAAAGAGTTAGTAAAGAGGCCAAAAAATGCGGTGCTGATGCAATAAAATCCAAAT
CCTACCATACTGAGGATTTTATAAGCAAAAAATCAGAATATTATGAATTTTAAAGTT
TAGAACTGTGAGAGGAGGAATTCATGAACATAAAGAATATGCAGAAAAAATTGGAATTA
TGTTTATCTCAACACCATTAGATTTAAAAATATGTTGATATATTAAATAAAATGAATGTGC
CTGCATTTAAATTTGCCCTCTGGTGATTTAACCTTTTATCCCTTATTAGAAAAAGTGGCAA
AAACAGGCAAGCCGGTGATTTTATCTACAGGAATGTCTGATATTGGGGAATTTGGGAAG
CAGTTAAAGTTTGTAGAAATAATGGATGCAGGGATATTATTTTATGCAATTGTATTTCAT
CTTACCCAACCCCTTATGAAGATGTCAATTTAAACGCTATTAAAACTTGAAAAGTATAT
TCAATATCCCTGTGGGATATTCTGACCATACATTGGGAATACTCGCCCCAGTAGTTTCTG
TTGCCTTAGGAGCGGATGTTATTGAGAAGCACTTTACCTTAGATAAAAAATATGGAAGGTC
CTGATCATGCTTTGTCAGCAGACCCAGAAGAATTTAAGGAAATGTTAATAACATAAGAT
TAGTTGAAAAAATGCTTGAAGTGGGGAAGAGATACCAATGCCTTCTGAAAGAGACGTTA
TTGTTGAAGCAAGAAGAAGTATTGTAGCAAAAAGAAATATTAAAAAAGGAGAATACTTAA
GTGTTGATAATATTTTCATTTAAAGACCGGGGAGAGGTATTGAAACAAAGTATTTGAGCA
TAATATTAAACAGAAAAATCAAAAACGATAAAGAAGAGGATGATATAATATACTGGGATG
ATTTATTAGGGGATTGAGCATGATTAAATTGTTAAAAACACTTTAAAGATCCAAAAAA
AATTATGAGGGCTTTGGAATTTGCCCCCTTCTTTTGTTTTGGGAAGATATATTGTCTAT
TTTTGGTATAAATCCCTTGAAGGTTTATAATTTTGGAAAAATCCATATTAGAAAAATATGA
CAGCTCTACTATAATAATCAAAAGTGGGATTTCTTTAAGGGATGTAGAAATAGCAGCAAG
AGGCAATGGAAAAATCATTATTGGAGAGAACTTCACTGTGAACCGTATGTTAGATTAAA
CGTTTTTGAAGAGGGGATTTTAGAGATTGGAGATAATTGTGGAATTGGTTCAATTTCAAT
AATAAATGCTACTAAAAAATAACAATTGGTAGTAATGTTTAAATTTCAAGTCATGTTCA
TATTATTGATGGAGACCATGGATTTAAAAAAGGAGAATTAATAAGGAATCAGAAAAATGGT
CTCAGAGCCTATTGAAATTTGGAGATGATGTTTGGATTGGAACAGGAGTTAAATATTTAA
AGGGTTAAATTTGGGAAGGGGCTGTTATTGGAGCTGGAAGTGTGTTACAAGAGATAT
TCCCCCATATTTCAGTAGCTGTTGGAGTTCCTGCAAGAGTTATAAAGAAGAGGGAATAACA
TGAAAAATAAGGTATAATCCAAGCAAGAACAGGTTCAAAACGATTAAAAAATAAGGTAT
TATTGAACTTTGGCGATAGATGATTTTATAGAGATTCTCTTAGAAAGATTAAAAAATCTA
AAAAATTAGATGATATTATTGTCGCAACAACAATTAAAAAAGAAGATAATGCAATTGTAG
AGCTTTGTAATAGTTTAGGAGTCAATGTTTTTAGAGGTTCTGAAAAGGATGTGTTGGATA
GGTTTTATAATGCATCTAAGTTTTATAGTGGGGATGTTATCGTTAGGATAACTGGGGATA
ATCCACTAACATCTATTGAATTAATCGATAAACAAGTCGAATATTTATTAATAAATAAAT
TTGATTATGTATCAACAAAAAATATTATTTTGGGTTTAAAGTAGTGAGGTTTTACCTTTG
ATGCATTAGAGAAAGCATGGAAAAATGCAAAAGAGAAATATCAAAAGAGAACATGTAACCTC
CTTATATTTTATGAAAATCCAAATTTATTTAAGGTTTTTTATTTAGAACCTCCAGAATATC
TCAAAAGAGAGGGTATTAGATTAACAATTGATACTATAAAGGACTTTAACTTTATTTAG
AATTACAAAAACATTTTGATTTGATTAATGTAGATATTAGACAAATTATAGATTTTTTAG
ATAAAAAACCCTCAAATAAAAAATATAAATTCAAATGTAAGACAAAAATCATATAGAGAGG
TGGAGGAATGAAGATTGCTATCTACTGATGGCAGTGTGAGATGGGGATGGGGCATGT
TTATAGGACATTATCATTAGCAAATGAACTAAGAAAGTTTAAATGTTAATGAAATTATATT
CTTTACGAAAAGTGATGAGGATGTGATTAAAAAATAGAAGAAAAATGGCTTTAAAGTTAT
AAAATGTAGCGATAATAATGATATCTTAAAAACATTAAAAATATAAAGCCAGATGTTGT
TATTATTGATGATTTAGGTATTGAAGAGGATTTGCAAGAATATAAGAGAATTATGCAA
AAAATTGATATTTTTGATAATCCAAATCCTTCATCAAAATAAATATGCTGATATTGTGGT
TAATGCAATAGTTGGAAGTGAATTAAAAAACAGAAAAATATTTTGATGAAGAAAAATAAAC
TTTATATTTTTATGGACCGAAGTATTTGATTTTAAAGAAATGAGTTTTATAAGGTTAAAA
AGAAATGTTGAGTAGAAGTAAAAATAAGAGACAAAAACATATTAAAGCTTTTGGTGG
AAGTGATCCATCAAATTTAACCTGTAAGGTATTAGAAGAGCTTCTGCTAAAGATAGAGA

TTTTAATATTAACGTTGTTCTTGGACCTAAGTTCCAATATGAAGACGAATTGAATAATTT
 ATTAAGAGGTATAGTAAATCAGATAAAATAAAATCTACAAAATATAGATAATATGGC
 TGAACCTTATGAAAGATAATGATTTAATTATAACATCACCAGGAATGACGATGTTTGAAGC
 5 ACTATTCTTAGGGATTCCAGTGGTCGTTTTATATCAAAATGAATTACAAAGAGAATGTTA
 TGATGATTTATTTAAAGAAAATATCTAAACTCATTGTAATCCTTTAAAGAGGATATTT
 TATAGATGCAGAGCATACTGATTTACATATAGGAAAAGGAAATTTGAGATTATTGGAAGC
 TATAACTAATATATATAATTGTAAAAAATTGGTGAAGATTCCAAAATTATAATTAGACA
 AATTACCGATAATGATCTCGAAGCTTTAATGGCATGGAGATCTAATCCATTAATATATAA
 10 ATTTTTTTATATTCAAAAAGAACCCCTAAAGTGGGAAGAACACTATTCTTGGTGGATGTC
 TCGTGAGAATAGGGTAGATTGGATAATACTACTTAGAGAAAATAATACAATTAGAAAAGT
 AGGTAGTGTAATGTTTCACAATTGAATACTGATAATCCAGAAATTGGAATACTCATTGG
 GGAGTTCTTTTATGGGGTAAACATATTGGAAGACATTGAGTTTCACTCGTGCTTAAGTG
 GTTGAAAAATATAGGATATAAAAAAGCACATGCGAGAATATTAGAAAACAACATTGATC
 15 CATTAAACTTTTTGAATCATTAGGATTCaAAAAAACTAAAAAGGTAGAGAAAACGAATG
 GATATACGAAGTGAATTTATAATAAGGTGAAAAAATGTTTCAAGATATATCAAATTTTTA
 TAAAGATAAAACTATTCTCGTTACAGGAGGAAGTGGCTCAATAGGTAAAGAAATAGTAAA
 AACATTATTAATTTAATCCAAAACAATTAGAGTATTAGATATAAATGAACTGCATT
 GTTTGAATTAGAACATGAGCTAAATTCAGAGAAAATTAGATGTTTTATTGGGGATGTTAG
 20 GGATAAGGATAGGTTAAAAAGAGCTATTGAGGAGGTAGATGTTGATTCCATGCGAGTGC
 ATTAAGCACGTTCCCTCTGCGAATACAACCCATTTGAAGCTGTA AAAAACAACGTTAT
 TGGAACTCAAAATTTGATTGAAGTAGCAATGGATGAAGAAGTTGAAAAATTTATAACAAT
 AAGCACAGACAAGGCAGTAAATCCAGTAAATGTTATGGGCGCTACCAAATTATTGGCTGA
 AAGATTAACAATTTTCAGCAAATTTATATAAGGAAGAGAAAAACGGCTTTTTCTGTTGT
 25 TAGATTGGAAATGTTCTAAATTCAGAGGTTCCATACTGCCATTACTAAAAGAACAAT
 AAAAAAGGAGGGCCTGTAACCTTAACCCATCCAGATATGACAAGATTTATAATGTCTAT
 TAATGAAGCTGTTAAATTAGTTTTAAAAGCTTGTTATTTGGCTAAAGGTGGGAAATATT
 CATTTTAAAAATGCCTTCTGTTAGAATTAAAGATTTAATTGAGGTTGTTATTGAGGAAGT
 CGCTCCAAAATATGGATATAAACAGAGATATTGAAATTAATTTATTGGAAAGAGGCC
 30 TGGTGAAAAACTATATGAAGAGTTAATTATCGAAGAAGAAATTTATAACTTAGAAGAGTT
 AGAAGATATGTTTGTGTTATCCTTATGGAGTAGATGGAAATAAAAAATAAAGATAAT
 TTATAATTTCGAAGGATGCCAAATTTTTAAATAAAGAGAAAAATAAAAAATATTAAGA
 AATTAGTTATTTATAATTGTTTATTTAAATTTCAAAAAATATTTCTTTAAATTTTTTC
 TAAAAATTTTTTTAAATTCCTTATCATCCATCATAAATGTTTCTTTTGCATTGGATTCTA
 35 AGAAGAACTTTTACTTCCAGCATTTAAAAGTTCATAAATCATTGTTGAACTCATCCCTA
 TTGTATATTCTGGAACAAAATTAAGTCCATTTATTATTTTATTCTTTTATGTTTTTTA
 ATTTTTCTAATCTCTAATTGAGAAATCATTCAAATCTCTCCAGGATGAGGTTTAAAGT
 AGAAAGAATAACCATGTTGATTAAGTATTTATTAAATTTTTATCTCTAAAAGTATTAA
 ATATCTTTTATATAAATTCAGGATAACCTTGAGATACAAATAATATCGTTTTTCTTTTT
 40 TAGGATATTTTTTCCAATATAAGAATCTTGGGTCTGGAAAGACAATAACTTTATCTTCG
 GAAAGTTATATTTATCAATTAAGAGTTTTTTTTATATTTTCGTTCCAACTAATTTACAAT
 CTGGAATACAATATATTTTCCGATATTGGAAGATGGATATAGTTATTGTTAATTACCT
 CATGACTAAAGGCGATAGTTTTTATATTTTTCTCCACAACCTATAAATATTGCACAGAT
 AAAACATGAAGTTTCTTTCAGAGTCCCCAACAAATACATTTAATATTGGTTTTTGAGATAT
 45 AATCCTTTTATAGATAAATAGAACCAATAAAACAAAGGTAATTTATGTTTTAAGAAATATAT
 TAAACATTGTATGAATAAATTTTTCATGTTTCATCATGTAGTTAGTTAAATTTACTTTTT
 TAAAAATTTTAGAAGAGTTAGCAATATATCAAAACCAACTTTAAATTTAAATATCTT
 CAATAAATAGGTAATCTTGTCCTTTTTTATAGTAATCTTTAATATATTTTGGCAATTTGA
 TAAATTTATACTTAGTAAATAAATTTAGTAATCTTATCTGTTAAATTAATATCAAAAT
 50 TTTTTAATAGTTTTTTAAACTCTTCATTCTTAATTAATGATTACCAAAAAATCTATTAT
 TTCCATAATATCTGTCGTAATCTGTTATAAATAATATATCAAACTGTAATTGTTATTTT
 TGTTCATTATTTTCTAATAAATAAATATAGCATAATTAAATTACCTTGAAAAATTTT
 CCATAATATAATCCACTATTCTATTTTTTATTTTTTGATTTTATATTATTGGTAAATTTT
 TTAATATTTTTCCAAAATAATCAATATTTACATATTTCTGATTTAAATAAATGTTATAT
 55 CTTTTCTGATTTTAAATATATCATCAACTCTTTCTTTAAATTTATACCAGATATAGAATG
 GCATTTGATTTGTGTGATATAGGTTATCCCAATTAATTAAGAAATATAAGAAAGTGTAT
 ATACTAAATGCTCAAACTCATCTTTTTAATAAATTTGTTATTTTTGTATGAGTTAGATA
 CTAATCCTTTATAAATCAAGATAAAGTCTAATTTTTTAAATGGTGGATATGTGTTAT
 60 AAAATAATTTTTTCTTTTTCTGTTAATTTCTAATGAAATTAAGTTATATATTCTACAA
 TCATATTGTTCCCTCAATTAATAGTTTTCCATTCTTTAATATCTTTTCAATGTCAAAATC
 CTTAGCTCTTTCTAACCATTAGAATATCTCTTCTCAAATCTTCATCTTCAATCATCTT
 AATCATTAATCAGCTAACATTTTCTCTCTTCGATTAAAGGTTTTTCATTTAAATCTTG
 CCATATAAATCTCTTGAAAATGGTTTAGTTAATATCCATACTTTCCATAATAAGGATA
 ATCGATTTTATCACTTATATTTAACTCTGGGCATAAGATTTCCCTTGGACCAAGTTTACA
 ATCAGTTGATATTACAGGGAGGTTTAAAGATAACGCCTCTATAACAGTGTTTGGTAATCC

-275-

5

10

15

20

25

30

35

40

45

50

55

60

CTCCACAAAGATGAGAAAACAAAACAATTCGAATGCTTTAAAAATTTGAATGGATTCTT
CTGCATGCCTAAAAGATAAACATTATTTTGTAAAGTTTAAATTTATTTATTAATCTTGAAG
TTTATTTTTTAACTCCCATCTCCAAGAATTATTAGTTTAGCGTTTGGGTATTTTCAGT
AACCTTTTTTAACTTCTGATTAAAAACCACTGTCCTTTTGTTCGGTTAATCTTCCAAT
ATTTATAAATACAAAAGATCTTTAAAGATATTTTCGATATTGTTTTTCCAATGGTTCGTT
AGATAGTTGTTGAAGTTTATCAATTTTCATAAACATTTCGGAACAATTTTAGTTTTTATTTT
TAATGATTTAAATGAGATTCTATTATTTTCTTATTTTCTGTGTTTGAACAATTATAAT
ATCTGCATATTTATAAAAAATTTTATATGCCAGTATAATAATTTTAGAATAAAGACCTTC
TTTATATGATTCTATTGGGTGTTTCTTAACCCATAAAAAATAATTTAGTATTGTTGGATAT
TTTAAAAATTTTATTTAATAATATTACTGGAATTATTGAAACATTTCATCATCATGATG
GGTTATAACTAAATCTGGCTTGAATTCTCTAATAATTTTAGTATCTTATAAGTTCTTTT
TAAAAATTTTAAACGGCCAAAGTAGAGGATTTTTAGATTTTTCGTTAAATAGTATTATCTT
TTCTTTGTCAATTTTCGCCCTTTAACCATGGCTCATAAAATGAAATATATTTTGATTCTATA
AAGTTTGTCAACATTTTAAACACTGACCAGAAATCCCAAACAGTCCCATTTACAGTTAA
TTGTTTCTTTTTGTGGACATTCTAATCCCTCAACTTTTATATTTTTCTCTTTACTAAAT
AACCTTCAATAAACATTGCGTCAATATTACAATCAATGAAATCAGTTATTGCATCCTCAG
GAGTTCTAACAATTGTTCTTCCATGCAAAATTAAGATGTGTTTATAACAATTCATAAC
CAGTAATCTCCTTGAATTTTTTTAGTAATCTATAGTAATTTGGGTATCTTTTTCTTCAA
CGAATTGTGGTCTCGCTGTTCCGTCTATATGCATTGCAGAAGGTAACCTATCCCAAAT
CTTTTTCTATTCTGAACGCTATTGCCATATGTTTATGTTTATAAGACTTTTCAAATAATC
TTTCTCTTCTCTTCTTCTAAAACAGAGGACAAAATGGTTGAAACCATGGTCTCCTTTTTAA
CAGTAGAATTTATTTTATCTCTTGTCTTAGGATCTCTTGGATCTGCTAATATACTTCTAT
TTCCCTAATGCCCTTGGTCCAACTCCATTTTCTTGATAAACAGCTATTATATTACCTT
TTGCAATCATCTCAGCAGCAATTTTCAGGCCATTTTTCACCTATATATTGTAAGTTCTTT
TATCTTTCCATTTATCTTTTTTTAACTCTTTTCTACGTCTTCTCTTGAGTAATTAGGTC
CCCAATAAGGCATTTCTAAATCTTTTAAACATGAGATATCTTCACCTAATTTCTACAGCCT
TTAATATCGCAGCCCCCGCTGCTACTCCATCATCACCATTGCTGGAAATATATAGAGTT
CTTCAAATGGAGTTCTTTCAAATAATTCAAATTCATAATAACATTTGCTACCACACCAC
CTGCCATTGCAAGTCTCTGTATTTTAAATTTTTCATAGACAATATTTAAGTATTCAACAA
CAGTATCTTCTAGCCATCTTTGAATGGTTGCTGCAAAATTTTCATCACCTATTTTTCTCT
TCCATTTTTGTAAAGTATTGTTTATTATGTAATTTTTTAAGTATGTTTATATCGTGTTCCT
ATCTAAGTTTTTCTTTATTTATTTTGTATCCTTTTTTTAATAAATTATATAATCCCCAT
TAGGCTTTCCATAAGCAGCTAGTGCTCTGTTTTTCTTCATCAGAATTTGGTGTAAAC
CTAAATTTTCAGTGAATAGAGAATATATATGCCCAATTGAAGCTCCTTTAAATATACCTT
CCACATCATCATAACAAATAATATCAAACTAGAAATAGGATACTAATCTATAATCATATT
CTTTAAATAACCATAAACTATGATATTTCCAGTCCCTATTCCATCAAGAGTAAAAACCA
AGGTCTCTTTTGGAAAGAAATGGACTAAAATAGTATGCTGAAGCTGCATGACATAAATGAT
GCTCATACAACGAACATCTTTCTAAAATTTTTTTCAATTCTCTTTTTTATAGCTAAGT
TTCCCTAATTTATTATATATGTTATTAAATCTTTTAAATAACAACCTTCCTTAATCCATAAA
CAGCCAGTATCTCCCAATAAATGGTCTATATATGTTGTTTAAACAAACCTTAGTTTTAT
TTTGTGATAACTCTTTTTTGTATTTAGCATATTCTTTAATATATTTGGGCTTATATGTTCT
TCTTTATATAGTCATCTATATGTTTGAATAATATAAAATCTAAATTAGTTTGTTCAAAGG
GATATGCCACATAATCTATATTTTAAATTTTGGGTATTCATTTAGTATTGGAATTAAGT
TCCCACCATCATGCTTTATTCTCGTAACTCTTTTCAGTTAAGATTCCAAAAATCTCCTTAT
TCTTTGTATCAATATAAAAAACCACTATCATGTAAAAAATATTTTACTCCTAAGATTT
TAACCATAATTCACCTTTAATGTCTTTTCTGTAATTTTCAGTCTTTTTATCTTTTATA
TCGATTAAAAATCTTTAAAAATAAATGTTGGCGTTAATACGATAAAATAAATATACTACCAA
CTATAAAAAAATACCTTCCAAAAATAACATGTTGCAGAAATGTTTTTATTTTTTCCAA
TGTTGTTTTTAAGGTATAGTAAGAATAAATTTTGTTTTTTGATTCTGCTTAAATAATTG
TCTCTATTTGGAATCTATATTTTAAATAAAAAATTCCTCAATTATGTCAAAATTTGTAATCA
TTGGCTATACATCTAATCCAAAAATCGTAGTCTTGAGACCTAATTAATTTCTCATCGTAT
TTTAATTTCTTTAAGATTTTACTCTTTACCATCATAGATGGATGAACAGTTAAATGTTCT
TTGAAAAATATTTTTTAAATTTCTTTAAATTTATATTTTTCTGGCTTAACTCTTTTAA
ATATTTCCATTTTCATCAATAAATAAACCAGCTAAACAATAAATCAATGTCTCTATTA
TTTTCCATATATTTAAATTTGTTTTCTAATCTTTTAGGTAATGCAATATCATCAGCGTCT
AATATGGCAATATACCTCCCCCTTGCTATAKTAACAGCTTTATTTCTACTGGCTCCTCTA
CCTAAATTTCTTTCATTTTTTATAAAAAATAATTTCTTTATCTTTCTGTTGATATTTTA
ATAATTTCTCTGCTTTTTTATTATTGATTATCTAAATTCGATTATAAAATCaAAATCT
TTAATGTTTGAATTTAAATTTGACTCAATAGATTCTTTTAAATATTTTTCTGGTTCTGTTG
TATGTTGCCATTACAACCTGAACTAATGGCTTATCCATCTCTCCACCATTTAATAAACA
AAAACAACCTTATCAATAATTCCTATACAACTTTGTTCTTTATTTTTAAAACTTTCT
CTTTAAAGAATTCATATAACTCATAATCAACCTCTTTAATATTTCAACTTTTTCAAAAA
TCTCATTTAAATATTTTTCTTTTAAATCCCAATCTGCTAATGGTGGAGTAAAGCCTTGCT
TTCCCTATTAACTATCTCTCAGGTAAAAATATCTTTAATAATCTCCCTCATCAACTCT

5 TGGTTTTGgACAAATCTACCTTCCATTTCAGTTGGAATTTTTTGGcTAAATTCGCAAAACC
TATAATCTAAAAATGGACTTCTAACTTCCAAAGCGTTAGCATAGATGCCCTATCAACCTT
AACTAAGAAATTATCACACAAAGTATTAAACAATAAATCAAAAATCCTTAGGGCTTCCCC
CAACTTATTATCTCCTTTATTCAAACAATATCTTAATTTTTCAATAGTCCATTTTTTATA
AATTTCTGGTCTTATCGCATCTTCTTTTATTGATTTCAGCATAGAAATTCCTCTGGATTTAT
10 TAAGGATAACCTAAACGCTCCTTTAATAAATACAAATTAGCAATTCATTTAAATCTTT
CTTAACAGGTAATTTAGAACCAACAACCTCTCAAAAATTTAGGTAATTTTCTAATGAAATC
CATTCTATATCCGTTTAAATGAGTCATATAACCTCCAAAACCTCATCCCCGCCATCTCC
ACTCAAAACAACAGTAACAAATTCCTTGCCATTTTCAGAGACCTTATAAGTAGGGAATCC
ACTATAATCTCCAAACGGTTCATCGTAAATCCAGCTGTATTTATCAATCAATTCCTCAAA
ATCTCTCTCCTTAAAGTAGTAATGATGATGCTGAGTTTTAAAGTAATCAACAACCTATCTT
AATATAAGGAGTTTCATCATACTTTCCTTCAAAACCTATAGAAAAAGGTATGCAATTTTAC
TTAAATCTGTAAATTCCTCATAACTCCAACAACCTGTAGAGCTATCTAAACCACCACTCA
15 AAAACGCTCCAACCTGGCACATCACTCCTCATTCTTATCTTAACAGCATCATATAATAGCT
TTTTACCTTCTTCAATCAATTTCTTTTATCATAAATAGGTTTGTAACTGGCAACTCCC
AGTAATAATATTTTCTAATCTCTCTTTATCCAAATCAAAGATTAAATCTGTCTTGCCCT
CTAATTTAAAAGTGTTTTTATAAATAGAGTAGGGAGATGGGATAAATCCCCAAGGCAAAGT
ATAACTCAACTGCATCTTTGTTAATATTTCTTTTTTATTATCTCTTTAACTGCTAAAA
20 TTCCCTTCAATTGAGAAGAAAAGATAAATTCATTTCATCCCAATAATAAATAAATGGCT
TAACTCCTAATCTATCCCTGAACAAAAGATTAAAGCCCTCTTTTTTATCAAAAATACAAA
ATGCCACATACCATTAACCTCTTAAACACAATCAAAACCCAACCTATTATAAAGCTTTA
AAATAACCTCTGTATCTGTCCCTGTTCTGTCTCTAAGTTAAATTTTCTTTTAACTCCA
AATAATTATAAATCTCTCCATTATAAACAATGATTATATCCGCCCTATCCAACCTCATCAT
25 CTCTATAAATGATTTTATCCTCATCAACATTATACCCCATCGGTTGATGTCCCTTTTCAC
TTAAATCTAAATTTGCTAATCTAACATGTCCCAACCAATAGAATAATTTTAAATTTAT
AAATAAAGATTTCCTTCATCATCAGGACCTCTATGTTAATTGCTTTATTCATCTTATTAA
TTCTCTCTTTTATAACTTCTTTACCAAATCTAATAATCCCATTTATCCACACATCATT
CACCACAAAAAATTATAATCTTAAAGCCAATCTTTATTTTCCAAAAACCAGTTACAAAT
30 CTCTTTAAACCTCCTCAATAGTAACCTTTTGGTTTTATACCCCAACAGCTTTTCGCTCTTA
CTCAATCAGCATAGGTTCTTAAACATCTCCATCCTGCATTGGCAAAAATTTCTTTTTT
GCTTTTTTGTGAGATATTTTCAATTAACCTCAATAAAATACATCAACTTAACCTGGTTA
GAATTACCCAAATTAATAATCTCATAATCAAAGTCCCTTTTAAAGCTCTCAATATTTCCA
TCCACAACATCAGAAATATAAGTAAAGTCCCTCTCCATATTTCCATAGTTATAGACCTCA
35 ATCTCCTTACCCAAATAAATGTTTTTGCaAACTTGAAGTAAGCCATATCTGGTCTTCCA
TACTCTCCATAAACAGTAAAAACCTTAAACCAATCATTTTAAATACCATATAGATGATGA
TATACATGAGCCATTAACTCATTACTTCTCTTTGTTGAGGCATATAGAGAGATTGGTTTA
TCCACTCTATCATCTTCACTAAAAGGAATCTTCCTATTCCCTCCATAGACAGAAGAAGAG
GAAGCATAAACCAACCTTCTCAATATCAAAATCTTCTTGCAAATTCGAAGATGTTTAAATGTT
40 CCCATTTTCAATGGATTTTATATAAGCCCATGGGTTTTGTAGAGAATATCTAACTCCTGCC
TGTGCTCCTAAATGCACAATCAAATCAATCTCTTTATCTTTTAAATTTTCAACTAAATCA
TCCCAATCTGAAAAATCCAATTTTATAAACGTATAATTTTCATAATTTTTTAAATTTTCA
TTCTTTTTTTCTTTTAAACTGGGTTATAGTAGTTATTTAAATTATCTATTCCAATAACC
TTTAGATCTTCATAGTTATCCATTAAATATTTACTTAGATGGAAACCAATAAAACCGGCA
45 CTTCAGTAACTAAGATATTTTATATTTTCACTCTTCCACTCCATAATATTTAAATCCCA
ACTTTTTTAATCTTTTCAACATCTAAATATTTCTTCCATCGAATACTACTTTTTCTTTAA
CTAAATTTCCAATCTTTTCCAGTCTTCTTATTTAAATCATACTCAACAGTTATTATTA
TTCCATCGACATTTTAACTGTCTCATATAAATCATCCAATACATACAAGTTATAGCCAT
AAAATCCTTTTGATTTATCTAACTTATACATGTTGATGGTGTCTTCTCGTGCCCTTTTCAA
50 CATAATCAAAGCCCTTAAACAATAGCCCCACTCTTAAAGCATATCAATCAATTTTATTG
CCCTACTCTCTCTTAAATCATCAGTATTTGGTTTAAATGCTAAACCCAAGACAGCAAAGG
TTTTTCCATTTAAATTTCCATAATAATCTTAATCTTTTCAAAGAACCATTTTATTGTCT
CTTCATTGACGATGTGCGTAGCTTTTATTAAATTTGGTTCTATGTTGTTATTTCAAATT
GTTTTATCAATGCTTTGACATCTTTTGGGAAGCAATTATGGATTAATATTCCATAAGATG
55 TTATGAGCAGGGAGTTTTCTGTTTCTACGCTATATACATAACCGCTATAATGCTCTTTTA
TAATTTCTTTAACTCCAATATAGCAAAGTTATCTGATTTCTTATAACCTAACGGTTCTA
TGTTTCTTTTATAGCTCTCTGCAATATCTTTGTAGTTTTTCCATTTTTTACCAATAACT
CTCCGATTTCTTAACTTGTCTAATCCATTGATTCTTATAATATAAGCCATAGTTGTTG
ATTTGTTGTTGATGACATTTTTTCTACGGATGCCACAATACCCAACAATTGCAGTAATATCA
60 ACAAGGAATGAGCCATTTTTTCTGACAGTTGCAAATTCATATTTAGATTTTTGTTGT
TATTTAACCTTACAATTCGCCATCTCCTCTAAAAAGACCTTTTAAAGAACTCCCATTTTA
TTTCTCTTTTGCATTGAACATCTGTGGAGGAATATTTTTATTATAACAGTTAATTCAC
AGTTTAAAGATATTTTCAAATACATAAGCCAATATTTTTGATGAGATGAGGATTGAATGAG
AACCGTCTTTTATTTTTTCTATGATTTTATACCTAATTTGTTTAAATGTTTTTAAAT
CGTTTATGATTTCTCTTCATGAATACCAAAACATAGTCCAATTCCTTCTCTTACAACAC

5

10

15

20

25

30

35

40

45

50

55

60

CATTTCTTCCATAGTCTTTTGATATCCAGCCTTCTGATAGATAATAGCCAATTAACCTTG
CAAAATCCTTATCTATCTTTATTTATATGGGATTGTTGTTGATTGCTTTTTGTCAGTAA
ATAATCTATTTTTTGAACCATATTTATCCAAAATTTCTTTTATTGGTAGTATATCCTTAG
CTCTTATTGTTCCATTTCTCTTAACATCGTGAGGATATTTGTTTGATAAGTATGTTTTA
TAATGTTAAATTCATTGGTTGCCAAGTCCTTATTGTGTATCCAACTTTTTCAATAAGGT
CTGTCTTACTGAGTTCTTCTAAAATGTCTATTTCTATCTCCCTTTCTTCTCCAAAGTTTC
CATAAGGTAAAATTACCTTATCCCCCTCTTTAACATCAGATGTCAATTTAATTTTTAATT
CTCCATCTTCTAAAATCACAACCTGGGTGGTCTTTTGTTATCTTTATTTCTCTACCTAAAT
TAAACCTCAAAGTAATTAATCATCGTTGTAGTATCTTTTGATGCTAATTTTAACTTTT
TTAAAGATAATTTTTCTCCATCAAAGGATAGAATCTTACATTATCTTTATCTTCTAATT
CAAATAATTCTTTGAATGTTATGCATTCTAAACCTCTACCTCTATCTATAAAATAAACTT
CATCTGGGTGGAAACAGCTCCACCATAACCAATCCCAGCATTAAAAACTTATTTCCCAA
TTCTTGGATCTAAACCCATAGCATAGCTTATTGTTTTATATCAGCTTTAACTTTATCCG
ATAATTTTGCCAACTCATTTATAAAAGATATCTTTGTTGCTAAGAAAGCGTTAGAGGCAT
ATTTTATTAACCTCTGCAGTCTCCAGTTTGTATTACAAATGGAATATTCTTATCTTTAA
AGTATTTATAAACTTCTTCCATAATTTCTATCGGTTTTTATTGTTAAGGTTTTCAAACC
CTAAAATTACCTCTCTGGATTGAAAAAATCATAGACAGCAATCCCTCCCTCAAAAACCT
CCGATTTGAAACAACATCCACATTATAATCCTTTAAAAGCTCTTTAACCTCCTATTTG
TTCCCACTGGAACAGTAGATTTTATAACAATAACCTTATAATCCTCCTTATCTATTGTCT
CTTTTATCTTCTCAACTGCAGAAAATAGAAATCTCAAATCAGCATTTCGGTCTTTATCTT
GAGGAGTCCCAACACATAAAAAGATAACATCTGAATCCTTTATTGTTTATAAGAAGTAG
TGAATGTTAGATTCTTATTTACATGTTTTTTAATAACCTTCCAAACCTTCTTTCATATA
ATGGGCATTTCGCTCTGTTTTAACGCTTTAACTTTTCGATTTCATCGATATCAATACCAACAA
CATCAAAACCAAACTCAGCCAAACCAACTGCCTGTATTAAAGCCAACATAACCACTCCCAA
TAAGTGAATGTTTCAATTAATCCCTGAGTTTATTTATTAATAATTGTATAATATTATT
ATATTTCTCTTACATCGATAACCTCAGACATAAAATTACAGCTAAATAAACTCCAAAT
AACTACTCCTCCAACAATTAATTGTAAATATAGCATTACTTATAATTTTCGTTATCAAT
ACCAGAGGCTGTTAAGTTAACGACTTCACCCAATTGTAGAACATTATGGAGCTTTTTACT
CAACTAACAACCGTATCGAATTACTATTACTTGGAAATCTATTTAAAACCTCTTTAATC
TTGTGATAATAAATTCTAATCGATTTCGTGACTTATATCTTCGAATTGGGAGGGGGATAAA
CCCCTTTCTCAATGATAATCCGAGGTAGTATAAAAGCCCTGCTAAGATTTTAACTCT
ATCGATTCTTATCTTTTTAAAAGCTTCTCTCTACGATTTTCTCCTTTATAACTTCTA
TCATGAGCCTCATAGTTTATTATTTTTTATCAATATTTTGATAAAAACCTTAACCTGACAG
TCTCCTCTGAAATCTACAAAACCTTTAAATACTAAGCAAAATTATAAAATAGATATAAGG
AATATAATTAAAAATAAGGTGGGGGAGAGTCATGATACCATTAGTTCCAACATCAAGAGAC
AGAAATAGACAAGTTAGAGCATGTTTTAATTTTGGGAACATTGTTTCAGACCTGAAATCTT
GGAGTTAATAAAAGACCTATAGAGAAAGTTACTTGGGTTGATTCTTAGCTATTGCCGC
AGGAGCTTTAGCAAGAGAGAAAGCTGGATATACAATAAGAGAAATCGCAGATGAGTTAGG
AAGAACTGAACAAACCATTAGAAAGCATTAAAAGGAGAAACAAAGGCAGGAAAGCTTGT
TAGGGAACCTATGAGATGATGAAGAGAGGGGAATTAAATATTGAAGAAGTAGAAAAATT
CTTAGAAGCTGTTGTCAGAAAAGAAGAATTAGAGAAGATAACTGACATTAAGAAGTTAGA
AGAAGAAATTGAAAAGCTTTAAGTGAATTAGAGAAATAATTAATTTTGATTCTAT
TTTATTTTGTCTTTTTATTATTTTATCAATTTTTAGGTGATTTTATGAGAAAAGTCG
TTGCTGAGGTTTCTATAATTCCTTTAGGAAAAGGAGCAAGTGTTCAAAGTATGTTAAA
AAGCAATTGAAGTTTTTAAAAGTATGATTTAAAGGTTGAGACAAACGCTATGGGAAGT
TATTAGAAGGAGATTTAGATGAAATTTAAAAGCTTTTAAAGAGCACATTCAACAGTTT
TAAATGACGTTGATAGAGTTGTAAGCAGTTTAAAATTTGATGAAAGGAAAGATAAGAAA
ACACAATTGAAAGGAAGTTAAAAGCAATTGGAGAGCTGTAATTTGGTGTGTTGATGATTCT
TGAATTTGTGATGGGCATAATGCAAGCTCTTCTTTGATAAAAAGAGATGAAATCCTATT
TGCAATGAGTGAGGAGAGATTTACAAGAAAGAAAATCAGAGAGGATTCCAGAAAAATC
AGTAGATTATATTTTTAAACAAAGTTAAACCTGATGAAATTAATTATGTTTCTGTTGGTGG
AGTTTTTAGAAGAGGAGAGAGAATAAAAAAATTAAAGAAATTCAAAACAGAATAAATAA
AAAATTTCTCTATTTTTATCATCACATATCCCATTCATTTATTTAACTCTCAGATTT
TAAAGAGCTTTAGTAATTTCAATAGATGGAGGAGGAGATGGTTTATCTTTTTTGGCATC
CATAGCAATAAAAAATACTTGGAAATTATAGCCCAAAGTGATTTAATCGACTCTGTTGG
AGATTTTTATGCCTCAATAACTGAGCTTTTAGGTTTAAAGCCTATGGAAGATGAAGGAAA
AGTTATGTCTCTATCTTCTTACGAAGGAGAAGATGATAAAATTTAACAACCTATTGACTA
TATAAAGAATTAAATCAATTTAAAATTTATTTAGGAGTTATTGGCTATGAAGCTACCAA
AGCATTGAAAAAATTTAGTTAGCGATAAAAGCCAATTATCTTTTGAGGATAAGGTTAG
AATATCAAAATTTGCTCAAAGAACTTTAGAAAATATTGTTTTAAAGGCAATTGATGATTT
ATCTAATGAATATAACATAGATAACATTGTGTTGTTGGTGGAGTGGCTCAAAACGTTAA
GTTGAATTCAAAAATGCTGAAAAATATAATCTATTTCGTTCCACCTTTTATGGGAGATGA
AGGACTTTGCTTAGGAGCAAGCTTAGCCGATAAAAGAATAGATAGAATAAATAAACA

-278-

5
10
15
20
25
30
35
40
45
50
55
60

TACATACTTTGGATATGAAATTGAAAATGAAAGAGCTGAAAAAATTTTAGAGGAATTAAA
AAATAAACTCAATGATTATAAGATAGAGTTTGTGAAGAGAGAGACATTCAGAGGTCAT
TGGAAATTTAATCTTAGATAATAAGGTTGTTTGCCATCAAGAGGGAAAATGGAGTTTGG
TCCAAGAGCTTTGGGAAATAGGAGCGTTATAGCTTTACCAACAAAAGAAAATAAAGAAAA
GATTAATAAAAAAGTTAAAAAGAAGTTGGTTTATGCCTTTTGCTCCAACAATACTGTATGA
TTTTATAGATGATTATTTAATAAATCCAAGATACTCCCCATTTATGACTCAGATATTTAA
GGTTAAGGAGAATAAGATAAAAGAAATTGAGGGGGTTATACACGTAGATAAACTACAAG
ACCTCAAACATTAAAAAAGATTCAAATAAAACATTCTACGGAATAATAAGATATATTTA
TGACTCTATAGGTATTCAGTAGTTTTAAACACATCCTTTAATTTACATGGAGAGCCGAT
AGTTTGCAATGAGAAAGATGCAATAAATAGCTTTTTAAAGGCAGATTTTGATGCTTTGTT
GTTAGGGAATTATTTAATTTCTAAAGTTAAATAATCAAAGTATTTCTCTGTCCAATCTAC
AACTCCTTTTCTCTCTTTTATGTTTATTGCTTCAATAATCTCATCAACTATATTTTC
AACATCTCTATTTGTTGTATCTATCTATAAACCTTGCCCTTTACTCTCACATAAGCACAC
ATCTAAAATTTCTGCCCTGAATATTTTCCAAAACCTTTTTGGCTTATAGCCCTTTTTTC
TAACCTTTCTTTGATAATTTCTGGATTGCATCTAAGAACTATAATATAGTCGGGATTCAA
AAGATGAGATACATGACCATCTAATATAATAGTTTTTCTTTTTCTCAATCTCATCAAT
AAATTTTTCCAATTTCTCAAAATCAATAACATAAGAGTCCATATCTTCATCTTTTTCAGT
ATATAGCTTATATTTCTTAACAGCCTCAGTTATATCAATAACTTTTTATTCCTAATCTGTC
TCTCAAAACTTTTGAAATTGTTGTTTTCCCAACTCCTGGAGTTCCAGTTATTGCTATTCT
CATTTAACCAACCAAAAAATTAACAAGATAAAAAATGAACATAAATAATTATTTATATA
TTAATTAGTTTTACACATTTTCAGCATCGTCCGTAATATTTGAAACATATTTATCCAATA
TCACGTCACTCTATAAGCTAACAACACATTCTCAGCAACAAACCCTAATTTAAATTTA
AAATACTCATATAATCCCTAAATTCATTAAGCTCTTTTAAAATAGATTCAAAAGGTA
CCTCAAAATTTACAATTACAACGTCATATTTCTGGGATTTTATCTTTTATTTTTCAAAGT
CTAAAGGATGTTTAACTCTAACAACATACAATTTTGAAGAATCTTTTCTACTCTAACAA
CCTCTTCCACTTCTTTTACTTCTTCTCTTTTCTCTTATGTTCTAACCTTAAACTTCTGATT
CAGTTTCTGATTCTTCTCTAATATATAAGCTGGTTTTTCTTCTCCAATAACTATATACT
CTTCATCAGGGAATCAATAGGTTTTGGTAAGTCTTTATTTCTCTAATCTTCTTTATAA
TTTTTTTTATGACCATAATTCCATCCCTCTTCTAAATCTTAAATGTTATTTAATGTTT
TATTATATAAGTTTAACTTTTATAAGGATGAGATTGTCAAGTTAAGTTTTTATCAAAATA
TTGATAAAAAATAAACTATGAGGCTCATGATAGAAGTTATAAAGGAGAAAAATCGTAG
AGAGGAAGCTTTTTAAAGGAATAGGAATCGATAGAGGTTAAATCTTAGCAGGGCTTTT
ATACTACCTCGGATTATCATTGAGGAAAGTGGGTTTATCCCCCTCCAATTCGAAGATAT
AAGTCACGAATCGATTAGAATTTATTATCACAAGATTAAAGAGGTTTTAAATAGATTTCC
AAGTAATAGTAAATTCGATACGGTTGTTAGTTGAGTAAAAAGCTCCATAATGTTCTACAA
TTGGGTGAAGTCGTTAACTTAACAGTCCCAGAAATTTCCATATAAAATTTATTTAAATAG
ATTTCTGCAAGAAAAATGTTTGATTGCATAATGACACTCAAAGAATGCCATAGTGTCTT
TCAAAAAATAACCTTTCAAAAAATAAAATTTATTTAAGCTTAGAATTTGAATAAAAACTAA
AGTTTTGGTAAGGTTGAAAAATTAACCTCAGATTAGAAAATTATATGTGTAATAAATTTCC
AAAAAACTATCAATTTCTCAGTCTCCGAGTGATTAAACATTAAGAGATAACTTATTATCA
ACAAAATAGATTAATTATTTATGAGAAATGTCCCCCTATATCCTACCCTCTCTCATCCT
TGGCTCTGCCACGTGAGAGCGTGGGCCGTAGGGGGTAAATAGATTTCTTGAATCTTA
AAATAAAATAAGGATATAATAGTCAGAGAGTTTATTCTAATTTAAGTCTTTTCTCTCT
CTAATTTGCTTAATTAATTGCTCTTGCTGATGCTCTTGAAGCTTTTTCATAACCAGCAAC
TCAATTAACAGAGACATCTACCCTGAGTTGCTCCTCTAATAGCCCCAGCGAATCCAAAC
ATCTCTGCAACTGGACACTTAGCTTTAATGATAGCCATATCTCCCTCTTGCTCCATATCT
AAGATTTGCTCTCTCTGTTGCTGATTTCCCTCATCGCTGCCCCCATGAAGTCTGTGGG
GTGTTTATATAAAACAACTGCATTGGCTCTAATAATACTGGATTTGCCTGCATCATTGCA
TCTCTAATACCAATCTTGCTGCTGGAATCATTTGTGCTGGTCTCTGTGGATTGCATCT
50 TCGTGTAACTACTGCATCCATTAACCTTAACCTTAACCTTGAACCTTCTCTGCTGCTAAT
GGACGTTTCTCATAGCTTCTTTGAACCTTGGAATCAATCTTTAACCTCATCTAAA
TGGACAAATCCTCTTGTCATGTTAATGAGAACGTTTCCTTCATAGATACACATTACTCTC
TTAGCTTCTTCTGGATCCATTCTGCTTAAATTAACCTCTGAACAATCTTATCATCTAAT
55 TTTCTCTTTGTATCAACGTCTGGGATCTTCTCTTTGTATGCTTGTAAATACACTCTCC
TCTAATGGTTCAACTACAAAGTAGAGCTTGTGTGTTGTTTGGAGATTTACTCTCAACT
ACTGGTGATTGCCCTGTTACTGTCTCTATAGACAACAATGGTTGCCCTACTTCAACT
GGAATCCAGCATCTCTCTCAATCTTTAATTTGTTATAATCTCAATGTGCAACTCTCCC
ATACCGTTTAAATAAGTGCTCTCTGTTTCTCGTTAATCTCAACTTAAACGTTGGGCTCT
TCTCTTGCAACTTGCTTAAACCTTCAATTAATTTGGTAAATCTTTTGTGTTCTTTGCT
60 TCAATAGCGACTGTAATAACTGGCTCACTGATGTGAGTTATTGCCTCAAATGGCTCAATT
ATTTTGTCTGGGGAACAGATTGTTTCTCCTGCTGATGCCTCCTTCAAACCACTAATGCA
CAGATGTTTCTGCTGAAATGCTATCTACTGGAATTTCTCTCAGGCCCCATGAAGACAGAT
ACTTGCTGAATCTTTGCCTTTTGTGTTATTTACCATATAAACTTCGCTCCTTGCTTA
ATTCTACCACTGAATAATCTACAACTGAAACAGCTCCTGCGTGTATCTACAATAATC

-279-

5 TTTGTAATAACTCCTGCTAATGGTCCGTTAGGGTCACAGTTGAGCATAGCTTTTCCAGCT
TCTGAATTCAGTCTCCTTTCCATAGGTGTGGAATTCTGTATTCTTGAGCTTCTGGTGGG
CTTGGTAAGTGTTTAATAACCATATCTAAACAACCTTCATGTAATGGAGCTTTTTCAGCT
AATTCATCTTGCCCTGTCTTCTTCAACAATCTGATTATATCTTTAAATGTAATCCACTC
10 TTCTTCATGAATGGAAGTGAATTTGCCAGTTGTTGTAAGCTGAACCAAATGCGACACTT
CCATCTTCAACTCTAACCAACCATTGTCTTTAAATCTTCTGAGGCCATCTTTCTAATT
AAGTTGTTAATATCATTGATAATCTTGATAAATCTGCTCTGCAACTCTTCTGGTGTAGT
TTTAACTCGTTAATTAATCTATCTACCTTGTGATGAAGAGGACTGGTTTAACTCTCTCC
CTCAATGCCCTGTCTTAAGACAGTTTCTGTCTGTGGCATAACTCCCTCAACTGCACAGACA
15 ACAACAATTGCCCATCAATAGCTCTCATTGCTCTTGTAAAGTCCCTCCAAAGTCAACG
TGTCTGGAGTGTCAATTAAAGTTAATTAATACTCATTTCCTTCATAGGTGTAACCAT
GAAACGTTTGCAGCAAATATGGTGATTCTCTTTGAGCTTCTCTTCATCGAAGTCGAGA
GCTAACTGCTCTCCAGCTAATTCTTTGAAATCATTCCTGCTCCAGCTAATAGGTTATCT
GATAATGTTGTTTTCCGTGGTCAATGTGAGCACAGATTCGGATATTTCTTATTCTGTCA
TACTTTTCCATTAATTCCTTAATTTTAGCAATCATTTTGTCTTTTTCCCATGTCCCTT
CACCTTATTTTACTTGTGAGTTAATTAATTTGTTAAAAGTTTAAAAGCTTATGGGTT
20 ATTAAGATAAAGTTTGGATGTAATATTGAAAAGGCATGTAAATTTATCTTGCTGACTGAG
CAACTCTCTGTCTCTTCTTTCTTCTAACTGCATAGCTTTTCTGCATGTCTCTCTTG
CAGCTGCAATTAATCTCTTCAGCTAATGCCCTCTCAATTGGCTTCTTGCTTTTATGAGCAG
CCATGTATGCTCCAAGAGCAATGTTTCTTAAAGCAACATCAATTCTTCTCAATGATGAAC
AATCAACTGATTGTAAATAGACGATACCTCCATAAGAAATTCCTTGTGTATCTTCTCTTG
GTCCAGCGTTTCAATTGCATCTACTAAAACCTGAATTGGGTTTTGTTTTGTCTCTTTT
CAATGATTCAAAAGCATTTTCAACTATTTTAAATGCTTTTAAATTTTACCTGTATTTT
25 CTTCTCTCTCATAACTTTTACTAATCTCTCAACAATGTTCAATTTTGTCTTTTCGA
ACTGTCTCTTGTGTATCTTCTGCAAGTGTGTGGAACATAAATGGTGTAAAGTTATGT
AGTTTCTTAAACCTGGGTCTTTAACAACAACATCCTTTGTGCTCCATCTTCCAAATACCT
TAATTTTCATCGAGTTCCAAATTACCACCTCATTTCCAACCTTTTCAAATTTTAAATAA
TTTAAATATAGAGAATTTATCTTTTGATTTTCTCTGTCTTCTCTAATAATTCTCTCA
30 ATGAGTTTCTACCAACCATTATAACCTTATACTTAACTCCTGGAATGTCCCCCTTAGCTC
TTGGTCCCTTAGGTCTCCAATACCTTCAATGATAACCTCATCGTGTTCATCAATGAAGT
TTATAGCGTGAATTTCTGGACGAATGCAGTAACAACCTTACCGTTTAAATTAACCTGAA
CTCTGACACACTTTCTAATAGCTGAGTTTGGCTGCTTTGCCTCTAAACCAACTTTTCAA
TAACTATTCTCTTGGCATTGGTGTCTTCTAATGGGTCATACTTCTCTTTAATTTTA
AAACTCTTCTAACATAGTTGTAATCGTGCCATCTACACCTTTCTTTTAAATCTCAACT
35 TTCTACCAGCAAATTTCTCTCTTGGTGATTTACTTCCACTCATAATCTTACCTTTTCATA
ATTATGTTATGTTTTGTTTTGATTTTGAGTAATTTAATAATTCAGTAATAATTTGGAAA
GATTACACAATGATTTTCCCATACAGCATATAGCATATAAGATAAATACTTTTATAAAT
ACTTTTACTCTTTAACAGTTTCTCTTTACATCTGTTGAACGCTGTGTTTCTTGTAGTTT
40 CAGTCTGTTCTTGTGTTGGTCTTTAATACTACAGGTCTTTTGTCTTTTTTCTTTAAAT
TTTGATTTTCAACAATAACTTTTATTTTGTAAATTTTGTATGTCTTTTTAAATCTTTA
AAGCTCTTTCTAAGTCTTGGCTTTTCTCCAAAACCGCTCTTCTAACTTTTGGATTTA
TTTTAATAAAAGCAACAACATCCTTTCCAACCTCTTTAACCCAAACATCATCTAAGTGA
TTGGTGCGAATATATTCTTATAAATTTCTCCAGTCGTCTGAGTACTCAATAATATCAA
45 CTTTCTTTCCAAATTTCTCTTCTGCTGTTTAAAGCTTCTCTCCACCTTTCCCAATTTGCCG
CTCCTACATCACCTCTTTTACAATAAAAGCAACTCTTTCATCATTTAATACAGCTCAA
GAATAGGGACATTGCAATTTTTCAAAAATCCAATCTTCATAATCTCTTCTGTTGTTA
ATCTTACCTTAGCCATTATTCACCACCTTCTTTTCTCTACAGCTCCATAATGTTTGA
GAGCCCTTCATCTAAAACCAAAGAGCAGCAACTGGGAAAGGTTTCCACAAACCGCTCC
50 CAGTTCTAATGATGTTATTTATGTTGATAAATGGGATGTTGATAACTTAGCGTAGTA
TTTGACATCCTCTTCTAAATCTTTTGAATGTTTCTGCTAAAACCTACTAATTTACCTTC
TCCGTGTTTAAACAAATTTTATGTTCTTTTGAACCTAAAATTAATTTACCTGTATCTAC
TGCGGTTCTAATGCTTTATTCACATCCATATCTCCCTCCTTCTCATTTTACTCCGG
AGGGATTTCTTAGGACTTTCCGAGGCAATATATTTTAACTTTGGAACCTAGACATCTAA
55 AAAATGTCATATTTCAATATAAAACATTTACTCCTGCGAAAGTCTAATCCCTACCGGT
AAGAATATTGGTTTTCGATAATAGTTTCTCTATATTTATATACTTTTGGATAGGATAAA
AACATCAAAAATTAATCAATTTTGTGTTAAATTTTAAAGGTCAGAGAAGGGCGCGT
TCATCATCAATATTTCAGCACATCGATGATCATCCCCATAAAATAGTAGTTTATGAT
GTTAATGTTAAAGTAATTTTAAATATAAAACCTTTACTCTTCCATATTTTACCCTCTT
60 CGTACTCCCTATCTATTGTTAGTTCAACACATCCAGTTCTTAAGTATATTGGTTTTTCAA
CAATAACGTTTTCTATAACCCCTTTCAGTTTATCAACATCTCCCTCTCTGCAGCAGCAT
ATAGATGCTTAACAGTTTCTTCGAATGCAGCTCTTGCTAAGACAGAACCTTTCTCTCCAG
CAACTCCATGTCTTCCAATTGGCTTAACTTCCCCATCAGCAGTCATTATATCTGCCACTA
ACATCAAAATGCCTTATATCAACCTCCAACCCCTGTTGCTCTAACGTGTTCTCATTTCT
TAATTATAGCGTTTCTTGTGCTCAATACCTAAAACCTTCTGGATTTCAATGATGTTAT

-280-

5 TGGTTATTGTTCTTGGTTGTATCAACCCCATCAATTTTAAACACTTCTCTTAAGTTTGAAC
CTTGAGTATATAAACATATCTCCTCCCTCTTTTTTAACTAAAACCCCTCTCAATTCCTG
GAATTCCTTTTAAATTGTATATTTTGGATTCTCTTTCTAAGAGCTTTTATTG
10 ATGGAGTCTTTATTTTTAAATATAAAGTAGTTCATCAACATCAATCTTTACCTTTAAT
TTTTCTTAATTGCCTCAATAACATCGTCTATTGTTAATCCTCTATCAGCTAATCTATTCT
CATCCAACCTCAACTTTTATAGATTGAGTCCATAAATCAATACTTATGCTTTCAGCTATAC
TTCCCAAGGTTAAACTTTCAATCTCCTTCGCTATCTCTTCAGCTTTTCTCTATTATCTT
TATATTCTCTTTTAGATAGATAGTCATAATTGGTGTGATGGCTCTTTCTTGCATCTA
CAATCTCAATCATCCTTGGCAAACCCAAAGGTAACGTTAATCTCCGCAACCCCTGCATAGT
15 GGAACGTTCTCATTGTGTATGAGTTAAACTCCATCAAAGGTTGTAAATGTCTCTAAAC
CTTCAACGCTTATGTCTATAACGTTATTTTTATCACAACCTTATTTCTCAATCTTAACAA
TTTCATCCCAAATTACATCACTTTCAACTGCCTTCTTAAACAACCAATACTCTTTTAGAG
CTAAGATATTTACTCCTTCTTAAGTCCCAATTCTTCTATTCTTCTTAAGTGTCTTTGTA
ATGTAGCTCTTCCAAATTTCTGCTTTCTTTCAAATTTCTTTAAATTTACCTTTGGATAAT
CAACTTTCTCTCCCAACTTAGTTAATGCATCTCCAATTGAAGGAATCATGTGATTGAAT
20 CGTAGGTTTTATCATCATTTAAGCTACTTACAAGCCTTTCTAATTCAGATTTTTCTTTT
CAACTGAGAAGTTAATTTCTTCATGGAATTTTTTAGCATATCTGTGTGGAATTATCAGTA
CAAAGTATTTTTCTGCTTTTATCTAATAAGATGTTAAATCTTGCCAAACAAATATTG
CAATTCATCAATCAACTCTTTTGAAGTTGAAGTAAGTCTTATAACCTTTCTATCTGCAT
TTACATTTCCATCTCCGTCAAAGTAACCTCTAATTAATCCTCTAACAACTCCTTATTAG
CTCCAAACACAAACTCAGCAATCTTTTTAGTGTGTTGATGATGTGCCAAAGTTTGATAAAA
ATTCTGCCAATGTTGATGAATAAATCCTTATATCATGGCTTTCTGCGAATCCGTTGTTGT
TATCATACTCTCCATAATTCAAACCAAGTTTATCTGCAAATGCTCTAATTTTATTTAAGA
25 TAAGTTTCATCAACGTTTGAATTTGAACAAAGTATTAGTTACTGAACCCCTCTGCTAAGT
AGATTCCTATGAAATAGCCAAAGTCATAATCTAATTTTATGTTGTTTGAATCGATTATAC
CATTTATTTTTGGAGCTATTTTTATTGTTAATGTTATCTACAACATAGTTACCAGAAACAT
AGTCGGAGATGTTTATAGCCTCAACACAGTTTGGGGGTATGTGCTTTACAACCTGGAATTC
TATCTCCAATCTTCAACTCACTACCTTAACCTGGGATTATTTTGTGCTTTCTTATATAA
CAAAGGAGTGATATGGTGTGTCAGTTATCTCCCTACCTGACTTTGTCTTTATTTAATCA
30 ATTTTCCATTATGCTTATGTCTTATACAGCTTATTATCCTCTTCCAATGCCTTTTTCAT
CTTGGTCTAAGCTTAAGGCATAGATGTCAAATAGGCAAAATCACAACCTCACTATTTCCAA
TCTTCTCAAAATCCAAATCTCTCAATCATCTCATCAACTAATTTCCAATTTCAACTGGCT
TTATAAACTCTCCTTCTTTGATTATAATCTTTCTTCAATAAGGTAGAGACATCTGAGTCC
CAGGCTCTCCAATGGATTGAGCAGCAACAAATCCTACCGCCTCATAAGGCTCAACTAAAG
35 CCTTCTCTTTGATAACTTTTCAAACAACCTCATCCTTTAATGATTGTGGTATATCTAAAC
CTTCAATTTTTTGTGTTAATGCTTCCATGTCCATGTATTCTCACCTTAAAAATTAAG
ATGTAAAAATGTTTTGAAAAAGTTTTGAAATTTTGAATTTAGAGATTTATTGGTTATA
CTTCATCTTAACCTTATCAATTATTCTGTCAATATTTACTGCCTTACCTCTATCAGCAAG
40 CATTGGGTCAATTCCATCCTCTCCATACTTAAATGAATCATAATTCCTCTTGAATCTCT
AACGGTTCCATCGAATCTGTCTTTAAGTCTTGTAGAGCGTTAATTAATCTTCTCTGCAT
GTAACCAGACTGAGCAGTTCTAAGTGCCTGGTCAACCAATCCTTCTTACCTCCCATAGC
GTGGAAGAAGAACTCTGTTGGACTTAAACCCCTTCTTATACTACTTCTAACAACCCCGTG
45 AGACCTTGCTCCTAAATCTCCTTTTTCGAAATGAGGCAATACTTACCCCTGTAACCTCT
AAAGATTCTCTTACCTCTAAGTACTGCTGCCCTAAACATGCCGCCATCTGTGTTAAGTT
TAAGATGTTCCCTCTCGCCCCAGTAACTGCCATGATAACCGCATGGTTATCCAAACCTAA
GTATCTCTCAGCAATAGCTCCAGCTTTGTCTCTTGCCTCTCTTAAACATTGCTTATATA
TGCCCTCCCTTGACTCCTCCAAGTTCAAACCTGGAAGCAATTCAGGTTCTCCTCTTTTATA
50 TTTCTCGATGATTTCTTTAACTTTCTCTTCTGCCTCATCTAAGACTTTTTCAATCTCTTT
TAATGCTTCTTCTGGTAAATCTTCATCATCAATTCCTGTAGTAAATCCTCTTAACATCAC
TGCCCTTATTGCCATCTTAGTAGCTGAGTCAAGGAATTTTCTTCCAGCTTCTGGACCAA
CTCTTTAACTATTGTGTGTAAGATTAAACCTGCCTCTGCCCGTAACCGTTTTTATCAAT
AACTCCTTTAATTAACCTCCCATCTTTTATTACAACATAGGCATCGTATTCACATTCCTC
55 TTTTTTGACACATCACACTTTCTACAAATCTTTGCTTTATATCTCAAATTCATCCTTT
TGGTAATGCTTTACTGAATATCTTCTTACCGGAGTATAATGGAAGTCCATTCTCTACCTT
ATCTGGCTCCCATAACTCATCCTTTATCCCCCACTTCTTAAGATTAAAGTAGCTTCATC
TTTTGTGAAGTAGTTTGAAGTTAAGGATAAGCTCCTGAAATAAAGTCGTGTATAGCTCC
AATTATAGGCCCTCCAAATCTTGGTGAAAGGATGTGTTTTTCTACAAGCATTAAAGCTTC
60 TGCCCTCTGCTCTTGCCTCCTCTGATTGTGGAACGTGTAAGTTCATCTCATCTCCATCAA
GTCAGCGTTGTAGGGCGGCAATTTCTGTATAAAAGCCGTTTGCAATGAAATTTGTGAGT
TTCTGAGATTGTAGTTATATCATAGACATAATCTACTTTTGTCTTCTCAATACTTACAA
TTTTTCTTTTACAAATCCATTCTTAAGGCATTTCTCTTTTATAAACTTATCAATGTAAT
AAATTTGGTGTATTTTCTAATTTTTAATGTTTCTGTCTTTTAGATATTTCTCTTTTGT
AAGGAGGTATTCATAAGCATATCTTGCTAATGTTTCTTTTGTGTAGCATAGGTATATCC

AATTCTTCCAAAGAATTCTTTATGGTTGTATATTGACGCAACATAAACTTTTGTGTTTATA
ACCATCTTTTCTTAGATTGCCTTCTTCAACCCCTAACCTTTAATTCAATACCAAAATCTTTT
TAGCATCTCTTTAATGTCTTTAATGAATCTATCTTCGTCAAATATCTCCTCAATCTTAGC
TATTTTGAATGATAACTCTTTAATGAAGTCCCATGATTTCTAATTTTTGGAGTTGTTAA
5 TTCCGAACCGAAGTAGGCTGATAAAAACTCTTTCTTTATATACTTTGGAGCAGTTTTAAT
CCAATTTGGAATGCCATACATCTTTTTAGTTTATCTCCACCTACACAACCAAGGGCTTT
TAATAGTATGCATAACGATTTTTTCCCTAACTTCAAAGCTATAACCTTTGCCTTTAATTAT
TCTTTTCTTGCCGTTGTAATCTGTTATTTTCAGTTTCTCCTTCATGTAGTTTTATTTCCCTC
10 CCCATCATAACCTAATTCTTTTAAGTCTCTTTTATTGTTTTTAAATCCTCAATATCTCC
TCTAAATACAACCTCTTGAATTTTTATTGTTTTATTATTAAAGAACCATCTCCCATTACATG
TCCAACAATCCTTGCCAATATTGATGCCTTTTGGTCATTGTATGTCAAAGGAATTAACCTT
CCTATCTTTTAGCTCATTAATAATTTTATTTTTGTAAGTTCTCCAATGTTATTAATTAC
CTTCTTGATTTTTCTTCATCAACTATTACTCTATTGTCTCTTCAAACATTGGGAAGTC
15 GTTTGGATATATTATAACTTCATCTCCAACCTTCAACTCACCGCATCTCTTTCTACCATT
TGTTGTATAGAATGGATGGTCTTCTGTTGCTATAATTTCTCTTCCAAGCTCTGTTTTAT
TTTATAAATCTTCTTCCATACTCATCTGCGTTTAAATTTCCAATACTTGCTTAATGAAGT
TAGTTTTGGATTTAAATCATCTGAAGTTAAAACCTTTGACATCTTTCCATTATCTTCTAA
GTCCTTAATTTAATTAATTTCCCATCTAACAACACTGTGGTGTCTCCATCTACACATAC
20 GCATAAATGTGTCTAAATGTTCTGTATGGGAGAACTCTAACTCTATGTGCCATAATAGA
CATTCTATGCAGTGATGGCTGTCTGTTGTATAAGACAATATCTCCATCCATTAAGTGCTT
TTCAACAATATCTCCTTCTCTTATTTCTCTGCCAGAGTCTTTATTGCTTTTCAGTTAT
CTTAACCTTATATTCTGCTCTGTTCCATCTCTACCAATCATCTTTCTTATAACATAATT
AACTCTGGGTGTTTCTCTGAACCATTTCTTAATAACTGCCTAATTCTCTCAATGTTGTA
25 TTTGCTTACCTTCTCTGGGACGGTTAGCTCTTTAGCCACAACCTCTGGAACCTCAACTTC
ATTAATACTTAAACATGGGTCTGGAGAGATAACTGTTCTTGATGAGAAATTAACCTCTT
ACCAGCTAAGTTGTATCTGAACCTTCTTCTTTACCTTTTAACTCTCTGAGCTAAGGTTTT
TAATGGTCTTCCACTTCTGTGCTTAGCTGGTGAATACCTGGAGCTTCGTTATCGAAGTA
GGTATTTACGTGATACTGCAACAGATTCCATAAATCCTCAATAATTAAGTTTGGTGCTCC
30 TCTTCTATATTCTCCTCTAATCTATTGTTGATTCTGATGATCAACTAAGTTGTGAGT
TAAATCGTCTTCACTTCTCTCTCCAGTTTCCAAGGTAATTGATGGCCTTACAGTTACTGG
TGGAACCTGGCAAAACGGTGAGAACCATCCACTCTGGCCTTGCAACCTCTGGGTTTAAAGCC
GAGTAAGATACAATCTTCATCTGGAATCTTCTCTAAAATCTCTCTAACATCTGATGGAGT
TAATGTTTTTCTCATTTCCATCAATTCTGTAGTAGGTTGTTGGTTTCTCAAACCTTTAT
35 ATCATACTTTATCTCTCCACAGTGTGGGAGATTGTAACCTTTGAAGCTTCTTTATAAAC
CTCTTCACAAACCTCCCACTTGTTCCTCCATCTCTCTAATTTTTCCATCTTTTCCAA
AATTTCTTTCTCTTAGTTTCACTTATTGCTACTCTTCCACAGTGTGGGCAAACTGCCTT
CAATATCTTGATATTGTTTTGGCAAATCCTATATGAATTACTGGTTTAGCCAACTCTAT
ATGCCCAAAATGCCCTGGACACTCTCCAATCCTTCTCCACATGTTTTGCAAACTAAACC
40 TGGGCTATAAATCCCAATCTTGTGTCCATTAAACCTCCATCTATTGGATAACCATCTTC
ATCATAAGTGTCTGGTGAATATCTTAGCAACTGACATCTGTCTTATGTAATCTGGAGA
CAACAAGCCAAACATTATTTCTCCAATCTCTTAGGGATTTCTATACCTCTCCATCAATAT
CACCAGGATTAAGGATTGCTTTTATTTTACTTTTTATTTTTCTAAAAATATTGTAAT
AAGGCAAGATTAAGGTTAAGCAAGGTCTTTAATGTTTCTCTTTATGTTTCTGTTTAACT
45 TTTTCTTTCTCCAATTTTTCAACAACTCCTCAAATCCTCTAATTCAACCTTATCTCT
AACCTTAATTCTTGGCAAGATACACATACTCTTCAACTCATCTAATAAAAGCTTGAATGC
GTAAGGTATTCTAACGAATGGTATCTTCTTAGAGCTGTAGAGGTTTCAATCTCTCCACA
AATTGGACAGTATTTTAGCCCTCTCTGTAGTCTAATATGGCAAAGTCTCCACATTTTGA
ACATATACAGATATCATATGGGCTCTGATTCACTCCATAAGCCTCTCTTTAATAGCATAGC
50 TGCACCATGCCCAATTAACATCCCTCTCCATCTCTCCAAACCTTAGACCTCCCTCTCT
TGCCCTACCTTCTGTTGGCTGTCTTGTAGCACTTGGACAGGTOCTCTACTTCTTGCACTG
TATCTTTCCAGCTACTAAGTGGTGAATTTCTGGTAGTATGCTATTCCAATGTAAATCTC
TACTTCAAACCTTCTTCCAGTTTTTCCATCATACATGACCTCTTTACCGTGATGCTTGAA
TCCATAAGCCTCTAAAGCCTTCTTAAATCCCATCTTTTTCTCCGCTAAATATTGTTCC
55 GTCTATTCTTCTTCTTCTAAAGCTCCTACTTTACCCCCAAGCATCTCCAATAACTGCC
AACAGTCATTCTTGATGGAATTGCGTGGGTTGATTATGATATCAGGAACCTATTCCACT
CTCAGTGAAAGGTAATCCTCCTGTGGAACGTGAAGTCCCACTAATCCTTCTGTCCATG
TCTTGAAGCAAATTTATCTCCAAGCTCTGGAATTCTCAAATCTCTAATTTTAACTTAACT
TAACCTGTTTCTTCTTCTTGTTCAGTTAATAAATTTATCTATATAACCTTCTTCCCC
60 ATGCTTACAACAACCTGATGAATCTCTCTCTGTGGTTTAACTTGAATGTTATCTCATG
CTCCTCTAAGAATCTTGGTGGAGAGGTTTTACCAACAATTACATCTCCACCTTTTACATG
GGACTCAACTGCAACTATTCCATCCTCTTAAGTATCTATAACACTCCTCTGACCTATA
ACCCCTTACTCCTTTATCAGGAATCTCAAACCTATCCATCTGTCTCCTGGGTATCTTCT
CTCACACGCATCGTAAGTTCTGAAGAAGGTGCTTCTTCCAAACCTCTATCAATTGCTGA
TTTGTTAAAGACTATAGCATCTCCATGTTGTATCTTCATAGCTCATAATAGCTACAAC

-282-

GAAGTTCTGCCCTGCTGGTCTTTTATCGAAACCTAAAATCTCTTGGTGTGTTTGTCTAAC
AATTGGAACCTGTGGATAGTGGAGATAATGCCCTCTGTATCTAATCTCCATTTTATATT
GCTCATTGGAATTCCTAATGACTGCTTCCCCATTGCTGCAGCCATTGTAATCTTGGTGC
5 TGAGTTGTGTTCTGGATAAGGAGCAACCCCTGCCCAATACCTAATATGGTTAATGGGTC
TATCTCTAAGTGTGTGTTTTCTCAGTCAATTCTTCTTCAGATAGAGCAATATAGGCATT
TTCTTCTCTCTCAGCGTCTAAATATTCAATAACTCCTTCTTTAACTAAATCTGAGAATGT
AATTTCTCCTTTCTTAATTTTTCAATATGTTCTTTAGTTAGTTTTGGTTTTCCATTTTC
TACAACATTAAAGGTCTAACAATCCTTCCAGCATCCGTGTTTATATGAATGTCATTACT
10 TTCTTCATTGTAAGCAACTGTTGTATATTGAGGGAGCTCTCCTTTTTCTTCTTTTTTCCCT
AATAAAATTAACAAGTCTTCTCGGTTTGTCTGTAGTTCCAACCTAATTTCCATTAAACATA
AATATTTACTTCCCTTGATGCCAAGTTTTTCACCTAAGAGAGATTTTTATTGATTTTGAA
AAGATTTAAATTAACATCAACAAAACCTCAGAAAAACATAAATAAATAAAGTTCTTTT
AAGAAACATTTATTCCAAAGGATTTTAATAGCTCAATAACTTTGCTATCATCTCTCTCTC
15 TTGTAACCTTTACACATTATAGCAAAGTTTTTAACAAGACCACAGTTTGGACCTTCTGGAG
TTTCTGAAGGGCAGATTTTACCCCAATGAGTTCCATGCAGTTCTCTCGCTTCAAAGTGTG
GCTGTGACCTTGATAATGGTGAACCTATTCTCCTCAATTGAGAGTTTGTGCTAAGTAAC
TTGTTCTATCTAAGAGCTGGCTAACCCAGTTTTTCTCCAACCCATGTTCTGTGGCA
TAGCGTGTGTTAATCTCTCGGTTAATATATCGCTCCTTACAGCAGCTTGAATTGAAGGAG
20 TTTTGTTCCTTAATGTTGTCTCTCTAATTGATATTTTATATCCTTAACAAGTTGGCTAA
ACGCATATCTAAACAAATCTTCCATTAAGTCCCCAGCTAATTTAGCTCTTTTATATGCGT
AGTGGTCTTTATCATCTTCTCCTCTATATCCAAAGTAAAGTTCTAAAGCGTTTCTTGCCA
TTATTCCTAAGAACCTAATTTTCTTTGGGAAATCTTCTTTTGTAACTCCFAAATGGGGCA
GTAAATAGTTACATAAACTGTTTCTGCTCTCTTAAATCTATAATCCTTTGCCCTGCCCTG
25 GAGCTACTCTCTTTCCAATAAACTCCAAAGCATCTTCAGGGGAGTTTATGTTATGCTCTT
CCCTAATCTCTTGAATGTTTAAACAACTCTCCATAAAGAATCTTTCATCATCAATTGACT
CAATGATATCTTTATCTGTCTCAGCCCCAAGTGCTTTCATTAATATAACCAATGGTATCT
GCCCAGGCATTCCAGGGAATGTAGCATACAACAAACCATCTGGATGTCTTCAACAGTAC
ATAAAGCCCTAAATCCGTGTCTTGTGAAACACTTTTGAACATCTACTATCTTTCCAC
TTCTCTCTGCCCTTCTCACATAAAATCTATTTGGAATTAATCTTCTCTGAGTAATTAATA
30 CTTTTTCAGTTCCATTAATTATAAAATAGCCAAATGGGTCTTCAGGGTCTTCTCCAGGT
CTATAAGCTTCTCTCTTGAATTTTCCATACAAGTGGCAGATTTTGAACCAAGCATTACTG
GAAGTTCTCCGATATAAACTTCAACAGTTTCCCTTCCCTTGCATCTTCTCCTTCAACAA
TAATAGGGGTCATTTCTAAATATAATGGAACCTGAATATGTTAAATCTCTGATTCTTGCTT
35 CCATTGGAGTTATTGGTCTTATTGAACCATCAGCTTCTTTAATAACTGGTTTTCTACTT
TAATTTTCCCTAATTTAACTTTATACCTCCAGTAATCTCTGTTTCAATATATCCAACCTT
CATCAATAATTTTTGTAAATCTATTTCTACAAAATCGTTGTATGACTCTATCTGGTGGT
CTATTAACCATGTTCTTTAAATAAGCATCTACTAATTCTCTCATAATTGCCACCTATT
40 TTTTAAATAACTCCTTTTAAATAACTAATCTATAAGCTATACTAATCCAGCCGTTGGACTT
TTTCTAATTACTCTAACAACATCTCCTTCTTTAGCTCCAATTTCTGAATAACAGGGTCG
TCTTCATAAAATTTTTGGTAGTTGCTGAATCTTTATATTGTATCTCTTCAAAATCTCCTCA
ACTTCTCTCTTTGGAACCTATTTTCATGCTTTGGAACCAAGTATGTGGTCTGTGACCTTCAAG
GTTACTCCTCCCTACCATTTTGTGTTAAATATAATTAATGACAAAAATTAGGTTAAAGAG
AGACTCAAGGTAATGATGTAATAATGTGATGCATCCTTACAAATATTTTTTCTCATAT
45 TTATTTTTTACTTTTTTATGTCCTATAAAATATTTCTTTTGAATATCTGTTAATTT
TTTATAGCTACTTTTAGCCTTCTTTTTAGTCCCTTCTTTAGATTTTTTAACAAACTCCTCC
AACTCCTTTAGGAATTTTTCTCATCCTTTATTTGTCCATTCTCATCTAAATGTTTTTCA
ACAATCTTAACAATCGCACTTCTTACAATAGCTCCATCAGCTATTTTCACTTATTTCTCA
ACATGCTCCCTCTTTGAGATTCCAAACCTTACACAGGCAGGGATTTTTGAAAACCTTTTTA
50 ACTCTCTTAATTAACCTTTTCTGCTCTCTTCACTACTTTCTCTCTCGCTCCAGTAATCCCA
GTTACAGAAACAACATAAACAACCCACTACACTTTTCTAAAATTTTCTTAACTTTTCA
TCAGGTGTTGTTGGGGCACTAAAAATATTAAATCAACTCCATACTTTTACAGTAATTG
TATAAGCTATCAGCCTCTTCAATTGGCAAACTGGAACCTATAATCCAGAAACTCCAGCC
TCTTTACATTTTTTAAACGAACCTCCTCTCCCATCTTAAATATTATGTTATAGTAGGTT
55 AAGAACACCTTTGGAACATTTGGAGCTTTTTCATTCAATTTTTTAGCCAACCTCAAATGCC
TTCAATGGATTCTAGCCACTGTTTAAAGCTCTAACATCTGCTTTTTGTATTGTAATTTCCA
TCTGCAACAGGGTCAGAAAATGGAATACCTATCTCAACAATATCAGCATGCTTACAAATA
ACTTCTAATGCCTTTTTCTGAAATTTCCAAGTTTGGGTCTCCTCCACATAAAATGCAACA
AATGCCTTTTTCTCCTTTGTTTTTAACTCTTCAAAATTTTTCTGCTAATTTTCAATATC
60 CACTCCAACCTTTTTAGTAAAGCTGCCCGAACAACCTTTTTAGAAAAGGTTGATCAAAAT
CTTAATTTAAATGGGTATCCCAATAGGGCGAAGTCTATGGTGTCTTGACCAGAACGGAT
ACATTAAGGGGCTTTTAGTCCCTTTAATGTCTCTTAAGATTGTCTCAAGTAATCGAATAT
GTCTTTAAATCTCCCTTCCCAATGCCTTAGCAACAGTCTGAACGCTTATCCCTCTTC
CAGACAAATTAATAACCATTTATATCATCTTTATCTAATTTATCAGCCAATTTAACAGCAT
AAGCTAAGGCATGAGAACTTTCCAATGCTGGTAAAATACCTTCTAACCTACATAGCAATT

GAAATGCCTCTAAAGCTTCGTTCATCAGTTACACAACTGCTTTAATCCTTCCCTCATCCT
TTAAAAATGAAAGCTCAGGTCCCTACTCCAGGATAATCTAAACCTGCTGAAATCTGTAAC
TTTCTTCTATCTGCCAACTCATCTCTTTAACATAAAATCTTAGCTCCATGCCAACTC
5 CAACCTCTCCAGCACATAATGAAGCTCCATGCATTCCAGTTTCTATCCCTTTACCTCCAG
CCTCAACAGCGTAAAGCTCTACGTCTATCCAAAACTCATAAATGCCCTATTGCAT
TACTTCTCTCTCAACACATGCAACGATAACATCTGGCAATCTTCCCTCTTTTCTAATA
TCTGCTCTTTAAGTTCTTTACCAATAACTCTTTGGAATTCTCTAACCATCATTTGGGTATG
GATGAGGTCCTAAGGCAGAACCAAGCAAATAGTAGGTAGTTCTAACGTTGGTTGTCCAAT
10 CTCTCAAAGCTTCATTTACAGCATCTTTAATGTCTGTGAGCCTCCAAATACTGGAATAA
CCTTAGCTCCCATCACTCCATCCCTAAAAACATTTAATTTTTGCCTTTCAACGTCTTTAG
CTCCCATGTATATTATGCATTCTAATCCAGCTTTGCACATGCTGCTGCAGTAGCAACTC
CATGCTGTCCAGCTCCAGTTTACAGCTATAACTCTCTTTTTACCCATCTTTTACATAACA
AAGCTTGTCTAAGGCGTTGTTTTATTTATGAGCTCCTAAGTGTGCTAAATCTTCTCTCT
15 TTAAATAAACTTTACAACCAAGTTCTTCACTCAATCTCTCAGCATAATATAATGGTGTG
GTCTTCCAACGTAATCCCTCAATAAAGCATAGAACTCTTCTCTAAAGTTTCTTTCATTGT
TTATCCAAATCTCTTAAATGCTTCTTCAATTCAGCTATGGCTGGCATCAATGTTTCTG
GAACAAATTTACCTCCGTAATGCCAACTTTCCATTTTCTGATAACATGCTCTTTGT
ATTTCTTCAAGATGGACACCCCAAAAAGATAATTTTAGCTTCTGAAATAGTATTTGGTAG
20 TAATACTTATACGTTTGAACCTTAATGCAATGCAATGATTCCAACCAATATATAGCCCAA
TAGAATATATAAGAAGCTTTTTCTCTTTATGCTCATAGATATGAGGAGCAAGCATAAG
AAACGCTCCTAAAAACACCCCTCCAGAGAATGCCAACAGTATCTTGTAGATACATCCTT
TAAAGTCACCAATCCAATATAGTGCCAAGGACTGTTCCAAATGACACAAAAACCCCTGG
ATAGAGAGGATTTTATAGACACCTTTTAGTGGAGATATCAAAACAAATCCAGCTGGGAG
25 TTTATGCATCAATATAGCAAGATACAAAGGAAGCCCTATCTCACTTATATATGATACAGC
AATTATCAACCCATCTATAAATGTGTGGATAAAGAAGGATATTGGATAAATAAACTTAAT
CCTATTTTCTTCTAAGTTGTCACTCTACACAATATTTTTTGTAAATGGGCGATATGC
TAAATATTTTTTCAATAAGATAGACTGTAATCATCCCCAAAATTACATATAACACAAACAT
GTTGGAGTATGATTTTGAATTAATATTAGAGTTGCCACTCCAAATATAAATCCAAAGGA
30 AATTGCCTCAAATTCATTTTATTTTTAAAGTACTGAGTAGTAAGCTAAAAGCTCGCC
AATACACATGACAAATAAGCTTAGAATTGCAATAAATATTGGAACCTCAACCATGTTTGA
CACCTAAATTTTATATTCTTATTTAATAAATATTCCAACAAAAACCGGATTTAAAC
GTTAATATCATTCACATTATTTTATTTTTGTAAATTTAAAAATTCAAATTTGTAAATTAA
TTAATATTTGTAGAATATAGCCCTAACTCATTATGCCCATGAAGCAATTATACAAAAGC
35 TAAAACCTTTGGTTATTAATGTTAATTTCTGACTATCTCATATTTATAGTCATTTATAGT
TATTAGATTTTCTAATATATAACTTAAATAAAAAATAAGTATTATTTTTTAAATAACAA
AATCTAAAGATATTATATATCAGGTGAATATTCCAAATAAGTAGTAAGATATTTATTGGA
TAAGCTTGGATAAATACTAATATCCCTATTAAAGTAATAAAAAAGGTGATAACTTGGTCGA
40 AAAATAGGAATAATAAAGTGTGGTAACATAGGAATGTCCCCAGTTGTTGATTAGCATTA
GATGAGAGAGCAGATAGAAAGGATATAGCAGTTAGAGTCTTAGGTAGTGGGGCAAAGATG
GACCCAGAATCAGTTGAAGAGGTAACAAAGAAGATGGTTGAGGAAGTTAAGCCAGACTTC
ATCATCTACATAGGTCCAAATCCAGCCGCTCCAGGGCCTAAGAAGGCAAGAGAAATTTTA
AGTCAAAGTGAATTCCTGCAGTGATTATTGGAGACGCTCCAGGATTAAGAGTTAAGGAT
45 GAGATGGAACAGCAAGGTTTAGGATACATAATTATAAAATGTGACCCATGATTGGTGCA
AGAAGGGAGTTTATAGACCCTGTTGAAATGGCATTATTCAATGCAGATGTTATAAGGGTT
TTAGCTGGAAGTGGAGCTTTAAGAATCGTTCAAGAGGCAATTGATAAGATGATTGACGCA
GTTAAAGAGGGCAAAGAAATAGAATTACCAAAGATTGTTATTACAGAACAGAAGGCAGTT
GAAGCTATGGAATTCACAAACCCCTACGCAAGGCAAGGCCATGGCTGCATTTACAATT
GCTGAGAAGGTTGGAGATGTTGATGTTAAAGGTTGTTTCATGACAAAAGAGGCAGAGAAA
50 TATATCCCAATCGTTGCCTCTGCTCATGAAATGATTAGATATGCCGCTAAGTTGGTAGAT
GAAGCAAGAGAGTTAGAAAAAGCAATGGATGCTGTTAGTAGAAAAACCATCACCAGAA
GGAAAGAGATTGAGCAAAAAAGCATTAAATGGAGAAACCAGAATAAATTAATCCTTTTTAA
TTCTATTTTAAATTTTTCTTTTTATTATTTTGCAATCTCTTTTAGTAACTGCAGTTTAT
TTCCTTTATAATCAACCTCTACACATCCACATATCTCCCAATGTTGTCTTGGGTATCTTT
55 TATCCCTATAAATCTTTGGTTCTAAGCCAAGTTTTTTTTAATGCCTTTTCAATATCCTTTA
AAGATGGCTTTTCTATAGCTAACTCTCTGGAAGTTTCTTCTCTCTCTCTCTCTCTCTCT
TTTTATCTATATAAGATGGCCATATAATCATTTTCTCCCTCTAAATCCATCCTGACCTTC
TAAATATATAGACAAATATCATAATTATTACAACCATCAAAGCCATTACAAGCCAAAAAC
CTTGAGGGTTGTTTGCTAAAGGTAAATAAGAGAAGTTTCATCCCGTATATTCCAGTAATCC
60 ACATGGGAACAGCGAAAATTGTCGTAACCATAGTTAGGATTTTCATAATTTGGTTCTCTCT
TTATATTTTCTAATGAGAGGGTTATATCCATCATTGAGGTTAAACCTCTCTATAGGTTG
CTGACATATCAATTAAGTGTGCTAGTAAAGGTTCTCAAAGTTCTCTCTGTCTCT
CTTTTGTGGTTATTGGAAGATACTTTCTCTTTAATAAACTAAGACATCCCTATTAGCTA
TTAAAGATTTTATGAAAAATAACCAAGTTTTTCTTAATCCTAAAAATTTTTCCATAACCT
CTCTGTATAGCCAGCTAATAATTTATCCTCCAACCTCCTCCAACCTCATCTCTAAATTCAT

-284-

5 TTAAATTCCTTGAATAACTCCTTGTAATCTCATTTAATATATGGTATAATAAAAAGCCAA
TTCCCTCTTTCAAATACAATTCTTGGTTTTTTTGTGATATTAATTTATGCAATCTTCCAA
TAGCCTTTATTTATCCGAGTGGATTGTTAGTAGGAGGTTATTCTTAATATAGATACCTA
AGGATGTTGTTGAATATCCTCTTCAAATAATGGAGCTTTGTAAATAATTAAGTAAAAGT
10 CCTCATCTTCCCTCTACCCTTGGAAATTTCCCTGCTCATCTAAACCAATTTGTAATCAGAGA
CAGAAATACCAATTTTTTTAGAGAGTTTATATAGCTCTTCATCTTTTGGGTCATAACAAT
CAATCCAAATAAGTCTATAATCTTCAAAGCTAATTTTCATCAAGTTTTGGCTCGACAATAC
TGCCATCTTTAGCTATAGCAATTACCGTAATCATATTAGCCCTTTGTGATGCTATTTTTT
AATTTTTTGAATTTATCTTCTTTTGAACCTTTTGTAAATAGGATAACTGAAAGAATAATA
15 ACATAGATATGTAAATTATAACACACATAACAAACATTATAAAGCTTATCTTTTTTAGT
AGGTATTCCTCCACCAGAAATAATCAGTTCTCTCGATATGAATATACATATCAAACAGAAA
AAATACTTTTAAAGTATTTCTAAAGGTCTTTTTCTGAGTTGATAATGGTATCTACAAAT
TTCCCAACCATTAAATCAACAATGAAAGTGTTAAAGAATCCACAAAGTGCAATAAAAAT
TCTCTATAAATCTGTAAAGTGTGTAGTGAAGTTTTATTAATAGAATTAATGAGTATATT
20 AGTCCAATAATTAATAAATATAGATATAGATGCAGAGATAGGAAAAACCTCCCTACA
TCAAACCTCTTCTTTCTTTTTAATTTCTCCATTAAATAACTTTCTAACACCCACTCCTTCC
GATAATATATATAACCAATAATTCACAACAATTTCTCCAACCTATATCTGCAAATATC
GCATACAATATTAAGAAAATCCAATAAATGTTAAATTAATGGGATATATCTTCCATG
GTCTTTTTAATAAACTCTTGGATTAAATAAAGTGGATTCTAAGGTTTCACTCTGCTTA
25 ACTATAACTCTCTTCTCCACACAAAAATATTTTTGACTCCAAGTATTTTAAATCATC
TCATCCTCTTTTCCATCAGATACCAAATAAATAAATCTGGATTATACAGATATAACAAA
AAGTCTATCTGCTCCTTTATTCTCAATGCACATTTCTCTGATTCAACATCAACATCTCCA
GAAATCTAGCTATTTCAACATCTTTTCCACTTGCTTTTAACTCATCGTAAATCTTAACC
CCTCCAAGAATTGCATTAAACATCGCTATCTCCAGGGTCTGCCAAACCTAATTTTATCAAT
30 GCCTTTATGTTTTCTCCCTACCTAAAATTGGTGTGTTTAGACCAGCTTTTCTTCCAATA
TCGTCAATCAATATCAACAACAAGATAAATTTTTACTCCTTCCCTTTCCCTCCTT
ACTCCCTCTCATAGGCAATAATGATAAACAAGATAAACAATGCCAACATTCTTAAAAAT
AACAGATAATTATAGTTACACTATTTAATGTTATATATACCTTTTAATTAATTAATAAAT
35 ATTTAATTTAATAAATCCATCCCCAAGGGCAATGACTAATAGAGAGAAAGTTGTTGTA
ATAAATATAGATGAAGCTATCAATTTAATATCTAATCATATAATGTCCCTAAAACGAGC
GTCACTATTGCTGAAGGCATAGAATCTCAACCAATAAAACATTCTTCTCTAAACCTTTT
ATATTGATTAGTTACAGATAACGTAAAGGCAGTAGCTGGAGATACAATGAATCTAAATATT
GACGCTATAATTTCCCAAAAGACTCCAACTTTTAAAGCCTTTGGTGAGAGAGATAAACCC
40 AAAGACATCATGATTAAAGGGACAGTTGCTGAAGATAGATAATTTAAAGATTTTAAAGATA
AAGCTTGGAAATATAATTTAATTTAAAACCAAAAAATACTAAGATTATTGATAGAATTTCCA
GTTATTAAGGGAGGGAATTTAGCCATATCTTTTAGGATGCTTTTATCTCTACCTTTTCCA
AATCTTATCCCAACATAAGTTCTTAATAGCATTGTAGCAAAAACCTCCTTAAGTCGCAG
AATATAGCTCTTGCCAATCCTCTTACCACCAACATTCCCAAAGCTACTGGATAACCTAAA
45 AATCCAGTATTTCCAAGCATTGATACCAAAATTAATCCTCCAAGCTTTTCATCCTTTAAT
TTAAAGATGTGCTTTCCAAGTAAATAAGCCAATATCCCAACAAATAAACAGCATAAAAAA
ATGACCACTGGAAAGCTTTAAAAATTCTAATATCTGAGATGAGGAGACATTTTTTGATATA
GTTAAAAATATCGTTGAAGGCATAGCAATGTAAATAACGATATTGTTTAAATCTTTGCA
TGTTCTTCTTTTAAAAATCCCAAGATTTTGA AAAATACCCAACTAAAACATAAATTAAG
50 ACAATTA AAACAACATCCATGGGTATCACTTTATTATCTCCCTCTTCTATCTCTCTC
CCTTTCTAATCCTCGTTGTTGATATTGGCTTTCCATCTTCAGCTAATATAGGTTTGAAGA
TAACATCTTTAATGGCTTTAATCCTTTAGACTCTCTTATTTTGTATTTTCTCTGCAT
TTTTTAGTGTCTTGGAGTAACAATATTATATCGTAATCTTCAGTTATTGCATCACCAT
AAGCATCATTTATAACTTTAATTTTATAATCAGCTTTAATACTATCCAAAACTTTTTTA
AATTTTCTATTCTTGTTTTTTAAATCATTATTTTATGTGTTTTATATTTTTTGGCAAT
55 CATCACTTGTTATTCTATAGTTAATTTTCTTAAAGAGGATGCAAATTTTAAAGCTCCT
TATGCCCTCTATGCAGAAATATCAAATGTTCCCTCTACTACTACCTTCATGGCTATAACCT
ACCCCTATTTTGCAGAAATCTATAGAATTCATTTGAGAGATTAACTATATCTTTAACAGA
GAGTTTAAAAACCTTCTCATTTATTAGGTTTTTTATCTCTGAGTTTGTATTTAAAAAATC
TTCCAATATCTTTTTTCAATTTCTATCTTTGTTATAGTTTAAATCTTTGGAAGAAATCAATCAA
60 CGCCTTCCCTAACTGATTTATTTCTATGTTGAAATATAGCTCTCAAAAAATCATCAAAGAA
ATTTTCATCTCTATGTGGTATTGCTTTGTTAGGTTTTATTTTAACTATTGCAGAAATA
AACCTTTGGTTTTGGATAGAAAGCACTTGGTGGAACTTTAGCTACTATCTCAACATCTGC
CCTTGATTGAACCGCCACAGATAACCTTCCATAATCTTTGTTCCCTCTTTAGCTACCAT
TCTCTTGGCAACTCATACTGATACATTA AAAACAGCTAAATCAAAGCCCTCTTTATCAA
TTTAAATGTTATTGGTGATGAAATTTGATATGGAAGATTAGCTACAACCTTATTAATAATC
TAACTTGTTTAAATCAACTTTTAAATGCATCTCCCCAGATGATTTCTATATTGTTATAAAG
CTCTTTTAAATTTATTAGCATAAGGCTCTAAGCTTTTATCTATCTCAATGACATAGACTTT
TTAGCATTTTTAGCAAGCTCTTCTGTAAAATTCCTTTTCCCTAAGCCAATCTCTAAAAC
TACATCATCCTTTGTAAGATTTCAGATTCCACTGCCTTATTAACAAAATCTTATCTAT

5

10

15

20

25

30

35

40

45

50

55

60

TAAAAAGCATTGCCCTAATTTTTCTTTGGTTTGAACATTGTTTCACTTTTTATTTATTC
TAAAAAGAGAAAAGAAAATAAAAATTTATTCTAACAACCTTAACAACCTTCTCTTCAATC
TCATCAACTGGTTTATTTAATATATTAGCCAATGCCTCAGCAAATATTCTTGCATACTTC
ATAACATACTTTCTCTTTTTCTCTTCTTCCAGCCTCTCTTCTAATTCTTGATAAAATTTTC
TCTAATTCTCTACCACAAATCATCAACGCATGTCTAATTTCAATTATAAATTTCTTCATTT
TCATTTTCACTACAAGCAACTGCCTGCTTTCCTGCTGAAGTGTAAGGGATAAACGTAAGAT
ATTAGATTAACAAACACTGTTATTGGTGCATCTTCTCCTCTCAACCCATACCTCTTCCAA
TTTATACCTTAACTGCCTTAGTTAAACACAGGCTGAGGCATCATACAGCAAAGGAACG
TGGTTAGCAAATCTCATAATCTCCATCTCTTCTTCTTCTGCTCTCCCTGCCTCCCAGCGTTT
CCTCCATAGGCAATAGCAACTTCAACAGCGAATGGAATTCCTCCTTTATAAGTTTTTGGA
TTCTCGTAATTGCCTTAACAAAATCTGGCTGTAAAAGCTCTTTAATGATTTTTCTATA
TTCTCTGCTCCAATAGGCTTAACTCTGTGTTGGAGGAGCCATAAATCCATACTTTGA
AGACAATTAACAATCATTTCGCCCTCATCCCAAGTTAATTCCTTAGGATTTTTATTTAAT
ATGCTTTTGACTTCATCCTCAAATTTTTTAGTTCTTCATCAGATATTAGTCTTTATTT
TTTATTTCAGCGATAAATCTTCTGGATTTTTAACTATATTTTTAACTTTTTTGTTTAAAT
TCATCAACAACCTGTAGCTGATAAATAGTTCTTTTCAGCCCATCCATAAAGTTTTTCAGGT
ATCTTCTTAAAGTGGTTCTTAACTTGTTATCTCCTCTTCACTTAGCTTATTAATAAAA
TATTCCATTGTTATATCTTAAAGCGTATCTCTTAAATTCATCTAAGCTCTCTGGGAAGG
TTTTTAATTAACATTCTAACGGTTTTCTATCTCATCATCGGTAATATAATCTTTAAATTTA
TTTAGATAGCTCTCAATATCTATATTTAAATAGCAAGAAACAACCATGTTCCAAAATACA
CTATCTTTAAATTTCTTAAATATTAATCTCTAAGCATGTAATTTATAAGCTCTTTAATT
CTTTTTGTTGTAACCTTTGAAAGTTGAGAGCAGCATGAAGAAACTTTCTTTGATTTT
GTCTTTCTTGCAATATATAATAGTTTCATCGGTAGTTAAACCATAAGGATGAGGTTTCATC
TCCTCTGGTTTTTTAGGCAGTTTCAATTAACAACCCCTATCAAATACAACCTCTCATAAGGG
TCTTTTAATACAATTTTTGCGTGTGGTGTGCTAAACTTATTCTCCTCAAATATCAAAA
GGTCCAACTCTCCTCTGTTGTAGCTAACTCTTTAAACTCTCCCTCTACTCTTGTTCCT
CTCCATTTTCTTTTCTTACTTTTTTTGATACAATTTCTCCTTCGTTTTTCTCAACATTC
ATCTTTACTTCAACTTCATAGATATTGCCATCTCCAGTTGATGTTATAATTTTTAACGGC
TTTCCAGTGGTTATTTGTGAAAATAGCAGAACTCCAGCAGCCCCAATTCCTGCTGTCTCT
CTTGATTGAATAAACCTATGCATCTTAGAACCAGCTAACATCTTTCCAAATACCTTTGGG
ATGAATTCTAAAGGAATTCAGGACCGTTGTCTTCAACTGCCACTTTATAGTGGTCAGCT
CCTAACTTCTCAATCTCAACTTTTATATCTGGCAAAATGCCGGCTTCTTACATGCATCT
AAGCTGTTTGAACCAATTCATGGATTATAGTTGTTAAACTTCTAATTTTTCCACTGTAT
CCAAGCATGTGTTTATTTTTCTTAAAAAATTCAGCAACTGAATGTTCTTTAAATCTTTA
AATAATTCATCTCCCATGAATCCCAACCTTAACTTATTTTGCAATTAAGCTTTTATGT
TGAAAATGATATATAAAATTTAAATTTGTCATATTTATTTATCAATAAATATCAGTAA
AATAAATAATGTAACAAAATAGAAATTAACATAACTATTTTAAACTTTAAATCTTATTT
TCTTTAACAACAATCATCCTATCTGTGCAAGTAAAGCATGGGTACAGCTTGCTATAATT
AATTCAGCATCTGAAACATGATGTCTGGCAGAAATGCTTCCATACAAGCTAAGTTGGTT
GCTGTTGGTGTCTAATTTTTACCTGTCTAACTCTACCATTTTCATCTAAACCATAAGAA
TAATAAACCTGCCCTCTTTGAGCTTCATTATAAACATCTATTGGTTTAAACTCCTTTAAT
TCATAGTTTGGGTTATATATTCTTTTATCCAAATTTGGCAAGTCTTTAAACCCCTGTCTA
ATGATTTTAAACGCTCTCAAAACACTCATAAAATCTAACTGCCAATCTGTCTAAATACATCT
CCATCATCAACACAATCTCTTCAAACCTCAAAGTTATCATAAACAGGGACTTGTCCTCATC
TTTCTCATGTCACTATGATTCCAGAACCTCTCGCTGTTGGGCCAAGAGCATGGAGTTTTT
TTAGCAGTTTTTTTATCTAAACACCAACATCCTTAATCCTTGACATAATCATTGGGTCA
TTAACGGTTCTTTCCAATAATTTCTTTAAATTTCTTCAAACCTTTTCCAACCTCTCTAAT
AAAGCTGGAATCTTGCTCTCTTTTATATTACATCTCGGCCTAATTCCTCCTATTATAGGG
CAAGAGTATTGAGCCCTCCCTCCAGTAATCTCTCCCAATATTGCAATTATTGGTTCTCTA
ATCATAAAAGCTCTGAAAGCCATTGTTTCAAAGCCTAAAACCTCAAAGGCATGTCCAAAC
AGCAACATGTGGGAATGTAATCTCTCCAACCTCTTCAACTATAGCCCTTATATACTCAGCT
CTCTCTGGAACCTCTATATCACATCCTCTCTCAGTAACTGTAACGTTACACCATACATGA
ATATGTGAGCAAATACCACAAATCTTTTCAGATAATATACTAATTTTTTCTGGTGGCAAT
CCTTCCATGATAAGCTCAATTCCTTATAATTAACACCAATTACTAATTCAGCCTCTTTT
ATAATTTCTCTTCAATAAACCAATCTTAACTTATGTTGTTCAAGCATTGTAGGATGAACT
GGACCTATAGCTATCTCTCCCTCATACTTCATGAACAAACCCCAACCAATTATAACATGA
TAATAGGTATATGACTCACTAAGGTAATGAATAGATAATTTATCATAATTAATAATGATA
ATTAGCTTAACCTTTTATATAGTTTTGTTTTAATAAAGTTATCGAGATGCATTATTTATTT
TATTACAAATCTGGTGATTGTTATGACTCAAATGGATGATGCAAAAATGGGATTATCAC
TGAAGAGATGAAAAATCGTTGCTGAAAAAGAAAAATTTGATATTGAAAAGCTTAGAAAAT
TATAGCAAAAGGATATGTAGTTATTTTAAAGAAATGTTAATAGGGATACAAATCCAGTAGG
AATTGGGCAGAGTTTAAAGAACTAAAGTAAATGCAAAACATTGGGACGTCTCCAGATTGTT
TGATATAGAAATGGAGATAAAAAAGGCAAAAATTTGCTGAAAAATATGGGGCAGATGCAGT
AATGGATTTAAGCACTGGAGGTAATTTGGAAGAGATAAGAAAAGCGATAATGGATGCTGT

-286-

TAAAATCCCTATTGGGACAGTTCCAATATATGAAGTTGAAAAATTGGCAAGAGAAAAAGTA
 TGGAAGAGTCATTGATATGAATGAAGATTTGATGTTAAGGTTATTGAAAAGCAAGCTAA
 AGAAGGAGTAGATTTTATGACTTTACATTGTGGTATAACTAAACAGTCAGTTGAGAGATT
 5 AAAGAGAAGTGGAGAATAATGGGAGTTGTAAGTAGAGGAGGAGCATTTTTAAACGCCTA
 TATCTTATATACAAACGAAGAAAACCCATTATACAAAAACTTTGATTATTTATTAGATAT
 CCTTAAAGAGCATGATGTAACATAAGCTTAGGAGATGGAATGAGACCTGGTTGCTTAGC
 AGATAACACAGATAGGGCTCAAATTGAAGAGCTCATTACTTTAGGAGAGTTGGTTGAAAG
 ATGTAGGGAGAAAAGGAGTTCAATGTATGGTTGAAGGGCCAGGACATATTCTATAAACTA
 10 CATAGAAACAAACATCAGATTGCAAAAAAGTTTATGTAATAATGCTCCATTCTACGTTTT
 GGGGCCGATAGTTACAGATATAGCCCCCTGGCTATGACCATATAACTGCTGCAATTGGTGG
 AGCTTTAGCAGGCTATTATGGAGCTGATTTCTCTGCTATGTAACCTCAAGTGAGCATT
 AAGATTGCCTCAATAGAAAGATGTTAAGAAGGAGTTATAGCTACTAAATAGCTGCTCA
 AGCTGCTGATGTTGCTAAAGGGAATAAATTAGCATGGGAAAAAGAGACAGAGATGGCTTA
 TGCAAGGAAAAACCATGATTGGGAAAAGCAGTTTGAATTAGCAATAGATAAGGAGAAGGC
 15 AAGAAAGATGAGAGAAGAAATTCCATCAAAAGAAGAAAAGGCATGTTCAATTTGTGGGGA
 TTACTGCGCTTTGTTAATGGTTGAAGAGTTAGGAAAGAGATAAAATGTGGTSTCTATTAT
 GAACAAAAATGAATTAATAACTGAAATTTAAAAATGAGGTAGTTAAGGCGTTAGGTTG
 CACAGAATTGGATTAAATGGTTTATCTGCTAAGGCAAAACAGAGGATTTGTATTC
 AATAAAGAGATTAAATTAATCTTAGATAAGGGAACCTTTAAAAATGCCTTTTCAGTTGG
 20 TGTTCTTAACACTAATAAATTTGGAATATTGCCAGCAGTTGTTGCTGGTTTGTAGGAAG
 GGAAGAGAATAAGCTTGAAGTATTCAAAGACATAAAATATGATGAGAAATTAGAAGAAAT
 CATTGAAAATAAGTTAAAAATAGAAGTAATTGATTCAGACGTTTATTGTAAAGTAATTAT
 ABAAGCTAATAAAGTATATGAGGCAGAAACAAAAGGGAGTCATTCTGAAAAATCTCTATC
 TGATGATTTAAAAATGCATACAAAAGCCTAACTCTTAAAGATTTTCATTGATTATATGA
 25 AGATATTCCTGAAGAAGTTATTAATAATTATTAAGAAACAATAGAACTAACAAAAACCT
 CTCAACGCCAGAAGTTCCAGAAGATTTTATTAGCTTAGATTTAAAGGATGAAATCTTAAA
 TCATATGCTTAAAAAACAGTTTCAGCAGTTTATAATAGAATGATAGGTATCAATBAACC
 AGCCATGGCTATTGCTGGTAGTGGAATATGGGATTAACAGCTACTTTACCAATAATCGC
 CTATGATGAATAAAAGGGCATGATGAAGAGAAATTGACAAAATCTATAACTCTATCAGC
 30 TTTAACAACATATATTCAGCATATCATTCTCTACATCTCAGCAATGTGTGGATGTGT
 AAATAGAGGAGGAATTGGAGCTGTTTCTGGTTTATCCTATTATATATTTGGATTGTATAG
 AATTGAAGAAAGTATTAAAGCTTTACAGCAAACCTTCAGGAATCGTTTGTGACGGAGG
 AAAAATTGGCTGTGCTTTAAAGATAGCTTCTGGTGTCTTTGCTATATATTTATCTTTATT
 CTCCAAAGTGCCATATACAAATGGAATTGTGCGAAAGGACTTTAAAGAATGCATAGAGAA
 35 TATTGGAAAAATTGGGAAAGCAATGAAACCAGTAGATGATGAGATAATAGAGATTTTGAA
 AAACAAGAAATAATTATTTTAAAGATAATTTTATAACTCTTTTAAATGTTAGATTTT
 CTTACATACAGCAAAACACCAATTTTAAACAGCTTAATTGATAAGATAAGGATATTACTA
 TACTTAACAAATCATAATTGCTGTTGATAATAACAATTTCTATTAAAGGTAGCTGAGTTACAC
 TCGCTCTCAAAACAACATGCATAAGGAGCAGTAATGGAACATAAGAAAGAATTTTAGCCA
 40 TATAGTGATTTGGATTAAACCATATCGTGTTTATAAACATTATTGGAATAATTTGGATGA
 TTATTATTGGAGATATTAATTGAGATGCATCTTTTGGATGAGAAAACAAGGAAGACAACC
 CGCATAGTAGAGATGAATAAAACAAGTATCCTAATACAAAATAAATCAAAGCAAAGATTG
 CTAATACAGAGAGACTTTAACTGCATAAGTTATTATTATAGGTAAAGCAAACAACACCC
 AAATTCCTATTGTCAATAAACCAACAGCGAAATTCCCAGTATTTTACCAACATTAGAT
 45 TTTTCAGCTGATGAATAGCAAAGCAAAAGCTCCATAATTCTATTTTGCTTCTCTCAATAA
 TTGATGAGACAATAATTCTGATAGTGAAGAGATAGCCATATACAACAAGAAAACAATC
 CAATTGGCAATAATTGAGATAAAAACGTCTCTTTTTCAAATCCTTTTTTAGATACAGAA
 AAATTTCAAGATTCATAGGATTTATAACTCTATTGTATGTTTATTATCAACCTTACCTT
 TTAAGGCTTTTTTAATAGGAATTTATTTAGAGTATCTGTAATTATAGGATTTGGTGATT
 50 TTGTTGTTGAGTAAAGTATTATTTTCCAGAATCTAAGTAATCTTTTGGATAACTATTA
 AAGCATCTATGCTTTTATTTTAAACATCCTCTTTGCCTTTTCAATGTTTTCAATTTTTA
 TAAATATATGCTTGTATTTTTCCAAAGTTATTTCTACAACCTTATTGGAATACCTA
 AGCCAAATTCAACATAGCCAACTTTTATCTCCTTAATGTCAAACATCATAAACTTC
 CAATTATCGCTAAGGCAATTATAATTAAAGGCCCTATAATAGTAGCTATTAAAAACTGTT
 55 TCCTTTTTATATTGCTGAGAACTTCTCTTTTTCCAATAGTTAAAAATTTTTTGATATTGA
 GTTTCATTATATCACCCTATTCTCTAAAAATAGATCTTCCAATGAATATCTAACCTCA
 AATTAAATTACATCTTCTGCCTTTCTTTTAAATTAACACAGCCTCTTCATAAGGAATC
 TCTTCTTTTATTAACCTTTCCGTTATCTAAATACTCAATGTATGCCATTTTCTACAGATA
 TCTTCAATCTTTCCATAATGAACTGCTTTCCCTTTCTTTAAGATTAAACTCTATCACAC
 60 AACCTCTCTATCTTTTCTAATTGATGAGTTGATAGTATTATTGTTTTCTTCTCTCTT
 AGCTCAAATATTATCTCTCAGTAGTCTAACATTAACAACATCCAACCCAGAAAACGGC
 TCATCTAAAATAACAATATCTGGATTATGAATACTGAAACAATAAATTGAACTTTTGTC
 TGATTTCTTTTAGATAGTTCTTAAATTTTGGAGTATTGTAATTACTAATTTTTAGTTTA
 TTTAACCAGTAATCAATACCTTTTGCAATCTCTCTTTTTTCATCCAGCCAATTCACCA

5

10

15

20

25

30

35

40

45

50

55

60

AAAACTTTAATACATCTACAACCTTCTCATCCCTATAAAGTCCCCTCTCCTCTGGCAAA
TAACCAATTTTTCCATTAACTTCTACATAGCCAGTATATTCCTCAATAATCCCTGCCAAT
ATTCTTAAAGTAGTTGTTTTTCCAGCTCCATTATGCCCAATAATCCAAAAATCTCCCCT
TCATAAACTTCAAAAGAAATCTCATCCAAACCTTTTTATCTCCAAAGTATTTTGTAAAG
TTCTCTACCTTAATTTTTGGTTTCATAATCTCCCAACATTAATTTTATTAATGGTGATTA
TTAATATTCTTTTGAGTTTAAAATTAAGTTGTTGATGTGATAAAATGCTCGAACCAAT
TGCCCTATGATATTGGAAGACTGTGCAAAGAGGAAGATAAAGAACTAACCCCTAAGCTAAT
TGACATTGATGTCATAGGACTTTCGCAGGAAAAAATTTTTATGGTATAATGACACCTTT
TAGGTGTCCAAATTCCAAATCCATATATGAAGTGGGAAAGTCCATGTTAAAGCTGATGG
CATAAAGATGCCCTTTGATACATTTAGAGAAGTAACCTCAATATTTAAAAATCTTTTAT
TGGAACTGTTAAATATAAGGGTAATGTATTTAAATATCAAATACTAAACTTTGGTAAGCA
CGTTGATTTAATTGAATTGGAAGATGCTGATTTATATATCATAGCAGATGGTAGAAGGTT
GATAGAAAGAAAGAACTTCAAATAATACCAAAAAATAGAGAAAAAATATCTCCAAACTC
AGCTATTTACTCCCAGCTGTATTTCTTGGGAAATTCCTACTATTGGCTTATATAGGCGT
TGATTACTTTGATGACTCATTAGCTAAGTTATATGCATCAATGGGCTACAAATTTACAAA
AAATAGGGCTGTAAAGGTAGATAGCTTTAGTTTGGAGGAATTATATAATAACAATAAAAA
AGTTTATGAGGAAATCTTAGAAGAAGTTAGGATAGCTATAAAAAATGGATTCTAAGAAA
TGTTGTTGAAGAAACAGCTGTATCTCATCCATATTTGTGGGCAAATTATAGAAGATATGA
GCCAGATTTAAGAAACATCCCCTTATCAAAGAAAAATAAGATTATTGTAACAACCAACAT
TAATATTCCAGAGGTTAAAAAATATTTGGAAAGATTAGATAACTATGAGCGTATTCAA
CATTATAGTTTATTACCTTGCTCATCAAAAAAGCCCTACTCAATTTCCCAATCTCACCA
AAAATTTATAAAGGGGACAAAGAAATCTGCAAAAGTTGTTGTTGAGGAAGTTATATTAACATC
TCCCTACGGATTAGTGCCGAGAGCTTTGGAAAGGTTAGTCAATTATGACATTCAGTAAC
TGGAGAATGGAGTTTTGAAGAGATAGAGCTTATAAACAAGCTTTAAAAAACTTCTTAAA
GAAGGTTAAGGAGAAATTTGATGATTATATTGTTATAGCTCATCTCCAGAACACTACCT
TGAGATTTTGGAGTTGGATGATATTGTTATTACATCAAAAGGAAATCCAACATCAGAAGA
AGCTTTAAAAAATTTAACTGACACACTAAAAAGTATAAAGAACTAACAAAAAGTAAAGA
TATAAATAAAAAAGGGACAAAGAAATTCATAATATTCAGCAACTTGCAGAGTTTCAATTTGG
CATAAACTTTATACCAAAACGAAATATTTATAAATCATAAGGGGCAAAATATTTACAAAAAT
TAACAATAAAAAATCAACAAATAGCATCAATAAATCCAAAAAATGGTTTGCTTATCTTAAC
CTTAAGTGGGGGAGAGTTGTTGTGGAACAGTGGGGGAAAGACATCAACTATATTGAAGT
AAATTATGAATTTAAAAAAGGTTCTCTCTTTCTCCCGGATTTGTTGATTGCAATGAAAA
TATTTCTTATAATGATGAAGTCGTCTTAATTAAGATGATACATTTTTAGGGATTGGAAG
AGCTTTGATGAGTGGTTTTGAAGTGAAGGCAAGCATGGAGCTTTAGTAATATAAG
AAATGTTAAAGCTGACCTCCTCTCCGAGCTAAAGCTCGGAGGTTCCACGGGGAACACC
CTTCTCCCTACCGTCGCGGTAGGTCACAGGGCAGGTTCACTCATCGGGCTGGGTCAGA
CAGCCCTCAAATAAAAAATTATACACTAAATCGAATATATAAAAAATTATGCTTGCTTATTC
ACCTTCCTAAATCCCTCCGAGCTAAACATTGGAGTTTTCTTAACAACAATTAATGGTG
AATAGTTAATGGAGATTGAGAGAGTAGCTGAGCTAATATTATTAAGGATAAAAAATTTTA
AAGAGAAAGAAAGACTAAGAGATCTATTAAAGGGAATATATAAAACAAAGATGAAATTA
GTTATTTAGAAAAATATCCTTGAAGATTTTGAAGTTTGGATGTAAATTTAAACATCTCA
AAAGAGATGCTGATATTATAAATCAATACTGCCAAGATTAAAGTAAATTTACAAACATCC
CAGTTTTCATGAAAATCGTTAAATGTTAGAGGCAGTTGAAAAAATTGATACAGAATC
TTGAATCTGTGAGATGGAACATCAATAAGGAAATAGAAGAGCTAAATGATAAACTTAAAA
CACTTGAGAATGAATTAAGGGTTATAAATCAATGAAGCATTATCAAAAAATAGGTACTT
CGAATTTAGAAGAGTTTTCAAATATTTAGAAAATCTGAGGTATGAAGAAAAAATCAAA
AGAAGAAGCGTATAAATTAGTGTCTATTATTTAAGAATTTTTGAAAGACACTATAAAA
TTTTAAATTTGTAATTTCTTCAAATACAGGTTTTTCTTTTTCAACTCTGCATATACAGA
GACATAATTTTTTATTCACCTCCATTTTATTTTCTCTCTAAACCTCTTGGATTGGAA
TATCCCAGCTTCATTTGATAGTATTACCTCAATTTGATTGGCTTCTCATCGCCCTCCTT
TATTTCAACTCTTTCAATTGAAGCGCTGAAACTGAATGTATATCATAGCATTTTTTTACA
GATTGGAATCTTGACCTTCCCTTTGTCTATCTGTTCATCTGCAACGGCAATAACTCC
AGCTTCAATCGTTAATCCCATATCTCTTCTTTATAAATCTTTTTAATATGTTTTCAACTAT
ATCCAAAGCCAAATATGCTGAATGTAGTGATGAATATCTCTATGCAGTGAATTTCCAAT
ATCATGCAATAAGCTCCCAAAAGAGTTATAACTAAAGAACTTCAAAACTGCCTTTGCA
GTCTTTTACAAAACCTTGGCTCTATCCCTTTTTTATATAAAATTTTTAGCATCTTTATTGC
ATTGTTTGGCACTATCTTAGCGTGTGTTTTCCATGGTCATTGTAGCCTAATCTACCAAC
AGCCATGATATTTGACATTTTTAAAAAAGTATTTACCTTTTTATTTTTAATTAGTTTCATC
ATAAATCATTTTTTGGAAATCCCTTGTAGAGAATTTAGCTCTTGAAGTCCATATCTCTCCC
CATTTAGATAAAACCTTGTTTTTAATTTAAATAAATTTAAATTTAAAAATTAATTA
CCTTCAAGGCAATAAAAAATAAATATTTTTAGAAAGTTTATTTCCATCTCTCAGCTTAA
TCATCTCATCGAATAAAACATTTGTGTCTAGAGGTCCTGGTCTTGCTCTGGGTGGAATT
GAAGTGAAGATATTGGTAATCCTTATGCCTAATACCTTCAACAGTCATATCGTTTAGAT

-288-

5 TTATAAAGCTAACTTCTACATCATCTGGTAAGCTCTCCTTTCTAACAGCAAATCCATGGT
TTTGGGAGGTTATATAAACTTTTTGTGTTTTTAAATCTTTAACTGGCTGGTTTCCCTCCCC
TATGCCCAAACCTTCATCTTGTATGTTTCTCCACCAAATGCTAAGGATAAAAAGTTGATTAC
CTAAACAAATTCCTGTTATTTGGGACAACACCAATTAAGTTTTTAATATTTTTTAATAACTT
10 CTTTTAATCTTGGCTGGGTCTCCTGGGCCATTGGAGATTAAACAAAATCTGGTTTGTATT
CTAAGATTTTCATCATACTTTGTGTTGTATGGGACTTGAATAACTTCACAGTTTCTTTGAA
CTAAACTTCTTATAATATTCAATTTAACTCCACAATCAATTAACACATCTTGCCTTTG
GGTTAGCTGTTTTATGAATTTTTGGTTCTTTTGTGAAACTAAAGGAACATAATCAATAT
CTGATATATCACTGTATCTTTTAACTCTCTCCAATAATTCAGATATTTTCATCATCACTTA
15 TTTCTTCAGCAACCTTTAAACAGCTTTTAAACACTCCTTTATCCCTAATCTTTCTTGTTA
AGAATCTTGTATCAATATCTTGAATTCCTGGGATATCATACTCCTTTTAAAAGTCATCTA
AAGCTTTACTTGTACCTCTCTAACAACAAAACCTCTGCCTTTATCCCATCTGACTCAA
ACCAATCCTTTTTAACTCCATAATTCCTTCTAATGGATAAGTCATCATAACTATTTGCC
CTTTATATGAAGGCTGTTTAAACTTCAACATAACCAGTCATAACTGTTGTAAAACTA
20 ATTCTCCAAAACCTCTTTCTCTGCTCCAAAACCTTTTCTTTTAAAATTGTTCCGCTCT
CTAAGATTAACACTGCCTCCATATATTTACCAAAAATACCTATAAACTATCACATATATA
TATGATTGGGATAATCATCTATCTACTGCTTTTAGAGGACATTATGCATTTTATAATTTA
TGTTTGTTAATTAATTGATGAAATGGTGAATAGACATGGTTAAGATATTAGTTACAGACCC
ATTGCATGAAGATGCAATAAAGATATTAGAGGAAGTTGGAGAGGTTGAAGTAGCTACTGG
25 ATTAACAAAAGAAGAAATTGTTAGAAAAAATTAAAGATGCAGATGTTTTAGTTGTTAGAAG
TGGGACAAAGGTCACAAGGGATGTTATTGAGAAGGCTGAAAAATTAAAGGTTATTGGTAG
AGCTGGAGTTGGAGTGGATAACATAGACGTTGAAGCAGCAACAGAAAAAGGGATTATAGT
AGTTAATGCCCTGATGCTTCATCAATCTCTGTAGCTGAGCTAACTATGGGATTAATGCT
TGCTGCTGCAAGAAACATTCTCAAGCAACAGCATCATTAAAAAGAGGAGAATGGGATAG
30 AAAGAGATTTAAAGGTATTGAATTGTATGGAAAAACACTTGGAGTTATTGGTTTGGGAAG
GATAGGACAGCAAGTTGTTAAGAGAGCTAAGGCATTGGAATGAACATAATTGGTTACGA
CCCTTACATCCCAAAGGAAGTTGCTGAAAGTATGGGAGTTGAGTTGGTTGATGATATAAA
TGAGCTATGTAAGAGGGCTGATTTTATAACTCTGCATGTTCCATTAAACACCAAAAACAG
ACATATTATTGGTAGAGAACAAATAGCCCTAATGAAAAAGAATGCCATAATTGTTAATTG
35 TGCAAGAGGAGGACTTATTGATGAAAAGGCTTTATATGAAGCATTAAAAGAGGGTAAAAT
TAGAGCAGCGCCTTGGATGTGTTTGGGAAGAGCCACCTAAGGACAATCCATTATTAAAC
GTTAGATAATGTTATAGGAACCTCCACCCAAGGAGCTTCAACTGAAGAGGCACAGAAAGC
AGCTGGAACATTATTGTGGCAGAGCAGATAAAGAAGGTTTTGAGAGGAGAGTTAGCTGAAAA
TGTTGTAAATATGCCCAATATTCCCCAAGAAAAGTTAGGAAAACATAAACCATACATGTT
40 GTTGGCAGAGATGCTTGGAAACATTGTTATGCAGGTATTAGATGGTTCTGTTAATAGGGT
TGAACCTATATATTAGGAGAATTAGCCAAAGAAAAAACTGATTTAATAAAAAGAGCTTT
CTTAAAAGGGCTTTTGTACCAATATTATTGGCTGGAATCAATTTGGTTAATGCCCTAT
TATAGCAAAAAATAGAAATATCAATGTGGTTGAAAGCTCAACCTCTGAAGAGAAATATGG
45 AAATGCTATAAAAAATAACTGCTGAAAGTGATAAGAAAAAATCTCAATAGTTGGGGCAAT
AATAAACAATAAACAGTTATCTTAGAAGTTGATGGATATGAAGTTAGCTTCATTCCAGA
GGGAGTTTACCAATTATTAACATATTGATAGACCTGGCACAATTGGTAGGGTGTGCAT
AACATTGGGTGATTATGGAATAAATATTGCAAGTATGCAAGTAGGAAGAAAAGAGCCTGG
AGGAGAAAGTGAATGCTATTAACTTAGACCATACAGTCCCTGAGGAAGTTATTGAAAA
50 AATAAAGAGATTCCAAATATTAAAGATCTTGTGTGATAAATTTATAATCATTATTATT
TGAGTACCATGTCTCCAATTTCAACCTTTTGTAGTTAGAGATGCTCATCTATCCTTTTA
AAAACCTTTTGGAAATCAAATATAAAAAATTTGGATCATAAGGTTCTCCTTTTAATCCTA
AAACCACAGCATCAATGTTTTCTGGATATCTTAGGCTTATAATTTTCAATTTATTGGATAAG
ATTTTTGAAATATTGGATATATTTTGTATCCTTTAAAGTAAATGCCGTCTCTCTAAACT
55 CAGCTCCTATATTTTTTAAATAGTAAGCAAAAGATTTTGTATTTTCATCTAAATAATCCA
ATAAAGTGTATATTTGTTTCTATTTTGCCATCTTCAATTTCTATTCTTTTAGCAA
AATTTATTTTTTACCTACCAATTTGTTGATGTATCCTCAATCTTTATCTTCTTCTTTCTTA
TATTATACCAAACCTTTCCTAAAAAATGATTTTATCTTATATTTTAAATAAATATATCCTC
CAAATATTGCCATTAGAATTAAAAATATTGGTAAAGCAACTATTGCCAAATATCAATA
60 GCAATAAAATAGAAATATCAAAAAAATTCCTGTAATTCACCAACTCTATAAACCTTAA
CTTTCATCTACATCCCTCAGAGCGTTTTTGATTAAAGTAATATATTCATCTTTTTTGGGC
ACTACCATAATCTTTTTTGAAGGTAGTTTTATAGAAGCCCTAAACCCATGTTTTTTGCT
ACTTCAGTGGCTATTTTGTATATTGTAGAGTTCAATTAAGAGTTTCTCATTTAATAGG
GCGTTTTTCATCAGCATACTGCAACAGCATCCTTCCCTCCAAAATCCAAATTTATCACCT
ACCTCATGAGCCCTCTCTATCTCTATATTATAGTAATCCATTAGCTTTAAAAACATCCTCA
CAAGCTAATCTTATCAAAGGTCTAAAGAATAAAACTTCTTTATCTTTTCTTTGCTATAT
TTTTGTGGGACTGGAGTGAGTTCCATTTTGTATATACAACCTCTCCATAAACATCTCTC
AGATAGTTTATAACCGCTCCAGAGACTTTTTCAAGAGCAGAATCTCCAGTCATAATTATT
CTAATTCCTTTTTCTTTGGATATATCAACGGCTTTATCCTTCATAATATTTTACATATT
CTGCAGATACTACTACCTTAGCCCCCTTAGTTCTCTTTAAAGTTTCGTCTGTAATATTG

TAAATATCACTGGGATATCAAACCTTCTTAGAGAGCTTTTCAACCATTTTTTTTGATACA
TCCCAACTCCATCTATGATAGAAGTGTATTAAATACTCTATATTTAATCCTAAGTCCTTA
GCTAAGGCAATTGCTGTTGAGCTATCTTTTCCACCCTCGCCATAACTACAATGCCCTTCA
TCTAAGGCATTTTTTTCTTTAAATTGTTCTATGATGTCTCTTTTAAATTCTTTAAATTA
5 TTTAACTTTCTTTTATTTTTGTCCATTCTGAGAATTCCATGGTTTCACAAAGAAGTGTT
TTACTTTTTATATTGAGTTTTTAATACTATTAAAATTGAATGTTCAAAAATATGAACCTTA
ATTCAAAATAGAAAACCTTTATATACCTTTATGTATCTTACAATCTATTGTAAATTATGGT
GTCATTCAAAAATAACAAAATCTACTAATGAAAATTTGAACGCCTTCTTTTAGAAGGCG
TTCATCTATACCTTAAATCATTAAAAAAGTTTTGAATGACACCACACAACCTACAAAAGG
10 TGATGCTGTGAAAAAATATTGGCATTAAATATTGGGGCTGTGTTTAAATAGTCCCAGTAAT
TTCAATAGCTGGATGTGTTGGTGGAGGTAATTCTCAACCGTCAAATAATGAAAAACCAAG
TACCATAATAATTAGGACTACAGGGGCAACATTCCCAAAATACCAAATCCAGAAATGGAT
TGAAGATTATCAAAAAACCCATCCTAATGTCAAGATTGAGTATGAGGGAGGAGGTTCAAGG
ATACGGGGCAAGAGGCATTTGCAAAAGGTTTAACTGATATTGGAAGAACTGACCTCCAGT
15 TAAAGAAAGCATGTGGAAGAAATCTTATCAACAGGAGACCAACCATTACAATTTCCAGA
AATTGTTTGGTGTGTTGGTTGTAACCTACAACATCCAGAAATTGGAGATAAACTTTAAA
ATTGAGTAGGGATGTTTTAGCTGATATATTCTTAGGTAAGATTGAATACTGGGACGATGA
AAGAATTAATAAATAAACCAGAAATTGCTGATAAACTCCACATGAGAAGATTATCGT
TGTTTCATAGAAGTGACGCAAGTGGAACAACCGCCATATTTACAACATATCTAAGCTTAAT
20 TAGTAAGGAATGGGCTGAAAAAGTTGGAGCTGGAAAACTGTTAATTGGCCAACCTGATAA
TATAGGCAGGGGAGTCGCTGGAAAAGGAAATCCAGGTGTTGTAGCAATAGTGAAATCAAC
GCCTTATACAGTTGCATATACTGAGCTTTTCATATGCAATAGAACAAAACTTCCAGTTGC
AGCATTAGAAAAACAAAATGGTAAATTGTTAAACCAACAGATGAACAATAAAGCAGC
AGTTTCAGCAGTTAAGGCAAGTATTCCAAACCAACAGAAGGATACAAAGAGGATTTAAA
25 GCAGATGTTGGATGCCCCCTGGAGACAATGCCTATCCAATAGTTGCATTACACACTTATT
AGTTTGGGAAAAACAAAATGGTAAGCACTACTCTCCAGAAAAAGCTAAAGCTATAAAGA
TTTCTTAACATGGGTATTAACAGAAGGGCAGAAACCAGAGCATTAGCTCCAGGTTATGT
AGGATTACCAGAAGATGTTGCTAAGATTGGATTAAATGCTGTAAATATGATAAAGAATA
AATCTAATTTTTTAATATTTTTAAATCCAAATTTAAAGATAAGAAATTTATATTTGGG
30 AATAATATTTTTATTAAAGCAATATACAATGTTACAATTATTTAATCCTGCGAAAGCTTTA
TTAAATAGAACTTATAAAAGCCATAAGATAAGGATTAAAAAAGGTTGAAAACCATGGAG
ATTAATAAACTCCTAAGAAAGATAGATGAATTCAAAATAATAACATTACCAGCAATATTT
GTTGTGTTTATATTATTTGTTTAAATATTAGGCTTTTATTTCTTCAATGCACTCCCAGCT
ATTGAGAGATATGGTATTGATTTATTTATAACAAATGTTTGGAAAGCGGCTGAAGAACCT
35 GCAAAAGAAGTTTATGGATTAGCAGCGCCAATTTGGGGTAGTATATATACAGCAACAATT
GCTGTTTTAATAGCTTTGCCCTATCTATATGCTATGCAATATTTGTCAATGATTATGCT
CCTAAAAGACTGAAATATCCTTTAATTGTAATTTTCAGATATTATGGCAGGACTTCCAACA
ATAATTTATGGTATATGGGGAGCATTATATAGTCCCTCTGTTAAGAGACCATATTATG
AAATTTTTGTATGAACATTTTTCATTTATTCCACTCTTGATTACCCTCCATTATCAGGT
40 TATTGCTATCTATCAGCAGGAATTTTGGTGGGAATAATGGTTACTCCATTTGCAGCAGCT
ATTATTAGAGAGGCTTATGCAATGATTCCATCTGTTTATAAAGAGGGTTTAGTTGCTTTA
GGACAACAAGATATGAAACCACAAAGGTTTTAATAAATAACATAAGACCAGCCATAATT
TCAGGGCTTATATTGGCTTTTGGTAGGGCTTTAGGAGAAACAGTTGCTGTTTCACTGGTT
ATTGGAACTCCTTCAACCTAACTTACAAGCTCTTGCTCCAGGATATACAATATCATCA
45 TTGATAGCAAAATCAATTTGGAAATGCAGTGTGTATGAGTATATGACTTCTGTCTCTAC
TCTGCTGGTTTAGTCTGTTTGTATAGGATTGGTTGTTAATATCATTGGAATTTATTAT
TTGAAGAGGTGGAGAGAGCATGTCTCCATTAAACATAAAACCATTAGAATGATTAAAGA
TAAGATATTTCTATTTATTGTTGGGGCATTAACTTTATTGGCAATACTCCCTTTATTCCA
TATAATAATTTCAATTGTTGAAAAAGGACTACCAATAATAATGGAAGGGGCTTAACCTT
50 CATAACTGGAACGTTGAGTGAGGGAGGAATAGGTCCGGCAATAGTTGGGACTTTAATGCT
CACATTCTTAGCGACTTTAATTGGCTTACCTTTAGCTTTCTTAGCTGGAGCTTATGCCTA
TGAATTTCCCAAACAGCTTTATTGGAAGAGCTACAAAGATGTTACTGCAGATAATGTTAGA
ATTCCCAACTATACTGGTTGGTACATTTGTCTATGGGTATGTTAGTTGTTCTATGGGAAC
TTTTTCAGCATTAGCTGGGGCTTTGGCTTTAGCTTTAATATTAACTCCTTATGTTGCAGT
55 TTATACAGAAGAAGCGATGGCAGAAGTCCCAAAGATTTATAAAGAAGGAGGTTATGCGTT
AGGATGCACAAGGGCACAAGTAATATTCAAAGTTATTACGAAGATGGCTAAAAAAGGAAT
TTTAACAGGAATTTAATTGGTATGGCAAAGGTTGCTGGAGAAACAGCTCCTCTACTATT
TACTGCAGGAGGGTTGTATGAGGTCTATCCAACAAATCCATTAGAGCCAGTTGGAGCAAT
TCCTCTCCTCATCTATACATTAGTTCAAAGTCCTTCTATAGAAGACCACCAGATGGCATG
60 GGGAGCGGCTTTAGTAATGCTTATAATATTTTTAGCAATATTTGTCCGATAAGATATGC
TTTAAAGGATGATATAAAATTATAAAATTTATAAAATATAAAAAAGGGATAGAAATGAC
AAAGGTGAAGATGGAACAAAAACCTAAATTTGTGGTATGGGGAAAAGCAGGCGTTATT
TGATATAAATCTCCCAATCTATGAGAATAAAATAACTGCCTTAATAGGGCCAAGTGGATG
TGGTAAATCAACATTTTTAAGATGCTTAAATAGGCTAAATGATTTAATTCAAATGTTAG

5 AATAGAGGGAGAGGTTTTATTGGATGGAAAAATATCTATGATAAGGATGTTGATGTTTA
TGAGTTGAGAAAGAGAGTAGGAATGGTATTTCAAAGCCAAATCCTTTTGCTATGAGCAT
CTATGATAATGTTGCATTTGGCCCAAGAATTCATGGAATTAAGGATAAAAAAGAATTGGA
10 TAAGATTGTTGAGTGGGCTTTAAAGAAAGCGGCTTTCTGGGATGAGGTTAAAGATGAACT
GCATAAAAACGCTTTATCTCTCTCTGGAGGACAACAGCAGAGGTTATGTATAGCGAGAGC
GATAGCAGTTAAGCCAGAGGTTTTATTGGATGGATGAACCAACATCTGCCTTAGACCTAT
CTCCACATTAAAGATAGAGGAGTTAATGGTTGAGTTAGCTAAAGATTATACGATTGTTGT
TGTTACCCACAACATGCAGCAGGCAAGTAGGGTTTCTGATTACACTGCCTTTTCTTAAT
GGGGAATTAATTGAGTTTGGAGAGACAGAGCAGATATTCCTAAATCCACAGAAGAAGGA
15 GACAGATGACTACATTAGTGGTAGGTTTGGTTAAGTATCATCATCAAAATTTTTTAATTA
ATCAAAAATATGAACTTTATCTTATTGAGGGATATTTATGCCAAAAAATTTGATGA
CATAGTAAATGAGATGGATAGAAAAATAGAGCTATTAGGGGAAGAAATAATAAAAAATCT
AAATCTTAGTGTTGAAGGATAGTGCACAAAACAAAAAGACATCTGTAATTTGGTAATTTA
TAAAAACAATAACATAATCAAAATTTAGAGTCATTGGAGATGTATTCAGTAAAGCTCT
20 ATGCCTATATAGACCCGCTCTCAAAAGATTTAAGAAAATTGCTAACAAATATAAAATTTGTG
TTCAATGTTGGAAAAATTAAGAAATGTGCCGTAAAGATAAGTTTGTCTGCTAAATTC
AAAATTTAATTTTGATAGAAATGACAAATACATAAAAAGAATGGCTTCTTTAACTGAGGA
GATAATTTATTGAGTATTTCTTCTTACATAAATGAAGATATAAATAAAATTTGATGAGTA
TATAAACTACACAGAGAAATTTGAAAAGATATTTTATGAAGAGTTTCAAAGATAGTAC
25 AGAAAGATTTTTGAAGATGTGTTTATAGTTTTTGCAAAAGTTATTAATAAATAAAATAAA
AATTTGAACGCCCCACTTGGGGGCGTTCATATATATCCTATATATTTCAAATGTTTTG
CAAAAACATAATGTTGCTATTGTGAATGAGCTAACCAATATAGGAAAATATTTAGAAAG
ATGCGAAAATCTGCAATGACTTTAGAAAAGAGATATACTTTTAAATTACTGGCAAAAA
AATGATATGAATATATAGTAAATTTGAGGAGTTGATAAATATGAAATCTTTAATAGGG
30 TGAAGAAATAAAAGAAATTTTATCAATTTTGAAGAAGAACCAAAATTTAATTTATTTTA
TTTATGGCCCCATAAACTCTGGAAAAACAGCCCTAATTAATGAAATTATCAACAATAGAC
TGGATAAAAACAAATATGTTGTGTTTTATATCGATTTGAGAGAGATTTTTATCTCTAAGT
ATGATGAGTTTGAAGCGAAGCTTCGAGCAACGAAAACCTTCGGTTTTCTGCTAATTATAG
AAGTCTTGTGTTGAAGAGTATGAGGATGATAAAAGCCTATTGAAATTATAAGGAGTTTGA
35 TAAAGGATGCTCCTTCTTTATGTGGTATTTCCAACACCAAAAAATACATTGGAAGAAATTC
TAAAAAAGAAAAACAACCAAGAATGTATTTAAGTATATAACTAACATTTTAATGGATATTA
AAAGAGAAGGAAAACAGCCAATAATTATATAGATGAATTGCAAAAAATAGGAGATATGA
AAATTAACGGATTCTTAATTTATGAGTTGTTTAATTTATTTGTATCATTAACCTAAGCATA
AGCATCTATGTCATGTTTTTTGTTAAGTTCTGATAGTTTATTCATAGAGAGGGTTTATA
40 ACGAGGCAATGTTAAAGGAGAGGGTTGATTACATTTTAGTTGATGACTTTGATAAAGAGA
CAGCTTTAAAGTTTATAGATTTTCTATCAGAGGAAATCTAAATAAAAAATTTATCCGATG
AGGATAAAGAGCTAATTTATCTTATGTTGGGGGAAAGCCAATTTCAATTATAAATGTTA
TAGGTAAATTTAAACATAAAAAATCTAAAGATGTTTAAATATCTTGTAAATGGATGAAA
45 TCTCTAAATTAAGGACTTTTTAAGTAATTTGGATTATATAAAACCAAAAGTTAATATTG
AGGAGGAGATTATCGAAATTAGAAAAGAGGACATAATTAATGCGTTAAATTTGTTAAGG
GAAAGTATGAAATTGAAGTTGATAAAATACCAAAGCAGTTTATGTTTATTTAGTTAAAA
AAACATTTTATTTTATATCCTCAAAGAGGAACTTTAAAGCCACAATCATTTTTAGTAT
50 GGAATGCCATAAAAAGAGTGTATAACTATACTTTATTTTACTTTTATATTGCCAAAAAA
TTATATGGAGGCAAAATATGCCAAAAAGTTTGAAGAAATACTTAAAGAAGTTGAAAACG
ATTTAATAGAGATGGCTGAACCTTTGTGCAGAACAACTGAAAATGCAGTGAAGGCATTTA
TTGAAAGTGATAGAGAGTTGGCTAAACAAGTTAGAAAAAGAGACACTACCATTGATTTGA
TGGAGATGAAAATAGAGGAAAAATGTATTAAGGCAATTGCTTTATATCAACCTGTTTCAG
GAGATTTAAGGGAGTTAATGACTGCTATTAAATATCTTCAAATTTGAAAAAGTTGGAG
55 ACAATGCATCAAAGATTTGCAAAATTTTGTTAAAGTCAGATGTTGAGGGTAATAGAAAGA
ATGAACTTCTTATTGTTATGAAAGATTATTTAATAAATATGTTAAAAATGCAATGATTG
CGTTTAAACAAAGAGATGAGAGTTTAGCAAGAGATGCTATAATATGGATAAAGGTTAG
ATGATTTGTATGAGCAACTATATAGAAGTATGATTAGTAAATCATTGAAAACCTTAAAA
ATCTAACTCTTTACACTGAAATAATATTCGCTGGTAAATATTTAGAAAGAAGTGGAATA
60 TTGTTGCTTCAATAGGAGATAGGATTGTTTATATGATTACTGGGGAGAGGATAAAAGAGG
AAGAGATAGAAGAAGAAATTAAGAAAAGAAAAGATATAGAAAAGAAATAGATCAAATAA
ATGACTAAATAAGTGAATAGACTCTATTTTATTTTGTCAAATAGACAATTTTATATAT
TAAATATTCATTTTATTTTATTTTACAAATTAACAAAGGTGGTCTTATGAAAATCTAC
TTAAACCGAAAGTTTGTGATGAAAAAGATGCAAAAGTTTCTGTGTTTGACCACGGTTTA
TTATATGGAGATGGAGTTTTTGAAGGAATTAGGGCTTATGATGGCGTTGTTTTATGTTG
AAGGAGCATATAGACAGATTGTATGATTCAGCAAAATCTCTGTATAGATATCCACTA
ACAAAAGAAGAGATGATTGATGTTGTTTATAGAGACATTGAGAGTTAATAATCTGAGAGAT
GCATATATAAGATTAGTTGTTACAAGAGGAGTTGGTGATTTAGGGTTAGACCCAAGAAAG
TGTGGAAGCCAACTATTTCTGTATAGCAATTCCTATGCCTCCTTTATTAGGGGAGGAT
GGAATCAGGGCTATAACCGTTTCAGTTAGAAGACTGCCAGTAGATGTTTTGAATCCAGCA

5 GTTAAATCCCTCAACTACTTAAACAGCGTCTTAGCAAAGATTCAGGCAAACATATGCTGGA
GTTGATGAGGCATTTTTATTGGATGATAAAGGTTTTGTTGTTGAAGGAACTGGAGATAAC
ATATTTATAGTTAAAAATGGAGTTTTAAAACTCCCCAGTTTATCAGAGTATCTTAAAA
10 GGAATCACAAGGGATGTTGTCATAAAAATTAGCTAAGGAAGAAGGAATAGAGGTTGTTGAA
GAACCTTTAACTTTACATGACTTATACACTGCCGATGAACATTTATCACTGGAACAGCT
GCTGAAATAGTCCCTGTTTTGAGATAGATGGTAGAGTAATAAATAATAACAAGTTGGA
GAAATCACTAAAAAATTAAAAAGAGAAGTTTAAAGATATTAGAACCAATGGGGAATAAAG
15 GTTTATGATGAATAAAAAATAAAAAAGTTAAAAAATTCATTTATTTTTTTATTTTATCC
ATTTATTTCCCTAATTATTGCCATTGCTAAAACTCCCTCAATATCAACTGAATCTACTTCC
TCTCCTTCGCAGAATAAAGCTCTTTTAACATCTTTAATGTGTCTTTTCTAATAACTCCA
TACTCTGTTTCTAAACCTTCGTTAATGATTTTTTCAAGTGCTCTTTCATCAGCATCTTA
ATTAAATCCATAACCGCCTTTCGATTCTTTTTAACTCTGGCCCTATCTTTGATTTATCA
20 GGAATTATTTCAACAATCTTTGATTCAAGGGCTGGTTTTCTTTGATTATTTAAGCTCT
TCAATCTTCAATGTCCTTTAATATCCTCGGCTGTTTTATTTAAAGCTAAATAAGTCTCT
15 TCATCCTCTGTATAAATTTCAACGTATTTAATGGAGCATTTAAAGCCATTCTGAAATTT
GCCTTAAATCTTCTAATTGAAATGACTGTATTTTAGCTATTTCCCAAATTTCTCTGCC
TCTTCATTTATAAATCTATTATCAACTTCTGGAAATGAGAAGTGGAGATTATCTATCTTA
TAAATCTCAGCTATGTAATCTGAGAAGTGTGGTGCAAAATGGGCATAGCAATCTAACCAAC
25 TTGTCAATTACATAGTATAATGTCCATCTTGTCTCTTTCTTTGCCCTCTTCATCATCTCCA
TACAATCGATATTTAACCATCTCTATGTAGTTATCAGAGAACTCATGCCAAACAACTTA
TAGATTTCAACTATTGTATTAAACCTATAATTCTCTAAGTCCTTATCAACCTCTCAATT
AATCTCTGCAATTTACTCAAAATCCATAAATCAATTGGGTTGCTAATTTCCATTGGTTTT
30 TTTAGCTCATCAATAATGTCACTACTTATATGCATCTTAGCAAATCTACAAGCATTCAG
GACTTTCTTAAGAATCTATAGCCGTAATCAACCTCTTTCCATAAGAATTGGACATCATCT
25 CCAACAACACTATTACTTGGCCACAATCTTAAGGCATCTGCTCCATACTTAGCTATAATT
TCATCTGGCTCTACAACATTTCCCTACTCTTACTCATCTTATGTCCATCTTCTCCAAAC
ACCATTCCGTTTATAACAATCTCATCCCATGGCTTTTTACCAGTCAAAGCTACTGACTTG
ACAATTGTATAGAAAGCCCAGTGTCTAATTATGTCTATGCCCTGTGGTCTTAATTGGACA
35 GGATAATGCTTCTCAAAGAATTTATCATCATCTAACCCTTTGTTATAACCATTGGTGTT
ATTGAAGAGTCCATCCATGTATCTAAAACATCTGTCTCTGGGATTAAGTCTTTATTGCCG
CACTTATCACAACATAACCTGTTTTAGTTGGGTCTATTGGTAAATCTTCTTTTAGCA
ACAACCACATTTCCACACTTTGGACAATACCAAACCTGGGATTTGGTGTGGCAAAGATTCTC
40 TGCTACTTATAACCCAGTCCCAATCCATATCTTCAATCCAATCAACAATCTAATTTTC
ATGTGCTCTGGAATCCACTTAATTTCACTAGCTACTTCTCTAACCTTTGGGATGAGTTTT
35 CTAACATTAACAACCACTGCTCAGTAACGATAATTTCAATTGGTGTTTTACATCTCCAA
CAAAACCAACATTTCTGTTTTATTGGCTCTTGCTTAACATAAGCCCTCTTTCTTTAA
TCCTCAATAATCTTCTCTCTGCTTCTGTTTTTAGCCCTTTATACTTTCCAGCTATC
45 TCTGTTAGCTCTCCCTTCTCATCAATTGCTTTCTTAATCTCCAATTTATGCCATTTAACC
CACAAAACGTCTGTCTTATCCCCAAATGTACAAACCATAACTGCTCCAGTACCAAACCTCC
TTCTCAACATCCTCATAGCCAATAACTTAACCTTAGCCCAACAATGGGACTATAAAC
TCTTTTCCAATTAATGCTTATATCTTTCATCCTCTGGATGAACATAAGATAGCAACACAC
50 GCAGCCATAAGTTTCAAGTCTTGTGTTGCTATCAACAAATGCCCTTCTCCATCAGCAGCA
GGGAATTTTATATAATTCAATTTGCTTTCTCTCTCTTTATACTCAACTTCAGCAATGCA
45 ATAGCTGTTTGACATCTTGGACACCAATTTACTGGGAATTTTCTCTGTAAATTAATCCA
TCTTTATACATTCTAACAAAGGCAGTTTGGGATTTTTAATATACTCTGGAGTCATTGTT
ATATACTCTTTATCCCAATCAATAGAAATTCCTAAGGATTTTATCTGTCTCTCATTTTT
TCAATGTTTTCTTTGTTAATTCAATGCAAGCTCTCTAAATTTATGTCTATCAACATCT
55 GACTTTGTTATGCCATGGATTTCTTAACCTTAACCTCTGTTGGCAGTCCATGACAGTCC
CAACCTTGCGGGAAGAGAACGTTAAAGCCCTCATCCTCTTGATCTTGCTATTATATCC
60 ATGTAAGTCCAGTTAATGCATGTCTAAGTGAATCTACCAGTTGGGTATGGTGGTGGT
GTATCTATAATATATGGTGGCTTATTGCTCTCTTCATCAAATTTGTAATCTTACTTTCT
TCCCACTTTTTTGTATCTGTTTCTCAATCTCTATATTGTAATCCTTTGGCATCTCCATT
ATGAATCACCGTCAAATCTTTTGAAGAGTTTTTAATTTAATAAAAAATAGTTGAGGTTTAA
55 ATAAATAACTCTCTAATACATATTTGTAAATTTATAAATCTCATTTCTATAACTCTTTTA
TGGCATACCACTTCTTTACAGAGTTGGCTTGATTATACCGTTCATCACATCATAAAACA
GTATCTCATTTTAAATTTAAATTTAACTTCATCCATAAGATTATCTTTATAATCTCTT
TAATATCAACTTTTTATTTTGTCTCAAATAATTTAAGGCATCAATTAATTTCCCATCT
CAACTCCTTTTGGAGTAGAAATTAATATAAGATTTTGTCCCTCTCAATATTAACTCCACT
60 GCTTTATAGTTTGTTCACAGATAAGCCAAGTTTTTTATTGTTTATTAATTGAGAAATTT
CATAAGGTAGAGATAAATATTTAAGCAGTAATCAACCTCCTCCTCACTAAAACCTCTT
CTTTTAAGATATTTCTAATACTTTCTTTTCTTAACCAATCAATTAATAATATTAGAGG
TATTTTCTAAAGTAGAGTTCTATAGATTTCTCTATAAATAAAGTATCAGAAGTTAAAC
AAATAACATGACATAGATGCTTACTTTAGTTAAATGCACAAATAAATTAACAATTCAT
TCAACAAAGATTTATCTCCCTTACCCTCTCCATTGAAGTATATACTCTTTAATTCTGCA

5
10
15
20
25
30
35
40
45
50
55
60

ATTTCATCTATTATTAAAAATTGGTTTCTTTCCATCTTTAATAACTGCATTAATACTCTCTT
TCATCTTGCTAAAGACATCATTTAACTTTATATTATCGAAATCAAATTTCTCTTCAATAC
CAAACCTAAATATTTTAAAGTTAATTTCAAATCTATTTAGAAGATACTTTTATCTCCTT
TTTTCAAAAAATATTTCCAAAACTCTTCCCTTTGTTGGTGTAGCATATTCTCTCAAATCAT
AATAAAAAAACACCAAATCATCTTTTATAGATAAATCTTCAATAACCCCTAAGCATTACCG
TAGATTTACCAGAAGATTTAGGACCATAAACAAAAAGTATAGAGTTAGGCTCTAATTGGA
CATAATTTTTAGATAATTTAATTTCTTCTCTCGATTATAAAATTTCAAAAAATCACCA
AAAAAGAAATCCTATTTCTTAAACCATTCTGGATAGCCAACTATCTTATACCCACCAAAT
GGCCAGACTTACTCTCTATTTTAAAGCCAAGAGTTTTTAAATCCTTTATTTCTGTTATGC
ACTGCTACTCTGCTCTTCTATCAATATAATCTTTTAAAAATTTCTCCAGATATAAAATCA
GAGTTTTTGGCAAAATATTTTATTTCTCTCTAAAATTTTCTTGCTTTCTTCTCCCAAAC
TTCTCAGATAGCTTATGATATAAATCATTAAACCAATAAGAATATTTAAAAGGATGAAA
TGCCCAATATCTAATCTTATGTTATTTTCATAGGCCTTTTTTAAAACTCCAGAAATCA
TAATCTTTCTTTTCTATTATGTTTTTATCTCATCTCTATCCTCATTCAACCCCTTTTCT
CTTCTTTTGTCTAATTTTCTTGCCAAAGCAACCATACCTATCTCAATAAGTCCAACAAAG
AACTTTTCTAAACCACCACAAGCCCAATAGCCTTTCCAAAGGTTGTTTTTAAATCCTC
TCTCATACTCTTGTTGGCGTTATATCTTCTCCAGTCATTCTCTTTGTACAACCTGCAGCT
GCTTCCATCAACTCCTCCAGCTTATATCTTCAATGTGATTATGCAATTCCTTAAATATC
TTATACACTGGGATTTTATAGAGCTTAGCTAATGTTTTGACAACATCACAGTTTCTTAACC
ATTCAATAACTCTACCATCTCTTGTTAATACAGGAATGCTAACAACCTTATACTTAACG
AATTTTAAACTACATTCTTGCTGCTCATCTTTCATAGACAGTTATAACTTCTTCAACA
GGCCTCATAACTCTGTTATAGGCTTTTTTAAATCTTTCTCTGAAATTCCTAATAACTCC
AATGTAGTTACCCATCCAATCTATCTCTTTATCAACAATTGGGGCAGAGAATCTC
TTCTTCTTTTTTAAATAGATTTTATAGCATCTTCAACAGTCTCATCTACATATATCTTGGCA
AAATCTTATCCATTAATCCCTAATCTTATAGTATCACAAAGAATATTTATGATAAAA
TAATATTATACTTGCTTAATGTTTTTATTTCTATCTCTTTAGGAATTTTAAATACCTATT
CATTAATCCAATTTGTTGGTTATATATCCCTTAACTGCATTTATGCGGCAATCTTTGGA
GATGCCAAGTAAATATAGCTATTTATATGCCCATCCTTCTTAAAGTTTCTGTTTGT
GTTGATAACAAATTTCTCCCTCAGCCAAAACCCCTTGATGAGCTCCTAAGCAAGGTCCG
CATCCGGAGTGCAATCATCGCCCCAGCTTTAACAAGATATCTATAATACCCCTCTTT
AAGCCTTGCAAAAATACCTTTTTGATGCCGGATAACAATTAGCTTAACATCTTTATGA
ACCTCCCTACCTTTTTAAATATTTAGCTGCTTCTCTTAAATCACTCAACCTTCCATTTG
CAACTCCCAATAAAAACTTGATTTATCTCAGTCCCTTCAACATCACTAATTGGCTTTACG
TTATCTGGGTGGTGTGGAACAGCAACTTGTCTTCCATATCTGTTATGTCAATTTCTATC
TCCTTATAGTAGTTTGCTTCATCTCTATTTACTGTTATCTCTCTTTTTTAAATTTAGCT
ATATCCTCATCAGAAAGTCTCTCTCTTTCTTTAAATAATCATAAGTAATTTTATCAGCC
TCTATCACTCCTGTTTTTCCCTCCCATCTCTATTGCCATGTTGCATAAAGTTAGCCTTCCA
TCCATGTCCATGTTTTTAAACAACCTCTCCACCATACTCAATAGCCATGTATGTTGCTCCT
CTTCTCCCAATTTCTTACAAACCTTAAACAATATCTTTGGCAGAAACATTTTCATTT
TTTCCAACATATCTACCTAATTTGTTTTTGGCACTTTAATCCATGTTTCTCTGTTGCA
TAGATGTAAGCCATATCAGTAGCTCCAAAGCCAGTAGCAAAAGCTCCAAAGCTCCATGT
GTGCATGTATGGCTGTCTCCACCAGCTACAAACATGTTTGGCAAAACATAATTTTCAGCT
AAGATTTGATGACAGATGCCTTCTCCACCTTTATGGAAATTTTTAATGCCAAATCTTTTA
ACAACTCCAAAGCTAATTTTTGCACTTTAGCAGCTTTAACTGTGTTTGGTGGAACTATG
TGGTCAAAGGCAACGACTATTTTATCTGGATTCCAAACACTATCACTCATTCTCTTAA
GCTTTGTATGCTAAAGGTGTTGTTCCATCGTGTGTCATTGCCAAATCAACTTCAACCTCT
ATGCTATCTCCTGCACAACTTCATAACCACTTTTTTGTAGTATCTTCTCTACCAAT
GTCAATTTATCACTAAATACTTTATTTACAAACATCCCAAGAAAGGTGTTCAAATTT
TCTATCAAATAACCTAATAACTTTTTTGCAAAAATATAACCAACCTAATCAAGAATA
ATATATTTGCCCTTGGGTCTGTCTCAAAACTATCTTCCCATCTTTAAATACCTAATA
TTCTCCACTTTGTGAAACAGTCACAGCTATAGCATTGCTATTTTTTGTATACTTGCAG
CAGCTAAATGCCTCGCTCCTAAACCTTTTGGTATATTAACATCTCCTTTATCTCTAAAA
ATCTCCCTGCTGAAACTACTTTACCTTCATCAGTAATTATAAATGCTCCATCAATAGAAG
ATAACTCCTTTATAGTCCCTTAACTTTTCGTCAAATATGCTCGCATTTGTGTCAGCAA
AATTTGTTCTTACATACTCTCTTCTCTCTCTCTTCCAATTTCCATAGCTAATTTTA
TAATCTCTTTTTAATGTTCTTTTTTGTCTTTCATCCAATGTTTCAAAAGTTTCAAAAGG
TTATAGTTTTACATGCTCTTTTACATTAACCACCATTATTGTATCCAACCTTTCCAGGAG
TTTTTGGCTCTCCTACAACCTGCAACAATTTGTTATTTTCTTTTAAATATTTTCAATTA
GAGCATGCACTATTCCACTACTTATTATCATGCATCTGTTATCCTCTCTATGTTAATAA
AGATTGGATAAATATTCTCTTCAATCTCAGAAGAGATTTTTTATAAGTTACTTGATTG
GAGTTGCAACAATATTTTTACATTTTATGAGATATTTTGTCAAGAATCTTTATTATTC
CTGAATGTTCTCTTTTTTAAAAAGATTTTAGTAATTCATAAGATTTCCCGTCTCAG
TAAATATCATAAACGCGTCTGCTTTAATATCATAAGCAAGTTCTAAACCATGCTTTATTA

5 TGTATTTAGCTATCATACCTCCACCCTACAACTTTACATAATTCAATTCGGGTATAACCA
AAACGGATATATTTAAAGGAGCTTTTCATCCCCTTAATGTCTCTTCAGGACTTTGCATACC
TAATAAGCTTCAGCTATCTTCTTATCAGCATTATTCCTATATCTCTAAAGCCCTTAG
TTCCCCGGGATGAATTTAACTCAATAACATAATAGTTGTCTTTTGTGGTAGTATATCAA
10 CCCCTAAGATTACAGCCTCAGATAAATCAGCACATTTTAAGGCTAATCTTCAAGTTCTT
CATCAATATTTAGTTTCTCAACAACATTTCTAAATAAAGGTTTGTCTAAAATCTCTAC
TAACCTCTCTGTATCCACCAACAACCTTCTCCATCAACAACATAATTTCTCATATCCCTAT
ATAAGTCATTTTCTTTGAAATCAATAAACTCCTGTATAAGCTTTCCCTCCAGATGGCAT
15 TTTTGTAAATTGTTTTAACTCATCAATAATTTCTTGCCATAAATACCTTTAAACCACACT
TTGAGAAAGAATTTTTATAACCACTGGAAATCTTAAATTGTATTTCTCAATAAATTTAA
CTGCATCTCTATAATCTCTAATTAAGCTGTTTTTGGTGTCTTTATTTTATTCTTTGCAA
GTAACCTTTATACATTTAACTTGTCTGATGTAAGGTAGAGAGTTTTAATTGGATTTATAA
ATCTACAGCCCTCAACTTCCAATGCATTTATGAATTGCCAAGAGTAGAGGGTTAATCTAT
20 CAAAATAATCTCCTATTCACATCTCGAATGAATTAAGTCAGTTTCTAATTTAAATCAT
GGCTCATCAAAATTTCTGGGCTTGATAATAAAATATATCGCATTAGCTCCTAATTTTT
CAATCTCATTCTTTAACTCCATACACTACAGCTCCTTCCTTCTGGTGATAGTATGGTTA
TTTTTACCATAAACATCCCAAAAATAAAAATTTATAAAGATTTAAATTGGGGTTAGAAAT
TTGTCAATTCATCTATACCAATTAATTTCTGCTCTCCAGTTATCATATCTTTTACAGTTA
25 CTTTCCCTTCATTAAGCTCTTCTCTCCAACAATAATTACCTTCTTAAATCCTCTTGAGT
TTGCATAATCTAAAGCTTTTCTTAGCTTTCTCCCATAAATCTCAAGTTCTACAATTTTTT
CAGCTTTTCTTAACTTATCAGCTATAATTAGAGATTTTTTAATTAATTCCTTATCTTTTT
TTATCTGGGATTATTAATAAGCTCTCTTCTCAATATCTAAATCATCGATATTCATCATAA
TCCTATCAAAATCCATAGGCCAAAACCAACAGCTGGAGTTGGTTCTCCTCCAAACGTTCAA
30 TTAAGTTATCGTATCTCCGCCACCACATATCTGCTTAGCTCCCTTCTTCCCATAGATTT
CAAATACCATTCCGTGTAGTAATCTAAACCTCTCGCAATCCAAGGTTTATTGTATATT
TATCATGAATAACAACTCTAAAATCTCCTCCAAATTAATTTATCGCCTCCATAGATTTTG
GGAAGTCTTTAATATTTCTTTAGTTCATCCAAAACCTCTCTACTTCTTTAACTTCA
ATATCTCAAAATATTAGCTCTTTCTTCTCTCTCTAAGATTTGAGTTAGATAAATCTTCA
35 AATTATCATAATCCTCTTTATCAATTAATCTTCTTATTTTAACTCCTCTTCTCTACTAA
CATTAAATTTCTCTAAAACCTCCCTTCAAAACCTCCCAATGCCCTATATGAACATCAAAAT
CCAAACCAATATTATCAATCCATCCATTGCTAAATTCAAAACCTCAGCATCTGCCAATG
GTTCTTTGCATCTTAACTCACAACCCATCTGCCAAAACCTCTCTAAACCTCCCTGCCCT
GAGGTCTCTCATATCTAAAACAATTAGCGAAATAATAAAGCCTTAAAGGTTTTGTAGGT
40 TTTCAATTCATTTAAATAGAATCTAACACCGGGGATGTCATCTCTGGTCTTAAAGCCA
TTTCTCTCCCAACCATGGTCTTTAAACACATACAACGCTTTCTAATCTCTCTCTCTGTTT
TTTTAGCTATTAACCTCAAAGCTTTCAAAGGTTGGGGTTAATATCTCCTTATACCCATACC
TCTCAAAAACCTCTCTTAGCTTATTTTCAACAAATCTTCTTTTTTTCATCTCTCTGTTA
AAAAATCTCTCGTCCCTCTTGGTTTTTGAACATCACTATCATCCTTAAATACGTTTTGT
45 TTTTTGTAAATAAATAGCAAAGCTATCTTATAAATCTTTGTTTCATCAGCATAATTTGT
AAGATATAAGTATTTATATATTTACAGTTATTGATGTTGAATCAACTTTACACAAAACCG
AAAGGTTTATATAGAATTTTCAATACATATACATACCGAATAAGGTAACAATCTGAGGTG
AGAAGATGGCAATGGCAGGAGCACAATAGTAGTATTACCACAAAACGTTAAGAGATACG
TTGGAAGAGATGCTCAAAGAATGAACATCTTAGCAGGTAGAATTATCGCTGAAACAGTTA
50 GAACAACATTAGGTCCAAAAGGAATGGACAAAATGTTAGTTGATGAGTTAGGAGACATTG
TTGTTACAAACGATGGAGTTACAAATTAAGAAAGATGAGTGTGAGCACCCAGCTGCTA
AGATGTTAATAGAAGTTGCTAAACCCCAAGAAAAGAGTTGGAGATGGAACAACAACAG
CAGTTGTTATTGCTGGAGAGTTGTTAAGAAAAGCTGAAGAGTTGTTAGACCAAAACATCC
ACCCATCAGTCATCATCAACGGATACGAAATGGCAAGAAACAAAGCAGTTGAAGAATTAA
55 AGTCAATAGCTAAAGAAGTTAAGCCAGAAGACACAGAGATGTTAAAGAAAATTGCAATTGA
CATCAATTACTGGTAAAGGAGCAGAGAAAGCAAGAGAACAGTTAGCTGAAATTGTTGTTG
AGGCAGTTAGAGCTGTTGTTGATGAAGAACTGGAAAAGTTGATAAGGACTTAATTAAG
TTGAGAAGAAAGAAGGAGCTCCAATTGAAGAAACCAAGTTAATTAGAGGAGTTGTTATTG
ACAAAGAGAGAGTCAACCCACAAATGCCAAAGAAAGTTGAAAACGCTAAGATTGCATTAT
60 TAAACTGCCCAATTGAAGTCAAAGAAACAGAGACAGATGCAGAAATAAGAATTACTGACC
CAGCTAAGTTAATGGAGTTTCAATGAGCAAGAAGAGAGATGATTAAAGACATGGTTGAGA
AGATTGCTGCTACAGGAGCAATGTAGTATTCTGTGCAAGAGGAATTGATGACTTAGCTC
AGCACTACTTAGCTAAGAAGGGAATCTTAGCAGTAAGAAGAGTTAAAAATCAGACATGG
AAAAATTAGCTAAAGCAACAGGAGCAAGAATCGTTACAAAGATTGACGACTTAACACCAG
AGGACTTAGGAGAAGCTGGATTAGTTGAAGAGAGAAAAGTTGCTGGAGATGCAATGATAT
TCGTGAGCAGTGCAAGCATCCAAGGCTGTAAACAATCTTAGCAAGAGGTTCAACAGAGC
ACGTTGTTGAAGAAAGTTGCAAGAGCAATTGATGATGCAATTGGAGTTGTTAAGTGTGCAT
TAGAAGAAGGTAAGATTGTTGCTGGTGGGGAGCAACTGAAATAGAATTAGCTAAGAGAT
TAAGAAAATTCGCTGAGTCAGTTGCTGGAAGAGAACAGTTAGCAGTTAAAGCATTCGCTG
ATGCTTTAGAAGTCATTCCAAGAACATTAGCTGAAAACCTCAGGATTAGACCAATTGACA

5 TGCTCGTTAAGTTAAGAGCTGCTCACGAGAAAGAGGCGGAGAAGTCTATGGATTAGATG
TCTTCGAAGGAGAAGTTGTCGATATGTTAGAGAAAGGAGTTGTTGAACCATTGAAAGTTA
AACACAAGCTATTGACTCAGCTACAGAGGCATCAGTCATGCTCTTAAGAATCGATGACG
TCATAGCTGCTGAGAAAGTTAAAGGAGACGAAAAAGGAGGAGAAGGAGGAGACATGGGAG
10 GGGATGAATTTTAATTCCTCCTCTGAATAAATAAATTTTTAAGCTTTATTTTTTATTC
CTTACATTAATGTATTTTTATATATAGTGGTGTCTAAATGGGAAAAATAGATACTGACAC
CCCTATAGAGATTGTTAAGGAGAGTATATGATTCTACTTTGATATATTGAAGTCCCTATA
TGCCCTTATTTCTTGTTATTTGTTATTGTCGTTTCATATATTTTAAATGGATTGTGGTC
TGTATTTAATATAAAGCACGCTCTTTTGGGTTAATCTTTTTTTTATTGATAGCTTTTCATCC
15 ACAACATTTAGATGGTTTAAATTATCTCTCTTAATCCATTAAAAATTTTCAGTAATTT
TAAATTAACCTTCAATGTATTATAGCACTGGTTGGAATACTATTAACAATAAATAAAGG
AGTAATAAAATCAGGTTTGGATGGATTTTGAGGATTCTATTCTTTTTTGTGAGAATGAT
GACAGTTTCTTTTATTAATTTAGTTGTGTTTTCGATTTTACTTACAAGTGTATGTACT
GGGTTATGTTGCAATTTTAAACCAGATGATATTCATTTTGAACGTTATATACTGCATT
20 TGGAGGCTCTGCACTTTTAGGAGCAGGAATAAAATCATACAACACTTTATTAAACAGTC
GGAGGAAATTCACAAGAAGATTTAAAAAGTGGTATGAACTGAAGTTAAGAATTTTAT
GTATTCGTTATTTATACTGCAAAAAATGCTTTTCCAAAATTTTAGATGATTTGTTAGC
TAAGGGAGTGGTTTACAGGAGGAATATCAAAATTTAATAAATTATATTTCCACATTTT
AGCTAGAATTTGAAAAATGATGAAGAGAAAATGAAAATTTCCAACGTTTTAGAACTAAA
25 CGAATTAATTATGTAAATATGTAATAATTATGTCATCATTTTTTAAAGAACTATTAGAT
GAAATATTCTCAGAAAATGAACCAAACTTATATCTAAAAAAGAAAATAAAGAATTGAAA
AAATTAATGTCAGACTTAATAGATGATTTAAAAATACTCTTGCCCTATACAACATATCCA
ACAATAACATTGGATTCTCTTGCACGATTAAGCCGTTTGAGTTAAAAAGAGATTTAAAG
ATAATCTCTGAATACATTAAAAATGAGAATTTAAGAAACAGTAGCTATTGTTCTAACAC
30 ATCCACCACCATCACCACCTGGAACACTCTGCCCATCTTTCCACAGTAACCACTTA
GCTCAAAGTCCTTTGTAACCTGCATCACTTTAAATAAAATATCTAAAATCTCCCCACTTA
AACCAGCATCTTTTAAACCTGAGTTAGTTCTCCATTTTCGATTAAGTAGGCTTCAACTG
CACTGAATTGGAAGAGCCCTTTACCAGTATCTACCTGTCCCCCTCTCGAACCCTTTAAGA
ATATTCCTTCTTTTGTGTCCTCTAAAAGCTCTTCAAACTCCAATCTCCAGGTTTTATGA
35 AGGTGTTACTCATCTTACAATTGGTTTGTAAACCTTCAGCTCTACCGTTCCCTGTTA
GCTCAGCATCCATTCTTCCAGCTGTTTCTCTTGAGTGTAATAAGTTTTTAAATTTCCAT
TTTCAATGATAACTGTTTTTTTACCTTCAACTCCCTCATCATCACTTATAAGAACAA
AAGCTCCCTCAATTGTAGCATCATCTATAACTGTAACATATTCCTTCTACTCTTTCTC
CTAATTATCTTTAAATACACTATCATTTGCAAACTAAGTCCGCCTCTGATGCATGCC
35 CCACTGCCCTCATGTATAAATACTCCAGCTAACTCAGGGTCTAAAATTACTTTAAATTTCC
CCTTTGGGCATGGTTTTGCTTTCAATAATCTTAAAGCTCTATTTTTTGCTTCTAAAGCTA
AATTTAAATAGTTATCTTTTATTTTCTCAAATCCAAACCACAGTTCTCTCAGCACCAT
ACTGCAGATTCCCATTTTCTTTAGCAACACAGTTTATATACATTATGCATCTTGTTATCT
40 CTCCCTCAATCCTTGAACCTTCGCTAATCATAAATATTCTCTTTCCAAACACATCAGAAT
AGCTAACAGAAATACTTTTAATCTTTTCATCCGTCATATTTTGTATGTATCAATAATAA
TTTCTTTCTTTTCTTCAATATCAACATCAGTTGGGTTTATTTTCCCAATCATTTTATAAT
TATCAATTATTGCCTTGTAACTTTTAAATATAAATCTCTTTTCTGAATATTCATTTGAGA
45 TTTTAGCCATTTTATACGCTTTATTTATGAGTTTTTCGATTTCTCTCACTCACTATGT
TTGATGTAACAAACCCCATCCATTTTGTATAAGACTCTAACAGCTACACCATTTCCAA
AACCTGATGAGATTTCTTCTATTTTACCATCTTTTAAATGTTATTGTATTGCTCTCTCAA
AATTTATTCTTATATCCGCATAATCTCCAACCTCTAACAATTTCTCTATTTTTTCCAAGT
TAAGCATGTTATCACCAAAGACATTAATAACTTTTTTATAAAATATTTAACTATTATTA
50 TATACTGCCTTACTCATCTTAGGTTTATATTATATGCAAAATATAGGAGGAGCTGAGGA
TGTTAAGGAGGTTATAGAAAATTCACCATTTAAGAATTCATTATATAGACCATAAAAC
CCTTATGATGCTCAAAAATGATGTTAATCTCAAAAACATGCCAGAATTCTATAAAGAGTC
AATAATTTTAATTAATGGGATTTATATTGGAAATCATGGGAGTTTTGGTATAAAAATACC
ACTTGGATTTTTAATTAATACATTCCAATTGATAATTTAAGTATTATAATGGAGTTTT
55 GATAAAAAATCTAAATGAAGATGATTTAGGAAAAGCTGAGATGAATGATTTAGTTAATAC
AATCCCTCCGAACATAAGGATGTTCTTATATATAGGGAGAATATACAATTGGCATATA
TTATGACCTAAATTCAAATAAAACATATTTGATAGAGGTATTTAGAAAACCAATAATCA
AGAAATTGATACTGAAAAACTTAGAAATGAATTGTTGCAAAAAACAAATGCAGTTGATTG
TAATGTAGTTGATATGGGGACAAAGTTTTATGTTTATTTGGAGTTTAATGGGATAGATTT
60 AAATTTAATAAATAACGGGATAACATGAAAGTTGTGATAACGAGACCTAAGGAAAGGCT
GATGTTTTTGCCAGTTTATTAATAAAGAGGTTTGAACCAATAATTTCCAACATTG
GAGATTGTATATAATAAAGATTTAGATGTTAATTTAGACAGCTATGATTGGATAGCTTTT
ACCTCACCAGTGGTGTATTGGACTATACAATATACTAACTGAAAATGAAAGAGAAAAT
GTAAAAAATAAAAAAATTCAGTTATTGGAGAAAAACAGCAAAACCTTTAAAAAATAT
TTTGGTAGGGACCCAGATATAATGCCTAATGAATACACTGCAGAGTCCCTCCTAAGAGAG

5

10

15

20

25

30

35

40

45

50

55

60

ATTAAAAAGTTTCTAAAGAGGAGGAAAAATTTTAAATCCCAACAACACCATCAACAAGA
GACGTTTAAAGAATAACTTAAATGCTGATTTGTTATTTGTGTATAAATCAGCAGAGCCA
GAAAACTTAAAGAGGATATTAAAAAACTAAAGAGTTAATAGCAAAAGATAAATTTATT
CTAACATTTACAAGTGGATTAAACAGCTAAGAATTTTTTAAAGTATGTGGATGATGAGTTT
GCTGAAATTATAAAAGATAACTACATAGTCGCCATTGGTCCTATAACTGCCAAAGTTATT
GAAAAATTTGGTTTTAAACCATTAAATCCTAAAGTATATACGATTGAAGGGATGTTAGAA
GTTATTAGAACATTAAAGGAGAGGTAGGAAAATGATTAATATCAATGATAGAGCCTTAAT
AAAAAAGCCATAGATAAGATAAAACAACTTGCTGAGAAGATAGATAAATTAAGATTAT
GCACGTCTGTGGAAGTCATGAGCACACAATCTGTAAGTATGGGATTAGGGATGTTCTGCC
AGAGAATATAACCGTTGTTCCAGGGCCGGTTGTCCAGTTTGTGTAACAACCTCAAAAAGA
GATAGATACAGCCATATATTTAGCTGACAATGGATATGTAATAACCACTCTGGAGATAT
GTATAGAGTGGCCGGAAGTGAAAAATCTTTGATGGAAAAGCAATCTGAGGGTTGTGATGT
TAGAATTGCTCTATAGTATAAGTGAAGCAGTAAAGATGGCTAAGAAGGAGAGAGATAAGAA
GTTTGTTTTTGTGGCAATAGGTTTTGAAACCACTGCTCCAATACTGGGGCTGAACTAAT
AAGTTTAAAAATAAGATGTTAATACTTCTTTATCCTAAATTGCCACAGGCAGACTCC
TCCAGTTATGGAGTCTTGTGTTAAATGAGGGAGTTTATTTAGATGCATTTATATGCCAGG
ACATGTTTCAACAATCACCAGATTAAAGCCTTATTTAGGGTTGTGTGAAAAATACAAAGC
TCCAATGGTTGTGCTGGCTTTGAGCCAAATAGATGTGTTAATGGCTATAATAATGATTTT
AAAGCAAGTCATCAGTGGAGAGGCCAAAGGTTGAAAATGAATATATTAGAGCAGTTAAGCC
AGAAGGTAATGTTTTAGCTCAAAAAATAATAATGAAGTTTTTGAAGCATAGATGTTCC
TTGGAGAGGTTTCCAGTTGTTAAAAATGGTGGTTTTGGATTGAGGGAGAAGTATAAGAA
ATTGACATCTATGAGCATGAGGATATTCAGAGATTAAAGAGAAAATTCCTAAAGGTTG
TATATGTGATAAGATTTTGAGAGGAGAGAACTGCCAACTGACTGCCCATTTGTTTGAAC
GGTTTGCATCCATTAAATCCAGTTGGTAGTTGTATGGTTTCAGATGAGGGAACGTGTAG
GATATTTTATAAGTATAGGAGGATTTAAAAACAAATTTTTCTATTTTAGGATTTTACTC
ATTAAAGTTAGCTTCATCTCTTTATATACATTTTATACAAATTCAAATTTGTCATGA
TTTATCATTATAGATTAACCAATCTGTCATTATTTTTCATTAAAAACATTTATCATGA
TTGTTTCATGAGCAAAAAAGCATATATATGACTTTTTTCAATGATATAAGTGAATAGGACT
TTCGCAGTTTATATATTAAGTTTGGAACTTAGACACCCAAAGGGTGTCTATATACAAATAA
AACTTTATTTCCCTGCGAAAGTCCTATTAAACAACAATAGGTAGGGTGAGAATATGGAAG
TGAAGTTACAACACATACATGTAAATGATGGGGAAATTGAAGAATTAGAAAGCATAAAAA
GAGATTTAACAAGGCCATATACTGGAAGTGAATTAACAAAAATCATGGGATACATATTAG
CTGGGTTGATTATAATATCTGCAATTGCACCTATTTTGTTTTAACTAACGAAATTTACA
GAATAAAAAAGAGTAGTTTGGACTATTTTATGATAAAATTGTCATGATTTATCATAA
TAAACAGAATTAACGAATTTTTCCGAACAATTTATGGTTTATAAAATTTAACCTCATAA
GTAATCTCTTTTGTTTTACTAACCAATCTGGTTTTGTATTTTTTCTGTCTAATTTATC
TTCGCTATACATAATGTTAATGACTTCGTTATAAGTTGGTAGGTTATCTTTATCCTTAA
AATATTCAAGAACATTTTTAATCCAACAATTTTGGTTTTACTTTTTTGGTTTTTGATAAG
AGAGGTTAGTTATTGTTTGTCTATATTTCTATATCTATCTCAGCTTCAATGACTTTAG
TAAATGATATGGAAACATCAACATCATAATCACACATATTTCTTAATTTCTTAAATCTT
CAAGAGCTTCAGCCAAAGTTATTAATCATTCTTCAATTTATCTACTCTAATTTTATCAG
ATAAAGTTCTGAAATATGCTGGTAATGCTTTATGTGCCTTTCCACTATTTAAAGTTTCAT
AAATCCCATCTTCTCTATCTTCTCAATCTCTTAAACAATCTCTAAGTTTTTAAAGA
TACAATAGTAGTATCTCCCAATAGCAGTTCGGTATTTTCTTCAATTTGGTAGAGATTTGA
AAGTTGGTAGCTTTTCAGCTATTTCTTTAAATTCATCAATTTAAACACTTACAACACCT
CCAAGTCAGAGGTAACAATTAATAATCCACGCATATCTGGGTATTTCTCATCAACTTTTC
TCCAAGCATCAATATAATCTCCTTTAGCTTTCTTATAATACTTTTATATCCTTTAACT
CCCTTTTATCCAATTTCTTCTTAAAACTATCTCCACAACTACCTTATCATCAATTTCCAT
CATAATCTAAACAATCTCAAATTCCTCATCAGAATATTTTTCTTTAAATAATCTTCAA
CAAATTCAGCTATTTTGTAAATTTTCTATCTTTAAATCTTCATCTTTAACAATAGTTTAA
AATTCTCAGTTTTCTGTATTTTTCTCCTCAATTCAGCTTTTAAATAGCCTCTTCAATCT
TTTTCTTTGAAATATTGGAAGGAACCTTTAGAGTTATAGTTTTAGTTGGCATAATTATCA
CCAAATTAATAATCTCCTCTCAAACTAATAAACTTAATGTTTCTAAATGTATAAATAG
CTTCCCTCTTTTAAAAATTCAGAAGACTATTCTTCTAAACATTTAGGGTAGTAAAGACAA
ACGCAAGAACTATAAAATTAATAAAAGCTTATAAAATAGCCATTAAAACTCTAAT
AACCAACTAACCAATTAACCTTTTTCAGATTAATTTTTTATACTTTTTAAACCTACTTT
TATTAATAATCTCATGGTGTAGCTATGAAAAAACTTGATGTTACTGGAGACATCTGCCC
AGTTCCAGTTTTTAAAGACAAAAAGGCTTTAGAAGAATTGAATGAAGGAGAAGAGTTAGA
GGTTGTAGGGGACTACAAACCAGCATTAGAAAACATAAAAGATTTGCTGAAAAATAACGG
CTATACAGTTGTTTTAGCTGAAGAAACAGAGAGTAGATTTAGAATAGTCATCAAAAAATA
GGTGAATAATGAATTCACCGTAATCATTACAGAAGCTCCTTATGAAAGGAGAGGGCT
TACTCTGCCTTAAGATTTGCATTAAACAGCTTTATTAGAAGGGATTGAAGTAAATATCTTC
TTACTTGAGAATGGTGTCTATGTTGCTAAAAAGGAACAAACCTTCAGAAGTTCCAAAC
TACTTAGAGCTATTAAAGAATGCCATTGAGTTGGGAGCAGTTGTTAAAGTTTGGGCTCT

-296-

5 TGCTGTAAGGCAAGAGGTTTAAAAGAGGAGGATTTAATTGAAGGAGCTAAGTTAGCTACA
ATGCACGACTTAATCGCCTTTGTTAAAGAGAGTGATAATGTTGTACATTCTAATTTTGT
TTTGCTTTTTTATATTCTCTCAACAAACCTCTTATAGCAGAGGTTAATACCTCTTTTATA
ACCTTCTCTTTGCTCTTACTCTTATCATAAGGAGCATTAGTCCACCAGCCTCACTATGC
CCTCCTCCACTTCTCCAAGTTCTTTTCCAATCTTCTCCATCAAATTCCTAAATGCACA
TACTTAGAAACATGCTTTCTACATCTTGCCTGACTCTTATTTCTTTTCTTTCTTCTTA
ACAGCTACAACAAAGGCAACATCTGCTCCTATGCTTACAATAGTCTTGCACAAGATGCC
TCATGAGAATAACATGAGATAATGCTATTCTCACTTATCGAATTCCTAATTTCCATT
CTACTACATGCCTTTAAATGGGCTGTTCTTACTAACGTCACTCTCTTGAGATAAAAGG
10 TAGAGAATCTTCTGAAAGCTTATGTCTTTATCAAATAGCTTATCAACTCAAACGTTTTT
GAATTAGCTAACTTTAAATGTTTTGTATCATAAACTATCCACACAATAAAGCAATTCTA
ACATTTTGGTGGAAAGATATTTAGCTCTTAAAAATCTCTGCTATAATCTCAGATGTT
GATGGGTAATCCTCTTAATTATATAGTATTTACATATATCAGCTAAATCTGTCTTTA
TGATGGTCTATTAAATAACCTCTCTCTCCTTCAGCTCATCAAAATTAACCTTTAAGTGA
15 TTAATTGATGCAGTATCACTATAAAAACTGTTTCTGGGAGTTTAGGATAAATCTCAATA
TCAACCTCTCTCCCTATCTCATTTAAATATTTCTTGAGAGTTTGCTGACAGAATCTGCT
GAAATTTCTAACTTTCCATTGGATTAAATTGAGATGCCAAGTATTTTAAAGCTACACAA
CTTCCAATGCATCGGGTCTGCATTGTGATGACATAAAAAAGAACCTCATCCCTCTTT
AAATATTCCAATAACTCCATTTTGCTCACCACAAATAAAATTAACAAATCATAATTTA
20 AAGCTTAAACCTTCTAAAAATAATAAAGCTAAAAAATTAATAAACAACAAAAATAAGA
TAGGATTAATTTATTGTGCTGTAGGTATCATTTTTTGAATCTTTTCTTGAAGTTCTTTTA
ATCTTGACTGTAATTTTTCTTCTGCTTCTCTAATGTTTTTACTCTCACTCTAATGTTT
CGACTTTCTCTCGAGTTCTTTTTGACATCTTCTTTTTTCTTTTAAACAAACATCCAC
CAACTAATTTATAAACTTCATCACTTGAAGATTTTTCCAACCTCTCTAATGCCTTTTTAC
25 ATTCTTTAATTCTGTCTCAACACTCTGCTTCTGCATTAAATCATTGTAGTTGTTGCT
GTAATTGCTGTAACATGCATCAATTGAGCTTGAATTTGTGGTGGTAATTCATAACAGTCA
CCTCAAGTTAAGCTTTATAGTTTTTGCAAAACATTTTGGAAATAATAAGACATTATAATG
AACGCCCTTCAATAAAAGGCGTTCAATTTTCTTTATTAATTTAATCACTTTTGCAAAAA
ACTATATATTGCTGATAGTAAATAACTACCAATAATATAAAATCTTTTCTCCTTAGA
30 TAAGCAGAATTTTTATTCTGATGATCTAACTTCATTGTTATGCAATTTACAGTCATTTT
TGATTTTTTAGTTAAAAATTATAGTGTCTTAGATAATAATCACACAACTTTAAATAATA
TTGTGTTAATATGTGTTTTAGGTGAGTACATTATGACACAAAGAGAAAAAGATAATAAT
ATAAAAAGAGTTCAAGTTACATTAAGAGTCAAGTGGGAATTAATTGAAAATTTTAGA
GGAATTTTAGGACAACTGATGCTGAAATTGTGAGAACCATTGTTTTAACATGGCTGTCT
35 GAAAAATCAATTATATCAACCACCATAAAGAAAGAAATAGGGGATAAATGATGAGTATTG
ATATAACAACTAATCACAAAATAATCTTTGGAGATGCAAGAAAAATGGATGAAATTGAGG
ATGAAAGTGTGCATTTAGTTGTACATCACCTCCATATCCAATGATAGAAATGTGGGATG
AATTATTCAAAATGTTAAATCTAGAAATAAATAAGCGTTGGATGGAGATGGAAAATGAAG
AAGATGAAGAGAAAAAAGAAAAATTAATCATGCAATATATAATTTAATGCATCAACAT
40 TATATCCAGTTTGGGAAGAAGTCTATAGAGTTTTAGTTCCAGGAGGAATTGCATGCATCA
ACATAGGAGACGCTACAAGAAAAATAAACGGAGTTTTTAGACTATTTCCAAATCATTCTA
AGATTATAGAAAACCTTTGAAAGATTGGATTCTGTTACTCTCCATATATACTATGGAAGA
AACCTCAACAAAGCCAAATGCATTCTTAGGTTCTGGATTCTTCTCTCCAAATGCTTATG
TAACCTTAGATGTTGAGTATATTAATATTTAGGAAAGGAAACCAAGAAAGTTTAAAC
45 CAAAAGACCCGTTAAGATATGCAAGTGCATACACTAAGGAGGAGAGAGACAGATGGTTCT
CTCAAAATTTGGGAGATTGTTGGAGATAAGCAACACATCCAAAAATAGAGAGAAGAACGG
CATCATTTCCAGAAGAGATTCCAAGAAGATTAATAAGGATGTTTTCTATAATTGGAGACA
CCGCTCTTAGACCCTTTCTTAGGGACTGGAACAACAGTAAAGCGGCTATTGAATTAAAAA
GAACTCTATTGGATATGAAATTGATAAATCCCTAAAGCCATAATTGAAGAAAAAATTG
50 GAATTAAGCAAAAAAGAATAGGAATGGATTTAATGTAGAATTTATTAATCGTGGTTAAT
GATAATTACTTCGTATTTTCACTAAATCCAATAAATCGGAGTAATCAACAATAATTTTA
TTTTCTTCTTTTTCATAAATAATTAAATGCCCTTTAAGTTCTTCAGACAAGTGTTTTTCC
TGATTGACATAAGTTTTAGATTTAATTGATACAGGAATTTCTTTATCATCAATAATAATT
ACTCCATCAATACCTTTAGATTCTTCTCTATAGTAGAAGGGCGATAATTTCCACCAAGT
55 TCTCTGCAACTTTTTTCAAATAGCATCCTGCAACATCAGCCCTTCATAAGTTTTTATA
AGAACTAAATCCTCAACCCACTTTCTTACATCATCTCTTCCAACCTGTTCTAAGGTTTCT
TTAAATTTATTAAGCATGTTCCAAATTTTTTCAAGTAGCTTCATCAATCGCATTAGGATAT
TTTTGCAAAATACCACTTCTTCCAATCTTCAAATGTTCTACCTCCAGTTTTTCTGAATTC
TTAATTAACCTCATCTGACCAACGACTTTTGGACGTGTGCCTTGTGAAAATATATTT
60 GCAAGATTGATAAGTTGAGAGGCATATTTGGCAGTTCAGGTTTTGAAGGTAGCTCTAAG
ATTTCTCTTTCTTCTCAACGTAATTTCTATAATTCCCTTTTTATCTTCCAATTTTTTC
ATAAGTTTACCACAATCTACTTGTGATTACAACTTTTCAAATAACCGTTAAATTAATAT
AATAGTTGTCTATAGTTATTTACTCTAAAGCTTTGATATTATAAAAGGGGATGTGGCGGC
AATGCTGAACCCATAGAAGAGGGATAAAATGGGAATCTACAAGTATATAAGAGAAGCATG

5

10

15

20

25

30

35

40

45

50

55

60

GAAAAGACCAAAAGAGAGTTACGTTAGACAGCTATTATGGGAAAGATTACAGCAGTGGAG
AAGAGAACCAGCAGTTGTAAGAATTGAGAGACCAACAAGGTTAGACAGAGCAAGAGCATT
AGGATACAAACCAAAACAAGGAATAATTGTTGTCAGAGTAAGAGTTAGAAGAGGAGGTTT
AAGAAAAACCAAGACCAAAAGAACTCAAAGAAGCCAGCTACACTTGGGGTTAACAAAGTAAC
AATGGGTAAATCAATTCAAAGAATTGCTGAAGAGAGAGCAGCAAGAAAATATCCAAACAT
GGAAGTTTTTAAACAGCTACTGGGTTGGAGAAGATGGAAAACACAAGTGGTATGAGGTTAT
ATTAGTTGACCCATACCACCCAGCTATTAAAGCTGATCCTCAACTCAACTGGTTATGCAC
TGGAAAACACAGAGGAAGAGCATTGAGAGGTTTAAACATCAGCTGGTAAGAAGGGTAGAGG
TTTAAGAAACAAAGGAATAGGAGCTGAGAAGGTTAGACCAAGTATAAGAGCTCATGGAAG
AAGAGGTAAGTAAATTGATAAAATTTATATACTCCCTTATACTTATTTCTATCCTTTAGG
GGAAACAACCACTAATTTTTTAAATCCCCGACAATATTCAAAAAGATAACAACATTTTTTA
AAGGTGGAAAATATGAGTGAGAAGGAATTGTTAGTACCATTAGACACATACCTTGGCTTCA
GGTATCCATATAGGGACTCAGCAAAAGACAAAAGACATGGAGAAATTTATTTACAGAGTA
AGAAGTGATGGATTGTATGTTTTAGATGTTAGAAAGACTGATGAGAGATTAAGAAATAGCT
GCTAAATCTTAGCAAGATACGAACCAGAGGATATATTAGCTGTTTCAAGAAGAACTCTAC
ACAATTGGGACCGTTAGAAGAGTTTGGAAAATACACTGGAATTAGAACAGTTGCAGGAAGA
TTTGTCCCTGGAAACATTAAACAACCTGCATACAAAGGTTTATGGAGCCAGAAGTTGTGA
TTTATCAGTGACCCAAGAGTTGATAGACAGGCAATTGAAAGAGGCAACAGAAATTTGGAGT
CCAATAGTTGGTTTATGTGATACAGAGCACTTAACATCGTTTCATCGACTTAGTTATACCA
ACAAACAACAAGGTAAGAAAGCAGTTGCTTTAATCTACTACTTATTAACAAGAGAGTAT
CTCAAAAACAGAGGAGTTATAACTGACGATACAAAATTACCATTCACTTATGAAGAGTTT
TTAGAAAAGGCAGCAAAATCCAAAATACAGAATTATAATTCAACCAAAAAGACAAGAGAAGA
AGAAGGAGAAGAAGAAATAAATAAACAATACTTAGAGGTTTTTGGAGATGACT
GAAAAAATATATCTTAAGTGTGAGAATTGTGGGTTTGAAGAGCAGGAAGTATTAAGAAA
AAAATTTATAACAAATCTGCATATTACTTACTTAGATGTCCAACTGTGGATCTGTAAAGG
GAGATTGTTGATAAGGTTAAATTAAGCCAGGCAAAGTTAATTATAAGCAGATACGATATT
TCAGAACTTAAGGTAATCAATATCCCTGAAGATGAACTTACAAAGTTGGAGACACAATT
GAAATTGATGGAGAGAAAATTGAGATAACAAAAATTGAAACACCTGAATCAGTTAAATCT
GCCTTAGGTGAAGATATTAAAGTTATTTGGGAAAATCTTTATCCATTCCCAAAAAATTA
GGAATATCAATAAATGATAGAAGTAAACTTATGGTATATACATCTATGTCCCAATGAT
TTTGAGTTTGAAGTAGAGAAAGTTTATAGGATAAACGATGGATTCTTTAGGTTAAAGAA
ATAAAAACTGAAAAAGGAAGTCTAAAAAAGCAAAAGCTAAGGATATAAAAAAGATTGTAT
GGGGATGTAACAAGACCTGTAAGAACTATGTTGATTTATCTGAGTTCTATAAGGGTGAA
TAATTCCTAAAACCAACTAAATTTTTTAAAGGTGAAAAGATGGCTACTGCAAGAACTGC
AAGGTCAAGAAGGAAAGTAAGAAAAGTGAGAGATAAATGGAAAAGAGAAAGTATGGTATGA
AATTTAGTCTACACCAGAATTTGGAGGAGTATTTATTTGGCTACACCCAGCAAAATGACCC
AAGCTTAGTTTTAGGAAGAGTTGCTGAGACAAGCTTAAGAGATTTAACAGGAGACCCAAC
AAAACACATGCACAGAGTTTATTTCAAAATCTTTGGAGTTACAGGAAATAAGGCAATTCG
TCAATATTATGGACATGATACAACAAGAGAATTTATGAAGTCACAAATCAGAAGAAGAAG
AAGTAGAATTGACGCTATCCTTGATGTTAAACCCAAAGACGGCCATAAGATAAGAACAAA
GGCAATGGTCTTAACAGCTTACAGAGnAAACACAAAACAAAAATCAGACATTAGAAAGAA
GATGGAAGAGATTATAAAGGCAATGGCTAAAGAAAAGACAnTCCCACAGTATGTTTCAGGC
AATGTTGTTTTGGAGAAATGGCTGAGAAGATAAAGAATGAATGTAAGAAGATATTTCCCAAT
TAAAAACGTTATCATCTACAAATCAGAAGTTTTATCATTAGCTAAGAAAGAGGAAAAATGA
AGGATTTGTAAGAAGAGCTGAAGAAGAACTGCTGAAGCTCAAGAATAAATAATTTTAC
TATTTTTTAGTTTTTTAATATTGATATTCGATTTTTTAATTTTGTTCCTTCTGCTTCCTAC
GAGCGTAGCGAGTAGGTTAAATAAACTCTTCGAGTTTGTAGCCGCATCTTTAGATGCGGG
ATTAAAAATCCAAAGGACTTTTAAGATTTTAAAGGTTTAAATAATCATACAGTAAGAAAT
TTGGATAAAAAATAGAAAATTATATATGGGAGTTTGAGTATAATAAGAAAAAAGAGTAAGT
GTTTATCGTTAGTCCATTAAAAATAAGGATGGAAACATTGGGAGGACTGCAACAACTTCAT
CACAGTTATGTTCTTTGTTTGAAGTCTTAGTCCATTAAAAACAAGGATAAAACCTATTTT
TTTCCATATACTACCAAAAATTTTAACTTATAATCTCAAAGAAGAATAAATCTTTTTTT
AAACATTAATTTTAAATTCAAATATTCCAATATTTTAACTAAACTAAAACCGTAAAGT
ATATATATATGAGTTTTGTAGTATTAGAGAAGTTCTACTTTACATTACTTAGATAAAGCA
TAAATTAATACATAAAAAGAGTATCATTTACCATATAATCTAAATTTAAAAAATTAAGC
GAGGTGAAAAAATGTTACCAAGAAATGACTATATAAAAAATAGCCCTCATTGTTGTAG
GGATTATTGCTTTGTTTCTCCCATGGCTCACAATCTCTGCCTCTACGATAAACATAAAGA
CAGACGAAGGAATTCATTTATCTGTAAATCTCGCACCATTTAGAGTTTCATCAGATATTA
AATCTGATACAAACAACATATTTGTAGAAATGATGATGCCATATGTCAAACAATACTTTG
ACATGGCTGTTAAAGAAAAAATGTCAACATTTATGATGATATTTGGTATAATTCCAATAA
TCCTCTACATTGCCTCAATATTCGTTGATAAAAAAGCGGTTGTAGTTGGAGCTGGAATAG
CAGGAATTACCTGTGCTTCAATATTTGTTGTGTTATTCACAGTAGGGCTGAAGTCTATCAG
ATTCTGGATTAGCTCTTACAGGAGGTAAGAAAGTCACTCCAATAGATTTAATAACGGGAG
TGGTCAATGAAAAATCCAGTTATCTCTCTAAGGATATTATAAAGATTCAGGTGGGGACAG

GTTGGTATCTAACAATGATAATTGGCTTGGCGTTAATTGCATATCCTTTTCATTAGGAAGG
 TTTAATTTTTAAATTTCTCTATTTTTACTTACTCTTCAACTCTTATAACACTCCCCAA
 CCCTTGGAAACCTTTCTTCCAATTCCTAAATAATTAGGAATGTTAAATTAACCAAAAC
 TCTCCCCAGAAGCCAATAAACTTATTTCTTTTATATTTAACAACAAAGTCTTCATATTCT
 5 AAAAGCCCTGCTTTTAACTTTTCTTCAACTGTATAATCTAAATACTTGCTCATAGATAAA
 ATATTTCCAACATAAATTTTCTCATTCAAAGCAATCCATGGAGATATAAACTTATACTTAATC
 TACTCCAAATAATTTTCTCATTCAAAGCAATCCATGGAGATATAAACTTATACTTAATC
 ATATTCTCAGCAACTCCAAATTTCTTCAACTTCACCTTTGCATAGCCATTAACAACCCCTA
 TAAACTTCTCCTTTTAAATTTAACTCTCTAATATTTAAATAATCTCTCCCAAAATGTTT
 10 ATCCCTCTTTTATGCCAATTAACAGCATCTCCACCAATAATCTTATACTGTATTTTT
 GGATATGTATAGAGAAAACCATTCGGCTGTGGTGTGTAATTCTACATAATCTCTCTTTTC
 CAAATTTGTTTAAATATAGCCCTCAAAATGGTGTGCGATTTTTTAAGTGGTTTAT
 CTGCTTTTAAACGGCATATTAAATTTGGAATTTGCATAATATCCCATATAATGCCCC
 TCTCAAAGCAATCTCAAGGTATTTTATAAATCTCTTTTATTATCTGGAATATATGCCCC
 15 ACAGGCAAAATTTATGCCCTCCCCACTACCATTAACTTTTTCTGATGCATATTTATTGC
 CTTGGCTAAATTCACATCTCAGCAAAGCACAATAGCTTAGGACATCGTGCGGATACCTT
 ATAGCCGTTTTCATCCTCTGTTATTGCAAAATATCGGCTTCATCCAATCCACTTCTTCAAT
 AGAATAACTCATTCCAGCAACAATCCCAACAATATTTGACATAATTTTATCTGTCTCAAA
 GTATTGGAATCTATCTTTTGAATTTATCTCAACGTCATTTTTACATGCTCTAATGCCTC
 20 CCTTAAGTTATTTCTATGCTTTCTTAAGTTTGAGAGCATTTTTTCTATAGTATTTATCCCT
 ATCTCCCATTAACACATTTAAAGCTGTTTCATAATCTCCATATCTTGAACATGCGTTTAT
 GCACGTTGAGAACTCCTCTAAATCTCTCAATGGAGATCCAACTCTTCTCTCTAAATTC
 ATAAACCTCTCCAAATATAACCTTTGGAATGTAAGGTGTCCAGTGGTTTGGGACATAGTT
 TAGACATTTTATTAAGCTCATTTCCAATAATCCTTTTATGTTCAAAAGGAATTTTCAGC
 25 TAATCTCATAGTTGGGTTTATTTCAATATCATACTTTTTATTTATGCTTTGGATGTATTT
 GATTATCTTTGAATCGTTATTTTAAATAATCAGTTCTCACATCTGCCAATATCTCATAGA
 CACAAATAAAGGTCTTGTGCTTACCATACTCTGTAAATCTGTTTTTACTTTAACATC
 TCCATTCTAATTTGCATCGCATAGTATTTTTCTATTCAAACCAATTAATTTTCCCTCAAT
 GTTTTGAATATCACCAACAGCAACCAAAACAGCATATTTAGCCAAATCAATCCAATCATT
 30 GTTTATAGCTTTTGCAATAAATATGAAACTCCAGCTCCGCAATTTTCAGCTCCGCTTTT
 TGCAATGGTTAGGGGGTTTATATGGATGATGGTTTTTGGAATCTTTATCTCCTCTGGTTG
 GTGGTGGTCTAAGATAAATAATTTGTCTCTCTTATCAGATAAGTTGAGTTCATCTAACTT
 CTCTTTAATCATCTTTAACTGCCCCACTACCTAAGTCAGCAAAGATTATTAATCATAGTC
 TTTAAATGGAATGTCATTATTTGTCTCTATAGTAATTTGCTTCAAAAACATGAAATCAGC
 35 ATCCAAGTTTAAATCTCTCAGCCAATTTTGTAAATAGCTCTTGATGTTAGCCCATCAGT
 ATCTATATGGGTAATCTCAAAATTTTGTGTTTTTGTGTTTTTGCAATACCTTAGCTCC
 TTTTTCATTTCTACCCAATTTTCCATAGTTTCACTGTGTTTATTTCTTTAAATTTATTTA
 AGAATCTCTGATTGAGTTAATTCATTAATTTTATGTTTATAATACTTTGCTTCATT
 40 TAGTTCATTTATTGCTTCAAAATGTTATTTCCGGAATCTTCTACATGCTTCAGTAAT
 TTTACTTTTTGCTTCTCTAAATTTGTTATTTTGTAGTTCCATTTTCTGAAGTCCCTCCGAG
 TAATTTTATAACATTTCAATGAGTTTTTTTATTTTCTAAGTTTTTCTTTAATTTCTTC
 TTTTTTTGTATCATCTAATCTAATGTTTTTCAATATTTTATGATATCATCGATATCATT
 AACAGTCTCTCTAAACTCAACATTATTATTGTATTTTCAATATGTTTTTGTGATTATA
 45 ATAGACATCTATTATTACAAATATAAGTATAACAATCATTGCTACAATAAACTTTCTGG
 GATATAAGAACAATATTAGGTTTATTATATCATAAATGAAATAATTCATCAATGGTGGTAT
 AAATGATATAAATAATAACAACCAATCACTTTGCGATATTGTTTTGAGTCTATTCTTCT
 ATATATCCAATCTAATAAATCTAAAAATAGATAATCACAACTATTATAAAAAATCCTGT
 CCCAATAAAAAATAATTGTTTTACAACATTAGCAAGATATCCAAGAGCAATCACTGAAAT
 50 CATGTAAATTCCAATAAATATTGAATAAATATTCTTCCAGTAGTGTCAATAACTTTATT
 AAAATTATCAAAATTTAGAATATCTTTTGGGAATTTATTTTATATGCTCTCTTTTAAAT
 ATACCTTTCTAAATTAACAGTTAATATCATATTCTTAAAGAACCATTTTCTCTTTCAAT
 TATAACAATTTATCCAATAAGTGAAAGTAAATATTTACCAAGCCAGAAAAGCAATAAT
 AATTTCAAGTAGGAAAGTTCTGAAGGTTATTACTCAAAATATCTACACAATATTTCAACAGC
 55 ACCGTTTATCCCTACTAAAACTGTAAATAAAACAACATATATGTCCAAAAAGAGTTCTC
 TGCCCTTTCAATATGGCTTCTGAATGTCTCATACATTTTTAGTTTTAAGTCATTTTTTGG
 ATTTGAATCTTCACTCATAAATCCCCACCTATATTTTCAAGTTTCATAACCTAACTAAAT
 AATCAATAATAAAATTTCAAACCTTATAAATAATTTAATAGCATGAAATTTTAAATGGT
 GATTGTTATGGAAATTTGTCGTTGATGCTATGAGAAAGGAGTTTTTAAACTTAAAAA
 60 ATCTATAAATCTTCCAGAGGGTTGTGAAGTTGAGATAAAGATAATCCCAAAAAAGATTTC
 AGAAAAACCTTTGGAATCTTAAACCTTTCAGATAAAGAAATTAAGAAATCTTGAGGA
 GATTGAAAAATGGAGGAGAATAAAATATTTTTGATTCTAATATATTAATATATCACTTAT
 GTGGTAAAGTTGAAGCTAAAAACTAATTGAAAAAGTAGAGAATAAAGAAATCTGTGGAT
 TTATAAATCCTATAGTAATATCAGAAGTTTTGTTCTTTTATATAAGGGCTACAACAAATA
 AAAGGCATTATGACATTAAAAACATCCAGAGATTTTAAATCGTTAGATTTAGATATAG

TTTTTGAGCTTTTTTCAATTTTCCAAATATTAGATTTAAATAGTGAGATTGTTAAAATTT
CAAGAGAAATTATTAAAAATATTGTTTATTACCAAATGACGCATTAACTCTGCTCAACAT
GTAAGTTTTATAAAAATCAATAAAATATGTAGCTTTGACGATGATTTTAAAAGAGTAGATT
5 TCTTAGAAATTATTGAAATTTAAAGTGATAAAATGGACGATAAATTTGCCCTTAAGTTTG
AGATAGATGTTTTAAACAACTGCTCAATAAAAACTTCTCCTATGATTTAGCAATTATTT
TAAAGAAGATTGGTGGCTTAGATTACAGAAAAAAGTTTTTATTAATGGAGAGTGTATAG
GCATCTTAGAATTTGATTTAATTGATTTGGATTGGAAGTTTCATCCTTATGCCCTCTTATT
ATTTAATAGAAGAACCAAAAATTTAAATAAAACCAACAAAGAGAAAGCTAAAAGGCAAAA
10 AAGTGCCAGTTGATTTAATTGAAAATGCTGAAGAGCTAAAAGATATCAATGAGAATGATT
ATGTTGGTGTGGAAGTAGGAAATTATGTTGGCGTAGCAGTTAAAAAAGGAGATACAATAA
AAATTAAGGACTTAACCTTTAAAGAAGAGCTTAGATTGAAAAGATTGAAGATTATCTAA
GAAAAACAAAGATAGGATTGAAAATTTAGAGAAAAATCCCTATCAATCATATAAAAAAT
ACTATGAAATGTGTAATAAAGAAATTATGCTATAAATACCTCTTTTAGTGGTGGGAAGG
15 ATTCTCTGCTCTACTTTATTAGCTAACAAAGTTATAGATGATTTAGAAGTCATCTTTA
TAGATACCGGCTTAGAATTTAAAGATACTATAGACTTTGTAAAAAATTTGCTAAAAAGT
ATGATTTAAACTTAGTTGTTTTAAAGGCAAAAACCTTTGGGAATATCTGGAAAAAGAAG
GTATTCCTACAAAAGATTATAGATGGTGTAAATAGTGTGTCAAATTAGAGCCGTAAAAG
AGTATTTAAAGAAATATAAAAGAGTTTATACAATTGATGGCTCAAGGAGATATGAAAGCT
20 TTACAAGAGAAAAATTAACCTATGAAAGAAAAAGTGGCTTTATTGAAAATCAGATAAACA
TCTTCCCAATATTGGATTGGAGAGGAAGCTGATGTCTGGAGCTGGATATATCTAAATGATG
TTATCTAATGAACCTATGATAAAGGATTTGAAAGAATTGGTTGTTATATGTGTCCAG
CTGCTTTAAATGCTGAATTTTGAGAGTTAAAGAACCTTTATCCAGAGTTGTTTAAATAAT
GGGTGATGTTTTAAAAAGATTGGTTATGATGAGGATGAGATTTTAAAGAGATTTTGGG
25 GATGGAAGAATTACCACCAAAAATGAAAGAATTAAAGAAAAATATTAGAAAAATAAGAAA
AAAAGTAATTTATTGAACGCTAATGCTATTATATAGCCCAACTATTCCAGTAAATATTAT
TTGCACTGAGATAGCTACTAATAGCAATCCCATAACTCTTACAAAGGCGTTAATGCCATA
AATATTAACCTCTCTAATTATAAAGTCAGTTAATGATAAAATGATTCCAGAACTAACAT
AGCTGATAATATAGAGAGAACAACCCCTTTCTCTAAGATACTCTGGGTTTTGCTAAT
30 CAAATCATGGTTGTTGTTATAGCTCCAGGGCCAGAGATTAAAGGAATAGCCAAATGGGAC
ATAAATATACTATCAATATCTTCAAGGCTCAATCTTTCTCTGGTTTGTGCTTTGTTTT
TGGAATTTCTGCGTGAAGCATGTCCCAAGCTATTTTAAAGAGCAAAATTTCCCGCTAC
TCTAAACGCATCTATTGTAATCCCAAAATAGCCAAAAATATAATTTCCCAATAAAGCAAA
TAACAATAAACTACCGTTGATGAGATTATAGCCTTTTTGATAATTCTAATTCTCTGTTC
35 TTTTGGATAGGGATAGGTTAGAGAATGCACTATTGGAATTAAGCCAATTGGGTCTATTGT
AATAAAAAGAGAAACAAATCCATAGATGTAGAAGTTAAGAATATCCATATATTTTACCAC
ATTGAATATAAAATGCTCCCCAGAAATAACCCACCAACTAATAGTGTATTGATCCTAAA
GTTTTTTCATTTATAAATAATTCCAGTATTTGACCTACTTTAGAAATGAATCTATTTTTT
CTCTCTTTTAATAATTCTGGGAAAGCATTCCTATACGTGAAAACCATCCAAAGGCATAGCT
40 GGGAGTAGGTTAAATAAAGCTAATAAAAGTTAAACCAGTAAGTCCAATAGATAGTGT
ATAAATAATGCCGTGTTTTTTGTTGGAGAAACCATAATTCCAAGTTTTCTTCTATTAGAA
CTAACAAATTTTATACGTCAGTATTTTATTATCCCTCAAAATTTTATCTCATACTCTTTT
TTTGGTTCTATAGTTTTTGGCAAAATCTTTAAAGTCTCTAATGAATTTATTTTTTGGCG
TTAATTTCTGTAATAATATCTCCTTTTGTAAAACTCTGATGCTGGTTCTTTAACATCA
45 ATAATTTTTTAATCTGTTGGTAGTGATAGCTAAATGAAAGTAATGGAATTGATGTTAAA
AATATTATTAAATTTGCTAATGGACCTGCTGAGGCTATAGCTCCTCTAATCTTTTATCA
GCTGTTTTAAATTCATCTCCTAATTCACAAAAGCCCCCAATGGTAATCCTAATAATAAT
AAAATTCCTGAACCTTAACCTTAATTTCCAAAAGATTGGCAAAATATACCATGTGCTAAT
TCATGCAAGAAAATGCTATTAAATAGAGCTATAATCCCTGGAATCCATGGAATAACATCT
50 CCAATAAAAAATCTACTGGCTTTGCTTCTTTTGGCAGAGTTCCAGACAACAGCCTT
ATACTCATATCTATGATATTAAAGAAGCATAAAAAATCCAAGTATTACACATATTGGTATT
GATATAATTCCTATTTTTTGGCAAAATTTATATTTTCTTAATTTTTCAATTGTTTTAAT
CCCAATTTAGTCCTTAAATTTCCAAAATTTCTCCATAAGTCTTTAAATTTATTGAATCT
CTGATACTATATAAAATTATCCAGATAATTATAGCTACAATTAATATACTTTAGATGTA
55 TCCATGTTCAATCCTCCAAATATTTTAAATATTTTTTATTTTCAATTACCTATAACTTTA
AATCTAATAAAAAACGAAGAGTATATAATAGTTGGTATGAATCTTACAACATAAAATAA
TAATGGTGAGTTTCATGGAAGCGTTGGTTTTAGTAGGACATGGGAGTAGATTACCCTACAG
CAAAGAGCTTCTGGTAAAGTTAGCTGAGAAAGTTAAAGAGAGAAATTTATTTCCCAATAGT
TGAAATTTGGTTTATGAGGTTTATGAGCCAAACATACCTCAAGCAGTTAAAAAAGCTAT
60 AGAACAAGGGGCTAAAAGAATCATGTTGTTCTGTTTTCTTAGCTCATGGAATTCATAC
ACAAGAGATATTCCAAGGTTATTGGGGTTGATTGAAGATAACCATGAACATCATCATGA
ACACAGCCATCACCATCATCACCACCATCATCATGAACATGAAAAATTAGAGATTCCAGA
AGACGTTGAAATTTATATATAGAGAACCTATTGGAGCAGATGATAGAATTGTTGATATAAT
TATCGATAGAGCATTGGAAGATAAGTAGAAACATGTCAATTTACACCTCCGAGCGTAAG
CGAGGAGGTGTTAAGTGGTATCCCAATAGGAGGTATCCTCCTATGGGTAGAGATAATTAT

-300-

CGATAGAGCATTGGAAGATAAGTACTTAATAAAGAATCTACTAATCCTCCAATAAAGA
TAAATTTTAAATAAATATCCTTTCTTTTATTTCTTAACAATTTACATAAAAAGTTTAT
AATATTGCTATTTTAGTAGTTTAAAGTAATTAAGGAGGTTGAGGTATGTTTGCTCCAGGG
CACATAACAGGATTTTTGTAAATTTGTAAATCTTCCAATAAGTTAAAACTGGTCTATA
5 GGGGCGAGGAATTACTATAGATAGAGGAGTTAATGTAGAATTTAAAGAAGGAAATGGTAGT
ATTTTTTATAATAAAGAAAGTAAATATCTGTGCCGTTGAAAAAGTTATTGAACATTAT
AAAAAATTTGGATATAATGATGATTATGACATAATATTTTCATCTGACTTTCCCTTAGGT
AGTGGATTAGGAATGTCTGGAGGATGTGCTTTAATATTAGCTAAAAAATAAATGAAATG
10 TTGAATTTAAATGAAAATTATGCAGAGATAGCCCATATAAGCGAAGTAGAATGTGGAAC
GGATTGGGAGATGTTATTGCTCAATATGTTAAAGGTTTTGTGCATAAGAAAACTCCTGGA
TTTCTTATAAATGTTGAAAAAATCGTTGTTGATGATGATTACTACATTATAATTGAAAT
TTTGGTAAAAAGAGACAAAAGAGATAATACTAATGATATTTGGATTAAAAAATAAAT
GAATTATGGAGAGATGCTTAAATGAGCTTTTAAAAAATCCTACTTTGGAAATTTTGTC
AATCTTTCTTATGAATTTGCAGTAAATACTGGACTAATAAATGAGAAATCTTATCCATC
15 TGTGAAGACTTAAATTTACAGTTGGAGCTTCACAATCCATGTTAGGAAATACTTTATTC
TGCATTTCAAAAAAGAAACATTAGAAGATGCATTATCTATTTTAAAAAATCCAATAGTT
TGTAATATTTTACTGAACACTTTATAATATTACTATTTTATGAATTTCTACCTAACT
GTGAATCACGTCACGTTTAACTCTTAAAGCTGATTTTAAATCAATATTGGAAGCTAAG
GAGACAGAAAGAACTTAGTTTTCATCCGAATTAGTCTGATTTTAAATTACATATCTTTA
20 TTAAATGCAAAATCCATCCCAGTCCTTATTTCCATTCCGAATCGGTCTGATTTAATTAAT
GAGACATTTAAATGGAAACACTACATTTTAGACAGATTTCCATTCCGAAATGGCTAATTT
TAATCTATAAATAATGTCTTATATTAAGAACACTCCTTAATTTGCATTCTACCTTTAATT
TCTCCATTAAATACTTTTTTACATATATCAACTATTTTCTTTATGTTGTAAATCTTTATA
TCAGCTGTTTCGAGAGCTCTCCTCGAAACATTCCCATTTTGCAATGTTACCCTGCTAAA
25 TCACTTTCAATCATTGCTGGGACATCGTTAGCTCCATCCCTACCATTATTGTAAGTAC
CCCTCTTTTTTAGATTCTTATTAATCTCTCTTTAACTCCTGATGAGCCTCTGCCATT
ATATATCGTTTCATCAACCCAGTAATTTTCAGCTAATCTCTTTATAAACCCCTTTCTATCT
CCAGAAGCAATGAAAACCTTAACTCCTAAATCTTTTAGTTGTTTAAATGTTTCTTTAACC
TCTTTAAATAAACATCCAGCTGTTGCTATTGTGATTCAACCTCTCCAGCATAAGTGTCT
30 ATTATTAAGCACTTCCATACCCAGTTTCTACTTCATATCTCTTTAAATGTTTAAATGGC
TCTTGTAATCTTTAACTTTGGTTTTCTATCTTTGAAAATTCCTTCTCTATTATCGGT
GGGTACAAATAAGATATAACCAATTTTCAACCTCTTTTAAAGTCAGATATTAATTTTCT
GGATTTTCTTTATCCACTACCTTTAAAGGGTCTTCTTTAATTATACTAATGCTCTACCC
TTTTTTTTATCCACTATATCAACCGTCTGGCTATTACAAATAAACTTATTTTCTTTAAA
35 TCTTTAATAACTCTCATTATCTTTACAAGAGTCCAGCACTGTCAAACACTATAGCCACT
TTCATAATTACCCCATTAATTAATATATACGTTTCAGATATAAAGAATTATTGTGGGAGC
ATGAAGAGGTTGGCAGTGATATTAATAACCTTAGCTTTAGTTTCTTCAATGTGCATAACT
AATCTAATGAAAAGAGGGAAAAATATGAAAAATGCAAAAGTTTAAATGGTTATAGCTCCA
40 AAGGACTTTAGAGATGAAGAACTTTTGGAGCAATGGCAGTATTGTAGTCAAATGGTTTTA
AAGGTTGATGTTGTATCAACTACAAAGGAGAATGTGTGGGGATGTTAGGTAATAAAATA
ACTGTTGAAAAAACCATATATGATGTAATCCTGATGATTATGTGGCTATAGTTATAGTG
GGGGGAATTGCTTCAAAAGAGTATTTATGGAATAACACAAATGATAGAAATTAGTTAAA
GAATTTTACAATAAAAAATAAGGTTGTCTCAGCAATCTGCTTATCTCCAGTAGTTTTAGCA
45 AGAGCAGGAATCTTAAAGGCAAGAAAGCAACTGTATATCCAGCTCCAGAGGCTATAGAA
GAGTTAAAAAGGAGGAGCTATTTATGAAGATAGAGGAGTTGAGTTGATGGTAATGTA
ATTACTGCAAAATCTCCTGACTATGCAAGATTATTTGGATTGGAAGTTTAAAGCAATA
GAAAAAATAATGAATAATTTGCAACTATTTTATTGTTTTTCTAAAAATTTAGATGATT
CTTATTTTTTAAAGTTTTAACTTAAAAAGTGATAGTTTCTAATCTCATAATCTTATGGA
50 AATATACAAATTTGAAATTTTTAGAGAATAATATTTTCCAAACACCTTTATCTTCAAAC
CTTCTAAGTATTTATCCAACAATCTATCTTCTTTAAAGCACTAATTAAGCTTGTTGGA
TTTTTTGAGTAATCTAAATATTTGCTAAGATTTTCATCCCCCTTGCCAATATACACTGG
CAAAATCATGGAGTTGAAGTTCTCATATTCTACCTAATACCTCTTTTTTTTAAATGCCTTC
TCAATATACTTAATTTTTTTCTTAGATGATAAATCAAACCTCTTCTACCTCAAAATCTGTA
TGTGGCTTTGGAATCATTGGATTGACTGAGATTTCTACTTTTCTAATTTCTTTCTTACT
55 TTCTTCGTTAAATTTATAAGTTCTTCAATATCTTCATCAGTCTCTGTGCGAATGCCAACC
ATAAAATAGAGCTTAACCTTTTCAACTCCAAATTTTTTAGCTAAATCAATGGCATTAGCT
ATGTCCTCTCTCTAATGTCTTTTTTATAAACTCTCTTAACTTTCACTTCCAGCTTCT
GGAGCTATGGTTAAAGTTTTAGGCTTTAAATTTCTCATCAAATCATCGTTTAAATGTATCT
GCCCTTAAAGATGAAGGAGATATGAACTCCCATATCATCCAAAAAGTTGCATAACTCA
60 ACTATATACTTGTAATCTCCAAGTATGGGGCTATTAAAGCAACTTTATTGACTTTATTA
ACCTTAACTCCTTCTTCTGCTAAATACATTAAATCATCAAGCTTTCTAAACCTTGGTGGA
TAATAGATAGCTCTCGCTAAGCAAAATCTACATCTTCTTGGACATCCTTACCAATCTCT
AATAAGAAGGATTTTCCATAAGCTCCCTCTCAGAGGTTGGCTGATATATTGGATAATCA
TCTATAGTTAATTTTTTTGGATAGATTCTTTAACTTTATCCTTCTCTAAATATTTTGAA

-301-

5

10

15

20

25

30

35

40

45

50

55

60

TAAACACCCCTCAACATCAAACCTCTCTATTTATAACCTTTAGCATTACATCACTGCCCTCA
ATCTCTCCAACGATAAAATACATCAAAAACTCAGCTATTGGGAAAAAATTTTCCATTACA
CAAGGCCCTCCAGCAACAAAAATAGCATTGGGTTATTTTTCTCAAATCTTTAATTATC
TTTATTGCATTAAAGTAATCGTTTTTCATACTGTAGAGTAATAAAAAATTGCATCAAAATTT
TTTATTCTATCATAATTCTCTAAGAAATACACTCCTACATTAAATCTCTATATTTGCTT
AAATGATTAGCTAGAACATGCACAGCTAAGCAAGAAATCCCAGCTTTAAATTTGTTTGGG
TAGATTATAGCAACATTCTTTATCATTTTAATCACAAAAATTAATTTATTGACTATCTAA
CACATTAACAACCTCACCAACAACATAACTCCTGGAGGTCTTGCATTTTTCTTTTTTAGC
CTTTTCAACAATATCTCCAAAGTCCCTTTTATAACTCTCTGATTCTTTGTAGTTCCCTC
CTAATATGATTGCTACTGGTGTCTTCTTACTTCTTTTTGGGTTTTGCAACAACCTCTTAAAC
CAAATTTTCCAAATTAGTTATTCCCATTAATAATTACAATAGTATCAGCATTTAACTGTCT
TAAATCTACCTGTTCTCTTCTTATCCTCTGCCTCATGCCCTGTAACACTGTAAAGGA
GGTAGCTACCTTTCTATGAGTAAGTGAATCCCAGCAACCTCTGGGACTGCTATAGCTGA
CGTTATTTCCCGGAATTACCTCATAAGGTATGTTATGCTTCTTTAACTCTAAATCTCTTC
TCCACCTCTACCAAAAAACAANTGGGTCTCCACCTTTAATCTAACAACATACTTTCCCTTC
CTTTGCTTCTCAACCAATATTTTTATTAATCTCTCTGTTTAAATGAATGTTTCCCTT
TCTTTTACCAACATAAAATTAGCTCGGCATCTTTTTTAGCATAATTTAATAGCTCTTTGA
TATTAAATCATCATAAACAACAACATCTGCCCTCTTAAATAGCTTTTAAACCTTTTATTGT
TATCAACTCTGGGTCTCCCGGTCTGCTCCTACTAAGATAACTTTGCCCTGTCAATTATTTT
ACCAGAAATGTTTATATTTTTTGGCATTAAATAAGTTATAGCTTCTAATACTAATTTTT
ATGGGATGGTTATGGGATACAGAGTAGGAATGATATAGGTGGGACATTTACAGACCTCG
TTTATTTTGATGAATATAGCAAAGAATTCATGTAGTTAAAGTTCCAAACAACCTCCAAAGA
GTCTGTATGTTGGGGCAATAAATGCAATAGAACTGCTAAATAGAATTTGATAAGATAA
ATATTTTAATCCACGCAACCACCTTAGGAACAAACATGTTTTTAGGGCAAGAGCACTTAA
ACCCACCAAAAAATTGCACTAATTACAACAAAGGGATTAAAGGATGTTATTGAAATTGGTA
GGCAGAGGAGGCTTAACTTTATGATTATTCTTTGAAAAGCCAAAGCCATTAAATAAGA
GGAGAGACAGATATGAGGTTGAAGAGAGGATAGATGCAATGGAAATATAATCACTCCAC
TAAATGAGGAGGAATTGCAAAAAATAGCTGAAATTATTAAGAAAAAGGATTATGAAGTTG
TTGTTATCTCTTTTTTACACAGCTATAAGAATCCAATCCATGAAAAGGAAGGCAAGGGAAA
TAATAAAAAATCTCTGCTCTAATGTGGATGTTATAACCTCCTACGAAATAAATGGCTGAG
ATAAGGAGTATGAGAGAACAGCACAACCGTTATTAACGCCTATCTAAAGCCATTAGTGT
CCAATTATCTAAAAAATTCATAGATTCTTTAAAAAACAAAGGCTTTAATGGAAAGTTTT
ATGTTATGAGAGTAGTGGAGGCATCTCAAATATAAAATATGCCACTGAAAGACCTGCAG
CATTTATAGAATCCGGTCCAGCCGCTGGAGCTATTGCAGTCGCCATTTTTTCAAAAAATTT
TAAATGATAACAAAGTTATAGGCTTTGATATGGGTGGAACAACCTGCTAAGGCATCAACTA
TAATTAACAACCTCTCCATTGGTAACAATGAGTATGAGGTTGGAGGAGAGGTTTATGCTG
GAAGATTAATTAAGGCTCTGGTTATCCTGTTAGATTTCATTTATTGATTGGCTGAGG
TTAGTGCTGGAGGAGGACAATAGCATGGGTTGATGAAGGAAATGCCTTAAGAGTTGGGC
CGATAAGTGCTGGAGCTGACCCGGGGCCTGTTTGCTATGGAAGGGAAATGATAAACC
CAATAACTGATGCCAATTAATCCTTGGTAGATTGGGAGAGAAGCTTAGTGGTGGTCTAT
TAAATTAAGAAAAGATTAGCTGAAAAGGCAATATCAAAATTAGCTGAAAAATAGGGG
AGAGTGTTGAAGAAATCGCCTATGGAATAATAAGATTGGCAAACACCACCATGGCAAAGG
CTTTAAGAATAGTTACAGTTGAGAGGCTATGACCAAGGGATTTTGTCTATGTTT
TTGGTGGAGCTGGACCTTTACATGGAGTTGAGTTGGCAGAGGAGATGGAGATTAGCTCTA
TATTAATTCCTCCTCGTGTGGTGTCTTCTGCTTTAGGGCTTTTATTGGCTGATTGTA
GGGTAGATAAAGCTAAGAGTATATTGAAAGATATAGATGAAGTTGATGAGGAAGAGATTG
AGAATATATTTATTGAGCTAATAGAGGAGGGACTTAAAGAGGTTGAGGGCTTTGAGGAGA
TAAAGATAGTTAAACAGATTGATGTTAGATATAAAGGGCAATCTTATGAACATAACATCC
CTTGGACTGGAGATTTAAAGAATTTGGCAGATACTTCCACAAAAAGCATGAGACTGTTT
ATAAATTCAGTTCTTTAGAGGAAGATATTGAGTTGGTTAATGCAAGGTTACAATTATTG
GTTTATTAACAAAGCCAGAGATAAAATGTTATGAAGTTAAAGAATACAAACCAAGCCAG
AGAGTTATAGAAAAGGTTTATTTTACAGAGTGGATGGGAAGAGACTGCAATTTATAATAGGG
ATAAGCTTAAACCAGGAGCTATATTTGAAGGACCGGCAGTAGTTGAAGAGTATGATTCAA
CTATCGTAATTCCTCCAGATTATACAGCTTTTGTGATAAATACGGATGTTTAAAGAAATG
AGAGATAAAAGGGGATTGTTATGGATAAAATTACAGTTGAGGTTATTAAAGCTCTACCT
CATATATTGCAGAAGAGATGGGAATTTTGGAGAAATACAGCCTATTCTCCAAATATTA
AGGACAGATTAGATTTTAGCTGTGCTATCTTATCATCAAATGGAGAGTTAATAGCCCAAG
CTGAACACATCCCAGTGCATTTAGGGAGTATGGCTATTGGAGTTAAGAATACCGTTGATT
ATCTAAAAAAGAGAGCATTGAGATTGAGAAGGACGATGTAATTATCGTTAAGGACCCAT
ACATAGCTGGAACCTCATCTAATGACATCACCCCTCTTAAACCAATATTTTATAACGATG
AAATAATTGGCTATGTGGCAATAAGGCTCATCATGTAGATGTTGGTGGCTATGCACCAG
GAAGTATAAGCAGTAACGTAAGAACTCTACCACGAAGGTTAATTATTCCTCCCTCTA
AGCTCGTTATAAATGGAAAGTTAAACAAAGAGCTCTTAAATCTAATAACATCAAATGTTA
GAGTGCCAAATCAACAATTGGAGATTTAAAGCTCAAATAGCATCATTGAACATTGGTG

-302-

TTGAGAGAATTTTAAACTAATTGAAAAGTATGGGGATAGAGAAGTTACTGAGGCATGGA
ATAAGAGTTTAGATTATTCTGAGGAATATTTAAATCAAAAATTAGAGATATTAAGTGA
TATGTGAGGCAGTAGATTACCTTGAATATAAGGACAAATTAATAAATATAAATATGAAGA
5 TTGAGATAAAAAATGGCAAAATAAAAGTTGATTTTACTGGAACGCATAGACAGTTAGATG
CTCCATTAAATGCTGTTTATGGTGTACCGTTGCATCAACATCCTTTGCATTAAAGGCAG
TTATAGACCCTGATTTACCAATGAATCATGGTATCTTTAGAGTTTTAAATATCATTAATTG
CAGAGGAAACAATTGTTAATCCAAAGAAACCAGCTCCAGTTTCTGTTGGTAATGTAGAAA
CCTCTCAAAGAATAGTTGATGTGATATTAAAGCCCTCTACCATGAATTCACAGATAGAG
10 TGCCAGCCGCATCAAACGGGAGTATGAACAACGTTATTATTGGGGGAAGAGGTTGGGCAT
TCTATGAAACAATTGGAGGAGGATTGGAGGAAGAAATGGAAAAGATGGAGTTGATGGAG
TTCATGCAAATATGACAAACACTCTCAATACTCCAATTGAAGTTATAGAGAACGAATATC
CAATAATGATTCTTGAATACTCTCAAGAGAAGATTCTGGAGGAGCTGGGAAGTATAGGG
GAGGTTTGGGAATAAGGAGAGTTTATAAAATGCTATCTGACTGCATGCTCTCCATAATTG
15 CTGATAGAATTAATAATTTCCCATGGGGAGTTAATAATGGCTATAGTGGAGCGTGTGGAG
AGCATTATGTTATAAAAGATGGTAAAAAATCCATTATCTGGAAAAGATACTTTATATT
TAAGTTGTGGTGATATAGTTGAAATAAACACTCCTGGTGGTGGGGGCTACGGCTCTCCTT
ATGAAAGAGATATAAATCTAATATTAGAGGATGTTAAAGATGAAAAAATTTCCATAAAAT
CGGCATATAGGGATTATAAAGTAAAAATTATCAAAAAGATGATGATTTCGTTGTTGATA
20 TGAAGCAAAACAAAAAGTTAAGAGGTTTGTGAGTTTGATTTTGCTTTTAACTCTTTCTCT
AATTTTTCTCTCTCTTTCTTTCTCTCTCTAATCATTTGGGATTCTATATATTGCTCCG
CATTCTAAGCATGTTATAACAACGTGGGGATATCTCTTGCTCTTAATTCTAACCCCTTGCA
TTCCTTCCATACAACAAAAAGGTTCCACATTTTTTGCATATCCTTCTCTCCATTTTTTA
GGGAATCTTATTCTCATTTCATGGCTATTCTCTTGCTAAATATACATATCTCTTAGCT
25 CTATCCCAATTACCTTTCTTTGCTCTCTTCAGCTAAGCTCATCAATATATCAATTCTT
TCATAAGCTATCTTCTTAGCTTTTTTTCTAAGAAGCTTTTCATAATAAACCCCAAGATC
CATATCTTGGATTGTATATATCTCCAGCTTTCTTTAAATATTCTAAGGCATCATTAACAT
CCTTTTCAGATAAACCAATAGCCATCGCTTTTTTCATATATCTCTCTCTGCTGCTAAAC
CATCATCTCTCAAGCTAACAATCTCCCTAATAATGTTAAGGACAGCGTCCATCTTATCTC
TTCTTGACTTTGGAGTTCCAGCTATCTTATCCAAGTCCAAAGTTCCAGTTTCTGGGTCAT
30 AAGCTACCTGTTTTAAGCAATCATCAATAATACTTATTGCCACTTCAGCATCGACATCTT
CAACTTTTATCTGATAGTCTTGCTTTGCATGCATTTCAGCAATCCTAATAATTGCCCTCA
ACTGCTTGCAGTTATTGGTATTGGGTTATCCCCCTCTCCCAACTTTCTCATCTCTAAGT
AATACTTTTTAATCATCTTTTTTGCTTTATCAGTTAAATAAGGCATAATTAACTTTGT
35 CATCAAACTCTCCTAAGTATAAATCTTGATTCTCTCTATGTATGCACAGCTCCTTGCA
AAATAATATAGTATTTTAAAGCTTCTCATCCACTGTTATTCCATCAATATCAATAGCTC
CTAAGATTTTGTAGTCTTTTGTGCTGCTCAATATGGGTGTTAATATATGTTAGCTA
TCTCTTCATCACTCTTCTATTTGGTTTATCCATCAATGGAAATATTAATCAAATCTAC
TAAGCAATGGGGCTGGAATATCTATCTGCTCAATAACAGTTAAATTCCTATCAAATCTTC
40 CCTCTTTGGGTTGCATGCTGCTAAACTGCACATCTTGCGGGCAGTTTAACTAATTAATCC
CTCCTTTATTGACGTGGATTGTCTGGCTCTCCATAGCCTCCAATATATATTTCAATTACAT
TCTTATCTACAGTTAGCTCATCAATACATGCAGTTCCCTTCAATTAGCTCTAACAAAAACCC
CCGGCTTAACAACCCATCCATCTCCGATTCAGTAGCCTCTCTTGTTACTATAGCAGTTA
AACCTCCTCCAGTAGCAGTTGTTACTGATGCATAAGCAATTTTGAGGGAATAATCTTGCTA
45 TCTTCTGAGCAATTGTTGATTTTCCAATACCTGGGCTGTGAATTAATAAAATAGGCTAT
CCCTTCTTAAAGGAGTCCCATCAGGTAAAAATTTAAAGCTCCTTTTATTGTTGCAAAA
ATATGGCTTTTTTAACTAATTCATAACCTTTTATTTGAGAGATTAGATAGTTTGATAAAA
TGTCATAATATTTTTCTTTCTCCCTAATTCATTTAAAGTCTCTATAAGCTCTTCATTTT
TTAATATATCTTTAACTTCAATTTTATTATACTTTTCAAGAAATTTTAAATATAGTTACTTT
50 TAATGTAAATTTTATAAATTGGGATGTTATGTCTATACTCTCTTTTCAATACCCCTTCTTA
TAACATTTACCCCTTCTGCATATATCCCGGAGTGTTTTCTAAAAAGACTCTAATGCTCC
TCGCTGGCTCTTCAGGATTTTTCTTAAATCAATTGGCTGCTGAATCTCCATCTCCTGAA
TATTCACATATATTGAATCATATTCATCCAAAATGAACTTTATTTCCTTAAATTTTCTT
TAAAAACTTCATCATTTTCTTCAATCCACACATCTTGGGATTTTCCCTTTTCCACTA
55 ATTTATCCCAAACCTTTTTGTTTTCTAAAATTTTTTGGACCTCTCTTGAGATAACATGT
CCTTAATAAATTTCTCTTCACTAAAGTAGTCATCAATCTCAATTTCAACACGTCCATCAC
ATGGAGTATATGTGATTTACACAAAAACCTCCATTTTCATCTTTTATTCTTTTGTGTTAC
AGTAATATAGTCCCTTTTTTAAAGTGCATTAACCTTTTCTGCTGCGAGTATATTTCCTT
CAAATTTAACCAATTTGTTTTATATCTTCAGCAGAAATCTCCTCAATTAATTTTCAAC
CTTTTGGATTTTTTAAATGCAATTTGTATCTTTTCTAATCTTTTATCTTCACCAATAGTT
60 CAACATAAGCTTCTTTAAATATATCCAATATTATTTCTCAATTTCTTTGGTCTCTCAA
TGATTAAAGTCATTAACCTCACATGCATCTGGAAAGTGCATTAATAAATCTCAATGTCAA
ATTCAAAGATATTCCCTTAAATTAATTTATAGACAGCTCTCTTTTATAAACTCTTTA
TTTATGTTTATAATATGCTCTAAAACTTCTTCATCAAAATTTACCATAGTATCACGTA
AATTGCTTTTATTATAAATTTAAAAATAGATTTTCCATTTGAGAGTTGAAGTGTAGTTAA

5

10

15

20

25

30

35

40

45

50

55

60

AACATAATAAAACAAATAGTGGTATATAATTTACTACTATAAAAACCTTTGTATATTCAA
ATTAATAATAAGAGATAACTTTTTAACCCCTACGATATATAATTTCTAAAGCCTATC
ATAAAATTTTATAAGAGGGATAGGGATGAAATTCCTTAGACACTGCAAAATGTTGAAGA
GATTAATAAATATGCTGAGCTTGGATTAGTAGATGGGGTTACAACAAACCAACATTGGT
AGCTAAGGAAGGAAGAGATTCTATGAAGTTGTTAAAGAAATCTGTGAAATTGTTGAAGG
TCCAGTAAGTGCTGAGGTTATCTCAACAGATGCTGAGGGAATGGTTAAAGAGGCAAGAGA
ATTGGCAAAATTAGCAGATAACATAGTTATAAAAATCCCAATGACAAAAGATGGAATGAA
GGCAGTTAAATATTATCAGCTGAAGGAATAAAAACAAATGTAACATTAGTTTTCTCTCC
ATTACAGGCTTTAGTTGCTGCTAAGGCAGGGGCTACCTATGTATCACCATTGTTGGAAG
GTTAGATGACATTGGACACGTTGGGATGAAGTTAATTGAGGATGTTGTAAAGATATACAA
AACTACGATATTAAGACTGAAGTTATAGTTGCTTCAGTTAGACACCCATGGCATGTTTT
AGAGGCGGCAAAAATAGGAGCAGATATTGCAACAATGCCACCAGCAGTTATGGACAAGCT
ATTCATCACCATTAAACAGACATTGGTTTGGAGAGATTCTTAAAAGATTGGGATGAATA
CTTAAAGAGTAGAAAATAAAGAATAATCCCAATTCATAAAAAATAATTTTATGGAGGGAG
ATTATGAAAATAGATGCAGTTAAAAAGCTATTGATGATTCCAGGGCTACAATGGTTCCA
CCAGAGGTTTTAAATGCAATGGCATTGCCAGTTATTGGACATAGGACAAAGGATTACAGC
AACTTATTGGAAGACACAATAGAAAAATTAAAAAAGTATTCATAACTGAAAACGATACA
TTCTTAATTACTGGTTCCAGGAACAGCAGCAATGGATATGGCAATATCAAACATAATAAAA
AGAGGAGATAAGGTTTTAAACATTCTTACAGGAACTTTGGAGAGAGATTGCAAATATA
GTTAAAGCATACAAAGGAGAGGCAATTAGATTAGATGTAGAATGGGGAGATATGGCAGAG
CCAGAGGCAGTTAAAGAGATATTGGACAAATATGATGACATCAAAGCAGTTACAGTAGTG
CATAATGAAACATCAACAGGGGCAAGAAACCCAATAAAGAGATTGGAGAGGTTGTTAAG
GACTATGATGCTTTATACATTGTTGATCTGTCTCATCATTAGGAGGAGATTATGTAAT
GTTGATAAATTCACATAGATATCTGTGTTACTGGTTCTCAAAAATGTTTGGCAGCTCCA
CCAGGATTGGCTGCAATAACAGTCAGTGAAAAGGCATGGGAAGTTATTAAGAAGATGAT
GACAAAGTTGGTTTCTACTTAGATTTATTGGCTTATAAAAAATACTATGAAGAGAAAAAA
CAAACCCCATACACACCATCAGTTAATTTAACCTATGCCTTAAATGTTGCATTAGATTTA
GTTTTAGAGGAAGGAATCGAGAATAGGGTTAAAGACATGAGAGATTAGCAAAAGCAACA
AGGGCTGGTTTGGAGGCAATGGGAATAGAGTTGTTTGCCAAGGAGAGGGGCAAGGTCAGTA
ACAGTTACATCAGCAAAATATCCAGAAGGCATTGAAGATAGCAAAATTTAGAGGTATATTA
AGCAACAAATACAACATAGTTGTTGCTGGTGGGCAGAAGCACTTAGCTGGAAAGATTTT
AGAATTGGACACATGGGAATCTGTGGAGAGAAAGCAAGTTTTAGCAACACTTGCTTGTGTA
GAATTGGCTTTAAAGAGCTTGGATTTGAAGTTAAAGAGAGTGGAGTAGAGGTAGCAAAA
GAAGTCTATTGAAAGAATAGATTTTATTATATTTAAATTTAATTATTTTTCCATAAT
ATAGCCATCCACAACAAACCAGCTATAATTAATACTATTATATACCAGTTATGTATTACC
CAATAAATTTTTGGTTCTAATTTCTTTTTAATATCATCCCATAGCTATGTTCTTTTTTA
TACAATTTTATAATGTTTTTTTAGTTTTATCTCTTCTATTGAGTTGTTTTTACAATATAA
TAGTGTAGTTTGTGATTTTCGTTGGTTTCAATCAATAATATTCGGTTATGTATGCTAAA
TCCGTAATTTCTTATACTTTTCATATTTATTTCCAAAAATCTTTTTTAGATAGCTTTTTTCT
ATTGGAATTTCTCCTCCTTTGATTTTAACAAAATAATATGGATTGAGCAATTACTTATG
ATTTTTATGGTTTTATTTTTCCATATAAGAAGATATGGCTTCTGATTTAAATAATCTTCA
TACCAACCTGCATAATTGATATTGGAGCAATTAAGTTTCTTCATAACAATATATAAAGTC
CCATTTATGCTGTAAAAATCCATACACTCCCAAGAAATATTTTCATATTTTGAAGAGTT
ATGTTATCTTCGAAATGGATTTTCCACCGTAATAAGAATACAAAGGAAATGAAGTATT
GATAAAGCCCCATCTAAGATATAAAACTCTTTGCCTTCGAATCATAGGTTGTAAAGATG
AATATAGGTTGATATATGTAATGTTGGAACGTAGTATAATAGTCGTCATCCTCAAACCTC
TTAATTCGGTTATGTTGGTGTATTTATTAACACAAGAATATTTCTGGATAATCTGCT
TTCATTTTATAACAATAAACAAGTAATGCCTCATTAGGGGAACATGCTGGAGGAGATATA
TCAAAATCATCAACTGAATAAAAACATCAGCCACAGTATTTCTCAGTGTAGTTTATT
TTATTGTTTTTTGTTGTATATACTAAAAACACCTAAAAAACTATTCCGTCACCACTTTTT
GGGAAATAAAAAATATCCAAAAGATAATATAGTTAAATTATTAGTTGAGCCACACTCAAAA
TATGTTATATTATGATACAACTCAGGGAAATAATAGTCAGAAATAGGAGTTATGTCCATT
AAATTTTTATTATTAATAACAAATCTCCGAATCGTTGTAAGTATATCCAAAAGCTTA
TCATAACCAATATCATGGTAAATTATTATAAATCCATCCTTAAATGGACAAACTCTGCT
55 GAAGAGACATTTAAAAATAAATAGAAAATAAATAAATTTATTAATAAATAAATGAATTTT
TTTCAATCTCACCAGTTTTTACATCCTTTTATACCGTAAGCTCCATTTCTCACCTTATC
TACATTCTCAATATTTGTGTCAAAGTAGTATGCTCTTATTTGCCAAATATCTCTACCAGT
TAAGAAGTCTCGGGCTTAATATAATCACATGCTTTGTTTATCAAATCATGATATTTATA
TTCATCAATTTTATTATCTACTTCCATTTCTATATATCCATTAGGAATTTCTTTTATCCA
60 ATTAAGAACCTCTATAAGTTTTGTTATTCCCTGAGTTAAATATCCATTATATCTGTTAAT
TTGGTATTTCCAATATTTCTTTATATCTTCACTCACATTTTTTTTCATAGTTCCAGAGACA
CCAGTATTTCCATGCAATATAATAGTGTGGTTGAACAAATACATAGTCAAAATACTTTGA
TAATCGTTTTATATCATTATTATCTGGATTCTCTATATCGTTAATATAGGGAATCCATAT
AAACTCTAATTTCTGTTCAATTCATTAGATTTTTGTTTGATATATGTTGATAATTGTGC

-304-

5 TATTTCCCAATCAGTAATAAATCCCCAACTTACTTGCCCAGGAGATTCAAATTTCCAATA
AAATCCTACTAAATTGCTATCACAACTTTCAATAACTCCATCAATCCAACCTTCCAGTA
TTCTAATGTTCTTTTTACCAGATAAATATGGTTTATATAATATTCATCTGTTTTTGTG
10 TTTGGAAGCATTTTTTAATTTTTCTAACATTCACGTTTATAATAAGGAATTTGAGCAAT
ATACTTAATTCAGAGAGTTCTGAATTTATAAACTCTCCAAATTCCTTTCCATCTTTTTC
ACCATCTTCTCTTAAATTTCCACTTTCCGGAGTTCCACTACCTTCATCTTTTCCAAAGC
AATTGCGTAGTTAAACCTCTATTTAATAAATCACCTACTGTTCCATTAAATCTTTTCTC
ATAAGTATTGGTGTATTTAAATACCATAAAGCGTATTTATACTCAGGTTTTGGTTTTGG
15 CTTGGGTTTTGGGTTTTGGAGGTATATAAATATCGTCCCCCATTATTTACCCCTAAATAC
TCTTTACACTTATTAACCAATTTATCAAACATCTCAACATCTCTACTCTTTATATAATCG
GCATACGGCTCATCTAATCTCTTATATACCTATTATAGTAAATTTAACCGAATTAATC
ATCCTACCAATATCTTGCTCCTTCATAGCATCATAAATTCATTTAAAGCATGTTCTTTCT
CTTTTATTATCGGTTAAATCTTTTTCTTATAGAAAATCTCTGATTTTATCAAACCTTTT
20 CCAAGTTTATACAATATAGGGCAGAATACACATGCATGATAGCAACTTGAAATTAGATTT
TTATCTAAGCTTTCAAATTCCTTTAACAAGCCTTTCTCTTGAGACATTTAAGTGAATAAAA
GGAGGAAATAAGTTATAATCGTTACACCACGTTAAAAATCGTTCTTTATCTTTAATATGC
TCTCCTATTGATGATGCTACAACTCCTCCCTCAAATTTTTAATACCCTCCCAAACCTACA
CAACTCCGTGATAATCATGTCCATTATTTCTAAGCTTATCTGCATTTTCCACACTCA
ATAAATCTATGTTTAAACATCATTTGCTTTTCATAATCCACTTTATCTCTCTTACCCTA
25 TTTGGACTTCTATCTGAAATAAACGTTACTGCCTCAAAGTCAAAGTTATATTCCCCCTA
AGCTTTAATAAATATCCTAACAAAACCTGTTTTTCATTCCATGAGAGTATAGAATAGTT
TTATGATTTGTTCTTTAATTAACTCCAAACATCCTCATGCATAAAAACCCACTATATA
AAAAATCTATATTATTTTTTAAGTAAATTTAATTATCAAAAAGCTTACATATAAAAGT
30 TTTTATTATCTTTAATTTAATGGATAAATTAATAAAAAATAAAATAATAAAACAAAAAT
TAAAAAGATTTAGCTTATAATCTCCTCCAAATCTTTAAAAACCTTTCAACCTCTTCAA
CGTCCCTATTGATACTCTAACATAATTATCCCTAAACCATCAAAGGATGTGCAATCTCT
AACAATAACACCTCTTTTTAATAGTTCTCACAAAATCTTTTGCTTTCATTGTTTTTAA
TTCAACCAATAGATAATTAGCTTCTGAAGGATAAACTTTAATATCCTTAACTTCTTCAA
35 TCCATTGTAGAGCATCTCTCTACTTTTAAATCCATCTCTAACACATCTTCAAAGAATTC
TCTATCTCTTAATGCAGTTATGGCACAACTTGACTTAACCTTGTTAAGCTAAATATTGG
CTTAACCTCTCATCATATAATCTATGATTTTTTTATTTGCAACACCATAACCAACCTCAT
TCCTGCTAAACCAAGACCTTTGAAAAGGTTCTTAAACAATAACATTATCATATTTCAGG
GGCTTTTTGAGTCCAATCATATTCTTTTCTAGCATACTCAATGTATGCAATGGTCAATAAC
40 AACTAAAGCGTCTGTTTCATTGATAACCTCTCTACATCTCTATTTTCTATTATATTTC
TGTTGGATTATTTGGAGTGCAGAGGAAAATAACCTTCGTTTTATCTGTTATATTATTTAA
GACACTTTCAACATTCAATTTAAAGTCTTTCTCCTTATCATATTTAGCATATTTTATTTT
AGCATTGTGGATTGTTGCTGAACTCTATATTGGGTAAATGTTGGAATTGGAATTATAAC
CTCATCTCCATCATCAACAAACGTTCTAAATATTGTGCTATAATCTCATCAGCTCCATC
45 TCCCTCAAACAATTATGTTTTCTCATCAACATTCAAAAATTTGCTTAACCTTTTCATTAA
AATTGGATTACTGGCTCTGGATATTGGTGAATTTTGTCAATTTCACTCTAAAATTTTTTC
TTTTATTTTGGAGATGGTCCCCAAGGATTTTCATTAGAACCAAGTTTATAATGTCCTC
TGGTTTTATTCCGTAAGCCCTTGCTATCTCTTTGATTTTCTGGAACATAGGGCTT
TAATTTTTTAACAACGCTCTCTTACTTTATTTTCTATCATCCAATCACCCAAAATTTTTAA
50 CCAAAAATATTTTAAATAAGATTTCTGGATTTTTTATTATTGTTAAGATTACAAATGATG
GAGGGTTAATTGTGAAGAGGACACTTTACTTATACTCTTATTGGTTATAAGTGTAGC
TATGCTCTACCTATAGAGCCAAATAATCTATGTAAATAAATCCACGGTAGATTATCAAAT
GCAAAAATTTTGATGGACAATTTTACTCATCAAGAGAGATAAATATCAATGGAGATAAT
GTAACAATTGTTATTAAACGATATTATGTATATTCCATCTATAGATGAACCTGAAATTAAA
55 AATGGAGATAAAAATCTTATTATAAAATTTGATAGAGACGGAAACAAAGTGAAATATAAA
GATATTGAGTGTATTGAATATTTAAACCTTAAAAAGGGAGAAGAAATAAGCTTATTCAAT
AAAAGCTACATAGTTGAAGATATTACTTCAAATTATGTAATATTAAAAGAAAAGATGGA
AAGGAAGTATTGACAAATGAATCATTGGAATACGATGGATATAAGTTGTTGTAAGTTG
GTTTCTCTGATTTAAATACTATAATTGTTGATATATACAAAATGAGAAAGTTTTGGAT
60 TCTCCTAAATTAACCTAAGGGAAAGATTTATTATATGAAAGGAGGAACCTTAGGGTTAATG
TATGAAAATTGCACAAGGATTGGCAAAGGTTATAGATTTACTTTAGAGTATATTCTACA
ATAAAAATTTGAAGAAGGGGAAGATTACCCATTAGATAAAGAGTTTAAAGTTAAAGAAATA
AGCACTGATAAAATAAACTTGAGTATAAAATATAGATAGTTTAGGAAATGAAATATAC
TTGTTTAAATTACCCATAATACCTGAAAAGTGTACAAAGATTATGTTCTCTTTAAAGTT
ATAAAAAGGAAAGAAAACCGTAGATGTTAAAGATGTTGCATATATAGGGGATGGAAT
TATGCTGTAAAGGTAATAATACCGTTTATGTATTCTATAAAGGAAAAGAACTCAAAAAT
CATGAAAAGATTTATCTTGGTTCGGTAGATGTATATAGTTCTAATCCTTTAAATGTTAAT
AAGGACATAATTCTAATTGGAGGTCCAAAAGTTAATAAAATCGTTAAAGAACTGAAGAT
AAAGGTTTATTGAAAGTAAATATCTCTACCAATTATCCGGGAAACATAGAGGAATCATA
CTAAAAATAAAAACCATATAATGATAACAACATCTATATATTAGCCGGTTCTGATAGA

5

10

15

20

25

30

35

40

45

50

55

60

TGGGGAACAAAAGCGGCGATATTAGTATTTTTTAACAAAATATAATGATGAAGATACATTG
ATGGTAGAGTGGGACAAAGGAGAGATAAAAATTATTAATAAAAAATCAATTTAATCAAAA
ATTTTCTTAATATATGGCTCAAATGGAACAATATCTTCCCTACTTCTTGGACTTATAACT
GCTACTTTTAATTTCTCTCTTCTGGAATTAATCAATAACTAAAGTTCCCTGGCGTGGCG
GTTATAGACCATGACAGCAAACTAAGCCAGTAGGATTATTAATAATTGATTCTATCTCT
ATAACTTGAGGCTGTATTTCCCATTTATGCTTCTTTTAACATACATCAACCAAGATTCTG
CATATTGCTTTAATTAACAGCCAAATAACCAATAACTCCTAATAATCTCATAAACCTC
CCCCCTTATAAAAACCATGCTTACAATAAGTTTATTAAAGGCATTAAAAATATATCTCT
TACTATAGGACTTTTCGAGGAATAAATGTTTTATTGCATATTGACACTTTTGAGTGTCTA
AATCCAGTAAGAAGATAAGCTGCGAAAGTCTATCTACATAATGCTTATGGGGTGGAAA
ATATGGCTGAAGATTTAAGACAGAAAGCAATGGCCTTAGAAATATACAACCAACAATTAC
AAATGATTCAAAGTGAATTTACTTCAATAAGAGCGTTAAATCTGAAATAATTGAATTCAA
TAAACAATTGAAATATAAAGGCAGATGAAGAGACATTAATCCCAGTAGGCTCTGGAG
TGTTTTAAAGGCAAAATTTGTTGATGATAAGGCATTAAATGGAGTAAAGTCAGATATTT
ATGTTGAAAAATCATTAAATGAAGTTATTGAGGATTTAAAAAGTCAGTTGAAGATTTAG
ATAAAGCTGAAAAAGAGGATGAAGAAAGCTGAGGAATTAGCTAAAGCAATAACTGCAT
TAAGAAAAGAATTACAAACAGAGATACAAAAAGCTCAACAAGCTCAAGATAAGAAACAAT
AAAAATGTAAATTTAAATTTTTATCCTTTTTTATCTTATTTTTGTACTCAGAATGCTT
GATTAACTAAACAGTAATTCCTATATTTAACTAACAAATGTTTATGCTTAAAAATAAA
AATAGTGGGCCCCAGCCGATTTCGAACCGGCGACCTTCGCCTTGTAAGGGCGACGTCATAG
CCAGCTAGACCATGGGCCCCCAACCTTTAGCATCAATAAAAAATTTAACTCATCATATATA
AAGTTTATGCTCATTTGGTGAATTTATGGATTTAAATTTAAAAAATTTTTTGGAAGATAGA
GAGGAATAATTAGAGATGCTAAAGGAAAGATGAAAAATCCTTCAAAGATTTTAAGAAA
ATAGTTGAAGAAATAAAGAAAGAAAAATAAGATAAAATCGTCTGCGATTTTACTGAA
TACAACCCATTGCATAAAGGGCATAAATATGCATTAGAAAAAGGAAAGAGCATGGAATT
TTTATCAGTGTATTGCCCCGCCCTTTAGAAAGGAGTGAAGGGGAATTCCTTATTTTTTA
AACAGATACATAAGGGCAGAGATGGCAATAAGAGCTGGGGCTGATATTGTCGTTGAAGGC
CCACCTATGGGAATTATGGGCTCTGGGCAGTATATGAGATGCCTAATAAGATGTTTTAT
AGCTTAGGAGCTGAGATAATCCCAAGGGGCTATATTCCAGAAAAACCATGGAAAAGGTT
ATAGATTGCATAAATAAGGGCTATCATATTCAAGTTAAGCCCTATAAAATTTATCTGTATA
GAGACAGGGGAGATTTTAGGAGAGAAGTTAAATATAGACAACTATGTCATTGCTTCAATG
TCTCAGATGATTTATAAACTGAATAGAGAGGGCTTAAATTTAACCCGAAATTTGTTTTT
GTAAAGAGGTTAGAGGGAATTAGTGAACCTAAGATTAGAGAAGCAATATTCAGTGGAAAG
TTTGAAGATATTAATAATATGCTTCCAAAAACAACATTAAGTATTTTAAAGAAGCTCTAT
GATAATGGAAAGCTCAATGAATTGATATTGAAAAGATTGAAGATAGAATTTTAGAAACA
GCGAATGAGTATGATTTATGAATTTTGCCAAGTAATGTTGCTGAAATTTTAGAGAAG
AAAAGACCATTTAACAATATAGAGGAGATAAAAACTCTACCTTATGGATTTTCAAGG
CATTTTAGGGAGAGGATTTTATCTAAATTAGAGGCAAGGATTCCAAATGAACTTTATCA
AAATATATAAATAACTATCCTGCAAAGATAAAAAACTTGCAGTGAACCTTTAAGAAAGT
TTCATCAAAACGATGCATTAAATGGACTTTTCACTCCCTAATGTCTCTTAGTATATAAAT
AGGTAATAACGATATATAGTTGCTTATAAATCTTAATGCTTTGAATATGAAATCCTATA
ATTTTCATTTAATAGAAAGCGAACTTTTATAGATATAAATTTCAATAGAACTAAATTTT
GGGGAGAGGTATGCAAAAACAGAGATTCTGCTTAGACACAAGTGCTTTTACTGAACCGTC
AGTTAGGAAAGCGTTAGGGGTAAACAGTTACTGAACCTAACAGATAAGGTTATGGATT
GATAGCTGAGGCAAGGATAAAGTTAAATATATCTTGTACATTTCCATATCCAACTGTATA
TAATGAATTGATGGGATTTTGGAGAATGAGAATTGTCGAGAGATGTTATAGTTAAAGT
TGATACATGGCTTGTTAAAAAAACCCCAACAGATATGAGATAAAAAATCCCTTCAGAGAT
TTTTTATGAATATGTTAAAGATTGAGAGAAAGAATTAACAAAGGGATGAGGATTGGAGA
GGAGCATATAAATAAGCCACAGACATGGTTTATGAGTTATCAAAAAACATCCAGAAAT
GGGTAATAATGAAATCATAAATAAAGTGTTATCAAAAACAATAAATACCTTTAGAAATAA
ATATAGAAGTGCTTTGAGAGTGGGAATTTAGATAGTGCCCTGATTTAGATGTGTTATT
GTAGCCCAAGGAGTTAGATGCTGCGGTAGTGGCAAGTGATGGAGGCAATTGAAAAATGGGC
TCAGAGGCTGGGCTTGAGATTTGTTGATGCTTCTGATTTTCCATTTATGCTTGAGGAATA
TTTGAACATAATGATAGACATTTGAGGATAAATACTAAGAAAATTTAAATTAATATT
AAAAAACACGTTTAGGGATAGTTATGACGATATTGCTAATCAGAGGAGATAGTTATGAAA
AATTAAGAATGCCTTAGCTGATGTTGATAGGCATGCAGAGCTAACAAATTTTGGAAAGC
CAAAAATTTATTGTTCCAGAAGCTGCAGATGAAATATTAAGTCATATATTGGGGGAAGTTA
AAAAACCATGTAAACTGCATGCTTAGCAAAGATTGCTGAAAAAGCACCAAAAGCAATAG
ATAGAATTAGAAAAATTCATCCACCTGCTCATATTGTTGTGATTAGTGAGAGATATGGTG
ACATATATTATAAGTTATTGGACGACTTCCCAAACTTCCAGTGTTAAAGGGCTATTACA
AATCTAAGAAAAAGATAAGAAGAAAAAGAGTAAATTTGGTTAATTTTATTAGTATTAG
GTGATTTTTTATGAAAAATAGCACAGAAATATCCAACATTAGTGGAATTAAGACAAAAAA
GGAGAATGATTGAGAAGGGGGAGGCAAACTTAGAGATTTAAATAACATAAGAGTAAAA
TTAAACGAATTAAGGACGAGCAATCCAGATGATTAGATACTATTGCTCAATTGGAAGAG

-306-

GAAGAAAGTCATCTAACATCTGAAGTTTTAAATTAGATTTAAGCATAAAAAATATTAGAA
GTGGTTGAATATATTATAGAAAGTAACATATTTGAAGATTATTGGAAAAATAATAGAAGAG
AAAATTCATATGAGGAGTTATTAATATTGTGGTTGAAAATGGCTTAAGTATAAAAAAG
5 ACCTGCATGGAGTTATATAAACTTGCCAATATTGATGATAAAAAATTTTAAAGAAAATT
CAGAATCTACCAGATGACTATCCTAAGGAAACAAAAGAAGACCCAAACCTTCAAAATAAA
TATTTGAGTTAAGATAAATTCAGAATTAGTCGATTAAAAGAATTTAAAAGCAATTTGGAT
GAGATAGTTTTAGATATAATCTCAACATGAGGTGAGTGGATGAAAAAGTAGAGCCTGT
TAATTTTAGAGAGTTGGATAAGAAGATAAAAAAGTTCTGGGAAGAGAATGACATATATCA
10 AAAAGTAAAGAAAAAGAATGAAAGAAATAAGGAATTTTATTTTGTGATGGTCTCCATA
CTGTTCTGGAGCTATACACTTAGGGACTGCATGGAATAAGATAATTAAAGACACTTATCT
AAGATTTAAGAGAATGCAAGGTTATAATGTTTTGGATAAAGCTGGATGGGACATGCATGG
ATTCCCAATAGAAGTTAAAGTTGAAAATGAATTTGGAATAAAGAACAAGAAAGAGATAGA
AACAAAAATTTGGAGTAAAGCAATTTATAGAAAAGTGTAAGAATTCGCTTTAAACATAA
15 GGAAATTATGAAAAGCAATTTAAAAAACTTAGGAGTTTGGTTAGATTGGGAAAACGCCCTA
TATGCCAATAACTAAGGAATATATGGAATTTGGATGGTGGACATTAAAGGTTGCTCATGA
GAAGGGATTATTAACAAGAGATTTAAGGGTTGTCTATTGGTGTCCAAGATGTGAAACTGC
CTTAGCGGAGCATGAGGTTAGAGGAGAGTATAAGGAAGTTTATGACCCATCCGTTTATGT
AAAATTCAGATTAGCAATGAAGAAAACACATACATTGTTATTTGGACAACAACACCATG
20 GACTTTAGTTTGCTTAACCTGGCTGTTACTGTCCATCCAGATTATGACTATGCATATGTAGA
AGTTGAATTTGATGACAAAAAGAGGTTTGGATTATTGCTGAAAAGTTAGTTGAGGAAGT
TATAACAAAGCTAAAAATTCATAACATCAAAAACACAAAATAATCAAAAAAGTTAA
AGGAAAAGAATTGGAAGGTATAAAATATATTCATCCATTATTAGAAGAGAATGAGAGACA
GAAAGAATTTGCAGAATTAGAAAATGCTCATACAGTTATTTTAGGAGAGCATGTAACCTT
25 AGAGGGAGGAAGCTGGGTTGGTTTCATACTGCCCCAGGACACGGGGAAGAGGACTTTGAAGT
TGGTAAAAATACAATTTGCCAATCTATTACCAATAGACGATGAAGGTAATATGTAGA
AGGAAAATGGAAGGGCGTTTTTGTAAAGATGCGGATGCTGAAATAATTGAAACCCATAA
AAACAAAGGATTGTTAGTTTATGCTGGAAGATAAAACACAGCTATCCACACTGTTGGAG
ATGTAAAACTCCTCTATTATTTAGAGCTACAGAGCAGTGGTTCTTAGAGATATCAAAGAT
30 TAAAGATAACATTATAGAGCATGCTAAAACAGTTTCAGTGGATACCACACTGGGTTGAAAC
AAGATATATAAATGGAGTTAAGTTCCGTTGGAGACTGGAATATAAGTAGGCAGAGATACTG
GGGAATCCCTATTCCAGTATGGGTGTGTGAGAAGTGTGGAATATACATTGTTGTAGGAAG
TGTTGAAGAATTAGAAGAGAAGATGATAAATAAAGATGAAGTTGGAGAGATTAATGATTT
ACACAAACCAACAGTTGATAAAATAAAGCTGAGATGTGAATGTGGAGGAGAAATGAAAAG
35 AGTTCAGATGTCTTAGATGTTTGGTTTACTCTGGTTTAGCTCCTTATGCTTCAATTGG
AGTAAAAGAGCTTAAAAAGCAGACTTTATAACAGAGGGACATGACCAAGTTACTAAATG
GTTTTATTACAGCATGCACTCTCAGCAATAGTATTTAACGATATTCCATACAAAAAGTG
TTAATGCATGGCTTCACTTTAGATGAGCATGGAGACAAGATGAGTAAGAGTTTGGGTAA
TGATGTTAATCCAGATGATGTCGTTGAAAAGTATGGGGCTGATTTATTAAGGTTTTATTT
40 ATTGAGTGCAAAATAGGTTTGGGAAGATTTAAGGTTTGTATGGAGTGAGATGGATGATGT
TTTAAGCTTATTCAACACTTTATGGAACGCCCTATATGTTTGCTGTAAATTACATGGTGT
AGATAACTTTAAACCAGATGAAAATACTTTGAATATTTAAAGATGAGGATAGATGGAT
TGTAAGCAGAATAAACAGTGTGCTAAGATAGCAATTGAAAATCTTGAAGTCCCATACTT
CCACACATACACTTGGACATTAAAGGATTTTATATTAAATGACTTAAGTAGATGGTATAT
TAGGTTGATTAGAGACAGAACATGGAAGAGAAGGATGACGCTGATAAATTAGCAGCATA
45 TCAACACTCTACTATGCTTTATTAAGTTAGCTACAATATTGGCTCCAGTAGCTCCACA
TACTGCTGAGCAATATATCAAAACCTAAAAACAGAAGATATGGAAGAAAGTATCTTCAT
GAATAAAATAGAGGTTGATGAAGAGTTTATTGATGAGGAGTTAGAGAGAGATATGGCAAT
AGTTAGAGATGTCTTGATGCAATCTACAGAGGAAGGGATAGGATAAAATACACCTTAAG
ATACCCATTGAAAGAAATAACTATTGCTGGTGGAGAAGAGGTTAAAAAGCTGTAGAGAG
50 ATTTGAATACATAATAAAGAGCAAGGTAATGTTAAAAATATCAAATTTGGAGAGGTTGA
AGGTAGCAAGTATATAATAAGCCAACTACAGAGAGTTAGGTAAGAGATATAGAAGTGA
GGTTCCAAAGGTTGTTGAGGCATTAAATAAAGCAGATGCTAAGGAGTTGATGGAGAGGTT
GAAAGAAGGAGCTGTAATATTAGATGGATATGAGATTAAGCCAGAATATGTTGAAATTAG
ATTGGAATTCCTGAACATATAGCAGGAGTTGAATTCCTCAAGGGAAGTGTCTTTATAAA
55 TACCGAGATTACTGATGATTTGATAAAGAGGGGCTAATGAGAGAGGTTATAAGAAGAAT
CCAAGCTATGAGGAAGGATATGGATTTAGATATTGAGGAGAAGATTAAGTTAAAGTTGA
GGGCATTGACTTAGATGAATTTAAGGAGATTATTGAGAGGGAAGTTAGAGGTCAGTTTGT
TGATGAGATAAAGGCAGATTACGAAAAGATTGGGAGATAAAAAACCAAATGGAGAGAA
ATACAACGTTAAAAATTGCTATTGAGAGAAATAAATAAATAAATAAATTTCTTTTAGTTTCT
60 TTAATACTTTTACTTTTATTTCTATTTTAATTGTTTTTAATTTATAAACTAAGACAAT
ATTATCTGTGTGATAATATGATTTCTAAAAGAGGGGGAAGTAGTTTTTGAAGTTCCAGAT
AAATTGACAGTTACAAAAAGGATGAGGTATTTTATAATCCAAGAAATGAAACATGCAGG
GATATAAGTATAGCAGTAATTCAGGCATTTCTAAATTTGTATCATAGAGAGATAAGTTT
TACATTGCTGATGCTTTGGCTGGAAGTGAATTAGGGGGCTTAGATACGCTAAAGAGCTT

-307-

5 GAGTTTAATGGAGAGTTAAAGGTTTTTTTAAATGATATAAATCCAAAAGCTTATGAGAAG
ATAATAACAATGCCAAATTAAATGAGATTGAGAATATAGATGTTTTTAAATGAAGATGCC
AACACATTTTATCTAAGCATTTTAGATTTTTTAATGTTGTTGATATAGACCCGTTTGGC
TCTCCAGCTCCTTATGTAGAGCAAGCAATTAGGGCTTTAGTAACAAGAAATGGTTTGCTC
10 TGTTTAAACAGCAACAGATACAGCGGCATTATGTGGTAGGTCTAAAAAATCATGCTTAAGG
AAATACTTGGCTTATCCATTATTTGGTAGGGATTGTCATGAATTTGCATTGAGGGTTTTA
GTTGGATATGTTATGAGAATGGCTACAAAATATGAGCTTGCTTTAAAGCCAGTATTTTGC
CATGCCACAGACCATTATGTTAGAGTTTATTTAGTTACGGATAGGGGAGCTAAGAGGGCT
GATAAGGTTTTTGAATGCTTGGCTATGTTAAGGATGTAAATGGAATTAAAAATAATTTAAA
15 AAATTTGAAGAAGGTTATGAGAAAGGATTTGCTGGGCCTTTATATATAGGCAATTTGTAT
GATAAGGCTCTTGTGAAGAGGCTTTAAAAATAGCTGAAAAGAGGGAGTTTAGTGAAAGA
GTTTTAAAGATTTTAAATGCCATTAAAGGAGAATCTGCTATAAATCAAGTTGGATGTTAT
GACACTCACCAAATTGGGAAAATGTTAAAGATTTTCACTTCCACCAATGCAAGATATTATA
AACAAGCTAAAAGAGATGGGATTTAATGCAGTTGTAACCTCACTATAATCCGAAAGGAATA
20 AAAACTGATGCAACATTAAAGAATGTTATTGAGGCAATATATCAATGTACCAAGATTAGG
TGAAATTATGAATCTTAAAGAACTTACTGTAATTTTGATTATCCCAATTTGTATATTTGGG
AGTGTGTGTTGTTTTGAATTTGTCCCAAAATCCTTTTATGATAATTTTCTTCGTATAA
TGTGGGGGATAAAGCACCGTTTTGGAGAATGGAAAGTTAAAGAAGGGGGATTAAAGATTGA
GGCCATATTAAGCGAAGATAAAAAAACACTAAACAAAGTTGCAGTACCAATAAACCAATGG
25 AATAATATATATTGATAAAAACTATACTGACTTTAAGTTTATTGTTGATATAAAGCGATT
AGAAGATCAGATAGCCCAAAGATATACTTCAGATTGATAAATAATGCAAATGCTGGATA
TTATATTGATATAGAAGGATTTGATAGGGGGTATGTTCTCTACAAATTTAATGGAACATA
GGTTGAAAAATTTGGCTGAATCTTACGATGCCGCTCCTGCTGGCACAGATTTTTTATAGGTA
TGAAGTTGTAGCAAAAGATAAATAGATAATCTTCTTGCAGGAGGGCAGAAATATATTGA
30 ATACACTGACAATAATACACCAATACTTAAAGGTGGAATAGGAATTGGAGGGGGTAGAGC
ATACTATGACAACGTTAGAGTTGAGCCAATAGAATAAAAAATTATATTAAGATTTTCAATC
ATTTATTATGAATATTAACAATTTTTCGTTGATGATATTATGATTTTTTCCATTAAATAA
TTTGAATGATGATATTTTGATTATTTTTTTGAATTTTCAATAATTTTTTCTACTTCATATA
ATAATAGTGCCTTTTTTCCTAATGGTGTTAATTTATAGTATGTTTTTGGTAATGCCTGTT
35 TGTTGCTCTTCTTCTTTTTGATATTAATCCCAATTTTACCAATTCATTTAATGTTCTGT
TTAAACTGCTCATATGAGTAGGAATTTCTTTATGAATTTGACTAAAATGGAGTTCTCCTT
TTTCATTAAGTAGTTCCAAAATTTCTTTAACATATTTTTTGTCTAGTATCCCAATAAGCA
TGATTTAGCCCTTTTATGATTTTTTATTTTTTGCTTTTTTGAGAATTTTCATATTTATACG
ATAATTAACATTTTTTGCTAAATTTACAAAAAAGAGAAAAGTTTATATTTGTGTATAGTT
40 ATATCTATGTTAGTAAATATGCTAAATTTAACAAAAATGTTAAAAAGTGAATTTAATTAG
GTGATAACAATGGACACGATAAGAAAAGCTTTAGTTGTTTTAGCATACTCTCTATTTTTG
GTTTTAGCTTGTGGGTGTGTGAATACTCCAGAAAAGATAGATATAAATATTAATTCAAAT
ACGAATAATGGAGAAAATCTGAAAAACCTATAAATCAAGAAAATCAAAATGTTAATAAT
GTAGAAAATAAAAAAGAAAGTCAATCAACACAGAATATTCAAAGTTATGAAAATAAAGAA
45 ATTAATAATCAAGAAAATCATCCTTTACAAAGTAATCAAAATTATGAACAGACCAATGGT
AATTTTAATGAAGAGAAATGAAAATGCCATGACTAATGTTGGAGAGTCAGAAGTAAATTAT
AATAATGAACCAGCATATAATTATTATATCGAAATACTTATCCAGATGGCACTATTCTCT
GATAAAATAGAGAACAATGTTGTATTATATTAAAGTCATTGACCCAATAGTTGGAGGG
TTAGCAGGAATTGACATATATGTTGATGGCACTACATTGGAACATTAGATGATGTATAC
50 GGGATTGTAGAGTGTGTATTCTATGAGCCAGGTTATCACACAATAACAGCAGAGATAAT
GGAAAAATTTAGCATCTAAAACGTATATGTTGAGGAAGGGACTGCATACAACAGTGGGA
GAATCCGAAAATTTATGATGAGTATGATAATAATTATGAAAGCAATGACTTACAACAAACA
CAAACCTCAGTTTTTCAGAAATAGAAGTATATGTGGATGATATAAAACCCAGTAATAGTATT
ATAATTACAAAATTAGCTATGAATCCAGGTTTTTTAGCATCAATAAATGGAATCTCTCCA
55 GACATTGGTGTAAATATAGAAAATGGAAAATGGAGAAAAATAAATTTAAAAATATGTTCT
ATGGATGTAGATTTAATAATAGATAATCCAAATTCAGAGAGTATAACAATCGATAAAATA
ATCTTAAATATGTTGATGATGAAGTCTATAGTTTAGGACGAGGAGAGGTATCAAAATATA
GTAATAACACCAGGAGAAAATCCAGTAACTGTTAAAGTAAATATACCGATTAATAAGATG
GGATATGAAATCCTTAGAAAATTAAGTGGAGAAGAAGTTTTTGTGAAATATCTGGAAGT
60 GCATATATTGAAGGCAGTGGGGAAGTCCCATTTAGTGGAGAGGGCGGATTTATTGCCACCA
TTACCTACACCACCATTTCCCACTACCTCCATTGCCACCATTTCCAACTGAATAACAAAAT
TTTTAAATCTTTTACATTTTTTATATCTCCAAATTTACCAATAACCGAAAAGTATATACT
ACTTATTATTATTAAATTTTTTGCTTCTGGTGGTTGTAGGGCGGTGGCTCAGCCTGGTTAG
AGTGCTCGGCTGATAACCGAGTGGTCCGGGGTTTGAATCCCCGCCGCCCTACCATTTTTT
TTATTTCCATAGGGCTATCGCCCTATTGGGATACCCAGAGCGGGGCTTCACTACGTTTCAG
CCCCACTGTAATCTAAGAGACATTGCCGAGCAAAGCGAGGCAATGTATCCTGTTTTGATG
AACCTTTTACTAAAAGGTTTCGTTTGAATCCCCGCCGCCCTACCATTTTTTTTATTATTAGAT
AATAATATTTGTTAATTTAGTTTTATCAATTAATAAACTAAAAATAAAATTTAATTTT
TAACTGACTCATAAACTTTGGAATATATTTTATAGCCATATCCAACTCATAACCTCAT

AGTTATCTTTTAGATAACCTTTTCTCTCATAACTCTTCCTACCCAATCTGCGAACCTCT
 TATCCTGTATAACTACAACCTCCATAATCATTCTCAGTTCTTATTAATCTTCCAATCATCT
 GAACCAATGTCCTTGCCATCTATCAAATGATGTCATTAAAAAGCTCTCCAATGAGCAT
 5 CCCTAACTCCTCTAATTTTAAATCTCTCTTCCAATATCTTCTGCTCTCTCAATATTAAAG
 GAGTGGGAAGTGGGAATGGAAGGGAGTCAATAACAACCTCCAACCAATGCCTCACCAGGAA
 TATCTACTCCTTCAGCAAACCTCCCAGTTGCTAACAAAATTCCTCCAATCTTTCAAATC
 TCTCTTTTAGCTCTTTAGCTTCTTTTCCATCCATACCTTGCTCATACATGGATATTTT
 TATTTTAAATATTTGTTTTGTAATCTCCCTTTTATAGATATTTATAAAAACTATCTAAAT
 10 CCTCAAAGCTCTTAAATAAACTAAAGAGTTTCCATTTATTGCTTCCAATATTTTTAATA
 AATTTTTATTGCTTTCTCTCTATCTTTCTTTTCGTATTTCATATCAACGCCATCTTTTA
 AAGCTATAAATTTCTCCTATTCTTTGGAATGGACTCTCTAAAATTAATAATCTGCTT
 TATCTAAACCTGTCTTTAAAGCTGCTCTTTAAATTTCCAATTGTTGCTGAGCAGTGGA
 TAACTACAGCATTTCCATAAAGTTCTTTTAGATGAGAGCTTACAAAACTGGCTCACATA
 15 ATAAAGAATTTCCACTTCTATAAACTACATAATTTTCATTAATATATCTTAAATTTTAA
 TATTTTCTATAAATTCAAAAGATATAGGTCAGATAATTTCTTTTATGGATAAAATCAA
 GCTCTATAGCTATTAAAGCTTTATTGTCATTTCAAATCTAAGTTCTCTCTATCAATTT
 CCTCATTTTCATTAATCTCAATATTTTATTCTTTATGTTGTTTATTTGATAATATGCAT
 CTAAAAATAGCCCTAATACAGCAAGTTCTGCTTATATTTCCAAGAGCTTAAATTTTCTC
 20 CATCAAAAATTAATTGTCTCTTTGAGATACTATATTTGATGCCTCTACTTGTAAATATT
 TTTCAATAATTTCCCAAAAATTTTCGTCTCCAATATCCAATCTCTTTTTTAAATATTGG
 GAGCATAATGTATAGCCATATATTTTAACTATTAATTGGTAATCTGGATTATAATTA
 TTGTTGATGTATTTCTTATACTGCTTTCCAATTTATGGGCTTCATCACAATAATTATAT
 CAATATCTCTTTTGCCTCAATATCTTCTTAGCATAGTAAACATACTGTTATTCTATAA
 25 CCACATATCAGCTAAGATACTCTCTATTTTGCCTTTTGATATTCACAGGTGCAGTATG
 GGCAGTAGTAAATAACTTTATCCCTAAATTCAGTGGTTGTTTTTTGTTCCACAATAGC
 AAATTGGTCTTTTATTGGTCTATATAAGCATTTTTTATTCAATTGGCAATATAGTCTAT
 TAGCCTTTCTCCTTTTGATTGCAAATAAAGTTACTTTTTCCCATTAAGAATGCAACCT
 TTAAATATGCCTTAGAGAACTTAAATCCTCATAAATCCTAACCTGCTGGTCTATCGTTT
 30 CTGTTAATATTAAACTCTCTTTCTCTCTGCAAAGTATAAAGCAGGAATTAGATAGC
 CTAAAGTTTTTCCAACACCAGTTGGTGCTCAACTATCAAATTTCTCTTATTTTTATAC
 ACTCGTAAATTTTAGCATCATCTTTCTGTGGCTCCCTAACTTTAGGATATGGAACT
 TCTCTTTAATATACCCTTTAAATTCATATAAAATCCCTTTACTTTAAATTATAGAAAAA
 TAATAAAAAAGAGGAATATTATTCTCCATGGTCTTTGTGAATATTTCTACAGCCTTGT
 35 TATAATATTCAATTGCTGCTTCGATATTTCCnTGCTCTCATAGATTCTTGCTTTACTCA
 AAAGTGCTTTTATATAATGTGGTTGTAGTTCAATAACTTTTTCATAGCATTTTAAATGCTT
 CATCCAGCTTTCCCAATCTCTCATATAATTCCmCTTTAAATACCATAAAGCCACGTCAT
 CTTTCTTATCTCyAATCCTATATTATGTATCTTTAGCATCTTTTAAATCGTCAAGAG
 40 CTAACATCAAAGAAACAGCATGTCTTATGGCATCTATCCATTTTACATTTAGTTCATCTA
 TCAATTTTTTGAACATTTCAAGTGCTCCCTAAATTTACCATTCTCTTTAACAAAACAC
 CTTTTAAATATAAGGCATTTTATCATGTGGCTTTAACTCTAAGGCTCTATTTAACATA
 GTAATGCATCTTCATATCTCCCCAATTTTCTTAGGATTTAGCCTTTTTAACCCACATTG
 GGACAAAGTTTGGAGTATATGTTAATACCTCATTATAGCATTTTAATAGTTTCATCATACT
 45 CTCTAAGAATTCTAAACAAATCGTTTTGAGTAAAAATGCTGATAAAAAATCTATTTTCAA
 TGCCCAACGCTTTGTTGTAACACTTTAATGCTTCATCACAATTTCTTGACATTCCATACA
 GTTGGCCCAACAACACCCATGTAATTGGATTTTTGATTTCATAGCTTAGCAATTTCTCAA
 ATGTTGTAATTGCTTCTTTTATTCTCTCTTTAGCGGATAATGCTAATCCCTTCAAAAACA
 AAGCCAAATAGAAATCAGGCTCCAATTTCAACGCTTTTATCAACATAATAAAGTGCTTTTA
 50 TTAAATTTCCCTCAAATAATTCTCTATAAGCTCTTAAACATTAGCCACGGCTTCTAAGG
 TATCCACTCTTGAGTCTCTTTCTATTTCATACGCATATCACCATAAAAAATAAAGGATAA
 TAATTTTATCTATCAAGTGCTTTATTGTAGCACTCTATAGATTCTCTATTCTTCCAAGT
 TTTTCTAACACCCTTGCTTAGCAAGTAAAGCTTTTGTGTGATGAGGCATCAGCTGAATA
 GCCTTATTATAATATTTTAAAGCTTCTTCAAATTTATTGCTTTTCTGATAATTTACCT
 55 TTAATAATACCATAAACTTGCACTGCTCGGGCTTAACTTTAGTCCCCTCTCAATATATTTC
 TCAGCTTTATCCAGTTTATTAAATAGAAAGGATAAGTAAATAGCTTCCCTAATAACTTCT
 ATCCACGTTACATTTAGTTCATCAATAAGTTTTTCATAGTATTTTAAATGCTTCATCACA
 TTTCTTATTCTATTAGTATTAACGCCTTTAAATATATTGCATTTGTATCATTTTCTCTT
 AATTCTAATACTTTATTACACATGCTAAAGCTTCTTCATATCTCCCTAATTTACGTAAC
 60 ATATTGCTTTAATTATATAGGCAGGAATGAAATTTGGAGCGAACGATATTAATCTATCA
 CAACACTTTAATAATTCGTCTATTTTACCTGAAAGTCCCTAAACATAATACCTTAAGGAAA
 AATGCTGTAGCAAATTTCTCTTCAATACCTAATGACTTCTCATAACATTCCAAGCGTTA
 TCAAAATTTCCAATAGCTCGTAAAGTTGGCCAAAGAGCATAAGCTACCGGGTCATTT
 GAATTACTTGTAATATCTTCAAGACATTTCTATAGATTTATTAATATCACCACAAATTTGCC
 AAAGATATCGCTTTTAAAAATTTTGCAATTTAAATCAGGATTCAACTCCAATGCTTTA
 TCAAGATAATATAATGATTCTAAAAGATTTCCCTGTCTCTATATTCATATGATTTTATT

5 AAATAAGTTAATGATAATAAAACATCAGAAGTTTCTTTTAATTTTTTATTTTTTATTTCC
ATATTTATCCACCAATAGAAAGATTGGAGTTATTTGTAATATTTTATATCACAAGATTT
CGGACACTCAACTTATTATTATCGTTAATAATCCCTATATTAAAAATTATGTATCATCATC
AGAAATACTATAGGACGTTCCACAGAATATAATCTTTATAAAGAATTGAATATTTAAAGG
CATCTAAATATCTTATATTAAGTATATGAATATGAAAGTCCTCTACCAAAATTGTGGATA
10 TAGAGTTTTTCATCTTTTATTATGATTTTTTATTATGATTTTATAAGAATAATATAGAATAA
TAATGCTTATAGTTTGGGGAGTAACCTTGATTTTTAATTGTGGAAGAAATCTATCTTACTA
AAGCGAGTATTATAGCTATTTCAAATTTAAAAATAATTTTTTATCAACTTCCCCCTCTCC
CTTAAATACATTCTTGATTTGGTCAAATAATTCCTATATTTATGAGCTTATTAACCTC
TCTATAGAAAGGAAGTTTCTAAAATGTTCTCTTCTATTTAATTCTAATAGGTATCTCAA
AATTTCTCTTCATTTTCTTTAGTATTGTATCTTTGTAGATTATTCTTTATTTTCATCAAT
15 CTCTTCGAGATTTAATTTATTTATTTTATTTCCAAAAATTTCTCTACATCTTTCAAACAT
CTCATCAAATGCTTACTGCTAAAAATATATCTTCCAAAATCTTCCCTCTCTTCCCAATC
AACTCTAAAAATTTCAAATATTTCTGTCTTACTACTATGTTCCATTCCGTTCTCTATAAT
CTCTTCAAACATATCAAATAAAGCTCTTTTATTAATTCTATAGCCTCATTAACAACCTTT
TTTACTGATTTTCTCTTTTAAATGCCACTACAATAATGTTTTATAATTAGGAGAGGAGT
TCCATCCCATTTAATCATGCAACTGAAAGGAAAAATCATGCACATCAATGGTTTAAACTC
20 ATAGCCCTTCTCTAAATGAATTCATAGGTGTTTATTTAATAAAACACAACCCCTTTTC
ATTAACCTTTAGCCTATATTTAAATTCCTTCCACAAGGTTCTATGGCATATTCGTAATC
TTTAAGTTTAAATCTATCAAAATAGTTTAAATATATCCTCCAACCTTTACATGAGCAACA
GTAAGCACAATTTATGCATTCATAGGTTATTCCCTTAAAGGTTATCTCCAATCCATGGG
CATCACTTTAAATATAATTTTATGATATTATTTTATATTTGACAGAATTCATAAAATTT
GATTATAAAAGTTATGGTGATGTTATGATAGAGCTTACTTATGCCCTTATTTTTGTTAT
25 TATTGCAGTTCTTATTGCATATAGGGAAAAAGTTGGGCATTGAGAAAAAATCCTTTATGT
GTCAATTTTAGCTTTAATCCAGCTGTTTATTTTAGGATTTGTTTTGCTCTATATATTTTC
ATTTGGAATGGTTGGGGCATTTTAAATGATTGGTGTGATGATTACCTTAGCATCCTATCT
TATAATGAGAGAAATTAACCTAAAAAATAAAACAAAACCTCTTTATTTGTCTATTTATTAC
GTTTTTAACAACTACAATAGTTTCATTGGCAGTATTAACAATTCCAAAGGTTGTCAATTT
30 TGAGCCGATATATGTAATTCCTAATGGGAATGGTCATTGGAAATACAATGAACCCAT
CCATTTAGCATTAGATAAAATAATAGACATGGTTAAATCAGAGAGGGATATTTTGTGGGG
ATATTTAGCTTTAGGAGCTACTGAAATAGAAGCATTAAAGACCTTTATAAAAAATGCTGT
AAAGTCAGCAGTAATACCTCAAATGAATAGAACAAGTCAGTTGGGGTTATATTTATCCC
AGGGGCTATGGTAGGGATGTTGTTGAGTGGAGCAATCCCATATATGCTGCAGAGATTCA
35 AATTATCATTATGTGGATGATTCTAAGCTCTGCAGTAATTTCTGGGATTTTGATATGCTA
CCTAATGTATAAAGAGATTATTAGAGCATAAAAAGGTTTTAAATTTAATTAATTTTAT
TCTTCTTAATTCGTTCACTTCTCTATTCTCTTTTAAATTAACCTCTTTTTTACCAATATC
ACTTCTGTGATATACTTCTCCTTTAATATATTTAGTTGCCCTCCTCAGCAATTCCTCAGC
TTCTTCAATTTGATCAGCAACTCCAACCACAGCAACAGCCCTTGAACCACTCATATATAA
40 AGACCCATTATCCTCATTAACTGAAGCATAATGCAATATAGCTCCAGTTTTCTTAATTTGC
TTCTTCATCAACAGTTATTGGCTCTCCCTAACTGGGTTATCAGGATATCCCTTTGGAAC
AACATACTTACAAACAGTAGCTTTGTTTTCAAACCTCAACGTCAATATCTTTAAGTTTTTT
ATTTACTATTGCCCTCACAAACCTCTAAGAAATCATTCTTTAATATAGCTAATAAGTTTCAT
45 TGCTTCAGGGTCTCCAAATCTTGCTTGTATTCATAATTTTCGGCCCCCTCTTTGTTAG
CATAAATGTCCATATAAAATTCCTTTGTAACCTCCAACCTCCTCTTTAATGCTTTTAAC
AGTCTCTCCATAATCTCTTTTGCTAATTAACATCCTCTCTGTGCATAAATGGTAGTTT
ATGGTCTGGGCATGAGTAAGAACCCATACCTCCTGTTATACTTCTTCATCCCCCTCTAA
TGCATGTGGGTGGTCTTGGACAAATGGTGTAATTTAATAGTATCTCATCAACAAATCC
50 GTGTAAGGTGAATTCACCTCTTCCAATTTTTCTTCAATTAAGACCTTTCTCCCCCTAA
ACCACTTTCAAAAATCTCTTTAGCATATTTCTTTGCCTCTTCATTATCTTTTAGCTGTTT
TCCAACCTACCTTAACTCCTTTACCTCCTGTCAATCCAACGGGTTAAGCACTGCTTTAAT
ACCTTTCTCAGTTAATTCATCAATAAAGCTTTCTAATCTTCCCCATACTCTTCAAAAGC
TTTATACATTAAAGAACCTTTTATATTGATTTTTTGAATAAATTTCTCATGAATTTCTTT
55 GTTGTCTTATTTGTGCTGCTAATTTTTAGGACCAACTGCTGAAATTTCCATTTCTCTC
TAACAAATCAACAACCTTCCCCATAAGGAGCTTCTGGACCTATAACAGCCAAATCTGG
TTTAACTTTTTTCAGCAACTCTTAAACCGCATCTAATCAGTCTCTTTAGCTAATTTAT
CTCTTCTGATAATCTTGAATTCCTGGGTTTTGTTTTTCATTAATGTGTAGAGCTTTAC
TTCTTCATTCTTTTTTAGAGCGTGAGCTATTGCACTCTCCCTTGCTCCTCCTCCAATCAA
60 TAAATTTTTCATATCTCACCTTTTGCTTTTGGATTAAATGTAATAAATAAAAAAGTAAAAA
AGTGGTTTTAAATCTTTACTCTAACACTATCTCCCTATACCTCTTTTTCAGTGTCTAA
TATCCCAATGGTAGGAATGCCAGTTAAGTAACCGCAACATTCTCCTGGGTTTATGACTAA
AACATCATCAACCTCTCAAAAACCTCTCATGTGTATGTCCATAAATAACAACATCATA
CAAACCAAGATTAAATAGCCATCTCTAAAACAGATTGATGATGCCCATGTGTTATAAGAA
TTTTAGGTCAATTTCAACTGATATAAAATCATCAATTATGTTCTCTTCATTATATC
CTTCAACCATTCCTTTAATTTGCATCTCTCCCCATCGTTATTTCCATAAGTGCTATGAT

-310-

ATTGGCGTTTAAGTTTCAAACCTCTTTTATAACAAACAACTAACAAATCCCCACAATG
AATAACAGTCTCAACATTTTCATCATTAAAAATCTCTATAGCTTTTCTAATATTGGGTAA
GTGGTCATGGGTATCGCTCATTATCCCAATTTTCATTCTATCGCCTCGAAGATATTTTAT
AATGGAGAATATTTTATAACACTATCTATGTCATTATCTCTTATATAACAATTTTTTAAT
5 GAGAGAAATATTATTCTTTTTTAAATATTCAATTGCTTCAGCTATTAATCAACCACAT
ACTTTACATTTTCACTTTTAATTATTACACTGTCTGATGTTGCAACAACCTCTTTATTTT
TAAGCTCGTAGTCACAATTTTAAACACAAAAACCTCTCCTTCAATACTAAAAGCTTTCA
TTTTTCTCTAATCTTTTAGCCAATATTCACCTTTTGATACTTGTGCATCTAAATAAA
10 TAACAGCTTTAATATTGTAATGCTTAAGAATCTCCAATAAAAGAGATATGGCTTTGTCAC
TGTATTCAATTATCTTGTATTTACCATAAACGTTTCAAATCTCTGTAAATATTGTCAT
CACATAAAACAATTTTATTTCTTTAATTAAAGCTTCTAAACTAATAAGAACATTA AAC
CATCTATGTATATGGTTTTCTTTAAATCTTTAATTTTTTAAGCTTTCTTTTAGTTA
ATTTAATTTCTTATCGCTGTGAGTAGTTCFAATAATTTAAGCCTATCCTCTTTACTTA
15 ACTTATAATGATTTGCTACAAAATTTAAAGCAACATCCTTTTTATAGCCCCATTTTATCA
AATATTTAAATCTTCTTTAGCTTTCTCTATGCTCATAATTTCCCCCTATGGGACAGATT
TCTTCACATTCCTACAAAATATACAGCTGTCTATATCTACTTTAACAATTAAGGAGTTT
ATGTATTCATCGGGTGTCAAATAGCTTGTAAATGGACATTTTTCAATACAACCTTAGGCAG
AGCTTGCATTTCTCCGGGTAAATTTCTTTATTTATTATATCGATAGCTTCACATTCACAC
20 AACCCACAACCTGTACATCTATCTTTAAATAACGGGTGTTTTGGCTTAGGAATTTCT
TTTTTATTATAGGTATTGGACAAAATAAACACAAACTCCACATTTTGTGCATTTATCA
GCATCTATGGTAAATCTATCTTTTATTATTGCGTTGTTGGGCATACATCAACACAAGTT
CCACAAACAGAGCATATGGTTTTCTCTAAAGCTAAATATTTTTATTGCATTTGTAGGGCAT
ACATCTACACATAAACCCACAACCAATGCACTCAGTTAATTGTATAGGCTTAGTTTTGAA
25 GTTTTGAAAACCTATTCTTATTTGTTAAAAAATGCTTCTTATTAAGGTTTTTATCAAT
CCTGCCCTTTAAAAATTTTGTAATTTCTTCTCCATAAACCTCACTTACTTAAGATAT
TTTTAAAAATATTTAAATTTATCGATTAAATTTGTTCTAAAAATAAAAGAAGCCCGGCAATG
GCGCCCTGGCCGGGATTTGAACCCGAGTCACGGGAGTGACAGTCCCGTATGATAGCCCGG
GCTACACCACCAGGGCATAGTAATGCCAAGGATTACCTTGAGAATTTAAAAATAATAAAAA
30 GTGGCCGGCGCGCTCGCCCCCTTTCCCGCCAGATGGCAGTACTCGGGGCATCGCTGGGGGG
CTTAACCTCCCGAGTTCCGGATGGGTTCCGGTGTGGCCCCCGCTATGACCGCCGTACCA
AAGGAAATAGCGGGCCCGAAGGGATTTGAACCTCGACCACCTGGTTAAAAGCCAGGCGC
TCTGCCAGACTGAGCTACGGGCCCTCTCAGCCCTTAGCTCGTGCGCTTTCAAACATAT
CGCATTTCTCATATATACTTTTCGGTTCTCCCCATAAATGGGAGATGGTCCGGCCGGC
35 CGGATTTGAACCAGCGACATGCGGATCTACAGTCCGCGTTCTACCAGGCTGAACATCCG
CCGGACACGAAGTGGTGGGCCTGCCAGATTTGAACTGGGGTCTCAGGATCCCAATCCC
AAAGGATAGACCAGGCTACCCACAGGCCCACTGAAGAAGAGAATGGAGCCCCGGGGGGG
ATTTGAACCCCGACCACCTGATTACAAGTCAGGCGCTCTACCAGGCTGAGCCACCGAGG
CTCGTTTGCAATATTAGTAAATTACAGATGTTATATATAAACTTTTCGGTGATTAAATCA
40 TTTAGTTATTTTGATGTTATTTAAACCCCTACAGAGTACAATAAATAAACTCCAATTAT
TCCACCAACAATAGTAGCTATTAAATTAACGTGTTTATTATTTAAAAATTCCTTTTCTT
AAATAATGCCCAACTAAGCTATCAGCTAAGTTCCAGCTATTCCACCAGCTGTGCCACA
TAAACAATTTTAATATCACCAATAGTAAATATCCAACAACCCCTATTAAAAACGCTCC
TAAGACTCCAGCTAATGTACCAATATTGTAATTGCTCCATCAGTTCTTTTCAACAAC
45 TTCGAAGGTAGTTATTAATCTCGGCTTTTCGTTAGATAATATCCAAGTTCTGAAGAAAA
AGTATCTGATGTAGCAGCAGCTATTGATGATATGATCCAATTAAGCCCAGTTGAATCC
AAATATAGCTAAAATTTGCAATAATATTGGAATTAACCATTTTGCTAATACATTTTAA
ACTTCTACAAGTTTTCATCCATTTTTTTAGCTTTCTTTTTTCTAAACCGACTCTACTCAC
CAAAACCCCTAAAATAAAAAAGATAGAAGTAATATCAAATATTTAAATCCACAGAAATA
50 AAGTAATATAAAACCCATAATAGATGATCCAATGACTCCCTCATTATCTAAGCATCTACT
CTTTTAAATCATCAATGCCAATACACATATAATTAAGATAGATACGAATAATCTTATCAA
GGTTTCCATTGTATCAACTTCCAATATAAATTAATGAGGCCCTGGCCGGGATTTGAACC
CGGTTTGGGGATCCGAAGTCCCCCGTGATATCCTCTACACCACCAGGGCTTAATAAGCT
ATTATATGGTATTTTTTATTTTTTAAATTAATTTTAATAACTTTGAGAGCCTATACTGATA
ACTTTCCCCAAAATTAATAATAACAAAAAGCTATACGAAAAACCAACATTAAATTTTCAT
55 GCAAGAATAAAAAATAACAAAAAATAAAATTTAAAAAATTCATTAATTTATTGTTTTA
ATGCTAATTTTATGTCTTCGACTTTTACTGTTTTTCTTTTGGCTGCTTAGCTAATTCAA
CTGCTTCTTTTGCAATCTCTAATGCAATCTCTTCAACTGCTTCAGCCAAGTATTCTGCAG
CTGCTCTGCTAACTCTCTCAGCACCTGCTTTTTTCAAGATTCTTTCAAATGGTGCACTG
GAAGCTCAGCCATAATACCACCTCAGAAGTTTACAGGATTCTTTTATTAATAATAGGCT
60 ATTTAAATTTTTCGGTTTAGATTAGTGTATTATGATAGTTTATCTTATAAAATAAACCT
TATATTGGGAAATAGGAATTTTTATAAAATGTCTTTATACAAGTTTGACTTTTTCTTTA
TTTTTTGACTTCTTCTGGTTTAGCAATGGTTTTTGGATGTTTTGGAAGATACGGACATT
TTATTTCTTTTTCAGTAGATATTCATAAGTTCCAATCTCTTAGCTATTTTCACAATAT
CATCTTATCTAAACCAATTAAGGCCCTAAATTTGGATAATTTATATTTTCACTTATGA

CTCTCAAGTCTTTAATGTTTGGGAAGCTACCTGCCCAAGTTATCTCCTGTAACAATAG
CATCACAATCTAAATATTTTGCATATTTTTCAGCGACTTTTAGCATTCTTTTACAGA
ATATGCATGTATAATTCTCTTTTTTAATACCTTTAAGTTTTCTACAATATCCTCAATAT
5 CTTTTTGTAAATCATAGACAACAACTCCAATTCCGGTATCATAGTCACTTAAACCTCAA
CAATCTTTCTAACTTTATTTAATGCTTCTTCACTCATCTTTAATGTAACAAAACAGCTC
TACAACCTCTTCTAATCATCATAAATGCAGCTACAGGGCTATCTATTCCATCAGATATTA
AGCAGAGAAGCTTTCCCTGGCTTCTGCTGGTAATCCTCCAATTCCTTCATATTTTCTG
TGAAAATATATGCTCCATCATTAAAAATCTCTATTCCCAAAACAATATCTGGATTTTCTA
10 AATCAACTTCTAATCCGAGCTTTTCAACTATAGCTTCCCAACTTTTTTATTACTTCAA
CTGATGTGAATGGGAATTTTTATAGCTCCTTTTTGTTTTAACTGCAAAAGTTACTTTTT
CTTTATTAGAGTTTTTAATTTCTTCTTCATAATTTGAAGTGAACAACTTACAATTCGT
TGATATCCAATGGACACTCATAAAGTGGACTGTAGGAACAATACCAGCAACTTTTTTA
ATAACTTTAGAGCTAAATCTTCTTATCTTTTGTGTTTATCTTGACTAACAATTTCTAT
15 GTAAAATTTAAGCTCTGCATCAATCTCATATTTTCTAAGCAATTTTATAATGTTTTTC
TTAAGATTTCTCTAAGTTTTTCTAATTTGGGTCTGATTTTAAATCCAATTTCTCCATATC
TAACTAATATTTCCATTTTACTCACCTTAAGCTTTTTCTATTTTGCATAGGCAATAATG
CCGTAAATTATGGCAACAGCTACTGGAGTTCCCTCCTTTTGGGCTATGGTTGATATACTT
GGAACATTTACCTCTCTAAGTGCTTCTTTGATTCTGATGCCTGAACAAACCCACTGGG
20 ACTCCAACAATTAATTTTGGTTTTATATTTTCTTCTTAACTAATCTTATAACCTCAAC
AATGCAGTTGGGGAGTTTCCGATAACTACAATTCATCATCTATCAAATCCTTAGCCAAT
CTCATTGAAGCTACTGCTCTTGTATCCCTCTTTTTTAGCAACTTCATAGACATCTGGA
TGATTTATAAAAACATGTACTTTATTATATCTAATCCAGCTTTAATCATATTACATCA
ACTATTATGGTTTTTCTTCTTTATAGCTTTAATTCCTTCTCTATTGGGTATTTTTTA
25 AACACTAAAAGTTTGGCATACTCAGGGTCTGCTGTAGCATGAAGTACTCTTCAATAATT
CCCATTTCTTTTTCGTTGAATTCATTTATTCTGTCTCCTAAAACCTCTTTTATTTTATT
CTAAGGATTTCCCTTGATTTATTGCTATATTTAATCCATCTTTTGATATTGCTCCATA
AAATCCATAAAAAATCACAAAAGTGAATAATAGAAGTTAAAAATAGAAAAATAGGATA
AGCCATTATTTTAGTACTTTTTATTCTTTAGAGTTTTAATAACTTCATCAACTATCTGT
30 GGAGCTAAACCTATGTAAGTTTTTAGGATTCATCAATTCCTCTAAGTCTTCTTTGTTATA
TACTTCATAAAGTCTCTATTTCTTAATAAAAATATCTTTAATGCCTTTCTCTTCATAG
GCTTTCATTGCACACTGCCTTACTATTTCATGAGCTGTTTGTCTGCCATACCTCTCTTA
GCCAATTCAATCATTATTCTCTCAGCCATTATCAGTCTTTTGTAAATTCTAAGTTTCTC
TCAACATTTTCTTTATTTACTTTTAGCTTTTTAACTCCTTTAATGCTAATGTTAAGATG
35 TGGTCTGTTAAAACGCAACCTCTGCAATATACATCTCTCAGCTGATGAGTTTGTAAA
TCCCTCTCTTCCCATAAATGGGATATTGTCCATTTAGCTATACATAGTGATTTTATAACC
CTTGATAAACCGCAGATTTGCTCAAAGGTTATTGGATTTCTCTGTGAGGCATTGTTGAT
GAACAGTTTGTCTTTGTAGGGTGAAGTCTTCTCTAGCTCTCAATTTAGTCTCTCTGC
ATACTTCTAACAGTAAGTCCAATCTTGTTTAATGTCTGAGCAATTAAGCTAATAAAAAG
40 ACGAATTCAGCATGTCTGTCTCTCTGAATAACTTGGTTTGAGATTAAAGTGGTTCTAAG
CCTAAGATTTAGCAACTCTTTTATGCACTTCCAAACCTTCTCTCCCATAGCCGCCATT
GTTCCAACAGCTCCAGTAATCATAGAGACGCATATTCTCTTTTTGTCTTTTAACTCTC
TCTAATGTCTGTCAATCTCAGCCGCCATAGAGCAATCTCATCCCATAGGTTGTTGGA
ATTGCATGCTGTCCATGTGTTCTTCTACACAGACAGTGTATTTATGCTCTCTGCTTTG
45 TCTAATAATATATCTCTAAGTCTTTAAGTCTTCTCTATAATTTCAATGGATTCTTTT
ATTAGTAGGGAGTTGGCAGTATCAACAATATCGTTTGATGTAGCTCCGAAGTGTATGTAT
TCTCCAGCATTTCTTACATACTTACAGCTAAAGCTCTAATCATTGCAACAACATCATGT
TTTGTGTTGTTCTCAATTTCTTTAAGTCTCTCCAATTTTACATATTTTGTGATGCTTTT
TTGTTTATCTCTCAGCGGCTTCTTTTGAATTAAGCCGAGTTCTGCCTGAGCTTTAGCT
50 AATGCAGCCTCTACCTTTAAGCTTTTCCAAATTTATTTTCTTCTTCCCAAACTTTTCTC
ATCTCTGGTGTTCATATCTATAATCAATTGGATGCACAGCCATTTTACCTGACTTT
ATTATTTGATTAAGTTCCAATTAATGCTAATGATTTTTATAGTTTGATGTTTATTATAA
AAAGCATTTTCAAGAAATTACTTATAGAAGTCTGTTTATAATTTATTATTTGGGTTTTAG
GATTTTAAATTTGTTGTTTGGTTAATGGATTGCTTGTGTAATATGTTTGGATTTTGAA
55 AATAAGAGCATTTAGAAGTTATTAATTAGTTCAAAGGATTTTATTTAATTTCTAAGGTT
TTGCTGGTTTGATTATTTAGAATATTTAAGTTTATTGAATTTTACAGATTTTGAATAA
AAAATTAATAATTTCTAATAAGATTTCTTAAACAGACAAGTTAAATTTTGAATTTA
AAAAGATAAAAATGCTTAGTTTATAGTAAAGAGATAAAATTTAATACTAAAAGGTTAT
ATTGTAAGATGGTTATTTACCTTAGAAAAATATGGTATAGAAAAGCTTAAATATTAAAG
60 GTGATGAAGTATATTATGTTGTGAATGATTGCCCTGTTAAATCAGACCTCTTGGAGGAT
GGAAAAACATCCTCTCACCTTAAAAAGTTAAAAAAGAAATTTAGTTAAATCAGACCTC
TTGGAGGATGGAAACGATATTAGGAGTCAAGTGTAGGAGAAAGATACTCTTTATTAAATA
AGACCTCTTGGAGGATGGAAATAACTATCTTATCTTTTGGTATCTATTATCTTTTTAT
TAAATCAGACCTCTAAGAGGTTTTAACTTGGATATATTGGAATAAACTCACTTTTTA
TTTTATTACTGTAAATCCACATATTTAAAAATATAATAACAAATTTAAATCCTCACT

-312-

5 CACATAATTCTTCTTGGTGAGAATTAATGATAATTGAGATAGAAGGAATTAACTAAAAC
TACATCCCGAAGTTTATGAACCTGCTGAAGATTCAATTTTATTACTAAAAACCTTGTAG
ATGTTAAAAATAAGATGTTTATGAGATAGGTGTGGGAAGCTGGATTAATATCAATTGCAT
GTGCAAAAAGGGAGCTAAAAAATTTGTTGGTGTGATATAAATCCTTATGCTGTAAAT
10 TAGCTAAAGAAAATGCCAACTAAATAATGTTAATATCTCATTTTTGGAGAGTGATTAT
TTGAAAATGTTACTGGAAAGTTTGATGTTATATTATTTAACCCCTCCCTATTTACCAACAT
CTGAAGATGAAAAATAGACAGCTATCTAAATTTTGCATTGATGGAGGAAAAGATGGAA
GGGAAATTTTAGATAGGTTTATCTATGAGTTACCAATTTATTTAAAAAAGGGAGGAGTAG
15 TTCAAATATTACAGAGTTCTTTAACTGGAGAAAAGAAACAATAAACAAATTTAAACCCCT
TTGGTTTTAAAGTTGAAATATCCGCCCGTTTAAAGTTCCATTTGAGGAACCTTATGGTTA
TAAATGCATGGAGGTTGTAATATGAAAGCTAAAGAGATTATAGAGTTTATTGAAACCTT
TGCTCCTAAAGATTGGCTATTGAGGGAGATAACATTGGTCTTCAGGTTGGAGACAACCT
AGATAAGAGATAAAAAAGCTAGGTATTGCCTTAGACCCTTCATTATCAGTTATTAAAAA
20 ACCAGAAAAGAAGGAGTAGATTTTTTATTTACCCACCATCCATTATTAAGACCCCTAT
AAGAAATTTTACTGGAGTTATTTACAAAAACTAAAGATATTAATGGAAAATGACATCAT
CCTCTACTCTGCTCATACAAATTTAGATATATGCAAAAATGGGTTGAATGATGCTTTAGC
TGAACCTTTATAATTTAGAAAATCCAAAGCCCTTATATGATAATGGACTTGGAAAGAGTTGG
AATTTTTAAAGGAAGTTTGGAGGAATTTTGGAGATAACTAAAAATACATTCACAAAAA
25 CCTATTGTTGTTTAAAGTAAAGAGGTAGATGACAACCTTAAATTAGCTGTTTTATCTGG
TTATGGATTGTCTCAATCATCCATAAGTATGTTGCTGAGAAAGCAGATGTCTATCTTTC
TGGAGATTTAACTCATCTTCAAAAATTTAGCTGAGGAGCTTGGTTTAGTGGTTGTTGA
TGCTACTCATTACTCACTGAAGTTTTTGGATTAAAGAAATTTAAAGAGTTCTTATCTTC
AAATTTAGATTTAGAAAATAATTAGTTTAGATTTCTAATTTTAAATTTAAAAAAGTAATAT
30 CAGTATAATCTAATATCAATCTATATTCACGTTGTATGGTTTAGCCTCTAAATTTCC
ATTAATCTTTTCTTTATGTTCAATTTTTACAGGTTTTTGTATAAGAGTTTTTCTGT
ATTATTATAACATCACATGTGCAGATGTATTTATTATTGTCATCTCTCAATTTTAAACCTT
AAAGCATAGTCTTCAATTAATCTTGGTCTTTTAAATATAGATAAGATATTTTTATCTAAT
TCATTCTCAATTGAAAGTTCCATATCCTTTATTTTCATCATCTGTTAATATTATATCCTCT
35 CCATAATCAAAAGCCTCTTTTATTATATTCTCTATGAAGTCCCTCATCTGGCTCTTTAATT
CCTAATTGTTTTTAAAGTTCTTCTCTTGATAATGTTCCACATTAAATAGTATTTAAATTC
ATAGTGTGTTTTTTTTTAGTTTTCTTTTTTGAACCTCTGGTATTGTATCTACAACATCA
TAAACATATTTTCTGATTTTAGTATTTTACAGTAAATCCTGTAAGCATTATCTAGTT
TAATCTTCTATCTATAACAGCTTCAATTTTTGTAAATTCCTCTAATACTCTGTCTTCTAT
40 ATTTACCCCTATATTCAATAACAACCTTTTTACTACTTTTTCTTTTATATCTGAAACT
ACATACTCATCTATAATAGTGTATCTTTTCAAAATATTTATGCAGGGTAGAATTTTTTCT
TGAGGTAGAATTACTTCAACTAATTTTCATATATTTACCCCTAATAATTTAAGACATTAAT
AACTCATTTCTTTGAAAGGAGTCAAAATATCCGTATCTTTGTAAATTTTAACTTTTTCA
TAAACAATAATAAATTAATCAACCAATGAAAACAATACTGGAAGGAAGGAAAGTTCCCTC
45 CTACTTTATGTTCTTAATAGGGTATAAAAAGATTACTAATAACACTATTTAAAAATATTCA
AATCTAAAAATAAGTAATGTAGGTAAATTTTAAATACGGGTAGTAATCTAAAGTATTAA
ACTATATAAACCTAACCATATGAAATAAATGGAAGAAAATAAATTGTCAAAGTTTAGTA
AATTTTATTAAATAAATTTAGCGTGGGATTATGTCAATCTTCTATGTGCTTGGAAAGAA
GGGAACGATAGAGATATTATATAAAATTAAGAGGGAGTAAATTCCTTCACGAGCATAAA
50 AAACGCCCTTAGATATGGAAGGATGTGGGGTTAGCACGAGAACATTGGCGGAAAGATTAAA
TGAATTTGGAGATGAAAATTTAATACGAAAGATGGAAGTAAATACTATTTACAAAGAA
AGGCCAGGAAGCATTTGGAATTTATGAAAATGTTATGAAATGGGAAGCAAAGTGGAAAGA
AGCAAAAATTTCAAAGATTATAATAGGAATGCTTGGAGACAAAGAAAGATAATCACAAAA
AACATGCTGTTAAAACCTTAATTTCTTTTAAATGTTTTGTTAAACGCTTTTTGGAATAATT
55 CTTTTAAGCAATAGTTGAATAAATAATTGGATTATAGGTGGATACAAATGAAGGTAATCA
CATTCTCAATTGCAAAGGGAGGAACTGGAAAAACAATTATCACAGCAAATGCTGCAGCAG
CTTTAGCAAAAAAGGTAAAAAATCTTACTAATCGATGGAGATGTTGGGTCAAAGTCAT
TGTCCCCTCTTCTAAATGTAAATCAACATATTTTTGGCGGATATTATAGAAGAAGAAC
GTCCAATAAAGATGCTATCGTTAATACTCCAATTGAAAATATCGAATTATTGGCAGTTG
GAAAATCACTTGCCGATTACTTAAATTCGACATAAATATTTAAAAAGATTTAAGGAGT
60 TAGGAGATTATGATTATGTGTTTATAGATGCTCCATCAACATCAAGCGGTGTTGAAACCT
ACTTAGCTTTAGGTCTTTCCGACTACTTTATCCCGGTTTGGATTACACTGCCTTTGGTC
CAAGTTTGCAGGGGGCTATAAATACAATAGTTATTGGAAAGAACTATTTAGAAAGCACAC
CTGCAGGGTTTATAATAACAAGCCGAAGATTGCCAGAGAGTGTAATTAATGATATTA
AGAAAATCTTAGGATTAGAGTGTATATCCATAATTCTAAGAATTCCCTTGTAGAACAGT
CTTATGCAAAAAGGAAATAGTTTATCTAACCTCTTCAGACAAGAAATTTGTTGAAGAAA
TCGACAAAATCGTTGATGCCTTAGAAAAGTTAAAGGAGGTAAAAGAAAGGGATATTCCAA
AGGTCATTGAGAAAAATAAGGAAAGCACATTATTATAAGGCTTTTCGTAGTCTATATATA
AATTTTTGAACCTTATAGTGTTTTTTATTGATTTTCATCTTTATCGATTTTCATCTTTATC
GTTATTGAACACCCTACTTCCACAAGTGTCTTTAAATTTCTTTCTGTTCTTCCGAA

CGGTATTTTAAACATTATATTTCTTTAATAACTCTTCATCTACATTCAACATATTTTGTGCA
GTTTATTTTATTTCTTTATCAATATAACTTTTAAATAATTTTCCCTTAAATTTTGTAGC
ATTTTAAAGAAACATTTGCTAATTTCTATTGCAAAAATTACAAAAATGCACCTATTAC
AGTCATTATTAATCTCTCTTTAATAAAGAGAGGAATTACTGAAATGTAATCCTCTGCTGG
CAAATGTAAATATACAATCCCAAAATTGAACCATATAGATGGTCTGTCATCACCGATGA
GAATGATAAAATTTGTAGCCCCAACTATCATTTTTTTTCCAATCTTTACTAAACAACAATTT
ACTTATTTTTTCTCTAAAAATGAGGATAAGTAATAAAGCAAGAGTTGAAAGGTATGGGTA
ATAAAAAGCTACCCCTCCCCACATCTGTTAAATAAAATAGTAATAAACCCACAATTA AAAAT
TATAGCTGAATATTTCCATTTCCCTTCAGATAACGCTCCAGCAGATATAACCGCTAATGT
10 AGGAGGTATTAAGAATAAATTTCCAAAATAAAATGCTTTTGGATTTAAAAAAAAGTATAT
TAATGTTACCAACATAACTGCAAAAATCCATAAATTTGGACCAATAAAAGACCACATAC
AGCTGATAAACTTGGATATGCATTAATTTTATGACTTGAACCTATCATCTGAAATTTAAG
AAATGGGATAAATATAAATAAAAAAGAACTGTTCCAATAAACATTAGAAATAACATCTT
15 TCTATCTTTTCTTAAGAGTTTAAATATTTCCATAATATCACATAGCCACTATTGGACTTA
TTTAGTCCAAATGTAATATAAAATATTTCTATTACCTTCTGACTATATAAATGTGTAC
TATTTAATATTTAACCACAACTAAGTTATATAATAGTTCCTTAAATAATGTATTAAACCTA
AAAATTTTTGATCCAAAACTTTTAAATTTTTAGGTGTTATAAATGATTGACTCTTA
AAAATATAAAAGTAAAAGATGTAATGACAAAAACGTAATAACTGCAAAAAGACATGAGG
20 GAGTAGTAGAAGCGTTTGA AAAAATGTTAAAAATATAAAATTAGCTCTCTACCGAATTTG
ATGATGAAATAAGGTTAATTGGTATAGTAACAACAACAGATATTGGCTATAATTTAATAA
GAGATAAATATACATTAGAACTACATAGGAGATGTGATGACAAAGGATGTAATTACGA
TACATGAAGATGCCAGTATTTAGAAGCAATTAAAAAGATGGATATCAGTGGAAAGAAAG
AGGAGATTATTAACCAACTACCCGTAGTTGATAAAAACAATAAATTGGTCGGAATAATTT
25 CAGATGGAGATATAATTAGAATAATCAAAAATTTATATAAGCATTATTAATAAATATTA
AACTATTTTCATATCTTATTACAATTTTCATAAAATTCAAATAGGACTTTCTGTAGTTTT
TTATAATATCATCTTTGATAGAACGTTCTGTAGACTAAAATTTATCATTGCACAAAAAGT
GACCTAATGTTTTAACTACAAAAAGTTCTATTTTGGAACTTTAACACCTTTGTACATCC
ATATACAATTACGTCCTATACAATAATGATAATAAAAAATTAATAAATTTACCTCTGCGA
AAGTCCTATTTAAATATCACAGGTGATTCTATGTCAGTAAATTATAAAAGTCTCATTGCA
30 ATGGTAGATGATGCCCTTAAACCTTGTGAGATAGTTGAAGAACATCCTTGTCCAAACGGT
AGTGAATGGGTATCTATCAATATCAAAGAACCTCTCCTCTAATCTTATCAGCATGGAGA
GAAGGAAACAAACACCACTTTGTAACAAAAATTTGGTAAAGAAAAATTAATTTAGTCCCT
TCATTATCGGCAGCAGGAATTGAAGAAGTTTATATAGAAAATAATAGAGTTTATATTGTC
35 TATGCGGGATTAGCTGGAGGAGGCGTAGGAGCTGAGTTAAGGAAGGGAGCCAAAAATGTC
CTTGAAGTAAATATTTAGAAAAGGGAGGTGGTTCAAGGCTTGGAAAGGCAGAGGTATATA
ACTCCAAAAATGGAAAAGGTTATTATTGGAATTGATGACACAGATACAAAAGAAGAAGGA
GCTACATGGGTTTAGCACATGAGATTGGTTTAGAAGTTGAGAAAGAAGGGCTTGTTAT
TATTTAGACCATACAATTGTTCAACTTTATCCTGGAAATCCAAATAAAACTCAAACTGT
40 GTCTCCATCGCTTAAAGTTTTCGGGTCTATCCAGAATATAAATACAAATTGGATAAAATTC
ATTAAAAAATTATTAAGAAGAAAGTTTATCAGATGAAACAGCAATGGCTGTTTATTAT
GGCCTTTTCCCATCAAAAAGTATGAAGCTCTTTCATTAAAGCTAAAAAGAAATGGTT
AAAATAGAGGAAGCAAAATCTATAGCTTTAAGAAATAACATAAAAAATATTTCCATTAAT
45 GGAGAAGGAGGGATAATAGGGCTGTGCTGCTTTAGGTTTGGCTGAGCATCACTCATT
GCTCCAAAGTTGTGTGAAGACATTAAGCTATAATGTGAGACTATGCAAGATAAAGAGTTT
AAAATAGCCATTATTGGCCAGAAAATGCTGGAAGTCAATCAATAATGAACGCATTGTTT
GGAAAATATGTTTCATTAGTGTCTGAGGTAGGTGGAACACAAAAATGCCATAAAAAAGA
TACTGGGGAAAGTTGAAGATTGGGAGAAATAAGGAGGAGCCAGAAATTTGTGAATTTAGTG
50 TTTGTTGATTTGGGAGGATTATATACAACAACGACAAACAAATCCCAATTATGACACCA
AAAGTTTTAGAAAAGACGTTTGGAGGATTAATGATTGAGATATGATTATACATGTAATT
GATGGCAGTGTTGGATTATTAAGGAGCTTTGAGAGACTCCACCACTTGTTAAAAATTCAGA
TACCAAAAACCTATTATAGTGGTAATCAATAAATGTGATTTATTAAATGATAGTATAAA
GAACATTTAAAGAATTATGTTGAAAGAAGAATAAAAAATACTCCAATATTTGTATCAGCA
AAAACCTTTTGAAGGAATCCCTGAATTGTTGGATATAATTATTAAGTATTTGAAAAGGTGA
55 TGCAATGTTAGAAAAGCTAAAGAACTTTTGAGTAAAAAAGGAGATAATTTCTCAACCCC
CGCACCAGTATCTGTAGATGACTACTTAGAAGAAATTTGAGGAAATCCCACTAAGTCCAGT
TGAAGAAGAGAAAGTAATTATAAAGGTTTGCAGTATTGAAGATGAAAAAGATGCTGTAAA
TGCTATAGTGATGGCTGAAGCGGGATATATCGTTATAGCAAAAACCTCCCACTTAGAGAA
GGAGATTGATGATGAATTTATCGAATCATCAGAAAGATGAGAAATGAAGTTGCAAAAAT
60 TGGAGGAATGTTATTGGCTTTAGGAGATGAACATTTGCTAATAACCCCAAGAAATGTCTG
TATAGAAAACTTATTAAGAAAAAAGGAAGAAAGTAATGTTACAAAAGAAAACATAGA
AATAAAGAAGAAAAAGAAAGAAATAGTGAATAAGAGCTTATACTATTATTTTATTTTAT
CCTACCTTTTTTAAATAGCAATTTTATTAATGTGATAATATGAAAGTCTTAGATG
AAATTGTAGCAATAGAAAAAATGGTTGAGATAGAAAAGAGAAAAGACATAATCAAAA
ACTTAAGGACTTTTATCGATGAATTAGATATAGATGTAGAAAAAAGAGAAAGTTAAGAT

TATCAAAAGCCATAAAAAAGCTAAAGAAATAAAAAACCCAATAATTACAGAGATTAAGC
 CATCTTCTCCATCAAAAGGTAGCATAAGAGAAATAAATCTCGAAGATGTA AAAAATATTG
 CCAATGAAATGGTGGAGGAGGAGCAACAGCTTTATCTATTTTAACTGAACCAAAATACT
 TCAATGGAAGTTATAAAAAATTAATTGTTGCAAGAGAATTGATATTCCCATATTGATGA
 5 AAGATTTTATTGTTGATTTTATCAGATTGATGTAGCAAGTGAGATTGGAGCTAATGCAG
 TGTATTAAATGTTTCATCATTAAAGAAAGACATTGGAGAGTTTTAGATTATGCAAAAG
 AAAATGATTTGGAATGTTTAGTTGAGACGCACAGTGAAGATGAAATAGATATAGCTTTAG
 ATGCTGGAGCTAAAATTATAGGCATAAATAACAGAGATTTAAAAACCTAAAGATTGATT
 TATCTACAACCTGAAAAATTGGCCCCATTAATCCCAAAAAATAAAATAAAGGTTGGAGAGA
 10 GTGGTATATATACAAAGGAGCAGTTAAATTATGTTTTAAATTCACCTGACGCTGCTTTAA
 TTGGCTCATCAATAATGGAGAGTGAAAAATAAGAGAGAAAGTTAGGGAGTTCGTGATAA
 AGTAATTTTATTAAATCCAAGGCATCTCTCAACTTATTATAAAAACTCTGCCCTTTAC
 AAAATAAGCATATGCTGTCGGATTTTTCAGAGATTAACTCATCTTTATTTATTTCATA
 TTCAACACTTCCATCAATAACCAATAAAGCAGGTTTTTCCAATTTAAGCTTTAGTTAAT
 15 TCTATTTGACGCGGAAATCACTAAAGGTCTCGAAGATAACTTAAATGGACATATTGGTGA
 TATTATAAAGCAATCAACGTTTGGTTCAACGATAGGCCCTCCAGCACTTAGAGAATAGGC
 TGTGTAACCAAGTTGGTGTGAGACAATTATCCATCCGCCCTAACATTTTCAACAAGCGT
 ATCATTAAACATATACATCAAAATCTAAAATCTTTGCAGGGTTTTTGTAAATAACCACT
 CTCAATTAAAGCAGAGGGTGTTTTATAACTCTATTATCTTTTATTATTGCAAGATAA
 20 TTTACTTCTTTTTCTATCTCATACTCTCCATATATTACCTTATCAATTATTTCAAAAAC
 TTCATCTTTACAAAACCTCAGCTAAAAATCCAACCTTTTCCCATATTTACAGCTATTATAGG
 TATTGTCTCTCCATTAACCAATCTTGAAGCCCTAAGTATTGTTCCATCCCCACCAATAGC
 AATAATATGAGAGATTGCTGAAATATCAAACTTATCGCCACCAACTCTCTCTCTTAAAAA
 GTCCTCAACGCAGAGGGGATGTTTTATCTTTTAGATATTTACAAATCTCTATAGCCAA
 25 GTTAATTGCCTCTTCTTATCCTCCCTAACAACCTATTCCAAATTTCACTGGCTTTATTAT
 CCATCTGTTGCCAAATAAAGCTATAAGCTTTTTATGTAATATTTATTGCTAACAAATTA
 AGATGTTCTCTCCATTAATGTAATTTATATTTAATGGTTTCCCATTTTTGTTTGTAC
 AATTGCATTTCCCTCTCTGCAGATAACATAAGCCCCAGCTATATCGCAGAGACGAGAATT
 TTCATTTACGTTTATATAAGCGTCTAAAGCCCCACTAACACATAACACATCTCCAAAGC
 30 CATAGAACCAATAATCTGACCCCTCCTAACCTTCTTTTCTTTAAAAATTTCTAACAAATC
 ATTAGATAACCCATAAACAAACAATCCAACAGATGCTTCTTTAAATCTTTTATATTTTT
 TGTTCATATTTTAAATTTTTTCCCATCTTTTCTCTAAAGCTTCTTCTCTTTGATAGC
 ATAATACAAATCTCCAGTAGCTAAATTTTTTCAATTTCCACATATAAATCATTATTGTT
 ATATTTATTAGCTATAAAACTTTTAAATCCAATCTATGTTATTAATATTTTCTCTAATTAG
 35 TTTTTTATCCTCCCCTTAAATTTTTGCTACAGCTATTGAAGTTGAATATATGGGGATAGA
 TTTTAAAGCGTTGTATGTTCCATCTATGGGGTCCAAGATAAAAAATACTCTAACTCATC
 GCCAACAACTTTCAATCCAATTTCTTCACTTATTAATAATCCCTCCACTAACTTCTCTAA
 AATATTTATTGCCATATTTTCAAGCAATTACATCAATTTCTTTGTTGGAGTCCCATCTGC
 40 ACCTATTTTAAACCACTTCATCTGCTTTTTTCCAGCCAATTAAAGGTTTTATCTTTTTATC
 AATCTCATCAATAACCTTCATTGCAATTTTGAATCCTTCCATAATTACCACACAAAAGAT
 TTAATAAACATAAAATAAATAGTAATTTTTTAAAGTTAAAGGAGTATAAAAAATTAGGGGA
 TAGCAATGGCAATTAGAGTTAGTGATATTTTAGATAAACCAATATACACAACGACAGCCA
 TATACGTTGGGAAGGTCTATGATGTAATGCTTGATTTAAATAAGGGAGTTATTAGTGGTT
 TAATTGTTTCAGACATTCAAAATGGATGTTTAAAGACTATGTTACCGACCTTCTAAGT
 45 AGGTTGTTTCCCATTCACCTTAATACTGCAATTGGAATATAATATTGTTTAAACCTC
 CTGCAGATTCTGGTTATGGGTTCTTAAAGAAGTAATAAAAAAACAATAATATATTCTGTC
 TTTTATAATAAATTAGGCTTATTATTTATTTTTCTAAAAAATTTATTTTATTGTTTTTA
 GGAGGGATAACTAATGCTTAAATTTGGTATTGTTGGTTGTGGAGCTATTGGCAATTTTAT
 AACAAAAAAGTTTTAGATGGAACATAAAAAATGCCAAATCTCCGCTGTCTATGATAG
 50 AAATTTTGACAAGGCAAAAACACTTTCAGAAAGAACTGGGGCTAAGATATGTAGTAGTAT
 TGATGATTTAGTTAAAGAAAGATTTAGATTTAGTTGTTGAGGCAGCTTCAATAAAGGCAGT
 TGAAGAGATTGCAAGAAAAATCTTTAATAAATAAAGGATGTTTTAATAATGAGTGTGG
 TGCATTGGCAGATAAAAAAGCTGTTTTTAAACTTAGAGATTAGCTAAAACCTGTTGGAAG
 AAAGATTTATCTGCCCTCTGGAGCTATTGGTGGCTTAGATGCCATAAAAGCTCTGAGATT
 55 GGGAGAGATAGAGGAGGTTGTTTTAAAAACTACAAAACCAAGTTGCTGCCTTAGAGGATGC
 GTTGAAAAACCTTGGTTATAAACCAGAAGATATAAAAAATCCAGTAATTGTTTTTGAAGG
 GGATGTTTTTAAAGCTATAAAGAATTTCCAGCAATATAAATGTTTCAGTTACTTTATC
 GATACCGCAGAGTTTCCAGCAAGGTTGTTATTGTTGAGACCCAAATGCTAAATTGAA
 CAAACATGAACATTTGTTTAAAGCTCTATAGGAACATTGAGAGTTTGTATTGAAAAATGT
 60 TCCATTTGAAGAAAAATCCAAGAACCTCTGCATTGGCTGCCATTACAGCTGTTAGGTTGAT
 TAGAGATTTAGCTGAGCCAGTAAAGTTGGAACCTTAAAGCTTTAATTCGTGGAGAAATAT
 GGAAGAGATAGAAAAATTTACAGTTATTGATTGGATAGCTTAGATAATTTTATAAAAGT
 AGTTAGATGTCCAACTGTTCTTATGAATTTAATGTGTTGGAGATAGGTTTATCTGTCC
 AAAATGTAAATAATTTATAAATTTAAATTTCAATAAAATTTTTATATAATTAATTATAT

5 AAAATATTGATAAATAAGTTTTTGGAAATGAAAGGATGGAAAAATAATAAGAATTTAGAGC
AAAAACTGGTGGAAAGATAAAGAGAAAGAAATTGAAAGAATTGAAATGAAATAAGAAAA
ATTTAAATAAACAAACATATAATTATAGAAATAAGGTGATTTAGAATGATTTCTGCAAAA
TCTAAACAAAAAGGATTACTATAACTTTTGGAAATCCAGAAGATATTGATGCTAAAAAA
10 TTCAAAGATGATGTTAAAAGATATGTTAGATATAAATTACTTGCTAACAACTCTATGAA
TTATTAGAAGGTGAAATATTGAAGAAATTGAAGAAGAAATTAGAAAAAGAAGAGAGTAA
AATATTGGTCGATACTTCAGTTTTAATTGATTATTTAAAAAAGAAGATTGGAAGAACT
CGGAGGAGAAGCGATTTCATAATAACAGCAGTCGAATTTATTAGAGGTATTTGAGAACA
CAAACAAGAACAAGTTCTAAATATTTTAAAGAGTTGTTTGAGATTGTTTATATTGATGA
15 AGAGATAATTATACCATTTTCAAAAATTTACCGACAATTAAGAGAGAGGTATGCTAAT
AGACGATGCTGACTTATATATTGCATGCACCGCAATAATCAAAAATTATCCATTATGGAC
TAAAAACAAAAACATTTTGAGAGATTAAAAAGAATTTGGTTTAAAAATATATGATAAGTG
AAATCATGCACCCAATAATTATTTAAAAGGAATAATCAAAGCTCTTAGAGAATAAAAA
AAATCTTAGTTGCTGTAACCTCATCAATAGCGGCTATTGAAACACCAAGTTAATGAGAG
AATTGATAAGGCATGGAGCAGAGGTTTATTGCATCATTACAGAGAGACAAAGAAGATTA
20 TAGGCAAGAGGCATTAAAATTTGGTTGTGGAAATGAGGTTTATGAAGAGATAACTGGAG
ATATTGAGCATATCCTTTTATACAATGAATGTGATTGCCTTTTAAATATATCCAGCAACAG
CCAATATAATCTCAAAAATAAATTTAGGAATTGCAGATAATATTGTAAATACAACTGCCT
TAATGTTTTTTGGAAATAAACCGATATTTATTGTCCAGCAATGCATGAAAATATGTTCA
ATGCAATTAAGAGACATATAGATAAGCTTAAAGAGAAAGATAAAATTTATATCATATCTC
CAAGTTTGAAGAAGGGAAGGCAAAAGTAGCAAAATATTGAGGATGTTGTTAAAGCAGTTA
TTGAAAAAATCGGAATAACTTAAAAAAGAAGGAATAGAGTTTAAATATTAACGGAG
25 GGACTGTTGAGTTTATAGACAAAGTTAGAGTTATATCTAATTTATCATCTGGAATAATGG
GTCTTGCTTTAGCTGAAGCTTTTGGCAAAGAAGGATTTTATGTTGAGGTTATAACCGCTA
TGGGTTTAGAGCCACCTTATTATATAAAAAATCATAAGGTTTAAACAGCTAAGGAGATGT
TAAATAAAGCTATTGAGTTGGCTAAGGACTTTGATATAATTATTTTATCGGCAGCAATAT
CTGATTTTACTGTTGAGAGTTTGAAGGTAAGCTAAGTTCTGAAGAAGAGCTAATATTAA
AGTTAAAGAGAAATCCTAAAGTTTGAAGAGTTAAGAAGGATTTATAAGGATAAGGTAA
30 TTATTGGATTAAAGCAGAATACAATTTAGATGAAAAGGAACCTATAAATAGGGCTAAGG
AGCGATAAATAAATAACAATTTAAATATGATTATAGCCAATGATTTAAGTAAGCACTATT
TTGGAGATGATTATATCGAGGTTTATATTATAACAAATATGAAGTTGAGAAAATCTCTG
GATCTAAAAAGGAAATTTCCGAAAGAATTGTTGAAAAAGTTAAAAAATTGGTGAATCAT
GAGCAAAAGAGAAAGAACTGGATTAGCAACAAGTGCTGGGCTAATAAGATACATGGATGA
GACATTTTCAAAAATTAGAGTTAAGCCAGAACATGTAATTGGAGTTACTGTGGCTTTGT
35 TATTATTGAAGCAATTTAACATACGGAAGATTTCTTTAAATTATCTTCTAAAAATAAC
CTCTCACCAGCCATTCAGGTAATCTATTTTAAACAATCTTCTCATAAGCTTTTTTAATG
TCATATTCTACCTAACAATCTCTATTTTGAATCTTTTTCATCAAATATACAGTAGCTT
GCCTTATTTATCCCATCCCTTGGCTGTCTACACTACCCGATTTATCAGATACTTTTTTA
TCCTCATCTAAGTATATTTTCTTTCATGAAGCAATAAATTGCCTTCTTCAGAATTTACA
40 AATGGTATGTGGGAATGTCCAACAAATATCAAATCTCCATAATTAATACATCATCAACA
TAATCAGGAAATAGATATTTCCCAATCTCTGGATGCTTAGGATTTGCATGTGAGAAGATA
ACTTTTTTGCCCTTTATATTTCTTCAATAATTAAAGGTAGAGAATCCAAGAATTTTAGA
TTTTCATTTTTTATTACCTTCTTAGTCCATAGTATTGCTATAGCCCCATATTTATTAAAG
45 TAATCTAAGCTCTCTTTCTTAAACTCCATAATCATGATTTCCAACTACACTTAAACAG
TTGAGGTCTCTTATTAATTCTACGCATTCGTTTGGATTAGCTCCATAACCAACAATATCT
CCCAACAAAGATTTTTTTTAAATACCTCTATTTTTTATATCATTCAAAAGTGCATTTAAT
GCCTCTAAATTTGAATGTATATCACTAATTACAGCAATCATTGATTTACCATAAAATTG
ACATATTAACTTTTATTAACAAACTTTTTTATCTTTCCATCTCAGCCATTATTAATAATTA
50 ATTTTATCTCAGCAACATTAAAGTTTAAATATAAGTTAATGCCACCTAAATAACGTAA
AAAGTATTATAATACTCATAAAAATAAAAAATTAATTTAAATATTATTAATAATCTTCTA
TTAAAACCATTAAGAGTGTGATGATTATGCAGTATATTTACCCATTACAGCAATAGTTG
GACAGGAAAAGATGAAAAAGCATTGATCTTAAATGCAATAAATCCAAAGATTGGTGGTG
TCTTAATTAGAGGAGAGAAAGGACAGCGAAATCTACAGCAGTTAGGGCTTTGGCTGATT
55 TACTCCCAGAGATTGAAATTGTTGAAGGATGTCCATTCAACTGCGACCCAAATGGAAACC
TATGTGATATTTGCAAGAAAAGAAAAGAGAGGAGAGTTAAAAACTACAAAAAGAGA
TGAAAGTAGTTAATCTCCCAATTGGAGCTACTGAAGATAGGGTTATCGGAACATTGGATA
TAGAGAAGGCAATAAAAGAAGGAATTAAAGCATTAGAGCCAGGAATTTTAGCAGAGGCAA
ATAGAAATATCCTATACATTGATGAAGTTAATTTACTGGATGACCATATAATTGATGTTT
60 TGTTGGATGCTGCAGCAATGGGTTGGAATATCATTGAGAGAGAAGGAGTTAAGATAAAGC
ATCCTTCAAGATTTATATTAGTAGGGACTATGAACCCAGAGGAGGAGAGTTGAGACCTC
AAATCTTAGATAGATTTGGTTTAAATGGTTGATGTTGAAGGATTAATGATGTTAAAGATA
GGGTAGAGGTTTAAAGAGAGTTGAGGAATCAACGAAAATCCAGAGGCATTTTATAAGA
AATTTGAGGAAGAGCAGAACAAATTAAGAGAGGATAATTAAGCAAGAGAGCTTTTAA
ATAAGTTGAGATAAGTGATGACCTCTTAGAATTTATATCTAAAGTTTGTATTGAGTTAG

GAATTCAGACAAATAGAGCAGATATAACCGTTGTTAGAACAGCTAAGGCGTTAGCTGCTT
ACAATGGACGAACCTTATGTAACCTATAGATGATGTTAAAGAGGCTATGGAGTTGGCTCTAC
CACATAGAATGAGAAGAAAGCCATTTGAACCTCCACAACCTAAATAAAGAGAAGTTGGAGC
5 AGATGATTAATGAATTTAAACAGCAAAATAATAAAGATAATGAAGAGAAAGAAGAGCATA
AAGATGATGACGTAAAAAAAACATGATGAAATAAAGAATGAGTTTGAGGAAGAAACCAG
TAACGATGAAAGAGATAATAATGACAACCTCTAATAATCAAAATAACCAAAATGAAGATAC
TACTGGAGATTTTGAACAAACCTTTGGCATAGATGAGAGTGTAAAGGTAAATCCTAAGCT
TATACAATTCAAACTTAAAGATAATATCCATAGATATGGTTCTGGAAGGCATATTTAAAG
10 CTACAGCAGAAGAGGGAGGTATATTAAATTTAAACTTGCTAATGATAAAATTATAGATAT
TGCCTTCGATGCAACATTTAGAAGAGCGGCAATACATCAAAAAAGAGAAGAGAAAAAGC
CAACAAAAAATTAGCCATCTACTTAGAAAAAGAGGATATTGTTGAGAAAGTTAGACAGAG
GAAGATATCCTCCATATATTATTGTTGTTGATGCAAGTGGCTCAATGGGAGCAATGAG
AAGAATGGAAGCTGCTAAGGGGGCTATAATCTCTCTACTTTTAGATGCATATCAAAAGAG
GAATAAAATTTGGAATGATTGCATTTAGAAAGGATAAAGCTGAGTTAATCTTGCCATTAC
15 ATCTTCAGTAGAGTTGGGAGAGAACTATTAAAGATTTACCAACTGGAGGAAAAACACC
TTTAGCTGATGCTTTTATTAAGAGTTATGAGGTCTTTGATAGAGAGATTAGAAAAATCC
AAATATTATCCCAATAATGATTGTAATTAGCGATTTCAAACCAATGTAGCTGTTAAGGA
GGATTATGTTAAAGAGGTTTTTGTATGCATGTGAGAAGATAGCTGAAAAGGGCATTAACGT
TATATTAAATTGATACAGAACCACCAATCATTTATAAAGATTGGGATTGGAAAGGAGATCGC
20 TAATAGATTTGGATTTAAGTATTACAAAATAGAAGAGTTAAGCAAAGATAAATCTTAGA
TATTTGTAAGAGTTTAGAAATTAACCTCTAATGTAGCATGCCTCTTTTGATTTTTTATAT
CAATACCTTACACTTTTTTATTATCATGGATTTTAAATTTCTTCAACATCATCATCAAC
AATTTTAATTTTAAATCTCTTTTTATCCTTTATTTTAATGGTTTTAATGGCTTTAAAC
ACCATCCTCATAAATAACCTCAATAATCTCTGACATTTAAACCACCAAAATTTTCATTTA
25 TGGAAATCTTTTATAAATTTGTTTTCTATGTAGAATCTATAAAACACAATTTTCCATT
TTCATATTTAAACCAATTTCTATAATCTCCAACCTCTAATTCGATAATACTATCTCGACC
TTTTAGCTTTTTTACATTGGGAATTTTCAGGTGGATTATTTTTATTTGGAATCTCTTCAAA
AACTAATTTTTTAATCTTTTTCTTGAATATTTTAGGTAACCTCTTTAAATCTTTAATAAA
AGATTTTTTAAAGATACTTCCATTGTTTCACTGCTCTAACAACCTTTTAGCAGTTTCT
30 AATCAATTTCTTCTCATCTCAACTTCTCCATAGCCTTTAAAGGCCATAATCCAAT
AACCACTCTCAATTTCTTAAATGTCTTATAATCTAAATAACTCCTTTGATATTTCTT
TTTTCTCAGTATAAAGATTGAACGATGCTCATTTAAATCGCCCAATTACTTTTTG
TAACCTTTAAGATATAAAAAGTTTTATAGTTTTTCTCAATCATCTCCCTCTATTTCTAAA
TACTTCTCTTAACCTTCTCTTCTCATCTGCTTCCACATTCCTCTCTCTATT
35 GCCTCAACAACCTTTTCAGTTATATTTAGCAGAGCATAAGGATTATTTCTTTAAAAAAC
TCTTCCATATCTTTATCAACACATACTTCTCAGCAATCTTCTCATACATCCAATCGTCT
ATTATGCCATAGAGTTGCATCCCATGCAACATATGATCAACATACTTTGAAAAGTCAGCG
GCTCCTTTATATCCATGCCTCTTCAATCCCTCAATCCACTTTGGATTCATGATTTTTGTT
40 CTGAATATTTCTTTTCTTCTTCTTTAGATGTTTTGTTCTTATATCATTTGGATTGAT
GTATCTCCAACATAACTCACTGGCTTTTTGCCAGAGTAATAGGTTACAGAGGCAATTAAA
CCACCATGATAGCTGTTGAAGTCATCCCCCTCAAATATATCCCATCTTTGGCTATCTTCA
TTTTTAAGTGTAAATCAATCTTTGATAGACGATTTATAAATCTTCTTTTGCCTCTACT
CCATAATAGCCCTTTCCATAAGCATAGCCTCCCCATTCAACATAAACCTTTGCAAAGTCC
TCTATTGATTTCCAGTTTTTCTCATCTATTAAATGAGAGACACCAGCTCCATAACAACCC
45 GGTTTTACTGATGAATATCCTATATAATGAGGTTTTCTTTGGCTGTTTTTTCATCAATACCC
TTCTTTATCTTCTTCTTCAACCTCCTCCCTATAATGCTTCTTTACATAGTTTCACTCGTCT
GGCTCATCTAAATTAGCAACCATTTTTATTGCTTCTATCTATAAGCTCAACAACGTTTGGGA
AAAGTGTCTCTAAACAACCCAGAGATTCTCAAAGTTACATCGATCCTTGGTCTCCCTAAC
TCTTCCAATGGGATAACTTCTAAACCAACAACCTTCCCATCTTATTCCAAACTGGCTTA
50 ACTCCCAATAAATATAAATCTCTCCAATATCATCTCCTTTTGTCTCATAGTTGGAGAT
CCCCAGACGATAACGCCTATATATTCAGGATATTTCCCTTCTTCTTTTAGATACTTGTTA
ATTAAGTCTCAGCCAATTTTTTACCCATCTCATATGCAGATTTTGTGGAAATCTCTTGC
GGATTACATGAATAAAAGTTCCCTCCAGTTGGAAGGCAGTTATATCTTTTCGTAGGAGCT
CCTGCAACTCTTGGAGGGATGTAAAAACCTCTAAGGCATTTACTGCATTTATAATCTCT
55 TCATCAACTTTTCATTAGATTTTTATAGATTGTCGAGACGGTTTTTAAGACATCCCTTAAT
TTAGAGTTTATTTTAACTGTTTTTATAGCTCATCAATCTTATTTTCATCGAAGTTGTATTGC
ATATACTCTTTTAGTAGATTTAATCCTATTTCAATTTATTTTCATCTAAGATTTTGTGATAC
TTTCTTTATTTTCAATTTAACTCTTCCCACTGTAATCTAAAATCTCTGCCAAATCTCC
AAATAGTTGAATTGATACCTAATAATCATGAATAACATATTAATACTTATCTCCTTCC
60 AATGGGACTCCCATTTATGCAATCCATCATTTATCTGCCTATTCTTTAAAGTTTCTAAG
TAATCGTGGATTTTATTTAGGAGTTTTTCAAATTTCTCATCATTTATCTCTTCTATATA
ACTTTTCCATCCAACCAATCTTCACTAATTTTAGCTCTTTAATCTTCTTTAAATCTCT
TTCTTTAAATTTCTTTTTCTCTTTATCTCTGTTTCATAATAGTCATCAATACCTCTT
TCTAACTCTACTAAATCACCATACAAATCAGATATTGTCAATGGTGGGATTAAATGGCTT

-317-

ATAATTGTTGCATAACTCCTCCTCTTTGCTTGAGTTCCTTCTCCAGGATTATTTACAATA
AATGGATAAATATTTGGCAATTCCATGCAGATGCTGGATAGCATTTCATTAGATAAGCCA
ACACACTTCCCAGGAAGCCATTCTAAGTTTCCATGCTTTCCTATATGCATAATTGCATCT
5 GCTTTGAAAACATCCTTAATCCATTTATAAAATGCTATATAGTAATGAGTTGGTGGCAAA
TCTGGAGAGTGGTATATGGCAGAGGGATTCTCTCCAAATCCTCTTGGTGGCTGAAGTGA
ATAAAGACATTTCCATTAATTATTCCTGGGATTATTAGCTCTCCATCGAAGTTCATAACA
TCTCCAGGAATGGCTCCCCAATTTTTTATTAGCTCTTGCTTAACCTTTTCAGACAGAGAG
TTAAACCACTTCTCGTAATCTTCTTTTTTACTTTTCCAACCTGCTTTTTTATCATCTCT
10 TCAGTTAGAAATCTCTTATCATTGTGGCATAGTTAACATCTTTTTTATTAACTCAGTT
CCATTCTTTGGAATCTCATCAACTATAAATCCTCTTTTCTTCATCTCCTTCAAAATATTA
ACAACACTCTCTGGGCTATCTAAACCAAGGCATTGCTATCTTGTCTTCTTGGTGGGA
TAATTGTGGAAAATTATGGCTATTTTTTTATCTTTATTTGACTTTAATTTTAAATTTGCA
TATCTTAGGGCTAAATCAACTATCTTCTCAGCTCTATCTCTTATAGCTCTATACTTAATA
ATTGGAACCTCAACTTCTCCATCTTTTATCTTCTCCTTCCCACCAATTGGGAAATGTATT
15 ATTGCCCCATCAAACTCTGGCATTGCCATTCCCTATAATTAATCAATTGGATTTAATCCA
GATACTGACTTTTCCAATCCTTGCATGCTTTTAAACAACCTGCGCTTAACACCCATT
ACATTAAGCTCTTTCAAAAACCTCCGGCTCATCTTTTAAACAACCTGCGCTTAACACCCATT
GAAAGAGTGAACATGGTAGTGTTAATTAAGGCATGAACCTATTGGCTTCCCATCTTTGTAG
AAAAATCTTTGAATGTTTCTAAAGTTCCTATAGAGCCGAGTTCGTCTTTAAATGAGAG
20 CTAAAAACAGCTATTGGAATAGCTCCTTTATTCTCAATAATATCAATCAAAATCATTAAACA
TAATCAATGTTATTAGCTACAAACCAATTTCTATAAAATAAAACTCCTATAATTGGTTTA
TCTAAATCTCTGCCCAATTTCTTTAGATAGTTTAGATAATCATCTAATGTTTCAAAGTAT
TTTCTTTATAGTAATTTCTTGCATGGCATTGGTCTTGGTTCTTCACTCAACATTT
25 AAATTTCCAAACCTATTGGCCAAATATAAAAGAAGATTTTGTAAATATAAACCCCTTCA
TATCCCAAATATTTGACAACCTTTATTCTTTACGTCATCATCTACTGTCTATCCTTCTCT
AAATCTGGATGAATTTCTGAGATTGTTGGTAGAGGGAGAAATGGGATGTTATGCCTTTTA
CAAACTCAGCCAATTCATCGTAATACTTGAAGGCATTTTCCCTCCCATGAGTTTGTGA
AAAACAATATTAGCTTCTTTAATAAACTCTAAAAATCTTCAAACTCCTTTCTGCTACAT
30 TTATAATCCAATATTTTAAATTCAGTCCATATTTTAAATCTCTTTATATGCTTCTTCA
AAAATAAATCATCACTATCTATTGTTGAAACAAAGCCAACTTTTATCATAGTATCACC
AATTATATTAAATAAAATCTTAATTAACCTTAACAATATCTTTAGTTTATTATTAAATTTA
TCATCTTTTTTATCACTTTTATAATAAAAATTTGGTGGATGGTATGAAACATTTAATATT
AAAGGTAACAAACAGATGCAATCTAAATTTGATTTACTGCTATGCAACAACAAAAATAA
35 TAAAGATATGGATTTTAAACAGCTAAAAATGCTATAGATTATTTACTAACTTAGATAA
TCAGATAAAAATACAATTCACAGGTGGAGAACCCTTTAAATTTTAAATTTAATTGAAAA
GATTGTTGATTACTGTAATGATAATTATAGCAACTGCAATATTCAATATGCCATACAAAC
TAATGCAACCCCTATAAACGAAAAAATAGCTGAAAAAATTAAGAAGCTTGACATAAAGT
TGGTATTAGCATAGATGGATTGGAAATAAATGATATCCTAAGACCTTATAAAAATGGAAA
40 GCCATCAACATTAGATACTTTAAAGGGTATGTATATCTTAAATCTTATAATATCCCTTT
TGGAATAACAACCTGTTGTTACAAATAAAAATCTTCTTATTTAGAAGAATTTGTTAAATA
TCTAATTGCCTTTGGTGTAAAGAGCATAGTTTGTATTATTGAAACCAAGAAAAAAGA
ACATTTAACATTAAATGCCAAATATTGAAGAATTTAATAAATTTGTTAAATTAATTGGGAAG
ATATCCCATCTACATAAAGAATCTACAAAAAAGGCCAAAAGATAAATATTGCTATTTAA
45 CTCTGGGATTTACTATTTGTTAATGAATTTGGGGATATTTATTTATGCCCTACATTGGA
AGGACTTTCTGTTTAGGAAATATAAACGATAAAAAATAAATAAATTAACCAAGGTAA
AAGTAAAGGATGTTATGCGAGAGAGTTCTTGATAAAAACATTTAAAAATAATGAAGTTA
TTTAAATCTTTCAATAACTAAAATTCATTTCTTAAGCTTTCAATTTTGAAATCATATC
CTAATGATTCAAGAATATCGACTATATCCTTTCTGAATAATACCCCTAAACCTTTTAT
50 TCAACCTATTATAGAACTCAAACTACTTCTTTGAGATATTTTCAATCTTATCCAGTATAA
ATTCTTCTGAAATGAATATTTTCCCCCACTATGTATAGAAGACATCATCTTATTTTAGAA
ACTGCTTTAATGATGGAGCATATATCATTGTATGTGAGCATATAATATAATCATACTTTT
CTTTAGGAATATTTTTAGTAAATCTATATTTTTAAGTTTCATAGGAGTCACAATACAATC
TTTTAATCCTACATTTCTGCAATCTGTAAAGTCCCTTAGATATATCCACTCCCATGTAAT
55 GTCCCTCTGGATATATCATATCTATAAAGTATTTTGGAGACCTTGAACCAACAACCAACAT
CTAATATATACTCCTTTATCAATCTTTAGATAGTCACTGGCAATCTCTCTGCATAATG
AATAGTATGGACTACTTAATATCATATCCAGATGTCAGGGTCTTTCTTAAAGCTTATAG
CAATCTTTGGATGGCTATAACTTATTAGAGCGTATCTTGATACATGCGTTATAAAGTTAT
ATTTTCATCACATAATCACTAATAATCTTATCAATTTTGGCATTTTTATATTTAGTTCAA
60 AATCTTCGTTTATCTTAATTTTTTTCATCTTCATATTTTAAATTTCCAATTTCAAAGCTG
TTTTTATATAGTCAAGGATAAAGTCTTATTTGGATATTTTCAACCAATAATGGAATATCAT
CTATTTTTTGGTGAATATTTAGCAATAATGGGAAAATCCCAACTCAACACCATGCTTTA
TAAATGTAACGAGCAATTCATAACTTAAATACTCTATAGTGTATCAATCATTTCTATTT
TCTTTTTTAGTTTTATTTAGATGGCATTATATCGTTTATAAAGTCACTAATAATCTCAT
CCAATATTTTTGAGTCATCATCTCTATCTCAATGACCCTCCCCAACCACATTTCTCAA

-318-

TTTTTGCTGAATCAAATTTTCATATTACCACCTTAAAGATTCTATAAAGTCACTATCCTGG
TCTTTTAATACCTCAACTATTTTCTTTCCATAATCGGTTAGTTTATATATTTTACTCCC
CCTCTCTCCACACATTCAACTAATCCTAATTTCTATAAGCGAGAAATGGCCGTTATACCTT
5 CCATTCATACCTTTTAGACATCCAAGCACATTACTTGGGTCTGACCTTACCTTCTCGAG
ATTTTCAGATAGATAAATGCCATGAGGATACATTTTATACAGCAAATACAATATCTTCTTT
CTTAATTTACTTTTATTTAGCGACCTAATAATCATTGGGTCAATAAACGCCAAGCTCATA
TTACTCCCTCCCCACTGTAGTATTATTTTATAAAAACCTTTTTTAGTGTGTAGAGACTT
GCATTATACTTTATCCGAACAGACTAAAAATCGTAGAAACAATACTTCCAAAAAACCCAG
10 ATATTTTACCTAATATTGAGTTATTATCAGCGCTTTTTTTAGTTTCTATGTTACTTTTAA
CATTTTTGGCAGTGGATTCCTCAATATTTGATTGTGTATCTTTATTATTGGAGAGATTTT
TAATATCTATTGTCTATGTTTTGTGGGTTTCTGATGTTTCATTTATTATTTCATCACTCT
CCTTGTGTGGATTCTGTGTGCATCACCCTTTACTTCCATTTATTCTATAGATATTGATT
TTTTTAAGATTACCGGAACCTTTTGATAATTAAAGAGTGCAAAGTTATTAACCCTCACAT
15 ATAGAGTTATATTATAAATCCCCTCTCTAAATCCCCAACGTCAAAGGAACCTATCAATT
CCTTCTCAGATTTTGGATAAATCTCTGTTTGGAAAATGGAGCTTTTATAGTAGATATTTG
AACCTCTACTAACATCAACCCAATACTGAACTGTTAAATTCAGTGGGAACCTTATCATTTT
TAATTTTTTGCTTTTAAATACATCACTACTACTGTTGTACGCTAAATTCATATTCACCTG
GGGAAATAACCTCTGTAACATACATGTTCTCTGTAGGTATTTTATTTCCTAATACATCAA
20 CTGCTGAATATCTCCCAACCTGTAATAATCTGATATTTAACTAAGTGGATTCCATAAC
TTCCGTATATATAATCAACATCTCTACAGATTTTGGAAATTATATGAGCTACAGTATA
TCCTTCAAATCCTTCTCGAAAAATATTGGAAATGCCACTTTAGCTTCTGAATAGTTATC
TAATTTAACTGTTTTAATACCCTTTTTGCTCTAACCTTCCATCTTTGTCAATAACTTC
AATCCAAACGTCACAACTCAACTTTAGAGTTCAAATTTATTTCTTAATATAACTACACATGT
25 GTTGTAAATCCTGCAATAGGTTTGGCTGAGTATATTCCACTATTTTCTTTATTACATTT
TATTTTTCCCAATAATAGTGTGTTATTGTAATATATTCTAACAACTACTATTGGAGATAT
TGCATAGAAATGAGCAAGGGATGTATAATCTTTAGCCCCCTCCCTTAACTGAAACTGTGAT
TTTTAAGTCACCATTACTTCTTGTAAAAGATTATTGGAACATTTATCTCTTTAATTTG
ATGAGGTTCTATAGTAAATGGAATTTCTTAGAATAATTGCTATTCCATCTTTAAATTT
30 ATCATCTATGGTAATCTTTCTGATAACGTTTTATTATAAATATTTTTTATAAATATCGT
CATATTATATCTTTTTCCAATTATTACATATCCACTAATATTGTTTCTCTCACCTATTTCT
TTATCTTTTGGCAAAATAATCTTTTCAATAATTACTGGTGGTATAGGTTTTGGGTCTAT
GTTAATACTGTATGACCTATTAAAGATTAAAGTATCTGCATCTATGGGTTTTATTGTTAC
CACTATATTCTTACTGCCTTTCTTTGTATATATTGGAATAAATACATCCTTCTCTCTTT
35 TTTATCAATATTAAATATCTTGGTAAATATTACATTATCATATTTAACAGTCAGTTTGGC
CTTAACATCCCTATCATATTTATTTTCCACAGTAATTTTAAATAGCCAGTGTGGGTCT
ATCTATAACATAATATCTTGGTAATACATCATCTCTCTGTAAATACTTATCTGACAATAT
GTCTCTTATTTTCATCATCTAATATATTGTCAGAGTCATAAAATTTCTTACAACTCTGA
40 AGTGTTTTTTCATCAATCTTTCTATAAAGTTCTACATTTCTTATAACAACCTGGAAAGTAA
ATATTTTGTACACTCTTATAGTCATAGTATATTCCAGAATCATCCCTCCTCTGAATAGT
TTCTTCAACACCATCAATGGTATGGGTAACATTCATTATCTCTACATTTGTTTCAACTGT
AAATTTCTCTTTATCAAGAACAATCTTAGGAACCTTAAAGATACCGTTACTTCTCTCC
AAGAGGAATATATACTGTCTTAAATCGTTTTTACCATTATAAATTATATTCTCCATC
45 TTTTACATTTTATCCAACTTTAGCAATATAATCGCTCTTTGCTGTAGGATTACTTTTTAG
AGTTATATCAAACCACTTAGAATAGCAAACCTCAGTATTTCCAATTTTGTATGAGTCTCT
ACATGTTACATTTCTTAACATCCACTGGAAATACGGTCTCACTTTAACTGTTGTTGAAGC
TATAGTTTTTCCATTTTCAATTAACGATATTTTAGCATCATGTTCTTTGTCTCACTAAT
CGGAACCTCTAACCTCCACAATTTTTTCTATATGACTATTTGGTGGCAAAGGTATTAAACC
50 AGATCCCCATGTCTTCCATTACACTCCACTTTAACTATAACATCATGCTCATATTCTATC
CTTATTTACAACACCCCAATATAGAACCTTGCTCACTAATATCTACATGCAATATTGGTGA
ATTTGGTGGGTACACGGTGACCATACCTTATATACACTAACATCCCCACAACTACTGG
CAATAACAATAATAAAGAGCCAATACTATTTTTTTCATACCCCTCCCCCAATAAGAC
TATTTTCTAAGACTATTTTAAATTGACACTAAATTCATTATAATTTGTATTTTCTATTTT
55 CATTTTATAGAACTATAACAATAAACTTTGATTAAACACCATATAAATCATTTAGCACAA
ATCAATTTCTACATTTATCGAAACCTGAATACTTAGTTATTGTTAAATATGGCTAAATAT
GCTCCAAATTACAATCCAAAGACTGATATAAAGATACCTATGATTTTATCACTTATAATT
GATGTTAGCAAATAAGATAGAAATATCGGAACAACAATGGTATAGCAGGAGTTACCCAA
ATTTCTTCATTTTATCAAACCTTTGAAAAATCACAATCTTTCTCAGCACTTGGTAGTAAT
60 TTTAAATTTTCATGATTTTCCAAGGATTAACCTTTCTTTTTTATAGCTTCAGAAACTTTC
ATTTTTTCAACCAAGAAACATACATAAGACCTCTTTTTTGTCTTTGGTTTTACTCCTCTA
ATTACATTTCTTAAAAATATAATTATCGGAAGTGTATTGAGAAAAACATTGCGTTAATT
ACTACCATTATTGGAAGGAAGGAAGATAAAGATAATTTAATATTGCCCTAATGGAGTG
TGTATTGGCATGTTATATTTTGGAAATTAAAGCTCCAAGTCCCATTTATCAGTTTTCCATCA
CCTCCTCCAACACCCAATAAGAACATAAAAAACCTAAGAAGAAACAGACTATAAATCCA
ACAATCGATTGAATGACATATAACATATCATGTGAAATGAATGATAAATAGCCATTATAT

ATCAATCCAAAAATAACCATCGATACCCAAACATAATCTTCAATTTCCCTACTTTTTTAA
TCGTAGATTGAAGCTATTAACAGCCCTATTGCCCAACAATAAAATTTATCATTTTTTCC
CCCAATTTTAATAATTTTTTAATAGAGAGGAAGTGAAGTCTTAAACCTGTGAACTA
5 TTAGCTTTGTTATATAAGCTACTATAGCACATATCCAAAGTATAGCAACAAAGTGTAGTA
GGGAGACAACTTATGCCCTCCATCCATAATTTTGATTAAATATAGCCGAAATATAGAAT
AAACAATAAGAGAGCCAAAAATAATGTATTCTACTACATCAACATTAGATATTGGAGCAA
TATTAAGAATATGAATGACAGTTTCAGGAATACTTAATGATGAATACAAATCATTAATCA
TCTTAGCTACTCCTAATGAAGCAATAATGCTAAAGCTAAACCTCCTCCAAGACCATAAA
10 CAACCCCAACAAATTGCTGTATATTTTGATATTTAGATTTTCTTAATTGCACTATTTTAC
GGAAATCTTACTAATTATCTCAGCAGCTGTTTTGGGTCACTCCAAAGTATATACATC
GTGAAATATGTGAGAAATAGCTGTATTAAATAACTACAAGAGTCAAAACCAACAACC
TCCAAGATTTATTTGAATCAATACCCAAAGCTAATCTTTTATATAATCTCTTGATATCAT
GAGTTAATGGTCCAAATCATGGTTTGAGAGATATTCTAAAGAACTAACCATTCTCTCTC
15 CCTTAGCACTTACTGAATCTCCTAAAGACCTCAAAAAGTCAGGAAATACAAATTCCTTTTC
TTTTTACTTTTTCTTCTCTTTTTAATGCAACAAACCTCCAATAGCTAATGGTGTAAATC
CCAAAGCTACCAATATCATATAAGGCATTTGGGAAATGGAGATAACCCCACTATATACT
TAGCCCATAAAAGAAATGGTAAAAGTATTACAACCAATATAACGGATATTATTAACCATT
TTCTAAGTTTTATATCAGTTTCAGTAGGTTTCTCCCTGTATGCCATAACCTTCAATG
20 GGAGTCTATTTCTTATCACAACAACGATAAGTAACTCAACAGCAAAAAATGCAAAATACG
CTATAGTAGCCATAAAGACAAAATTATAAGGCAATAAGAATGGAACATAAATGAAAAAG
CTAAGAAAAATGCTATTGAAGTCATTGCACTAACATATAATTCTTATACATATCAAGCG
AATATAACATTCTTTTGTAAATGCAGCATAGTCATCCATAACAATATCCTGTTCTTTTA
TTAAAACTCTTTAAGCTCCTCCCACTGTCCAATGCATAAGCCAATCTATCCAAAAAAT
25 CTGCAAACTTACTACTTTGGTGTCTCTGAGCTAAAAATCTACAAGCTTCAGCTAATGAAC
GCCCCACTTATCTGTCAAACATACAATTTTTTTCAGATTCTTTTGCTAATTCCTCAAGTT
CTTCTCTTTCTTCTGAAAGTATCTTTAATAAATCTTTTCTATTTAAGTCAGTTATAGATA
ATGTTCCAAATTTTGTAAATAAAATGTGTAACTCTCATTTATCTTGTTTTTTGTAGAAT
CTAAGCAATATATGGGTAAACCAATTGCACTAACAGTATTATAATTGGTAAAAGTAAAT
30 ATATATACAAAATAATGCCACTAAATAACATAAAACCCAATAGGATTAAACAATGGAAG
TTATAAGTGGGGCAATACAATTTCTAATAAATAATCTCTGGGCTTAAGCCCACTCTTG
GCAGTAAATCAAATACCACAATAACCACTCAGATTGGGAATGGAAGTCCCTCCAATCCT
TTTTCGTAAATGCCATATTATATCTCTAATCTGGTAGTAATCGAAAATTTCTCTGCA
ATCATTTCTCTAAGATTCTTGCTCTTAATTTCTAATCTATTGTAAATATCTCTGGGTCT
35 TCATATCCCGCTGCCTTAGCTATCTTCTCTCTAAGACATAACTGTTATTTCTTCCAGTA
AATACATGCCCTGTCTTTATCTGGCTCCCATTTGGAACACCGCCCTTGTACGACTCCATCT
ACCTCTTTTATAATACCCCTCAATTTCTTCAATAGAACTACTCTTCTCAAACCTTACCT
CTCTGATAGACGGCAAGCTGGAAGAGTGCAACGTTAAGTTATCCATAAATGTTAATGGG
40 ACATTGATTGGGTCTCCATTCAACCTCTGTATCATCTTTCTAACATTAGCTGCGTGGAAA
GTTGAGAGAACAGGGTGTCCAGTCTGCATAGCCTGGAAAGCAACTGCTGCTCGACACTT
CTAATCTCTCCAACAATAATATAGTTAGGTCTTGACCTCAATGCAGCCCTCAACAATCA
AAGAGTGTAACCTACTCTCTCTGCGCTCTCTCTCTTGTAACTAACTGCTGCCATACT
GGATGAGGTGGTTAACTTCTGGAGTGTCTTCACAAGAGAATATCTTTGAATTTGGTTTT
45 ATAAATGGTAAGATTGCGTTTAAATGTTGTTTACCTGATGCTGTCTCCCCACAAATA
AAGATACTCATACCATACTCTAAACATAGCCATAAATATGCTGCAACTTCAGTTGAGAAT
GTCCCCCAGCTAATAAGTTGTGTAACACTGATAGGAACATCTGTGAATTTCTAATTGTA
AATGATGGACCCCTTTGGAGAGACATCTGTAGAGTAGATAATGTTAATCCTTGAACCATCT
GGTAGTGTTCATCAACTATTGGGTAGCATCTGAACTGGCCTACCCATTCTGTTCTCTCT
50 AAATTTTTTAAATAATCTGCAAGTTCAATCTCATCTTCCCATGTAATATTTGTAGGTAAC
ATTCCAAAAATTTTGTGAACAACATGACAATTTTTTGGACCGATAACGTGAATATCCTCT
AAGTATGGGTCTCTACCAATGGGCTCAAGATTACCTAAACCTATTAAATCCCTCTTTAAT
ATGTAAAGGAATTTATCT
AATATTCTTTGAAAAACCCCTCTCCCAACTGCCTCAGTAACCTTTGTACAGGCATTA
55 AATAATCTCGTTAAAACCTCTTCAAACCTCTTCTACACTCTTAGGAGTTTCTTCATAAGGG
GCGAGCTCTAAATTTTGTAAATATCATTTTATACTTTAATTTTTCTTCGGCAGTTTCT
AATGTTGGTTCAATAACGATATATTTGTCTTTGTTTCTGGAGTTCCAAATATATGAATA
AAGATTGGTCTCCACGGGATAGATAATATTTGGATATTTAGCTCCTTTAATTTCTCTT
GAGAGTGAGACCATAAAGTCTGGGATTCGCATATAGGTTCTTTAAGTTCTCGATGTAT
CTTCGTAAATGCGGATTTCTGTTTCTTCTCTTTTAAATCCGCTTCACTCATTTATC
60 ACCAAAATCTACAATTATGCAACAGATGCAATTTCAACAGCGATACCAATCTTAGGCTCA
ACTCTAAACACAAATTTTTCTGATATGACCCAGGAGCCATATTGTATTTAATATCTTG
GCTAAGTTCTTTAAATCCCCCAATGTAAATAACTCAGTTCTTATTAACATTGTTGCT
GATGTTCTTATAATAGTTAAAACCGATTCTGGCAATCTTTTGGATTTACTGTGCAAAAT
ATTATTTCTTTAAAGCTGTAATTTCTTTAAAAAAGCCATTAAATCATCAACATTAACT
TCACTGGCATCGTTTGCAATTAATGCAGATATTGAATCAATATGATAACATCTTTTTCA

-320-

5 TAAATGCTCTTGTTCATAACTTTTTTAAAAATCCATCCTTTTTTTATTATCAGCA
ATTAGCGGATAAACTGGAATATATAATAAAGCTCCTGATAACAACCTTTTTATTGATTGAA
TAATTCAAAGAAATTCATCTGTTTTATAAATCTAAAGTTGTGAGTTGAGTAGAAACGTAT
10 GTTACTGAGTATCTATTCTGTAAAAATCCATATGCCAACCTCTGGCATAAGACAGATTTA
CCTGTACTCTCCTCTCCCTCAATTATTATCAAGCTACCATGTGGAATACCACCCCAATT
CTTTTATCCAAATCATCTCTACTTAAATCAATTCTTGCTAATTCCATAATCCCCACCTAA
AGAATTTAGGAAATATAACCCCTAATTATCCTTGAAATCCCACATTGAGAAATAACTTTT
ATCCTATGGTATCCAGTTTCGTTATAATTTACAACAATCTCCCCACATCTCCAGGAGAT
15 AATATATTACTCCAGGAGATGTTAACTGATTAGTAGTATTTATTTCTACAATACTTCCA
TCAATAATTACTGTAAATGAATCATTCGTAAATATAATTGGGTCTTTACCAGTATTTTTA
ATGTAAAGGCAATAGTACCTGCTGAAGAAATTTCTAACAATATCTCCTGGATCATTTATA
ATCTCAAAATCTTGAGATAGCTTTGTAGCTAATGCATCACCTTTTTTATTAATATTTAAA
GAAATCTTATAGGTAGAGGTCGTTAAATCCCTGCTACAAATGCAGCGATTAAACAACA
20 GCAACGAACATAACTATTTAGACATTGCACTTGATGCCAAATAAATCACCTTAAACCCA
CCAAGTCAGATTTATCTTTAATTTTTTAAATAAGAAGTAAATGTGATGAAGTAATTAATA
TGAAATAATAATAATCATGCAGGGTCGCAAGTTTATGTTAATGAATAGAAATACTTA
TTACCATTATCTGAAACTATACATATCCTACTCGGCTGTGTCCAATTTACTACAATCGTT
ATACTATCCAATGGGACGAGATACTTTTTAGTTTAGGATAATAAGAAATATTTTTCTTCT
GGCCTACAGTGCCATCAACAGTATGGTAAATTTGTCCGGTCTACTACAACCTGAACCG
25 TTATTATAGATGGTTATATTTGTTGGGATGTACTGCTTTTACATCAGTAATTTACTAAC
TTTTTCATTTAATTTGGCATGTACATGGCTGTAATACGTTGTATAAGCCTCATCAACATTT
TCATAATACTGTCCATTGTCACATAAAGATATGCTCCACATACAAGCAATGCAATAATC
ATTACTGTTGCCCCCTACTACTGAACATAATCCCATAGAACTGTTGAGCCCCCTCTTTAT
TTTTCTTAATTTCCCATTTCAATTTTATCTAATAGTTTACGAGATATCTTTTTTCCATTTAA
30 TCTTTCAATGAATAGAGTGATATTATATGGTCAGTAATATTTAATTTCCCTGACCCTTC
CACTACATTTTCTTCATCAACTTTTATCCCTTTAAGAATTTTAAAGTTTGTCTAATGC
TTTATCTCCAGCCATCCTAACATGTAGTAGAAATCTAATATATCAGACACATTTTCAAC
GCCTGCTCTCTCACATAAATACTCCAACCATTTTAAATGCTAATATAATCGCAATTGGGTC
CTCATCAGGAATGTCCTCTAATTTAGCAGGTTTATGAACCTTCCAATATTGTTGAAGCTAA
35 TCCATCCATTTTAAACACCTCCCCACAATTTTTTAGATAAGCTTATAATCTTAATAGCA
TATTTTAGATTGATTGTAATCTATAGCCATTTTTTTATTTCTCCTAATTTCTATCTCC
AACATCTCAAGAACTCTCGGAATCTATTGGTCTTCTGCAAGCTTTCTATATATAGGAGA
GACACTATATGGTCGCTTGGTGATAGCTTATCCCTTGGTCTTAATTTCTCCTCATCAAT
40 GTTATTTTCATATTCTTAGCAATCTTAATAGCTTTAATATAACTCTGTTGGATATCCAT
CCAATCTTATTGTAATAGTCTAAAATGTCTGGTAAATATGTCATACCGCCCCCTACTAATC
AAAAATTCAGCCATTTAAATACCAGTGTATGGAACAGCATCTTCAGGAATGTCATTC
AATCTATATTCTTTCTCTTCTTCAATAGGTGTCTAAAGCTTCCCCCATAGGTGATTCT
TTAGGTAGCTCATATTTTTTAATTTAACTTCTTTTTTGAATCTTCTTAACTCTCCCC
45 TTAGCTTTAGTTTCTTCAACTTTTTCATGGGTTTTTTCTACAGGTTTAGGAACCTCAATC
TCTTTAACTTTCTCTTCAAGTTTCTAGTTTTTTTACCAGTATCCATAGTCTCTTTTTCTTA
CTTACTTCAATTTCTACCGGCTTTTCAAGTTTTTCTTCACTTTTAAATTTAATAGGAGCA
TTTTCTATTTCTATTTTCTATTAGTTTTAATTTTTTCAATTTCTTCTGAAGTTTTTGT
GAAACAGCCATTGTAGTAAGTTTCAATATAGCATCAAGCTTCTGTTCAAGAGTTTGAAGC
50 TTTTTATTGAGCTCTTCTGTTTTATCATCCCTTCTTCTTTTGATAGAACCTCTGTAATC
CTCTCAACAATCTTATCCAGCTGTTTTTTTGTAAACCTCTTACCTCTTAAATGTTTTT
AATAGGATGATAACAAAAGATGGCAATTTTAAATTTAAATTTATCCAAATATCTCTCAAT
TCATCCTCTGTAAGAACTCTCCTCATCAGAGAACATAGGAGGGGGTGATGTTTCACTTATT
GTCTTTTGTATCATGAGTATCCTCCCCGGACATTGACTTTATAATCTCCTCTCCAAAC
55 CTCTTCAATAATTTCAAGATTAATATCAAGTTGGTGCAATATAGAGAGAACCAAGAAT
TATTAAATCATTTGTAAGCTCTTCAACAGTTTTTTTTAAGTCTTTTATATTCTGTTCTAA
TCTCTCAAGTTTTTCTAAGCTTGTGTCAGTAATTTTTGAGACCCCAATAAAGGGATTTAT
TTGATTTGATACAACTTCATAGAGAGCCATTATATCCTGCAATTTTCAATTAATCTTATT
AAGTTCAACTCTTAGCATTTCAATTTCTTTTCTTAAAGTTGTTTATTGAAGATTCTAATCT
60 TGGTAGTTTGGATTCAATATCATTAACTTTCGCTAACAAACCTTCTGTGGTTTCCATTAA
GTCTTTAACTGTTTGTCAAGTTTCTCGTATTTTTCAGTTTCTAATGGGTCTTCCAGTAA
ATTTTCTCTCTTTCAGGAGGTCCTTCATCTAATTTTTTTTCTTTTTTTTTTAAATTTGGA
ATCTTATTTTTTATTGAGGCGATTATATCTTTTAAACCCCATAGGATTACCTTAAAGAG
TTTAAGTGTAACAACTTAAATTAAGTAATTTATTGAAGTGTAACATGCTCACTA
AATGTTGATGGTCTTAAACTCGATAATTCAGAAAGCTCCAAATTTCTGGAATAACTTCT
CCATATATTCTCTCTTGGCATAATACCTCCAAACACATCTCCAACATTTATAGCAATT
ATGGCTTTATCTCCAAAGTTCATTGTTGGATGCTCGGTATTGTTTATAGAACCATCAGCA
TCTTGTAAGACAATTACTCCAAATTTCTGTTGTTGGATTGGCAATATTTGGCCAAGATTCA
TTAAATATGTCCTAGTTCCATTAGTATTTACATAAGTAATTTGTCTCCATAAACTAAT
GAAGCTTTATAATCCCCATTTGATATGGTAACTATTGTAGATGATAAATCAATTTCTATCC

-321-

CCAACATTTGGGGACACAAGTATTGCAAGCTTTGTTATATTTTGTATTTACCGCATAA
CCAGTAATCTTTAATACTTGTATTCACCTCGCTACCTGTCTTGTACTTTCTCACCACCAACC
CTCGCAGCTTTGTGCTGAAGGTTGGCTGCCGTGTTTATTATAACTGCCGCTGCTACTGCA
5 GCGACTAATACTAAAGCGATGAAAATGATAAGCGTACCTATACCAATTGCCCTCGGCGA
CTTTTAATATAGTCTAACAACATATTTGGCCACCTCAATCTCAAAAAATATTTATATTAT
ATCACTAAATTATATAATGGAATTTACAAATCCAAACATCCAATAAAAAAATTAATTA
GGGGCTTATTGTAATTGTATTACTTCTTGTGTGCTTAAGTATGCAGCTGGTGTGTGAAT
TCAATAACTGCTGGAGCACCAAAATCTGGAATTACTGAACCAGTTACTGTTGTTCTTGGG
10 ACTAAGTTAAGTCCAACCTGCTGAAGCATTATTGTTAAAGCAACTATATCTCCTTTGTTA
ATTACTGGGGTGTACTCTTACATGAACCATCAGCATCTTGCAAGACAATTATTCCAAAT
TCTCCACCACCTAAATTCATGCAGCAAGAGAAGTATTAGTAACTTCTCCTCCAGTTGTT
AAATCTGCATATGCATTTGAATTATATCTTAATACAGCTTTCTTTTACCCTGAGTAATT
AATATCTTAGTTTGAATTAAGTCTATTGCTGCACCTTCTGCATTTGGAGTTATATAGATA
15 GCTAAATAATTGATAGCTTTGTTATCATGTATTCCAATTACTTGAAGTGTGAAAGCCCA
CTTGCAACTTGTTCGGTGCTTTCTTTACCTGTAGCCATTGCTTTTTGTGGAGGAATCCA
CTTGTGTAAATTAAGACTGCTGCTACTGCAGCGACTAAGACCATGGCTATGAAGATT
ATCAAAGTTCTATACCCATGGCCCCCTCTTACCCTTTAAAAACTCAAAGACCTTCATC
TCATATCACCTGAAAGTTGTTATTTAAGATATTTAAGTTAATTACACTTTTGTAGTGTG
20 GAGTCAATTTTGTAGGAATTTATTGTAACCTCAATTACAGTTTGTGTATATGCAGCTGG
TGTGTAAATTGGATAACTGCTGGAGCACCAAAATCTGGCTGGAACGTCTGAGACTTC
TGATCTTGTAGGTATTGCCTTATTAATACTGCATTTGCATTAATAAAACTGCAAT
ATCTCCTTTGTTAATAACGCCATTGATAATGAACCATCAGCATCTTGGATAACCCCCAC
AACATATGATGAGCTATCTGCTAATGACCAGTCAGTTATTGCTGATGAGTTAAATATATC
25 ATCAGCCCCCTAAAGTTGCAGTTGTAACCTGTACTGTAGTTTAAACATGTGATTTCCCATC
ATATATCAAGAACAACCTAGCATTCTTTAAGTCAATTGGAGCACTTCTGCAATTTGGAGT
TATATAGATAGCTAATTTGTCAATACCTCCTAAAGTTTTGTCATAGTGTCTGTAACCTCC
AATACACATTAAACCCTTGCAACTTGTTCGGTGCTTTCTTTACCTGTAGCCATTGCTTT
TTGTTGGAGGAATCCACTTGTGTTAATTAAAGACTGCTGCTGCTACTGCAGCGACTAAGAC
30 CATGGCTATGAAGATTATCAAAGTTCTATACCCATGGCCCCCTCTTACCCTTTAAAAA
CTCAAAGACCTTCATCTCATATCACCTGAGTATATTAATCCCTCAATTGCTTGTAGTATT
TTCTTAAAAATATATTCTTTTGGCGTAATTTATTGCGTAGTCAATTTTATCGGTGTTTATG
TAGAGGTTTGTGTAGGTAACGATAGTGAATCTTAAATAGCAAATTAACGTAATGATT
35 ATGCCAAATAAATTTAAACAAATCCAAATTTATATAAACTAATGGATAAACATGATAAAA
ACTGTTATTGACAACCTATGTTATAATTTGGTGAAAACATGAAAAATGATGATGCAATA
AAAGTTTTATCTAATGAATTGTTAAAGGAGCAAGATGCTTTCTACTCACTGTTCAAAG
TGTGGATGTCCATTATTTGAAAAGGATGGAAGATATATTGCCCATATGTGAAAAATG
AAAAATAAGAGACAATTGAAAAAGGTGAAAATGAAAAAGAAATTAATAATGAAATTGAG
40 AGGAAAAATCTGAAATTAATGAGATATTGGATTTAAACAAGGTAGTAATGGATAAAAAA
AACTATTTAGTAATGAACTAAAAGAAGAGGATGAAGTTAGTAGAATACGGGAGATAGCA
GAGGCTATTTATGTATTAATCAAACCTCAAAAAGAAGATTGAATAATAATTAACACTTTA
CTTTATTATCTTTATTTCAAAGATTGAAATATTAATCCCTTTTCTGAAGGTATCTCAGA
45 ACCGTTATACTCAACTATTAAGTTGTAGGTTTTTTCTTTTCCATCAATTTTTCAAACAG
TTCAATTAAGGTAGTGTTTTTATATACAACCTCTCCATTCTCTACATCAATCAGTTTTAA
GTTACTATTTTCTGATTTTATTGAGATATAGTAATATCCTTGTCTGGGAACATTATAGA
GATTGGCAATTTCTTTATATCTTTTGAAATTTCAACCCACTTGAACTTTACTAATATTTT
TAACTATCTTTGTTTTTAGATTTAGTGATTGATTATTCAAATCCAAATTTATTTAGAGA
50 AGAACTGTCTTAACAGTTTGTATTGGATTAGCGAAATATTTGTTGATTTATTTTCATT
ATTTACAGTTATTATTGAAATTTTGAAGTATTTACTTGATATGATGAGTTATTGACAAT
ATCACTATTATTTCTCCATTAAATTTGTTATGACTTAACATTACAAACAGTCCAAATAT
AAGAATTAATAATAAATAAACGCCAATACCATATTTTTTAATTATTTTGGTTCAATATG
CGGAGATGTTTCTCTTTCTTTTTTGATAATATGGGAGTACATCTCTTACTTTTAATTT
TGGCTTTCTACTTTTAAACAGTTCATCATTTATTGGTTTTTCATCAAAAGATGCAACAAA
55 AAGAGGAGTATTATCTTTAAATTTAAATCAGTTTTTAGCTCTTCTTTATTTTATCGAT
ATTTTCTCTATTGGATATTATCTATTTTAAATTAACGTATATAATCCTATATTTAAATGGTTC
AGCAATTAGTTTGTATTCTCATTTTTAAATTTAAACACCTTTCCATCGAGTTGTACT
GCAAGCGACAACACTTTTCGGATTTTCTATTACTTCGCTGAATTTTATGAATTTCTTCCA
ATCTTTTAGATTGTAGTTTTTATTTAAATCAATGGGCAATATAAGTAATAATCTTATC
60 AACAACAATACTGGTGAATTTCTAAAGAAAATAGCATTAAATTTACCATTTCTATATAC
GCCTCCAGCAATAGATACATTTAAATCATTATAATCAAGACCTTTTTGTTTCAAAAATTT
ATCCATATTTTCAAGAGCCTCATAAATACCAACTCTATAAGATTTTTTAAGTTGGTTAT
GTATCTGTTGTTATAAAGTGCATTGCAAAAACTCTGAAAATATTTTCAAGTATTTCTAAA
TCCACATTTTAAATGTATTTGGCTCATCGCATATAACAAAGACAAGAAAGTCTCATCATT
ATCCAATATATAGTAGGAATACTCACTATAATTATTCGAGCAATAACCACTTGAAC

AGAGAGGGCAATCATAAACCCACCACAATAAATTTGAAAATTTAATTAAGTTT
TAACAATATTTATACTTTATTTATTTATAATTTATACTTTTTAGTTGGTGAGAGAATGAT
TCTAAACTTAATGGATACGGTTACAGCTCAAACCTTACTTAATAATTGGAAAGAAAA
5 TATTCTCATAGACCCAGGAACCTCTGGGACATTTAATATATTAATGGAGGAATTAGAAAG
GAATGGAATAAAGATATTGACTTAATAATAAACACACATTGCCACTTTGACCACACATC
AGCAGATTATTTAATTGAGGAATATTTTAACTGTCCAATAATAAGAGATAAAGAAAGT
TAAGCATTTAAAAATGGAGATGAAGTTACTGTATCATCCCTATTGGAGCTAAGTTAAA
TCCTCCAAAAGAAATAATCCCCTTATCTGAAATTGAAGAGGAGTTAAAAAGTTATGGTTT
10 AGAGATTATAAGAACTCCTGGACATACCTATGGTTCTATCTCAATAATCTATGAAAATAG
TTTAATAACTGGAGACACAATCTTGGCTATGGAGTTGGAAGATGGGACTTACCTACTGG
AGATGTCATTGAGCTGAGAACTCCATAAATTTATTGGAAGAATAGCAAATGAAAGGAA
TATAGATAAATTATACCCCGGACATGGAGAAATTGGAGATAGGATGGCTTTTAGCTATGC
AAAACCTTTTATATAATAAATGAATTGTGGGATAAAAAAGTATAATCCCTGTAT
15 CACCAATAAACTCACTAAAAACCAGATTATCAGAATTTTAAAGTGGTGAGGAGAGGAAAA
ACCTATTATTAAATATGCTTAAAGATATTATTAAAGCTTTAGATGGTTTAGATATTGTTA
TAGTTAGCAGAGATGAGGAAATTTTGGATTTTGTAAAAATGAATTAAAGGCAGAACTA
TTAAAGAAAAATATAAAGGATTAACAATGCAATAAACAGGCATTTGAGGAAATTGAAG
ATAAAGAAGTTATCATTATCCAGCAGACATCCCATTAATTAAAGAAAAAGCATATTGAGG
20 ATATCTTAAACCTTTCTAAGAATTATGATTTAATTATAGCTCCATCAAGAGGAGGGGAA
CTAACTTATTATATTTAAATCTAAGATTTAATTGAGATAAAATACGAGGGCTTTAGTT
TTTTAAACATTTTAGAAGAGGCAAAAAAGAGAAATTTAAGATATTACATTTACGATTCCT
TTTTAATCTCTGTGATATAAACACACCAGAAGATTTGGGAGAGATATTCATCCATGGAA
ATGATACATATACAAAAATTTATCTAAAAAGCTTAGGAATTGATGTAGAGCCAAAGCATT
CATCAGCTGGAAGATTTGTGGTAAAGAGGAGATAAATATGACAAGATATTTAACATTACA
25 CAGCATTGAAGAAGCAAAATCCATAATAATGAGAGTTTAAAAAATTAATAATGAAGT
TGAAGAGGTTGATTTATTTAACGCCATTGGAAGAGTTTGGCTGAAGATGTATTTTCTAA
TATAGATATCCACCTTATGATAGGGCAAGATGGATGGTTATGCAGTTAAAGCAGAAGA
TACCTATGAAGCAGATGAAGACAATCCAGTAGAGTTAAAGGTTATTGGTTCTTTAAAGC
TGGGGAGATTAAAGACTTAGAAATAAATAATGGAGAATGTGTAGAGATAGCTACGGGAGC
30 AATAATTCAAAAGGAGCTAATGCCGTTGTTATGGTTGAATACACTGAAAGAGATAATGA
TAGAGTTAAGATATACAGGGCAGTCCCCCAATGGAAACATCCAATTCAGTGGTTGAGA
TATAATGGCTGGAGAGCTTGTTTTAAAGAAAAATACTAAATTAACCCCAAGAGATATTGG
GGTTTTAGCTGCTATTGCTAAAAGCAAAGTTAAAGTTTATAAAAACTAAATTTGGAAT
AATATCAACTGGAATGAGATTATAAGCCCAATGAGCAGTTAGAGTTTGGAAAAATCTA
35 CGATATAAATTCCTTATACATTAGTATCTTACATAAAAACTCTTGGCTATGATTTGAATT
CTTTGGAATAGCCAAAGATGATAAAGAAGAATTAAAAGAAAAGATTAAAAAGCTCTAAA
ATGTGATATAATCTTATTAAGTGGGGGAACCTCTGCAGGTGTGCGGGATTTAACTGAAAC
AGCTATAAAGAGCTTGGTGGGAAATTTTAGTTTATGGAATAAAGATAAAGCCAGGAAA
40 ACCAACTATAATTGGGAAATTTGATAATAAGTTAATTGTGCGGATTGCCTGGCTATCCGAC
CTCATGCCTAACTATATTCGATGTCTATTGGAGACGAAAAGAATGTTGTAAAGGCCAAA
ATTCCAGTGAGATATATTTAGCAAAAGGGGAGGGTGAATATCTACCAGTTATATTAGT
TAAGCATAGAATGGATTCTCAGCTTATCCAATAACTAAAGGAAGCGGAGCTATAACCTC
TTTATCAGAGGCAGATGGGTATATAATTATTGATGAAAAATAAGAGATTTTAGAGAATGA
45 AGATGTAGAAGTTTATCTATTTGGAGATGTTAAAGTTGGATTAAATATTATTGGCAGTCA
TTGTATTGGTTAGATATAATCTTAAAGAGGCAAGTTATTAGCAAAAACTATAAATGT
TGTTCTTTAGGTGGAGTATTATCAATAAAAAGAGGAGAGGCAGATATTGCCGGAATTC
TTTGTGGATGAAAAACCAACACCTACAACATCCCTTTCTTAGAGAAGTATAAAGTTAA
AGATGCTGTATTAGTTAGAGGATATATTAGGGAGCAAGGATTTATGTTTAGGAAAGAAAT
50 AGGCTTTAAATCTATAGAGGAGATTATAGAACATATTTATAAATTAGAGTTTATAAATAG
AAATAAAGGTTCTGGAACAAGAATATTGTTTGATAAGTTTTTGAAAGATTATAATATAAA
TCCAAAAGAGATTAAAGGCTACAACATAGAGGCAAGACACATTGAGCAGTTGCTACAGC
TATAGCAATGAAAAAGGCAGATATTGGTTTAGGCATAAGGACAGTTGCAGAACATATAA
TTTAGCTTTTATTCATTGGCTAATGAACATTATGACTTCTTAATTAGAAAGGAGAGATT
55 TAACGATGAGGATGTTCAAACTTTTATTAAGCTTTAAAACTGCCAAATTACCATTTAA
AAAGCCAGATAACTGTGGAGAAATTATATGGGGAGGATAAAAAATAAATTATTTAACTAT
TGTCCTCCAAATTAACCTATTGGGGATGAGTATGGGAAAAATAAAAAATTGATGCTCTAATA
GACAACACATACAAAACCTATTGAGGATAAAGCAGTTATTTATCTTTATTTAATCAACTCT
ATCTTAAAGATAGAGATTTTAAACCGTATTTCTACGTTGAACATACATAAAGAGAAAGTT
60 GAAATGAAGATATTGAGAAAATAAAGGAATTCCTTTTAAAAAATGACTTATTAAGTTT
GTTGAAAATATTGAGGTTGTTAAAAAATAATTCTTAGAAAGGAAAAGGAAGTAATTAAA
ATCATAGCAACTCACCCACAGAAAGTTCCAAAACCTTAGGAAAATTAAGAGTGTGAATA
GTTAAAGAGATTTATGAACATGATATTCATTGCTAAAAGATACCTAATAGATAATGAA
ATAATCCCAATGACATACTGGGATTTGAAAATAAAAAAGCCAGTTAGCATAGAAATTCCT
AAATTAATAATCAGTAGCTTTTGATATGGAGGTTTATAATAGAGATACTGAGCCAAACCCA

5

10

15

20

25

30

35

40

45

50

55

60

GAGAGAGACCCTATTTTAATGGCAAGCTTTTGGGATGAGAACGGAGGAAAGGTTATAACT
TACAAAGAATTTAATCACCCAAATATAGAAGTTGTTAAAAATGAAAAAGAACTAATCAAA
AAAATTATTGAACTCTAAAGGAGTATGATGTCATCTACACCTACAACGGAGATAACTTC
GATTTTCCTTATTTAAAGGCAAGGGCTAAAATATATGGGATAGATATCAATTTAGGAAAG
GATGGAGAGGAGCTAAAGATAAAAAGAGGAGGTATGGAGTATAGAAGCTACATTTCCAGGG
AGGGTGCAATATTGATTTATATCCAATATCAAGAAGATTGCTAAAATTAACAAAATACACT
TTGGAAGATGTTGCTCTATAATTTATTTGGAATTGAAAAGCTAAAATCCCACATACAAAG
ATTGTAGATTATTGGGCAAATAATGATAAACTCTTATTGAATATTTCCCTGCAAGATGCC
AAATACACATACAAAATTTGGNAAATACTTCTTCCCATTTGGAAGTGATGTTCTCAAGGATT
GTTAATCAAACACCTTTTGAGATTACAAGGATGAGTTCTGGACAGATGGTTGAATATCTA
TTGATGAAGCGAGCTTTTAAAGNAAATATGATTGTTCCAAACAAACAGATGAAGAGGAG
TATAGACGGAGGGTATTAACAACCTATGAGGGGGGATATGTTAAAGAACCAGAAAAGGGG
ATGTTTGAGGACATCATTTCAATGGATTTTCAAGATGTCATCCAAAAGGAACAAGGTTGTT
GTTAAAGGAAAAGGTATAGTTAATATTGAAGACGTTAAAGAGGGAAATTACGTTTTAGGA
ATAGATGGCTGGCAGAAAGTAAAGAAGGTTTGAAGTATGAGTATGAAGGCGAATTAATA
AATGTGAATGGATTAAAATGCACTCCAAACCATAAAATTTCCACTGAGATATAAAATTA
CATAAAAAAATAAATAAAATGATTATTTAGTTAGAGATATTTATGCAAAATCATTTATTA
ACAAAATTCAAGGGAGAGGGGAAGCTAATTTTGTGTAAGGACTTTGAAACGATTGGAAAC
TACGAAAATATATTAATGATATGGATGAGGACTTTATCTTAAAAGTGACCTTATTGGT
ATTTTATTGGCAGAAGGGCATTTGTTAAGGAGAGATATTGAATACTTCGACTCTTCAAGA
GGCAAAAAAAGAATTTCTCATCAATACAGAGTTGAAATTAAGTGTCAATGAAGATGAAAAG
GATTTTATTGAAAAAATAAATATATATTTAAAAAAGCTTTAATTATGAGCTATATGTA
AGAAGAAAAAAGGAAGCTAAGGCAATAACACTTGGTTGTGCTAAAAAGATATTTATTG
AAGATTGAAGAAATCTTAAAAAATAAAGAAAAATATCTTCCAAATGCGATATTAAGGGGA
TTCTTTGAAGGAGATGGTTATGTAAATACAGTGAGAAGGGCAGTAGTTGTAAATCAGGGA
ACAAATAATTATGATAAAATTAATTTATGCTCTACTTCTTGATAGATTAGGGATAAAA
TACAGTTTCTATACCTATTCTTATGAAGAAAGAGGGGAAAAAATTAAAAAGATACGTTATT
GAGATTTTCTCAAAAGGAGATTTAATAAGTTTCTATCTTAATTAGTTTATCAGTAGG
AGAAAAACAATCTACTTAATGAAATTATAAGACAAAAACATTATACAAAATTTGGAGAT
TATGGATTCTATGATTTAGATGATGTTGTGTTTCTTGGAGAGTTATAAAGGGGAAGTT
TATGATTTAACCCCTGAAGGAAGACCATACTATTTTGCAATGGAATTTTAACCCATAAC
TCTTTGTATCCATCAATAATCATATCCTACAATATAAGTCCAGATACGTTGGATTGTGAG
TGTTGTAAAGATGTTAGTGAAAAAATATTGGGACATTGGTTCTGTAAAAAGAAAGGA
TTGATTTCCAAAACCCCTAAGAAATTTGATTGAAAGAAGGATAAATATTAAGAGGAGGATG
AAAAAGATGGCTGAGATTGGAGAAATTAATGAAGAATATAACCTCTTAGATTATGAGCAG
AAATCATTGAAGATTTTAGCTAACAGCATTCTACCAGACGAATATTTAACAATAATTGAG
GAAGATGGTATAAAAGTAGTAAAAATTTGGAGAGTATATTGATGATTTAATGAGAAAACAT
AAGGATAAAATTAATTTAGTGGCATCAGCGAAATATTGGAACTAAAAATTTAAAAACA
TTCTCATTTGATAAAATAACTAAAAAATGTGAGATAAAAAAGTTAAGGCATTGATTAGA
CATCCATATTTTGGGAAAGCTTATAAAATAAAATTTAGGCTCAGGAAGAACAATAAAGGTA
ACAAGAGGACATAGTTTATTTAAATATGAAAATGGGAAAAATTGTAGAGGTTAAAGGAGAT
GATGTAAGGTTTGGTGACTTGATAGTTGTCCCAAGAACTTACTTGTGTGGATAAAGAG
GTTGTTATAAATATTCCAAAGAGATTAATTAATGCTGATGAAGAGGAAATAAAGACCTT
GTAATCACAAAACATAAAGATAAAGCGTTTTTCGTTAAATTTGAAAAAGACACTTGAGGAT
ATAGAAAACAAATAAAGTTATTTTGTGATTGCATTTTGTATTAAAAAGAACTT
GGGCTAATAGACTATAACATCATTTAAAAAGATAAACAAGGTAGATATAAAGATATTAGAT
GAGGAAAAATTCAAAGCATACAAAAATATTTTCGACACGGTTATAGAACACGGTAATTTTC
AAAAAAGGCAGATGTAACATCCAATACATAAAAAATTAAGGATTATATAGCAAAATATTTCC
GATAAAGAGTTTGAGGATTGTGAGATAGGACATATAGTGGAAAAATAAATGCCCTTTTA
AAATTAGATGAAAAGTTGGCTAAATTTTAGGATTCTTTGTAACAAGGGGAAGGTTGAAA
AAACGAAATTAAGAGGAGAAACAGTTTATGAAATTTCTGTCTATAAGTCATTACCAGAA
TATCAGAAAGAAATTTGCTGAAACATTTAAGGAAGTGTGTTGGGGCAGGTTCTATGGTCAA
GATAAGGTTACAATGGACAACAAAATTTGTGATTTAGTTCTAAAGTATATCTTTAAATGT
GGGATAAAGACAAAAACACATTCTGAAGAGCTGTTTTAGCAAGTGAAAGTGTATATA
AAAAGCTTTTTAGACGGATTTTAAAGGCAAGAAAACTCTCACAAAGGAACCTTCAACA
TTTATGGCTAAAGATGAGAAATATTTAAACCAGTTGATGATATTTAATTTAGTAGGA
ATTCCAACGAGATTACACCAGTTAAAAATAAAGGATACAAATTAACCTTAAATCCAAAG
TATGGAACAGTTAAAGATTTAATGCTTGATGAAGTTAAAGAAATTTGAAGCATTTGAATAT
AGCGGCTATGTTTATGATTTAAGCGTTGAAGATAACGAAAACCTTTTTAGTTAATAATATC
TACGCTCATAACAGCGTCTATGGCTATTTAGCTTTTCCAAGGGCGAGATTTTACAGCAGA
GAATGTGCTGAAATTTGAACCTTATTTAGGAAGAAAATATATCTTAGAGACAGTTAAAGAG
GCAGAAAAGTTTGGATTTAAAGTTTATATATTGACACTGATGGATTTTATGCCATTTGG
AAAGAAAAAATTAGCAAGAGGAATTAATAAAGAAAGCTATGGAATTTGTTGAATACATA
AACTCAAACTACCTGGAACATATGGAGTTGGAGTTTGGGGCTACTTTAAGAGAGGTATC

-324-

TTTGTTACCAAAAAGAGATATGCATTAATCGATGAGAATGGAAGAGTTACAGTTAAAGGG
TTGGAGTTTCGTTAGAAGAGATTGGTCTAACATTGCAAAGATAACACAAAGGAGGGTTTTA
GAAGCTTTATTGGTTGAAGGTAGTATAGAGAAAGCTAAAAAGATAATCCAAGATGTTATT
AAAGATTTGAGAGAGAAGAAAATAAAAAAGAGGACTTAATTATTTACACTCAACTAACA
5 AAAGACCCTAAGGAGTATAAAACACAGCCCCACACGTTGAGATAGCTAAAAAATTGATG
AGAGAAGGAAAGAGGATAAAAGTTGGGGATATAATTGGTTATATAATAGTTAAAGGAACA
AAATCTATAAGTGAGAGAGCAAACTTCCAGAAGAGGTTGATATCGATGATATTGATGTA
AATTACTATATAGATAATCAGATTCTTCTCCAGTTTTGAGAATTATGGAAGCCGTAGGA
10 GTTTCAAAAAATGAGTTGAAGAAAGAAGGAGCTCAATTACATTAGATAAGTTTTTTAAA
TAAATTTATTTGAAGAAAGCATCTAAAGTTAGTTGCTTTCCTTTATCTTCTTTCTTTTCT
TTTCCCTTCTTTTATCTTTTCTTTTCTTTTCTTTTCTTTCTTTTCTTTTCTTTTCT
TCTTCAGCTTTTGGTTTCTTCTACTATCTTTTCTTTAACTTCTTCTTTTCTTCTACTCTA
GCTTTTACCTCTTCTTAAATTTCTTTAGGTTGTATAATCAGATTTGACTGTTTTTCTCTTA
GCTTTTTCTTCTTTCTTCTTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTT
15 TCCAATTTTTCTTTCTTTTAAATATCTTCAATATCTCAGAAGCTAACTTATCTCCA
AAACTTTTAGCTCATCTCTTTTATCTCAAAGTAATCAACTAAATCAGCAGCTACAGAA
GGATTTTCTTTAGCTAAGAGTTTAAAGCATCTGCAAATCAAACCTTGCTCTCTTTGAGGAT
GTATGGGCTTTTCCACCAATTTCTTTAATATTTTATTTAATATCTCCCTCTCTGCCCTT
GTTTTTGTAAATAATCTAAAACTTTAGGATAACTGTAAGGTGCCATTTCTCTACTCTC
20 TCATCTTTGAGAGAGCAACACCAGCAGTCATTAACGTTGTAGCATACTTCCAAAACTA
TAGTTTTGTCTTCTCATCACTCTACCTAAATATCGATCTGCCTTTGATAAATATTCAAAA
GCCCTTGCAACTTCTTCTGGCTTTTCATACTCTTTTGGAACGTTTTCAGCTATCCATTCA
ATTACAACGCTCTGGCGTTTCATCAACATTCATTAAGGCAGTTGTAGCTATTCCATAGTGA
GTAGTTTTTAAATAACTCTTAAAGCATCGAAGATATTGCTCTCTCTTCTATCTGGC
25 AATTTTTGAGCTGCTTCATAACTTAAATCTCCAGATAAGCTAAAGCCTCTAAGTCATT
ATTGCACTCTCAAATCTCCAGCTGAATGTTGAGCAATCATCTTTAGCGTTTTATCATCTC
ACATCAAGCCCTCTTCTCAGCTATCTTTTTTAGAACCTTATAGACTGAGTTTGTATGC
ACTGGATTTAATTGAATTACCTCAACATAAGGTAGAAGACTCCTTATTGATGGAGCGTAA
GCATCGTTTGAGTTTAAATATTGGGTTCTTTGCCCTTTTATAACCTTTATAAGCTCA
30 GAGACCCCTCCAGCATCTTCTTTCCAGAGATTCATCAACCTCATCTAATACAATTTAA
AATTTTTTCCAAAGATGGATGAGGAAGTAGCAGCATGCCCTACAACCTTTTTATTGCA
GAAGAATTTCTTTTACCTTGCATTGAGTTCAATAACCTCAAATCCGTAATCGTTTGT
AATGCATAAGCCAATGTTGTTTTCCACATCCCGGAGGGCCTACAAGCAAATCGGTTTT
GGAGTTTCCCTTTTAAATAACTTTCAATCCATGTTTTTAGTTTCTCTTTAACCTTTTCA
35 TGCCAGCAACATCTTCAATGATTTTGGCCTATACTTCTCTACCCAACTTAACATAGAT
TATCCCTTTTATAGCTAATTATTTTAAATCCAAATAATAGTTTTATTAACCTCAACTACGTT
TGATTTGTTATTTGTATTGCAATAAAACAATAATTATCAATATTTTTATTGTTGTAAT
TTATTATCAACACCTCTTAATATTTCTTCTTTTGTAGCTCTAATTTCCCTTTTAACTC
40 TCTTCAACCAATAAAACATCCTCCTTTGTAGCCAATCTTTTTTATGTTTCACTCTTAA
TCATTTTTAATAATAATCTTCTCATTCTTAAATTTATTTTCAATCTTCTGTTCATTTCT
TTTATAAATCTTCAACTATTTTATACAACCTCTCCGCCTTTTTTCTTCTTAACATTTT
TATATATCAACTCATATAATTTAGCATAGGCAATAGCCATGGAACCACCTTATTATTAAG
ACAATTAGTATTATTTTATTAATTTTAAAGTCCAAAGCTAATATATATTTCTCTTG
GGCATAACTCTTAACTATTCTTTTTTCCAAACCTCACAATCACATTTCTTCTCAAACA
45 ATTTTATTGCTTTTATCAAAGTCTTTTCCAATTGTGTAATAGTGATAACTCCTCCTCT
CTACAATTATCCAAATGCCTTATCTATAAATTTATGAGCAAATTTGGCAAATTCATTATA
CCCTATTCCCTTTAACATCAACCTCTCTAACATCACTCAATATAGGAATTATCTTATGTT
CTAATTTATTTAACTTTATATTCTTTTTTAAAGCTCTATTGCATGTGGATTATATCTA
TGGCATAGATTTTTTGGCATTTTTGAAGCTATTGAGAAAGGCCCACTCCAGCAAACA
50 TATCAACAACCACATCATTCAAAGAGACCTTTTTATAATCCTTGCTCTCTCCCTCCCA
ATCTTGGAGAGAAATAAACCTTCGCTATATCAACCCACAAACGATAACCATTCTCTTTAT
GGATTTGTAGAGTTCTATTCTCTCCTGCTAAATGCTCTAACTCCCTAACTCTAAACTCTC
CTTTAACCTCACTCTTCTTCTAAAAACCCCTTTGCATGGGATTAGTTTGAAGCCAATT
CCCCAATCTCCTTTCTATTTTTTTCATCAACCTCATCTGAAATCTGCAAAATTACCAAAT
55 CACCAACTACATCTAAGAGAGGGATATTAAGCCCTCATCAATTTCTTTCTATATTTTT
TTGATATTATTTCTCTAAACTTGGTTTTTTAATATTTTTTCTCTTCAAGCTCTTTAT
CAACTAACTCAAACCTCAATATTTAAATACTTTTTAAATATCTTCAATCAACATCTTTA
TTGGTAAATAGAGATAATTTCCCTCAGAAGTTATTTATAATCCTTGTTTAAATAGTTAT
TCTCTATCAATATTTCTTCTTGTGTTGCTCACCATGTTTTTGTATTATTTTAGGCATAACG
60 GCATAGAATCACCAAATFATTATAATTTTTATAATTTCTTACTTTTTAAGACCTATAAC
CTCCTTTTTATTGTAAGTGTCTCAACATTTCCAAAGACATCTTTCATATATTTAGCTAATG
ACTTAGCCCTTGCTTTGTTTGAATAACTACCCAAATCTCGCCATTATCTTTTAAAGTT
CTTTACCTTCCTCAATAATCTATGTAAACTTCCTTTCCAGCTCTTATTGGTGGATTG
TTATAATCTTATTATCTTCTGTCTTTAACATTTTCATATAAATCGCTATGAACACCC

TAATATCATAATTATCTAAATTATTTAGTTTTATATTCTCTTTGGCTAATTTTATTGCCC
TCCTGTTTATGTCAGCCATTGTAGTTGATTTAACTTCATCAGCTAAGGCAATGCCAATAA
CACCATAACCACAGCCCAATCCAAGATGTCGTCATCTTTATCAACAACCTACGTTTTCAA
5 CTAATAATTTTTGTTCCCTTTATCAACCTTTCCATAAGAGAAAACCCCACTATCTGTTTTAA
ATTTTAATTTTTTCCCTCTTAAATGTCTTCAACAATTTTTACATCTGATTTAGTTGTTG
GCTTTTCAGAGAAATAGTGCATTCTATCACCGTGCTCTTATTTTCAGTATTTGTTAATATT
TTATGACAAATCTTAAACAGTTAATTTATTATAAAAAATACAATAATAAACAGTTCTT
AAAAAACTTATAGCACTGAAAAATATAACACAAAGTTAATAAATAAAAAGAATTACAAAA
10 ACATCAAAATATTATTAATAGTTAATTGTTAATTTCCCATAAATATTGCCCTTATTTATTTA
ATTTTCATTCAATAACCACATAAACGTGTAATTTTGCAAATATCGTCTATCATTACGTAAG
AACTACAACAATATAAATAATGGCTCATGATAATATAAATAGTTTTTAAATAGTATAAA
AGGTGATAAAATGCATCTCTTAGATTTGGATGTGTTGAGTAGAGAAGATGTACTAAAAAT
TATTGAATATGGAATATACTTCAAAAAAATAGAAGAAAACATGAAAAATCTTAGAAGG
15 GAAGAGTGTAGCGATTTTTATTTGAAAAACCCCAACAAGAACAAGATGAGTTTTGATAT
TGCAGTTTATGAGTTGGGAGGGCATCCACTAATAATGAACCAGAATGAGATACATTTAGG
AAAGAAAGATCAATAAAAGATACTGCAAGGTTATGGGCAGATATGTTGATACTATAGT
GGCAAGGGTCTATAAGCATAGACATTTAGAGGAGATGGCTAAATATTCCCTCAGTTCCCTGT
TATAAATGCTTTAAGCGATTTAGCTCACCCATGCCAAATATTGGCTGATTTGATGACTAT
20 AAAAGAGTATAAAGGCAAAATCAAGGTTTAAAAATAGCTTATTTAGGAGATGGAAATAA
CGTCTGTAATTTCTTAATTTTAGGCTCTGCTTTAGTAGGAATGGTACTTATGTGGGAAC
ACCAAAGGTTATGAACCTAATGCTAAAGTTGTCTTAAAGCTAAGGAGATTATTAATAA
TTATGGAGAAGGTTCTTTAACATTAACCAACGACCCAATAGAGGCAGCTGAAGATGCTGA
TGTATTATACACCGACGTATGGATTAGTATGGGTGATGATAAAGACAAAGAAGAGGTTTT
25 AAAAACTTTCCACCATTTCCAAATTAATAGCAAGCTCTTAGAGTATGCTAAAGATGATGT
TATAGTTATGCACTGCCCTCCAGCAATAGAGGATATGAGATAACAGACGATGTTATTGA
CGGAGAGCATTACGTTGTCTATGATGAGGCTGAGAATAGGTTACATGTTTCAAGAGGAGT
ATTTAAGTTTATATTTGAGAGAAAGTAATCTAAGAGGCCTGCCGAGCGTAGCGAGGCAG
TGTATCCTGTTTTGATGAAACCGAAGCGTTAGCTTCGGGCTACAAAACTTTTCGGGTTT
30 TTGTTTAACTTTTACTAAAAGTTTCACAGAGAATAGATTGCACGTTTCAAGAGGAGTGT
TAAGTTTATATTTGAAGAATAATTTTAAATATTAATAAAGGCGATAAGCAATAAAATC
AGCAATATCTTAATCATAACACTTATTGTATAATTTATTACCGCAACTTTAAACCAAC
CTTCCAAATAAAGATATGTATGTTCCAATAGAATGCTTTAAATAAATCATGGTAACACTG
ATAATATTTCCCAATCAATAAACTATTAATGCCTGTTTCTCATTTAAACACCATTTTTT
35 ATCAAAATATCAACTGTGGTATATCCAGCAGAAAAATGGGCAAGATTTGCTATCAAAACA
GTTATTGCCCTCACCTGGCAAAATCAAGAATTTCTAAATATCGGGCTAAACAGTCCCTTAAACA
ACATCCATTAAACCAAGTTTTATCAAGAAGTTTATTAATAGGGTAAAGATAACAATCATT
GGAATAACTTTTTTAAGATTTTTTAATGATTTTTTAAAGCCTTTAATTATACTTCTCTA
TTAAATACGATTTTTTTCATTGTTGTTGTTATCAATATTTATCTGCCTTCGTTCAAAAAAT
40 ATATTTGCATACAAAATTTCAATTAAGCCTGTAAAAATCCAGAGATAACGTTAAGAGAG
ACATAGATAAGTCCCAACTTATAGCCTAAAAATAACAACAGCTAATGGCAATTGAACCTCA
AAAACACTCTCTCTAAATTTGTGGGTAAAGGGCTAATTATAGTTGTTACTATAACTTCT
TTTTCATTAACCTTATTTCTTTATAAAAAACGGATAACATTGACTTTCCAACAGTTGGA
TTTATAAAATTTCTTAATAAAGACACTACACACTCTTCTGGAAGGTTAGAAATTAACAA
45 ATTGGCTTTGTTATTTTTTTAATTTTGTCTTATTAGATTGGTTTTCCACTATAACTTTGCA
ATAGTAATTTCAATAGATGAAGAAGTATATTTTAGTTAAATATGGTAAGATATCCATA
CTATCCCAAAAAAATAAGAATTATCCTTTAACACTCTCTTTTAAAGAACATCGATTTTT
TCTGTAATCTCATCAATTCCTCCTCTGATAACGGATTTGGAATAACTCTATTTTCATTT
TCATAAATTTGCCCTTTGCAATCTCTGTAATGTATTTGCTATCTCACTGTCTGGAGCATAT
50 TCAATAAATGCTTTTTTTGTAATCTCTGCTCTTGTAAATATGTTGCTCATTGGGATTTTT
CCAATAACTTGAGTTCCAATTTTTTTGGCAAAATCTTTTACAATTTCTGGAGCATCTATA
ACACTCCTCCCATTGTAATAATCCCCCTAATGCAATCTTTCCCTACTTGCATACCTC
TTTATCCCTTTACATATATTGTTTGGCGCATAGATTGCCATTGGGTGCGAGGTTGTTACA
ATATAACATCATCTGCTAAGTGTTTTGTAAAGGCATTGCAAAACCAACCAACAACA
55 TCCCTAAAATATCATAAATAACAACATCTGGCTTTAGTTCTTCAAAAGCCCCTAATCTG
TTTAGCATCAACCGCTGTAATAACTCCCCTCCAGCACATCCAACCCCTGGCTCAGGT
CCTCCAGACTCAACACAAATAAATCTCCAAACCCCTCAAAACTATATCCTCCAATTTT
ATATTTTCTGCTCCCTTTTTTCTAAAAACATCTAAACTGTTGGAATCTTTCTCCAAT
AAATTTCTTGTCTGATCTGCTTTTGGGTCAACAACCAACAATAAAACCTTCTTTCCAAT
60 TCTGCCAAAGCTGCTGCAATATTTGAGACAGTTGTAGATTTTCCAATTCCTCCCTTTCCA
TAGACACAAAATTTTCTCATAATTATTCACCAAAATTTTATTATAAAATATTATAGT
GTTAATAAATAAAGTCTAATAATTATTAATGTATTATTTAATGATTTAATAACTTTTTAA
TTATAAAGAAAATAAAAAAGAAACAAGTGTTATTTTATTTTGTATTATTTTATTAGCAA
TGAATGGTGTGCGAGTGTTATTTTCTATGTTATATTTTAGGAAGAAGTGTTTTCTTC
CTTTAATGCTTCTGGATGCAAAATAGTCGCTAAATCCATTATAACCTCATCAGTTTTTA

GCAATCCAAGTTGCCAGTAATCATCACTCTCACAAAATACTCTTCCATTTTTAACTGCTT
TAAATGTTTCATATCCTGGATTATCTTCTTAAATGTTGATAACCATGCTGTACTTGAAG
GAACAACCCAAACATCAGCATCTTTTGCCCTCTCAGCAAACGTCCTCATAGTTGATTTTTG
5 CACTGCCCTGTTCCATTGAGGTCTTTGAAAATATAATCTCCATTGCAGTAGAACATTATTT
CCTTAGCAACATAAGAATTATTTTCTGGAACATAGCATCCCCATTGAGAGTTGTAACCCC
ATGCAACTGTAACTTTTGGACAGTTTTTAGTTTTATTATAACTTTTAAACAATTGTCCCT
CAACTTTTTCAAAATATCTTTTTGCTTCAGGTTCTTTGTTGTAAAAGGCAGCAACATCT
TAACCCATTACACCTACCAAGCGGGTCGTTTTCTAAATACTCCGCATCAGCAACATAGG
10 TTATTCCTAACTCTTTACATTTTGCTATAATCTTATCTCCATCATAGCCAGGATATACAA
ATATAACCTGTGGGTTGATTTCATAAATTTTATCCCAATTTGGATTACTTGATGAACCAA
CATCAATTTATTTTCTTCTGCTAACTTTTGTATTATCTTTAAAAATACCACTTATAGG
ATTTTCCCAACATTATTCCTTTAACTGACCCCTATAACTGAACCATCATCTTTATTGCCT
CCATTAACGCAATCTCTGTAGAACTCATAACAATAACCCCTGTTAAAGGCACATTTATAA
15 CTTTGAAGTTATCTCCCAACTCTCTTTTGCCCAACTTGGAACTGGGTCATCTTTGTTCT
TCAATAAAAACCTTCTGTCCCGTTGCATCAATAAAAACCTTATATTTCCACTTATCCCCAT
TGTAGGGATTACAAATATTTCCATTTTCATCATAATATATTAGGTCATATTTTTAGCGT
ATTTTAAAAATTTTGTAAATATTTTTCAGATACTGGCATGTTAGTGGTGATTTTTATTGG
AATTATTTATGTTTATCTCTTCTCACTTACGCATCCAGACATTACAGCTGTTACCATTA
20 TACACAATATACCAATAGCCAAAAGCTTTTTCATAATAAAACCTCCTTACCTTATTAAAA
GAAGTTTTATAAATTATTCAGTAATCTTTATTTTGGCATGTATATAAATCTTATTATCC
AAGCCATATTAAAAAATATATTACATTATTACCTCTTACTCATATACGTAGTAAGTAATC
ATAATAACGTAATTAAATAGTAAATGAGTGTGTTATTATGAACTTAAAAGATTTTTAAC
CTTATCAATAATCCTAAGTATTTTGTAGTGATTTCTTCAATCTATAGCATAAAATTAGG
25 AACCATTCTATAAAAAATAAGAATTAGCTGATTATCTACTAAAAGGCACAACCTGGAAA
CAAAATAAAGGATAAAAATTATCTTTAAGTTGAGATTGCCAAGAACTATTGGAGCAATTTG
TGCTGGAATTGCCATTGCATTAGCAGGGATTTTAAATGCAGGGCTATTTTAGAAACCCATT
AGCAGACCCCTACCTAATGGGAGTTGCAAGTGGGGCATCGTTAGGAGTTGTTTTATACCT
CTTTACCTACATGCTCTTCAAATTAGGAATTCACACAACATTTATGGATTTATAATATC
30 TGCATACATTGGAGCATTTATAACGATGTTTATAGTAATAAATATTGCAAGGGTTGTTAA
GCAAGTTTCAACTTTGTTAATTTGCGGTTTAAATGATTGGAGCAATCGCTTCTGGATTTTC
TACTATTGTTTATTTATTTGGGAGATTATATTGGAGAGGAAAATAGCAATCTTTCAAGCTT
TTTGTATGGGAAATGGGTTTCAGTAAATAATCTAACATGGGACATGTTTGTATAATGGC
TTTAATTAATTATCCCACTCTCAATTTTAAACCCACATCTTTCTATCAAAAAAATTGGATG
35 CAAATTTGTTAGGGGAGAAGTATGCAATCAGTGTAGGAGTTGATATAAAATCTTTAAGGA
TGTGGCTTATTATCTCTCTTGCCTTTTAACTGCAACAGTTGTAGCATTTACTGGACCGA
TAGCGTTTGTGGAATAACCTGCCCAATACTTGCACGAATGATTTGTGGAACCTCCAAC
ATATCTATGTAATTCAGTAACCATGCTCTTAGGAGCTGATTTTTAGTTGTTGCAGACA
TATTAACAAGACCGGGAGTTTAAATATCATCAACGAATGTCCTTCTCTACTCTGCCCTC
40 TATCAATAATTGGGGACCAATAGCAATTATAATCTACCTAAAAATAAGAAAAATGGGGA
TTTAAATGAATAAAGTTGGGATTTTGTTAATTTTATTTATCCTCTCTTTAATATTGCCCT
TTACTGCCCTATATTTGGCTGGAGATACCCATTTAATAACTGTAAAAGACATAATTAATT
TCCTATTAAGGGAACTACTGGAAATGAGTTTAAAGATATAATAATAAAGATGTTAGAC
TGCCCTCCAATAATTGGAGCGGTTCTTATTGGATTAAACCATATCTGTAGCTGGATTATGC
45 TICAACCTCTATTAGGAATTTATTAGCCTCTCCATACACAACCTGGAATATCGTCTGGAG
TTTTAATGGTTGTTGCACTGGTTATATTTATTGATTCTCTCTCACATTTATTGAGATTT
TTGGAGAAAAGAGCATTTTAGTTGCTGGCTGGTGTGGAGGAATATTTTCAATGATTTTGC
TAATTATTATTGCTTTGAGAGTTAGAGAGGCAATGGGGTTATAATTGTTGCTTTATTGC
TGAGTTATTTCTTTATGGGTTTAAAGAGCCTATTTAATTGCAATGCTGAAGAGTTGAAGA
50 TTCAAGAGTATTGGGGATTTACAATTGGTTCTTTATCTAAGATAACATTAGGAGATGTAA
TTCCAATGACAACTGCTCAATTATATTTATTATTGGAGTTATGTTTTTAAATAAATCTT
TAAACGCCCTACTGTTTGGAGAGCAGTATGCGAAAAGTTTGGATTGGATATAAAAAAGA
CAGCACTGTTAGTTTTATTCTTCGCTTCGTTTATAACTGGAGCTATAATTCCTTATGTAG
GTTTAATTGCGTTTATTGGAATTATTGCTCCATACTTAGCAAGACCATTAATAAAAACCT
55 CTGACCATAGATACTTAGTTCCAGCAACAATGTTTTTGGGAGTTATTTTGATGGTTTCAT
GTCATATCCTTTTCATTGAAATACTATCTTCCAATCCACTACCTCTATGGAATAAATAGGC
CCGCCCTCCCTCTTCTATTGGAGCAGTTTTGGATATATTGGGAGGGATGTTGGTTGTAT
ATTTGTTTTATAAGGGTGAAAAGAAAATAAGATTGATTAAATTTTAAATTTTATTGGAT
AAACAATATCTTTTGATACTTCAATTGGTATTATGATTTTTGGATGCATTTGTTTTTAT
60 CTAAAATATTTGAATATGGCTCGATATAGTATAAACATCCTTTTTTCAGTTTCAGTTT
AGTATAATGACATTTTTTTAGGTAATTGATTCCATATAACCTCAACCCATACCAAGGTT
TCTTTTTATCGTGTGTACCTTTACACATATCGGAAATGCATTTAACGTGCTATAGATTA
TTTTGAGAGTATCTCCCTTTATATCAATATCTTCAGGAGCTTTTGCATTGAAATCATGAG
ATAAATATTCTAATTTTAAACATGTTTGTCCAATAAATCAAAAATCTCGTCATCGATAT
TTTTACAATATTCAACCTTCATTTTTAAGTAACCTTAGAGATTGAGCAAAATCTCCAA

5

10

15

20

25

30

35

40

45

50

55

60

AGGTAAATATTTCGAAAGGTTTTTCTGTTAGATATTTTTCTTCTAATATTTGTTTCC
AAGTATCCCCCATAATGCCATAGCATTAAATTCAACAATAATTTTTAGGTAATTTTCCA
ACAATCTATAAACTCCCTATATGCAGCATGTTTAACTCATCTAAAACCTCTTCTAAGA
AGTATATGCAATTATCAAAATTTTCAACAAGTGCTGGTGGTAATCTCAATAACCAATCAT
TTCTTTCTATTGCCATTTGGATTTTTATTCTATTTTCTAAATCTTTTGAAACATCTTCGG
TTGTAATTTGTTTAAATAATCTTTAATTTTATTTTTTCAAGTATTTCTTTATCTCTTATCT
TGTTTTTCCATAATGAAACATAAGCATAAGTTAAAGAGCATATTTTATATAAATTAAGGC
TAATTTTTTCATTTCTTACCTCTAAGATAACATCTTCTAATAAGAACAATCATCTTTTG
TAAATGACTCTTTACTTAAGATTCTACGCAAGGTTTTAAATATTCATAGAAGCTTATATT
TTCTTGTATTTTTCCAACTCGGATAAATTTTTTAATGATATTTCTAAGTATTCATCCAATA
ATTCCACAGACTTTTTAACTCTCCTTGTGAATACTTAAATAAAATCTACAAATAAGTT
CATCGCACTCCAGAGTATATTTGAAAAGATTATATTGATATTTTACATTTTTTAAAG
ATTTTTTAGCTTTTTGTAAGAAATTTAAAGCTTTTTCATAATTTCCATTGAGTAATTTCAT
ACTTAAATTGATAATAATACTCTAAATATTTCCATATATTTAGCGAATTCGAAGCTTTTAG
ACCTGTAATAATATCTTTTGATTTTTTGATATAATCGATTTTTTCTTCCAAATCATTAG
CAAATCTTACTAAATGGTCATATTTTAAATCCCAATAATAGTATTCCTGTAGTTTATCTC
CTCTTTTTTCTGAAAATCTATAGCTTTGTTAATATACTCTCAAATTTTTCTTTGTTGT
ATTTGTTCTCAATAGCCAACCATTTGTAGCTATTTGCATATTCATCATAAGCAATTTTTT
CATCAATTTCTTTTATTGTGTCTCCAGATTTTTATAATATTTCTGCAGCTTTTAAAT
TCCTTTCACCTCTCAAATTTTTGAGCCATCAAATTTGTAGTAGAAATGTTTATTAATAATTT
CTGCTTTTTTGATGTTTTGTCTAATAATTTATTGTATGATTCCTCCGCTAAGTTATAAC
ACTTCTCTGTTAATTTCTATGGCTTTATCGAGGTTTCTTTCGAATTTCTATGTTTTATTG
ATAGTTTCTTATAATAGTATATTTTTATATCAAAATACATCCAAATATCTGAAAACCTCTT
TATACTCTCTAAAATTTGTTCAAGCTTCAATTTATATATTTGTTTAAAGTTCTAAATATT
TATCGTTGTCTTTTTTCTCTACTTTTTCTTTTTCTTCATATATGTAGGCTTTTAAATAAT
AATAAAACAATACATAGCGGATTTCTTTATCCCTAGTTCTAAAAATAATTTCTTCAGCTT
TTTTATAAAATTCCTCGCTTTATCAAATTCATTAGAAAACGAATATTCTTTCCGCATAA
TAGAATAATAATTAGCAAGTGCCATTTTTTGTTTTTCTCATCCCTAATTTTATTATAAA
TTTCTGATGCTTTTAAAAATAATTTCTGCAGATTTCTTATAATTTCCATTCTGTTTTCTT
TTTTTGCTTCTTTCTCTAAGTTAAACAGCCTGTTTTCTAAGTTCTCTAATATTTAAGATAT
TAGAGTCCATACAAACCCCTATTCAAATTTAAATTACTATATTTGATATTACTTCTCT
ACTACATATAAACTTTTATGAATATACCTAAAAAAGAGATATTATTCACCAAGCTAATTC
TAAAAGTTAAATCTCTTTCAAAACTGAAATATCATCTTCGTAAAAAATCATCTCTTTTTT
TAAATTTTTTGCCCTCTTCAATAAGCTTTAAATTTAGCTCATTCATCTCTCTATAGGGAA
ATCTGTATAAACAACATCCGAATTTTTTAATTTCTTTAATGCCTCTTCAAATGTTTTCT
TTTTGATATCTTTTTATATGCCTCTTCTCAATTTATCTTAACTCCCATTGCCTCTGCTAT
AAAGTAATCAGCATCATTTTTATGCAAGATGGCCAACAACATCATATCTATTCTTAA
CCAAATATCTCAAACATTAGCCCCAGTTCTCTCCACATATAACAAATATTTTTTTAT
TTTTTATTGGATTGTTCTTTAATTCAAAATAACCAATAACCTCACTATAATTGGCATCT
TTAAATCATAGAGTTCAATTAATCTCTCCCTTTTCATAACATTTTCAGGATATCCATAAG
CAATAACTTTATGATTCTTTATCAAAGCCATCTTATCAGCAATTTCTTAAAGCAAGTTCAA
TATCGTGTAAGTAACAACATATGGCTAAATTTTTnTCATCTGCTAAGTTTCTCAATAATA
AAGTTAATTCATTTTTATGCTTGGCATCTAAGAATGATGTTGGTTTCATCCAAGATTTAAA
CCTTTGGTTCTTGAGCTAATGCCCTTGCTATCATTATTTTTTGCTTTCTCCATCACTCA
TCTCAAAGAAATTTTTCTCCAACAAATATCTGCATTAAGTCCCTTGCCGATTTCGATTA
TAATCTTTTTATCCCTCTCTGTCAATCTACCAATAAATCAGTATATGGGTGTCTTCCAA
TTGCTACAACATCAAACCTGTCTGTTTCTGATTAAACCTCTCTGTTAGAACAACAG
CCATTTCCCTTGCTAAATCCTTTGGCTTTAAATCATGAATCTTTTTTCCATTTAAATAAA
CCACTCCCTTCTTTGGTTTTTAAATAAGTTGCTATTGTTTTTAAAGAGTGTTGATTTCCCTG
CTCCATTAGGGCTATAATACACAAAATTTCTCCTCTGTTTATTTCCAAATTTATGCCTT
CAACTACTACATAGTTTCCATATCCAACAGATAAGTTTCTGTTTTCAACATAAGCATCA
CTCAAATGATTTTTTAAATAAAATAAGGTTTTTTATAATTTATGATATGAAATACTTAATA
ACTCCTAACAATTAATAACAATAATAATAGTAAATTTATATTAGATAATCTTTATAGTC
CTAAATGTTATTAAATTTTTTAAAAAATATGAACAGAGTGATATTATGAGAAAATTATT
CTTACTATCAATTTAATGATTGGGGTTATAGTTGCATTTGCAGGATGTGTGGAAGAGAG
TAAACTACAACCTCAGCTTCAACAAACTACCCAATCTGAATCACAAAAGCTGAAACTCA
GCCAAAATTAGGAGTTAATGTGGTTAGATACGCAGAAACGTTCAAACCTCTATCCTCACTG
GGATGAGGGTTATTGTGTAGTTGCTGATTCTGTGGGTAACAAGTTTGTGTTGGTTGAAGG
AAATGCTAAGGCTCCTAACATTTTCAAGATGGGAAGATAATAAAAGTTCCCTGTAAAAAGAAT
CGTTACAGACTTTTATTGCCAATTATATCAGCAGCAGACATATTGAATGCCTATCATCA
TACTATAGTTGGGGCTCCAAAGTATGCTGTAGAAAAGTCGCCAAAACCTTAAAGAATTGTT
TGATGAAGGAAAAGTGGTAGATATAGGAAGTCCAAGTAAAGGAGTAAATATGAGTTAAT
AGTAAATTTGACTCCAGATATTGTTTTTTTAGGTGACTGGAAGAGTGAAGATGTGGTTGA
AGAGAACTAAAAGAATTGGGAGTAACTGTTTCAAGATTTACACCTATCAAGAACCAAC

-328-

ATACATGGGAAGAGTAGAGTGGATAAAATTTGCCGCGGCATTCTGGGGATCCAACGCATA
TAAAAAAGCAGATAAATGGTTTGAAAATGTAGTTAAAGTAAGAGAAAATATATTGAAAAA
GGTTCAAAATGTAACAAATGAACCAACGGTTGTTATCTTCAGCTGGTCAAAAACCAAAAA
TATGCCAGGAATCTATGGAAATGATAGTTATTACAGCAAAATGATTGCTGAGTTTAAAGG
5 TAAAAATGTATTTGATGATTATAATAGAGGCTATCAATATGTAGATAAAGAAACGTTTTA
TGAAAGGGCTATGAACGCAGATGTTGTTATATTAATATGGTTCTATGGAGATGTTAAGAC
AAAAGAAGATTTATTAATAAATAAATCCAACTTTGCTGAATTTAAAGCATTATAAACTGG
AAGGTTCTATGTGTCTCATCCAGATTATTATGTTTGGGAGGCAAGAGACCCAGCTGGTTA
TATGATGGACTTTGCAAAGATGATTACCCAGAGTTGTTGGAGGAGACGATGATTTAAA
10 ATACTATTACAAAATCAAATAAAATTAATTAATCTTTTGGTTTATTTTTATTTAAAAATA
CATTAAATTAATAAAAGCCCCGCTATTATAAAGATATCCAACAACAAAGTGATTGCTGCA
TTAACCATAACTATTTAGTCCCTAAGTTAGCTCCAAATAGAGAAACATGCAAGGTAAG
GAATGCTTAACATATCTTGTGAGAATGTCAAAACATTCCTCAATAATCAAACCAATTAAA
ACCTCTTTTGGAGCTCAAAATTCCTCATTTAAAAATCCACCAGCCATAACTATAGCTGCC
15 TGCACATTCAATCTCTGTCAATGCCAAATGCCAACGTTGGGATTTAAATTTAGCAAG
TTTGTTATTGGTTGAACAAATTTCTCAACATAATCAAAAAATCCAATTTTAGACAAATAG
AGAACCAATGTCATCATAAAAAACATTATTGGTATTAATCTCTTGGCAAATCTAATAGTG
CTTTTAAATGATTTCTTGCATTCTCCTTTTTGTTTAAATTTATTTATCTCTGGCATCTCA
20 AAGGAATAATCCTCTGATATAATTGATAAATATAAAAAATCCAATTTATTGTCTTTGTCTAA
GCTACCCCCAACCTTATCAAGACATATAAACTCCTGTATGTCCTAAAATTGGAACAACA
ACTGGAATAAAAAATGTGAATGTATGGGACAAAACCTGAAGGGAATGAATTTGCTAAAGAA
GCTCCTATAACCTCTCTTTTCAATTTACTTTTATTCTCCTTCAATCCCTCTGCTAAAATTGAG
TATCCTACTGTTGGGCTGAAAAAGCATGCTAAAGTAGAGGATATTGAAAGAGGATTAAC
TTAAGCCTTCTTAAATTTGGAGATAACATATTACTTAGCTTCTTCATGATGCCAGTACTC
25 ATAATGTAATTAACAATAAACACCGTTGTTAAACAATAATAGATATTCTTATGTTATAA
TAAGCAGAGATTTTCATACTCTCCATTAAATGGAGTTATGTAATCCACAACATATCACCTAA
TATTATTAATAAACATTCAATTCTCAATTCAAAAAATATCAAAAAATATAAATACACAT
TTGGGGGAAATTTATATGTGTGAATTCATGAACACATTAGTAAGTTTTATATAGTTTTA
TTAAATAGCATTAAAGTGTGAATAAATCAATCACACATTTAGTGGTGAAAAAATGTATGA
30 GTGGAAGTTAAATGAAATAGTCGATAGTGGAGTATGTGCAAGATGTGGGACCTGCACAT
AGTATGTCCTAATGGTATATTAACCTTTGATGAAAGACCAAGTTAATCGATGAATGTTT
AAGAAAAGGTCATGGAATGTGTTTTGAAGTATGTCCAAGAGTTTCTTCTGCAAGTATCA
GATAAAGATTAGAGAGAAGTTTTATGAAAAATACTATTATGCAAAAAGTGATATTGAAGG
ACAAGATGGGGGAGTTGTTACAGCATTTCTAAAATACCTATTAGAAAACGGAAAGATAGA
35 TGGAGCTATAGTCGTTGGAGATGAATGCTGGAAACCAAGTTTCATTGGTTGTTCAAAATGC
AGAGGATTTATTAATAAACTGCAAAATCAAAATATGCAATCTCAACCTTAGATGCATTAAG
AAAGGCTGGAGAGATGGGTTTAGAGAAAGTTGCTGTTGTTGGATTGCCTTGCCAAATTA
CGGATTGAGAAAACCTGCAGTATTTCCCATACCATGCTAAGCACGACCTTGAATTAGGAAG
AAATGGAAAGCCAGTAAAACTGCCAAAAATAGAGTATTTAATTGGCTTATTCTGCACCTGA
40 GAAGTTTAGATACGACAACATGAAGGAAGTTCTATCAAAACATGGAATAGATATTGAAAA
AGTTGAGAAATTTGACATTAAGAAAGGAAAACCTCCTGTTTATGTAAATGGAGAGAAGAA
GGAATTTGACCTAAAAGAGTTTGAAATCTGCTCTGCTGTAAGATGTGTAGGGATTTTGA
TGCAGAGATGGCGGATGTTTCAGTTGGGTGTGTTGGAAGTCCAGATGGTTATTCACAAT
CATAATTAAGAACTGAAAAGGGAGAGAAATTAATAATGCTGTAGAATTAAGAAGGAGT
45 TAATTTAGAAGAAATTGAGAAATTAGACAGCTAAAAATTAAGAGAGATTTAAGAAAGAGT
TGAGAGAAGGAGAGAAAATAATGAGTATGTTTCATTCTACTGGACTGCAGATTACGGAGG
AATTGGAAAGAGAGCAGATGGAACATACTTTATAAGAGTTAGAGCTAAGCCAGGAGGATG
GTATAAGCCAGAGGAGATAAAAGAAATTTTAGATATTGCAGAAGAATACAATGCAAGAT
AAAAGTAACTGATAGAGCTGGCTATGAACCTCACGGTATTAGTGGATTTGATGTTGAAGA
50 TATTGTTTTAAGGTTGAGAGAAAAGGTCCTTCTAACAGGTTTCAGAGGGGCCCTTTAGTCAG
AGCAACATTGGCTTGTCTGGAGGAGGAACTGTAGCAGTGGTTTAGTAGATACAACAGA
ACTTGCAAGAAATCATTGAAGATAAATCAAGAGAGAGACCTGCTCCATATAAGTTTAAAAAT
TGCAATTAGCGGTTGCCCAAACGGATGTGTAAGACCACAAGTTTCATGATATTGGAATAGC
TGGAGTAAATATCCAAAGGTAAATGAAGAAAAATGTAACGGTTGCGGAAGATGTGCTGA
55 GGTTTGTAAGGTTGAGGCAATTGATATTAGAGGAGAAACATCTTACACAAATTACAACTG
ATGTGTTGGCTGCGGAAAATGTATTAATAAATGTCCTCAATGAGGCAAGGGAAGTTAAAGA
AGAGGGTTATTAGTTTATGTTGGTGGAAAACTGGAAGAGAGGTTGTTGAAGGAGTTAA
AATGAAGTTGATGAGTGTGATGAATTAATAAATTTATTGATAAGGTTGTTGTTGTTT
TGGCAATATGCTGAAAAACCACAAAGAGAAAGATTAGCTGCAGTTATGAAAAGAGTTGG
60 GTATGGAAAGTTCTTAGAAGAAGTAAAGAGTTGATGAAAAAGAAATCTGCTAATTAAT
TTTTTAGATGTTTTATTTCTTTTATTTTTTAAAGATATATTTAAAAATTAATTTAAAGA
ATTAATCATGAATTCCTTTTTCGGTTATCCTAAACATTGCTTCAGCATCTGGTAAGTGTG
GAGAATCATAAAGCTTAGCAACCTCTTATCTCCTTTTGCTTTCTTAGGAATATTCTAA
ATGTTGCTGCATGCCCAACAATATGCCCTCCAATTGCCTGCTCTGAAGGTCCAAATAAAG

5

10

15

20

25

30

35

40

45

50

55

60

CATCTGGTCTTGCAGCTACTTGGTGTAGTTACTATAACAACACAGTTGTATATATCAGCTA
ATTTGTTGAGAGTAGCCATGTGCCTTCCTAATTTTTGTTGTCTCTCTGCTAATTTACCTC
TTCCTATATACTCAGTTCTGAATGTTGATGTTAATGAATCAACTATAACCAACTTTATAT
TATGCCCTTCTCTTATTAAATTTCTCAACATTTTCAGCATACAACATTTGCATATCTGAGT
TGTAGGCTCTTGCTACAAAGATGTTATTTAAACTTCATTTCCATCTAAACCCAAAGCTT
CTGCCATTTGGACAATTCTTTCTGGTCTGAATGTTCTTCTGTGTCAATATAAACTGCCT
TTGGTTCATTTAAATCTCATCCTTTATTGCGTCATCTGCTACTATTCTCTCTGGGCACT
GCAAAATTAACACATGCCTGATGAGCTATCTGGGTTTTACCAGAACCACAAATTCAGCAA
ATTAGTAAGTACTGACTGACTCTCCAAGCCTCCTCCTAAATCTCATCTAAGTTCTTACTTC
CAGTTGAGAGCTTCCATATATTTTTCTTTGGGATAAAACCTCAGTTCCACTTTTAAACC
CTAAATTGCAGAGTTCTCTTGCAGCTTCTATAATCCTGGCTGCAGCTTCTCCTAATTC
CATCTATTTCTGTAGCTCACCAGTGGATGCAGTTGCAATTTTCAAAAATCAGTGTAAAC
CAGCTTCTTTTAACTTCTCAGCTGTTGTAGGACCTACACCAGGTAGTTGAGTTAAATCAT
CCATTATTATCACCATAAGCATAAATTTGTAATTGTTAATATATGAATAAATTTGGGAGGT
AATAGATGATATTGCCAAAGAAATATATGAAGGTTATCATACATCAATTTGTCATATTTGA
CTATAAAAGATTTTGGTTTATAACTACAGTATGTTTCAAAAAGAGAATTTATAAAA
ACCTAAGAATAGTAAATATATAATTGAGGAGGTGTAAGCATGATATCAAAGTATTTGGTT
AGAGATGTTATGAAAAAGGAGTTGTTGAAGTAACCTTAGATACAAAATTAAGCGATGTT
ATTAAACAATGGCAAAGTATGATATATCATCTGTCGTAGTTTCTGATGGAGAGACATTC
TGGGGAATTATAACAGATACAGATGTATTAAACACTATAATGATTTAGATAAAACAGCG
GAGGAGATAATGACAACAAATCCAATAACTGTTAGCCAGAAGCTCCATTAGAAAAAGCC
GTTGAGATTATGGCTGAAAAAGGATTTCATCTTATATGTGAAATCACCATGTGAAGAT
AAAATTGTTGGTGTTTTAAAGCTCAAAGGATATCATAAAGCTATTTCTGATTTGATTGAG
TAAGTTTATAAACTCTAACTTGCTATTGCTATTTTATTTTCTATTTCTTATTTGGTTATT
ATTAAATAATGCACAACATAAAATTTAAATATGTGGTTATATTATTTTACAAGTGGTGATG
GATATGAGAGTATATGTTGAGGGCTATGGATGCGTTTTAAACACCGCTGATACAGAAATT
ATAAAGAAATCTCTAAAAAACATGGATTGAAGTAGTTAATAACTTAGAAGAGGCAGAT
ATTGCAATAATAAACACATGTGTTGTTAGATTAGAAACAGAGAATAGAATGATTTACAGA
ATAAACGAACCTAAAAATTTAGGAAAGGAGGTTGTTGTTGCTGGATGTTTGCCAAAGGCT
TTAAAGAATAAGGTTAAAGGATTCCTACATATATATCCAAGAGAAGCTCACAAGCTGGA
GAGATATTGAAAAATTACGTTGAAAAACACTACAGAATGCCATATATTGAAGAGGACATC
AACAAAACTCTATAAGAAGTTAGATTACTTAAACCATCTAATTACTCCTATTGCCA
ATATGTGAAGGTTGTATAGGAACTGCAGTTACTGCATTGTGAAAAATAGCAAGAGGTGGG
CTAATATCTTATCCAAGAGAAAAATCGTTAATAAAGCCAAAGAGTTAATAAATAAAGGA
GCTAAATGCTTGTGATAACTGCACAAGATACTGCATGCTATGGATTTGATATTGGAGAT
AACTTAGCTAACCTATTGAATGAGCTAACTCAAATAAAGGGAGAGTTTATAATGAGAGTT
GGAATGATGCATGCTAAAAATGCTGAACATACTTAGATGAACCTATAGAAGTCTATCAA
AATGAGAAAGTTGAAAAATTTCTACATTTGCCCTTTACAAAGTGGAGACGATGAGATTTTA
AAGAGAATGAAGAGAGGTTATACAGTAGATGAATTTAAAGACATTGTAAATGAATTCAGA
AGGAAAATTAATAATCTCTGCTTTACAACAGATATAATCGTTGGATTCCCCGGAGAGACA
GAGGAGCAGTTTCAAAATACCTTAGAGGTTTTGAGGGAGTTAAAGCCAGACTATATTCAC
GGAGCTAAATACTCTCAAAGAAAAGGAAGTGAAGGAGCAAGATGAAGCAGATAGATACA
AAAATTAGAAAGAGAAGAAGTGAATTTTAGATAAATTGAGGAGGGAGTTGAGCTATCTA
AATAACAAAAAGTATATTGAAAGGCTATGAAAGTTTGTAGTTTATAGATGAGGGAAAGGT
TATACTGACAACTTTAAAGTTGTTAAATTTGAAGGAGGGGAGGTAGGAGACTTTAGAAA
GTGAAAATTAATGATGCTAAGACGTTTGGATTGAAAGGGGAGCTTATCCTTTAATTTCTC
TTAAACCTCATCTAAATCAACGTTTTTAACTCTCCAAATTTAACAACCTCTCCGTCTC
CnTCATACCTTGGAAATGATATGGAATGAACATGATTAACCTTCTTGCCCCGCAACTCTGC
CGTTGTTATTGACTATATTGTAGCCATCAAATCCAAGCTTTTTTAGAACTTCAACAGTCT
TTTTAACTCCTTTTATAAAGTTGCGAGGCTCATCATCAGGCATTTTCATCAAATCTTTTCAT
AGTGCTTTTTTAGGAACAACCAAAGTATGCCCTTTATTTCTTGGATTATATCTAAAAAAG
CTAAACATGCTCATCTTCATAAACACCTTTGCTGGAATCTCTCCATTGATTTTTCG
AGAAGATACACATTTCTCCACCAAATTTATTTTTTATTTTTTAGTAATAAATCTCTATAC
TTAAACAATAAATCCGTTATAGCTCTTATATCTTTCCCTTGATCCTCGCCTCATTTAAA
TATAAGTTATAGAGTTGAGGAGTTAAAGGTTTTGGCATACTCTCCACATTTTCAGCGTGA
ATCAGCAAATCAAAGCATCTTGCTCTGCTCACTTAATCCAAGTTTTCTATATTTCTCCC
TCATGCATCTTATATAGCAAATTTCTTCTTGGCATAGATAGAACTAAATCGCACAAAC
TCCGTGGTTGGAATTGGCTCAGCAATAGATACAAAAACATCATCCAACCTCAGCATCTACA
ATAAAATCTTTTGTAAATAGATAATCCATCTCCGTCTCTGTTGGATATGCAACTATAAAA
CTTCCAGCTACTTTAACTCCACAATCCTTAGCCAAATTTTATTGCATCTAAGTTCTTTTCC
CTATTAGTTCTTTCTCATATCTTTTAAATTTTATCGCTCCCACTCTCTATTCCATAA
AACCCCCATCCAAATGTATAGTTTTTATTGCCCTAATATTTCTTCATCAACATAATCA
ACCCTCATATCTGGAACAGATAAATTTTTCCTCAATAACTTCAGAAACCTTTTCCAAA
AGCTCAAAAACTTATCTCTGTTTATCGATTTTTTAAAGGCATATAAACTTCCAGTACCT

-330-

5 CCACCTATTGCAATTCTCTTAGCTCCAGCCCTTTTAAATGCTTTAACCTCCTCAACAACA
TCCTCAACATCCCTACTTCTAATGGTTTTTCCAAAAAAGTTTGGAACTTGACAAAAAGTG
CAATTACCCAAACAACCTCTATGTGTCTCTATATAAACATTAGCTCCTCTAATCGACTGC
TGTTCAATATCCTTTGGTATTAGTGGGAGAGGATGATTCAAATCTGGCTTTTCCTTTGGA
10 TAGTTTATAACTATCTCATCTCCCTCTTTATAAGCCAATCCCTCTTTATCTCCCTCAATA
ATTTTGGTGTTGTTATCTCACCCCTCTCCAACCTATAACCCCATCTACATTTAGTTCATTT
AAAATAATCTCTGGATACGTTGAAACACAACCTGCAACATAAACTTTGGTTTTGTTTTTC
CTAACTTTTTTTATAAAGTCTATAGCCTCTCTGATATTTTTATCCAATATGTGCAGAGTT
GAATATAGGCTGAAAATAATAACATCTGACTTTAAAAATAGTGTTTTTATCAATCTTTCTA
15 ACTAAATGAACGTTATAGCCCTTATGTTTTAAAAATACCACCAATGAGCATGGCACCATAA
GTATAAACTTCTGGACTGTAAATGTAATCCTCACATTAGCCCCCTCTTAATTTTATTC
AAAAGAAGTTAAATAAAATAACCCCTCATGTTTTTAATTTCTCTTTAAATTAATTTTA
AAATTTATTTATAATGAGGTATTTTACAAGTGTCTAATACTAACATTGGAAGTTCTAAC
TATATATATAACCAAACCCCTACCTTAATGTGAGGTGATACTATGGCAGTAATAAAGTTA
20 GATGAAGTAAATAAAAACTTCGTAAATGAGGTATTGAGGCTGGAAAGTTAGTTTTAGGT
GAAGATATCGTAAATCAATAAAAGCTTGTTACCAATGTGGAACCTGCACTGGAAGCTGT
CCAAGTGAAGAAGAACAGCTTATAGAACAAGAAAAGTTTAAAGAAAGGTTTTATTAGGT
TTAGATGTCTTTTAGATAGTGATGATATCTGGTATTGTACAACCTGTTATACATGTTAT
GAAAGATGTCCAAGAGATGTTAAATACAGAAATCATAAAAACTTTAAGAAATATTGCC
25 GCTCAAAAAGGAAATATGGCATTAGCACATAGAAAAACAGCTTCTTATGTTTTAAGATTT
GGACATGCTGTTCTTGCAATAACCAGATTGTTGAGTTGAGAGGAAAACCTCGCATTGCTT
GCAAAGTCACCAACAGCTCAATTCAGTGAGAAGGATTTGGAAGAAGTTAGAACATTAATT
AAAGAGTTAAAAATTTGATAAATTAATAGCATTGACTGGGAAAAGATGGATTTAAAGGAG
TAAATCCAATAAAATTAGAATTAATAATTAACAATAAAAAATTAAGGAAATAATAAGAT
30 TTTTGGTGATAAGATGAAGTATGCGTTTTTCTTAGGATGTATTATGCCACACAGATACCC
AGGAGTTGAGAAAGCTACAAAAATAGTTATGGAAGAGTTAGGAGTAGAATTGGAATATAT
GCCAGGAGCTTCTTGCTGTCCAGCTCCAGGAGTCTTTGGTTCATTGACCAAAAAACATG
GCTCACATTAGCAGCAAGAACTTATGTATTGCTGAAGAAATGGGATTAGATATTGTAAC
TGTCGTGAACGGTTGTTACGGTTCATTGTTTGGGCAGCACACATATTACATGAGAATAA
35 AGAGGCATTGGACTTTGTAAATGAAAAGTTGGATAAGATTGGCAAGCAATACAAAGGAAC
TATTAAAGTTAGACACTTTGCTGAGTTGATTATAAAGACATTGGAGTAGATAAAATAAA
AGAGAAAGTTGTTAGCCATTAGATGTTTTAAATGTTGCTATCCACTACGGTTGCAATT
CTTAAAAACCAATTGATGTTAAACACTTAGATTCTCCAGAAAGACCTAAATGTTAGAGGA
GATTGTTGCAGCAACTGGAGCTAAACCAGTTATGTATAGGGATTATTTAATGTGCTGTGG
40 AGCTGGAGGAGGAGTTAGAGCGAGATTCTTACCAACTGCATTAGATATGACAAAAGAAAA
AATAAGAAATATGCTTGAAGCAGGAGCTGATTGCACCGTCAATGTCTGTCCATTCTGCCA
CTTACAGTTTGATAGGGGGCAAGTAGAGATAAAAGAGAAGTTTGGTGAAGAATATAAACT
TCCTGTTTTACACTTAAGTCAGTTGTTAGGTTTGGCATTGGAATGAAGCCAGAGGACTT
AGCTGTTAGCGTCCATGCAATCCAGTTGACCCAGTTTTAAAGAAATGGGAATAGATAA
45 AACCATTAGCATTATTTATTTAAATATTTTTATTATTCTAATTTTTATTTTATTTCTT
TTTTTAATATTTTTGATAAAGTCAATACTAATTTTTATAATGTGTCTATTTTTAATTT
GTTATTTAAATTTTACAAAGTTATATAGCAAATATTTATATAGTATTTGGTGAAATTATG
GTTAATAATAGAAATGAGATAGAAGTTAGAAAATTAGAACATATATTTCTATGTAGTTAT
TGTAATGTTGAATATGAAAAACAACATTATTAGAAGATATTGAACTAATACACAAAGGA
50 ACCTGCGGAATTAATTTAATGATATAGAAACAGAAATAGAATTGTTGGAAAAAACAATA
TCTGCTCCAATTATGTTTTCTGGTATGACTGGGGGGCATAGTAAGGCAAGGAGATAAAC
AAGAATATAGCCAAGGCAGTTGAAGAACTCGGCTTAGGTATGGGTGTTGGCTCTCAGAGG
GCAGCTATTGTTAATGATGAGCTGATAGATACCTATAGCATTGTTAGAGACTACACAAAC
AATTTAGTTATAGGTAACCTAGGAGCAGTTAATTTTATTGTTGATGATTGGGATGAGGAG
55 ATTATAGATAAGGCAATTGAAATGATAGATGCCGATGCTATAGCTATACATTTCAATCCA
TTACAAGAGATTATACAGCCAGAAGGTGATTTAACTTTAAAAACCTATATAAACTCAAA
GAAATTATTTCAAATTACAAAAAAGCTATAAAAAATATTCCATTTATTGCTAAACAAGTA
GGAGAAGGTTTTTCAAAGGAAGATGCATTAATTTTAAAGATATTGGCTTTGATGCAATA
GATGTTCAAGGAAGTGGAGGCACCTTCATGGGCAAAGGTTGAGATTTATAGAGTTAAGGAG
60 GAGGAAATTAAGAGATTGGCTGAAAAATTTGCTAATTTGGGGCATTCCAAGTCCGCTTCA
ATATTTGAAGTAAAAAGCGTTTTATGATGGTATAGTTATTGGTTCTGGAGGCATAAGAGGA
GGTTTAGATATAGCTAAATGTATAGCAATTGGTTGTGATTGCTGTTGAGTTGCTTTGCCT
ATATTAAAGCAAGTTTAAAGGCTGGGAAGAGGTTGTTAAAGTTTATAGAGAGCTATATA
AAAGAGTTAAAAATAGCGATGTTTTTAGTTGGAGCTGAAAATATTGAAGAAGTTAAAAAA
ACATCTTATATAGTTAAAGGAACCTTAAAGAAATGGATTTCCAGAGATTAAATAAAAAC
AGTATTGTTAATACTGTTATCCCATTTATGATTTTTATTTTTATCTTAGATGTTAGGCTG
TAAATTTATTTAAATAATTAATAATTTATAAACATTAAATTTAAAAAATTAAAGGAT
GTGAGAGAGTGAAATTTGGAATTTATTGCTATTGGAGGTTATGAAGAAGTTGGTAGAATA
TGACAGCAGTTAATGTAGATGGAGAGATTATAATATTGGATATGGGAATAAGATTAGATA

5 GAGTTTGTGATTCATGAAGATACTGACATATCAAAGCTTCATAGCTTAGAGTTAATTGAAA
AGGGAATAATTCCAAACGATACAGTTATGAAAAATATTGAGGGAGAAGTTAAAGCAATTG
TCTTATCTCACGGGCATTTAGACCATATTGGAGCTGTGCCAAAATTAGCCCATAGATACA
ACGCTCCAATTATTGGAACACCTTATACAATTGAACCTGGTTAAAAGAGAGATATTAAAGTG
AGAAAAAATTTGATGTAAGAAAACCCATTAATTGTTTTAAACGCTGGAGAATCTATAGATT
10 TAACTCCAAACATAACCTTAGAGTTTATTAGAATAACCCATAGTATTCCAGACTCTGTAT
TGCCAGTTTTACACACCCCTTATGGTTCAATTGTCTATGGAAACGACTTTAAATTTGACA
ACTTCCCAGTTGTTGGTGAAAGACCAGATTATAGAGCAATAAAAAAAGTTGGTAAAAATG
GGGTGTTATGCTTTATATCAGAACTACAAGAATAAATCACGAAGGTAAAACACCACCTG
AAATTATCGCTTCTGGTTTATTGAAAAATGACTTATTAGCAGCTGACAATGACAAACACC
GTATTATTGTAACAACATTCTCCTCCCATATTGCAAGGATAAAATCAATTACAGATATAG
CAGAAAAAATGGGCAGAACTCCTGTTTTATTAGGAAGAAGTATGATGAGATTCTGTGGAA
TAGCCCAAGATATTGGGTTGGTTAAATTCCTGAAGATTTAAGGATTTATGGAGACCCAA
15 GTTCAATAGAGATGGCTTTAAGAATATAGTTAAGAGGGGTAAGGAGAAATATCTAATAA
TAGCCACAGGACATCAGGGAGAGGAAGGGGCTGTATTGTCAAGAATGGCTACAACAAAA
CCCCATACAAGTTTGAAAAATATGACTGTGTTGTGTTCTCAGCAGACCCAAATCCAAATC
CAATGAATGCAGCTCAAAGATACATGTTAGAAATCAAGATTAAAGTTGTTGGGAGTTAGAA
TATTTAAAGGAGCTCATGTTTCAGGACATGCTGCAAAAGAAGACCATAGGGACATGCTAA
20 GGTGGTTAAATCCAGAGCATATAATTCCTTCACATGGGGACTTTAACTTAACAGCTGAAT
ATACAAAATTAGCTGAGGAAGAAGGTTATAGATTGGGAGAGGATGTTCAATTTATTAAGAA
ATGGGCAGTGTTTGAGCTTTGAAAGAATTATTTAAAAGAGGTGGAATTAAGCTCTTTGAT
AAAAATATTTTACAAAAAATTGATGAAGAATTAAGACTTATGTAGATAAAGATGATAAA
CTATATAACGCGTCAAAACATCTTCTATTGCTGGAGGAAAGAGAATTAGGCCATATTTA
25 ACTGTAGTAACCTATATGTTGAAGAAAGACGATATTGAGGAGGTTTGGCAGCCGCTGCT
GCAGTAGAGTTAATTCACAACTACACCTTAATACATGATGACATTATGGACAATGATGAT
GAGAGGAGAGGAAAACCAACAGTTCATGTTGTCTATGGAGAGCCAATGGCTATCTTAGCT
GGAGATTTATTATATGCTAAAGCTTTTGAAGCAGTTTCAAGAAATAAAGATAATAAAAAA
GCTCATGAAGTTTTAAAAATCCTATCAAAGCATGTGTTGAGGTTTGTGAAGGGCAGGCCA
30 ATGGACATGGAATTTGAAAACTACTATCCTACAATGGAAGAATACTTAGATATGATTAGA
AAAAAGACAGGAGCTTTATTAGAGGCTTCTGTGGGAATTGGGGCTGTTATGGCTGATTGT
AATGAAGAAGAAAGGGAGCATTAAGAGATATGCAAAAGAATTGGATTAACCTTTTCAA
ATACAGGATGATGTTTTAGATTTAATTGGGGACCAGAAAAAGTTAGGTAAGCCAGTTGGA
ACTGATATAAGAGAAGGTAAAAAGACAATAATTGTTATCCACGCCCTAAAAACATTGGAT
35 GAAGATAAAAAGAAAAGATTATTGGAAATTTTAGGAAATAAAAAATGTTAAGGATGAAGAA
ATTAAGAAGCAATTGAGATATTAAAGCCTTCAATTGAATATGCAAAAGAATCTATGAAA
CAAAAACTGAAGAAGCAAAAGAATATTTAAGATATTCAATAAAGACAGAAGGAAAGTT
TTAGAGGATTTGGCTGATTTTATAATGAGTAGAATTTATTAAATTTTATTGGGTGAAT
ATTATGAGAATTCAGGTTGTATGTTGAAAACGCTGAGAAACATGAGGGAAGAAAGGTA
40 GTTATTGAAATGGCGGAAAAGTAATAAATTTTAGATAAAGATGAAGAATATGAAGGA
GATGGAAGGTTTTATATCAAGTTATATACGATGATTTTGATAACTATGTATTAATGGGA
ACTGTTACTAAGATATGATTATAGAGTATGAAGTTGGTGGAGTTAGACAGATAACATAC
ATTAAGAAAGGAACATAAATTATTAGAGATTCCTGCTGAGGGTTATAAAGTCTATCCAATT
GTAGATTTTGGTTGTAGAATTTTGGGTGGGCATAGAATAGCCGCTTTACAAAGTAGAAG
45 GGAGATATAAGATTGTTAATACCCCAAGTTAATGGGATTGTGTTATTCTTAAAGAAGTT
CCAGCAAGAGAGAGAACTATGTATTTATATACTCCAGAGGAAGAAATTAATTTGAA
GAGGAATAAATAAGAATAATTAACATTAATTAAGGGATACTATGAACGATAAAAAATGTA
GAGTTTGTGCTACCCATAATATCCATATTAAGTGTAAAGAGGCATTAATAGCGAAATG
50 GAAAATTCGTTAAAGTTAGAGCTGCCATTGATAAAGAGAGCTAAAGGATGATGATAAA
GTTGCCATCTTTAATATAAAGCTCAACAACAAGTTATCAAGTATTTTTATAGATAAAGAC
ACAAATATAGAGGAGTTGAAGGAAGAGTTTAAGAAGATGAATGTTAGAATTAATTTATGAT
AGTGAGCAGGTCCTAAAAAGATATATTGAGAGGTTAAGGATTCAAAACAATTCTAAGCCC
ATATCAAATAATAACAACAATAGCAAAATTATAGCATAGAAAGAAAAATATAGAAATAG
AATCCTACAAATACTTATCATGCCCAAAACAATCAAACCTAACTAAACTATTGCATTGA
55 AAAGCAAAACCATTAACAAAAAATAAATCATAGAGAATACTATCGAATCTTATA
AAGAAATTTTATCTATTGCTTTAGATTTGCTTTAAAAATAATAGAAAGAGCCATAGAA
AGATTAGAGAGGGAATTTATGAAGAAATAAATCCAACTCCCAAGTTACCGACTCATT
ATATTTATACAGCCTCTCAAGATGCATCCACGAGAATAAAAGCTTTATAGCAATGAAAA
AGAGAGATAAAGCTTACACTTCAAAACCAAAATTAATAACATTTCTTATGGTTAGATG
60 ACGTTTTAACAACTATAGAGATTTTAAAAACAATATAGAAAACTATTTTTGATAGACA
AAGAAGGAAGAAACTTTGCATTTAAGATTATCTACACCGAATGGTAGAATAGTTATTC
CCCTAAGCCTCATAAACAGTTTTTAACTGCTAAATGAAGGCTGGGGAATAAAGCTG
GATTTAAATTGAGATTGAATAAAGAAGATGGAACGATAACTGTTTTAATTCATTAGAGA
AGGAGATAACAATTAATGATAGTTATAAACCCTTTATGCTTAGATTTTAACTTAGACA
ATATAACCTATGTAATTCGAAAATATAGAGTTAATAAAACAGATTTAGGAAATTA

-332-

CCGAAAAATACTCCAACATAATGACTAACATTCAAGAGAAATTTTCTTTTAAAGGAATTC
ATAAGCAGGATAAACCGTTGAAGAGGAAAGGATTTATTTTGCTAAAAAATTCGGTAGGAG
GTTAAAAATATCAGAGAAGATATACTAAAAAGTTAGCCAACAAAATAGCCAAAAAACT
5 TAAAGAAAATAATGCAGTTTTAGTTATTGAAGACTTATCCCTTATTTTAACCAAAATAT
TGCTAAAAAATCATTTAAAAAACTAAAAACATAAATTGCATAACATCTCAGCTAAAAAAT
CTTAGGTTATTTAAAAAATAATGCTTAGAATTTGGCGTTAAAGTTATTGAAGGAAATCC
GGCTTACACTTCGATAAAATGTCTAATTGTGGGAGTAGATTATCTCAACTGTATAAATT
AGCCGATGAGAGGGCTCTGCCTTCGAGGCTAATGTATTGCTTTGATTGCGGATTTTATGC
10 TGATAGGGATACTGTAGCTGTATTTAATTTGATAAAGAGATTTACGGGGCTGTATCCGTT
CAGCCCTAAGTCCAATGAACCCATAGCAGAGGGAACGGTGTTCCTCGATGAAGCTATGGG
TTGAGGCAACCCGTTTCCATAGCTTACCAGATTAGATACGATAAGTTATTATATGATAAG
TTATTAATGCTATGGTAAGCTATGGAAATGGGAACGGAATGAAGGATGCAAGAACTT
AGATAAACAGTGGGTGTATTATCTGAGTTATCAGCTGAGTTGGTTAATAGGGGATTAA
15 AGTTCCTGAAATTGTTTTTGAGAAGCTTAGATTAGCCAACGCTCTCCTTTCTATTACAT
TTTAGACCTCATGCATCCATAAATATATTGGCAAATGTTGAAAGAGAACTGAATTATGT
TCAATCACAACCTCTTAGCTTATGTGATACTGAACTGACTGAAAAATACTTAGATAGGAT
GATAAAAGCTATTAGAGGAGAGATTAAATGCTAAATTCAGTGAGTAAAGCAACTACAA
TAGGGAAGTTAAAAAAGAGGAAAGTAGAAGCAATAAGGGTAAAGTTACAAAAAGAGAT
20 GCAGATTGAGAGATTGAGTGACTTAGGAGAATGGCATGGGGTTATATTGAATACAGTGA
TGAGAAAGATAAAGTAATCATTGAAGGAAATATAGATAGGGTAAAAAGAGCATTAAAGA
TTTTGCTTTTATGTGGAAGAAGATTAATATATTAGTTTTACATGAATATAAGTGCATTC
AGTTAATTAATGATATCTAAAGCATCTAAATTCCTTATTAATCCCAAACCTGCGAAAAGTC
TCATAAATATTACAAAAAGAATTAGTCCAATCTTATTGATTTTTTTCGAACAAATGTAC
25 AATAAGGGTCTCCAACAGCTTGACATTTTCTCTGTAACTTCCACAATATATGTTTTGT
TAGTCATATTTTCTAAACAGCCAGCTATAAACCTGCTGTTAGATAACATATCGGTTCCG
ACGCTTTACAGTTTTTACACTCTTTATTATCTTTAACTACAACCTGTTAAAGGTTCCGATT
TTTCAATAACCACTTCTCCAAATCTTTTTTCATGAATGTAATCATATCATATAGGTGT
TAATTCCTAATTTAATCGCGTAATCTTTACCAATATCATAAAAAATCTTTTTACATTAT
30 TTCTAAATAATATTTCTCAAAATATCTTTTATATATGCGATGAGAGATACAGGACCTT
CAAAAGTACAGAATTTCTTTCTCTCTCCCCACTTTCAGAAGTAATTTTAATCTTAT
GCTCTTCTCCTAATTTCTTTTTTAAATTCCTCTAAAGGTGGATATGCCTCCAATATAA
GTTTCATGTAGCCGTGTCCCTCTGTAAATTTCAAACTTCTTTTAGCAATTCCTTATTAT
CTTTGTATTTTTCTAATAAATTTTTCATCATAGTTAGTTTAATACCCATAAATTTTGCTC
35 TGTGTCAATAATCCTCAACATTCAATAATCTTCATCGCATTGTGCATTTAAACCACAC
ATACCTCTATTCTCTACAATCTACCCACAAGTAAATAAAAAAATAATTAATATTTACA
AAAAATAATACCCCATATTTTGATATATATTATTTTACCATAAATCCAACTACGTTTAA
CAATGATTCTAAATATTATAGAACTCCACAGGAATAAATCTTTAAAGGGATTGATACCTC
TTAATATAATCTAAATTCCAACAGTTAATATATAGACTACGAAGTCTGTATTGTATATA
40 CTATTCAAACTTAGTTTGTGGAAGCCTTATAATAATTTTCAATTTCTATAAAAAA
AGTAATATTATAAGTCACATGTTTAAAATTGATAATAGCATTTTTAATTCATTTCAAGG
AAAATAACTATCACTAATTATATACTATTACTCTAAAAAGAACTAAAATTACAAACTAT
AAAAAGTAATAAATAGAAATAATAGAGACTATTTATTTTTTATTTATAGACCAATTTT
TTGAATGGATGTGATCTATTGGTTCAATTCCTAATTCCTTTGCTGCCTCTGCAATAATT
45 GCATCAACCATAGCTACTGCTGGGAATGTCATATATGCATTGTCAATTGGGCCATAAAG
ACAAAGTCTCCTGACGCCATAACTTGGACTAAGTTTGCTCCAACATCACAAACGTGGTGA
ATATCTTTTGCTTTTTCTCTCTCCAGCTTCTCTTAACCTGTTTTCTAACTCTCTTAAC
CAGTCCCATGCTGATGGAATGTTGTGAATACCACTCCCTACTGGATATCCAAATAGTGCT
TTAACAGCAAATGATGCTCTAACAGCAGCTCCTGCTCCGTTACCTAATGGTGTAACTGCT
50 GTATCGATTAAAGGATACTTAATACCTGCTTTTTCAGCGAGTTCTAACATCCCTTATCT
GCTGTTTTCCCACTTTGTTAAGACATTTATCTTTCTTCAACAGTTGGGTCCATTGGG
TCGAAACATAAAACAATTGATGCTTCCAAATCACTTTCACTAAAACCTGATATTCTTGC
TCATCAATAGAAACGTTAATAGAGTTATAAATACACTGCTTAGCATATCCAGCTTCAGTA
GCTCTCTTTGACGAGCCATTCTTGCTTCTCCTGATGTAGAGTCCAATAACATTGGACCA
55 TCCCAAACCTCAGCAACAAAGTCAATATAATTAACCTAACGCCCTCTGGGGTTCTCCAAAT
ACCTGAACCTAACGCTGGGTTTCCAGTAATGTCTTCCATCTCTGCCTGTTTGTAAATTAAA
TCCTCTGCCGCTGCTTTGTCAAAGATACCTTTTCTCTCATCTTCAACAATTTTGTGCTT
GCATAGAATATAGTCCCTGCTAAAGCTGTAGGATACTCTCCTGGCTGACCTCCAATTTT
CTCCCCGCAATTTCAACGACCAATTTGCTCTCTGCTCAAACTTAAACATAATTTCCCACTC
60 ATAATTTTTATATATTTATTGTTGAACAAGTACTTTTAACTCAATATTTGTATGATTTT
GATTAATGCTGGCAGTATGTAGGAAAGTATTATCCCTATAACTAAACCATATAATATTC
AATATCCCTCCCACTTTTTTCCAGCCAGTTGGAAGAGTTTCAAGCATTGTGTTTTCTAC
CTTTTTTCTAATTCATCTAACCTCTTTTTTAATGCCCTCATAATCTGCAGGGTCCATTAT
AAGAAATACAGCGCCAAAGGAATACCCATTAACACTATGGCTGAAACTACTCCAATATT

-333-

AATCCTTTTGTTCAGCAGATTTCGGTTCCTCTCTAAACCTCTATTTCTCGTTATTAAT
CCAACCTTATATTTCTAAATCCTCTACATAACTCTGTATTGATGAAACATTAGGTTTGT
GAACTTCAACACCCATTTTCTCACCTTATACAATTAGAACATTAAGATTCCCATATAATTA
5 GTAGCATTAAAGAACAAACCAGTGGCAATTCCTTGAATCTTACCATTATAATATCCTGCCT
GCCACTTTGCTAACAAATCCATTATAGCACATTTTCATTTCCAATTAATCTCATTCTACTCT
CAATTATTGCCATTTCTGGTGTATTGGTTTTATAACACCCCTCTTCCTCTTCTCCTCCTC
CTTTTCTCCTTCTAACTCAATTATAAATGGGTCTTCGTCAATAGCTCCTGGGTCTTTAC
TTAAACACTCTTTTATTGCTTGTGTTATTTTACCAATATCTTCACAGTCAATTAAATCAA
10 CAACTTCAACTATCTGCCCTCTAAATCTTTCAACTGCTTCTTTATTACGTTCTCTAAGA
ATGGTATGGCCCCCTTAGCTCCAATAATACCTCCATCGTCTCCAATGCCATTTTCCCAT
ATGCTTTAAACACTGTCCAGTTATATGCCCTTGGACTTCTGAACCACAGAGAATCATAA
ACCTAATGTTTGGGTTTGATATATAGTTTGTCTACAACCTTTTCAATACCCAAGTTTCTG
TGTGGCAAGGTCTGCTATAGCAGCCCCCTGCATCGATACATGCTTGCTCCAAACCGTGAG
15 AACCTAAAGTTACAACCTCCAACACAACCTTTCCGGATTTCCAACAACATATTCACCAGAGA
CAATTGGCCATCCTGGTGTGCTGCTTCTTTTATTGGCCATAGACATCACCATAAAAAATTT
TTAAGAGATTTTAGAATTTCACTCCCAATATTATCGCCAACAGTGCCATTATCCCAAGA
CCTATCCAAAATCCAAAGAATGCACCTTTAAAGTATCCTGATATTGCATAGACGCCATCT
CTATTTGGGAATGAGTTTAAATGGTGGATACCTTGGATCTAAAGAATGCTCATATGCATCT
20 ACCAATGTTTCCAATTTTAAATTTGTTCTTCTATTTGGAGAAACATCAACAAATAACAAA
TCTCCAAATCCTTTTGAATTACTCCTGTTTCAACAGTATATACTAAAGGAATATTCTGG
TCTATAAATACATAAGTTGCCATATTATCACCTTATTCCTCCTTCTTAGGAATCTCTGGA
ACGTGAAGAACTGCACAGGCATCTTTAAATGACATCTTAACAAACTTCACATAGACAATT
GCCATAATATTATTGAAACAATTATAGATACTATATCTAATTTAACTACTGAGAATACA
25 AACCATGTTATAAAACCACAAGCACTGCTAATGTTAATGTTCTCTTATGGCTTTCATTT
GGACCCAAACATGCGTTAAATGGATGTAATATTGCCATACCCGCAGCAATAAATGCCAAG
GCCATCATACCATTATTTAATGCATAATCAATGTATTTTGTGGTCTTAACTACCCACA
TAGGCCAACAGTAAATCCTAATAAAGCCATGGCTCCTGCAATTGATAAAATGTCATACTT
CTAACCATAAATTGGAATCTTCATACCTACTGGATTTACTGTTAATCTTCCAACGATATAT
30 CCAATAACTGCTGAACTATCAATGTTATAATTGGAGCTACCAATAAGGAAGATTGAAG
TAATCAGGAATTAACACACCTGCACTGCGCCCAATGTTCCCATACCTAACTTACCATA
CCAATGGACGGAACCTCTGTTCCAGACCGTAAGCAGCTACTTTCCCTAACAGTATTGTCT
CCAGCAACACATGCTGCAGATGCCAATAAACCGCCAATTAACATTCCCAATCCATAAGGT
GACAAAAAGTTTGCTAAATAGCATCCAACCAATGATAAAGCAATACCTACAGCAAAATATT
35 TGCTCTTCAGGATAAAGTTCAGCTGCATGACCTCCTCCACCATGTGACATAATTAATCAC
CCATTCTATATTGTTAAATTTATAAAACCATCAATACTGAAATTATACCAAAACAATAATG
AAGCTACTGTTGATGCAATAACTCCATTAGGCATTTTCTTGAATTTTGGGTCTGGAATC
CTTCAATAGTCCCTCCAATGTTATATGATGCTAAACCGCATTGATAAAGAAGAAACCAA
CTGCTAACATCCCTGCAACTCCTGGATCTAAACCGAGTTTTCTTAAAGCAATGTATGCTA
40 AAGCTCCACCAATTCCTCCTAAAGCCGCTCCTATTAAACCACTAACAAAACAAACAGTTG
GAATCCATGTCTGTAGTCCCTGGAGTAACATAAGGTTTTTGTGGATCTTTAGTTATAG
GATCAATTTACACTTATCTGCAGCTGGAACAACCCCAACTCCAAATACATAAATTAATT
GCCAATTAACATCGTTACTCCGAGCATAATCATTGAACCTTACAGCTCCAGAGATCATAA
TCAATGCCATTTCCAATAGGTGATAAACCTACATTTGATGCCATTACTGCAGCACCCATCA
45 ATCCAGTAAACCTGCCCTGCTGCCAAGTGTGTTGTTCTGTTCCAAACCCCTTGTAGG
TCGCCATAGCCGCTGGAGCCCCCTCAACAGGGATAAAATGAACACTTGCATTAATTATTG
CCCCTGCAATAGTCATCTCAATTAATGGAACAATTGCGCTAACAATATCCATACATTATC
ACCTTTTATTTTGTGTATGGTCCATACTTATTTCTTGCAAAGACCTCAACCTTTCTATTT
ATTATTGCCAATATAGCTACGATTATCAACCAATAACAATTGATATTATTGAAGCAGTT
50 ATTACACTTGCTCCTGACCTCCTTTTAAATATATCTCCCAAAACACCTCTCCAACCATCT
AAAAATACAATTAACCAAGCATAAACCCAGTTAAACTCCTCCTAATCTTGAACAGAAG
TATGAGGAGTCCATACCGTTTCTTAAACCATATTCTGCTTTAATGTCAATATCTCCATGG
TTAGCAACTGGAACCTCCTCCTCAAAATGGATATTTTGTATTTCTTTTCAGCACCATAA
TGAACGTCTCCAGTTGATGAACCAATTGCACCAACAGTAATCCCAATATCAATGCAATC
AATGGCAGTGGGAATGGGTTTCTAATATAGTGTTAGCTAAATAAGCCATTAAACCATATA
55 CAAAGACTGCAATAAAACCATGTCCAACAATTGGGCCAAGATGGCTCATTACAACATCC
CAATAAAGTGGCTGACCAAGTTTCTTGGATTGACCCACAATTCTACCTAAATATGCTGAA
ATAGCATAAGCCCCATGAACAAAAGCAGCTACTCCTGCTCCTAAAATTAAACGCTAAAATT
GGGTTTAAATCCCATTTGCATAATAGCATAAGCAACTGTCCCCGCAACTGCAACATACAAA
CCATAAGAAACTGGCTCCCCAGATATAGCCTTGTTAAAGTATCTGTGTATATTCCCCATC
60 TGTGGAGCTAACTGAACCTGTGAGTTTGGGTTTGAAGTACCTACATCAGATTCCAAA
TCTTCTGCACATCCAGCAACTGTGCAATGCACCACTCAACGCTAAAGCCCCAAGGGCT
ATCAGTGTGTCATCCATCCTATCACCTCATTTTACATAAGACTTAGTTTATTAGGTTAA
TATATAAGGTTTCTATTTGATTCTGTAAAAATCACTTAATTTTTATTAACTTTTTTT
TAGTTATAGGAATCCATCCAGAATATTAAAAACAATGTCAGAATTAAGTTTTTGTATTT

-334-

TACGTTTTAATATGCTTAACAATATCAACATAATAAAAAATTAAAAAATTTAGAATTTAG
 TGAGCTGGGATGATTGGATCTCTTTCTCCAGCTGGCTCGAATTCTCTTAAAGCACCTCTT
 GCAAACCTCTTTCTTGGATGTGTGAAGTCAAAGACTAATGATGGGTCTGCAAATGCAACC
 5 TTAATTAATGGGTTCAATGCAAATGCGTCTCCTCTTGCTGAGTGTGCAGCCTGTGTAATT
 CCAGCATATTTCTCTTGGTGACCAACGTTTCATTGCGTAGTTTGGATAGTTAGGCCCTCTC
 AATTCTAATGGGGAACCTTCATCGTTTCTGAATGATAATGAGTTGGCTGCTCCACACTGG
 TCTTGTAAGTCATAACCATAGAATCCTAATCTGCTGTGGTATTCTTTGTGCAATATCTGG
 CTTAGATACCATCCGTTAACTCCAGCGTTTGAGTTTCTGTAGCTAATGCAGTTGTAATA
 10 CCTGCTGCAGCAGCTGTAACCCCTGCTCTTTGGGAACCTCCGAAGTGGTCTTCTAACAAT
 GCTGGGAAGGTGCATACTGCTCTAAACCATATAAAGTTACTTCAGTAGCAATATCTTCA
 ACAACATCCATTGTTGGTTTTACGCTGTTGCATCCTCCATATTTCTTGGTTATGTAGTCA
 TATCCGTAGTATGAGAAGTCATCCAAGATGTCATCTGTATAGGTTGCTGTAGCATACTGT
 GTAAATCCGACTCCTCCAGACATGTATCCTCCTAACCAGATTTGGTCATACAACATAGCC
 CCAGCAGCAACAACCTCTAATGACTGTTCAACTGGGTCTCTGAACTCTTGATGTTTGA
 15 ACAATATCTGCCAAGACTCCGAAGAAGATACCTCCTGGTTCATTTGGCCCTCTTGCTCTT
 CTTGCTGGCAAGATGAAGCCATCTGAATGACATCAGCGTGCTTTGCAGCGTATGAGAAG
 TCAGCAATTGCTGCCTCCCCAGCACAGAGCTTGAAGCTGTAATGAATGACATTCCAATC
 TGCATAGCATCCATCTTGCTATTGTTTCCCCATCACAACCTCTACCGACTAATGTGGA
 ACTCTTGAACTTGGTATGTTCTCTTACCGATTGCCTTCTTGATTGTTCTGCTGCTCT
 20 TCTGGGAACAACCTGTTAATGTCAATTAAGAACCCTCTGTCAATCTCATCTGCTAATTCTG
 TCATCTCCAGTGAATATCTTAGCGTAACAGTCCCAGACTAATGCTGGGTGGACCTCAACC
 ATGTGCTCCTGAACAACCTGCTCCTCCTGGGAGAGCGTGTTAATAGTTTCCATGTATTCA
 PTAATTGTTTCTGGAGTAACCTCTACCCCAATCTCTTTTCAAGAACAGCGTGAGCTGTA
 TCCATCCCAACGATAACTGTTCTTCTTATGTCATCCCAGAACTGCTGCATTGCAGCGTTG
 25 TTCATGAAGTGTAAGTCATCCCTTCAACAATTGCACTGTATTGAACTTTGTAAGGC
 ATTAATTTTCTCTGCCCAATGGAACCTCAATATCTGGGTGTAATAATGGAATTCCTCCT
 CTCTTCTCAATTAATTTTTGTGCTGCCTCAACGAATTCTCTTTTTCTTGCTGACTGTCTC
 CATCCGCCAAAGACATAGAACCTTAGTGTATTTTCTCTTGGGTCTTCTCAAACCTTTTCC
 TTTAATGCCCTTAAGAACAATCTTTTTTCAAGCATCCATCGGGCTCACCTCTGTGAGGAAT
 30 TTTGATTTTATTTTTTATTTTTCTAAGTTATATTTTTGAGATTTATAATTTATTTTTGT
 AGTTTTAGTGGGAGAAAGTTATAAAGTTAAATGGGCAAAGCCCAATCTTAGAGTTTCT
 CGAAAACATCTTCTACTGGTAAGAACCCTCCTAAGGTTCTTGCTCTGTGGATTCTTTAA
 CAACTGTTAATAATTCTTCATCTTCTCTCATTGGGACTCCATCAATTCTGTAGATGGTTG
 TAATCTCTTTCAATTTCTCTTCTGGTAAAGGTTCTCCAACATCTACAGGCTCATCTAATG
 35 GTCTTCCAACCTGGTCTTTAACGTATAAAACGTGTCCTGTTTCTCATATAACATATC
 TCTGGAGAGCATCGAACATTAACCGTTTTTCATCCAATCTTAATGAGTGTCCGTGGACAG
 TAGCTCCTCTAATACCAATTCTTGCAAGGTCAAAGAATGCTGTATCAATTAAGAAGTTCT
 TTGATAATGCTTCTAAGTCACTCTCTCATCTCAATAACTTGCTTCCGGATAATGTTT
 CAGTATCTACTCCTCTAATCTCCACATGTAAGTTCTTGCTCTGTATAGGCTGAGCTG
 40 GAGCGAAGTACATTGAATCGGTAAATGTATGTATCTAATTCTGTGACCTTCTTTAGCTC
 CATTTAATGGCTCAACTAAATCTTACATAGTCTTCTGGTAAATCCATCTCCTCTAATG
 GTGGGTGAACGTGTTTGTAAATCCTCTCCTGGCTGTCTGTGACCCATTATCTTAACAACAT
 CATCATCTGGAATGTCTCTCAACTTTTCTAACTGAACATCTGGATTCTATGTGGTCTCTTC
 TATTTTGAGCAATTTTTGTTTGACCTGGGTAGAAGTGTGGCTGTATGCCATACAATCAC
 45 CTCAATTTAGGTTTAAATGAAGTTTATTTTCTTATTACCTCATCAATTTTAGTTGGG
 GACAAGATTCTCCCTAATTACTCCAGTTACGATATCTACAACGTGCCCTTTGGTCTTAG
 GTTCTAAGGGCATGACATCCCTTGTCTTATTCCATATTTAGCAAGGTCTTCCATATCCA
 CAGGAGCTTGACAGACAATAATCGTTGGAATTTCAACGTATTTAGGAGGAGACCCGCTT
 TATAGACGATATGGCTGATAACGTTTCCGAAATGAACAACACAGAGCTTATGTCTATTTA
 50 TTTGCTCTGCCCTCTTCTGGTTTGATACCAAAGGTTGAACCCAGAGCTCCTCTCGGAGCAT
 CATGTGGTATTCCTGAACCAGCATTTAAACCCAGAACGCTTGTGTAATCCCTGCTTCCC
 TTATTCCATAAGTTATCTCACAGACAGGTTTGTATATGCCCTCCTTCTGGTGACATCG
 CTACAACATACCACATCATTTTTTAATGCCTCTGCAAATGTCCCTCTCTGTGCTAATCCTC
 CCCCTTCTCCTAAACCCATCACTGACCTACAATCCACAATTTGTTCCCTTCTCCCTACTG
 55 GCATACTATTCTCTTTTTCTCTTTTCTACAACGTAAACAGAGTTTGCCATTCTACTT
 CTTGGATCAACCATTCCTATCAATCTTCTGTCCATCTCATTTATTAGGAAGACCCCATCT
 TCACCATATTTTATATAGTCGTAACGTGTTGGTCTGTCTTTAAGAATTTCCGACTCTT
 AAGTTGTAGCCAAATGGGAACATTTCTTTGCGAGATTCATCTAATTTATCCAACCTACTG
 TCATCACTGAGAGTTATCCAGAATCTCCCTGCCATCACTGTAGCTCTACTGGAACCTCT
 60 TTAACATGTATTATCTTCTCTGTGTGATTCACTGGCAAACCTCTTGAGGCCCCATAA
 GTGATAACTTTAGGGAGGGGCTGACCGTGGATTACAACCTCTTCCACGGTCTTCAAGTCA
 TAAATTTTATTGAGAAATTTTTCAGTTGTGGAGGCTTTCAAATACCTATGTGGGAAGATT
 TCAACTTCAATCATAAACAATCACTTAAAGTTTTAGATTTTGTCCCTTAACCTCTAATGCT
 CCTTTTATGACATACTTCAATGGCTCTCTGAATTCATCAATTGCACTGAAGACAGTTCCA

5

10

15

20

25

30

35

40

45

50

55

60

ACTAATGCTGATGTTCTCTCTGGTGAGAACATCTGTGTTCCAGCGTCTAAACACATTGCA
GCTGCAACTGGCGGGATAGCAAATCCTTTTGAGTGTCTTGTAAACGATGTGGTTTTCCGTTG
AAGATACCTGGCCCTCCTCCTCCGTAAATTGAGTGAAGTGAAGATGAGAATCCAACCTGCT
GTACCTTCTGCTCTACCGAAGTCAACTCCTGGTAATCCTGTTTCGTATTCTAAGATGTCCG
TTGTAGTATAAGATTGTTGATGCAATGTTCTGTGCTGCTCTTGACGCCCCACAGTTTACT
ATAGCAGCTGCAACTAAACCAGCTGCAGCGTAAGCGTTCCACTTAGCAACATCAACTGGT
TTGTATAACTTAAATCCTGATGGTAATGTTTTGTCTCTTTAATGACTCCATCCTCTAAA
GCTCTTTCAACAACGGAAGCAACTACTGTACCAACAGTTCCGTTCTTACCGTTTGCTTTA
ACTAAGTCAATTACTAAGTTGTCTGCGTTTAAATCCTTGGTATGCTAAACCTAATAAGTGT
AATCTTTCAAATAATCCAACAGCGTCTCCCATTTCAAACATTGCTGTTTGCTCCATAATT
GCAGCGAATGCAACTGCGTTTCATGACATTTTTCTTTGTACATGCAACGAAGTGGTTTGCC
ATGATGTTTTCTTAACGCATAACCTGGCCCTTCTAATGATAATGGGCTACCTAATAATGCA
GCGATGTTTGAACCTTTCTATTGTAACCTTCGTGTGGGTAGCCACCTAAACAGCTGCATGA
ACCATGGAGCATCGAAGATATCAACATCAATGTTCTAATAATAGCTTCTTTAATGCT
TGAGCTGTAACTAAACAGAGACTGAATATTCTGCTGCAACATCTAACCTCTTTGATGGA
ATTTGAACAGCCATCTGTTTTCCATCGTTAATTAATTTAATTGATGTGTCGTCTCTCT
GAACTCTAACAACCTTTTTCAACGTATTCAGCAATTGTTTCAGCATTTCACAACATTTGGT
AAATCTAATCTCTACCTTTAATCATACAACCTTTCCACCAACTTGACCAGTTCTCAAA
GCGTTCTCAATACCTGCTAAGTTAACTGCCACTGTTCTCTTAACATCTTTAACTAATCTC
TGAATTGTTGGGTGTGCAATGGGCTGATTGCTTCTAAAGGAACGTTTTCTTCTACTAAT
TTACCTTTTTCTCATACAAGTTTATTTGTGTCTTTGTACTTTACCATAGGAATCACTCCC
ACATATTGGTTCGATATTAGTTATCGCAGTTTATATATATCCAGTTTTTCATTTGAACAA
AATCGTAACATTTATATAGTGGATTTGGAATTTACAGGCAAAGTTTTAAATTTAA
ATAACATAAAATCCAATAATTTTTGCTGAAAAAATCCCTTATAAAATTTCTATCTGAAA
TTTTTTATTAAAAATAACAGTTATAGTGTGAAATTATGAAACAAGCTAATCTACTAATAG
ATTTGAGAGGAGAACCAGGAATTAAGTGAATGGATTTGTAAAGTTCTGTTATTTTAGAA
AAGTCAATAAAATAATCCGCAACCATTTGGATGTAGATACTGTCAATTTACAGTTGGTT
GTGACTATTGTATGTACTCAGTTAGGGAGATAAATGGTGATTTCAATCCATTACCAATTG
CATTAATGGAATTACAAAGTAGTTTATTATTTAAAGATACAGCAAAGTTAATTTAACTG
CTGGAGGAGACGTTAGCTGTTATCCTCAATTAGAGGAGTTATGTAAAGCTATAAACAATA
TAGGATTAAGATTCTATCTTGGCTATACTTCAGGAAAAGGATTTGATAATGTAGAGATTG
CAAAAAATTTAGTTGATTATGGTGTGATGAAGTCACATTTTCAGTTTTTTCAACAAATC
CAAAGCTTAGAAAGGAATGGATGAATGACAAAAATGCTGAAACTGCATTAATAATGCCTAA
GATATTTTTGTGAAAATTTGTGAGGTTCAATGTGCAATAATTGTTATTCAGGAGTTAATG
ATGGAGAAGAAATTAAGAAGACAGTTTCTGATTTAGTTGATTGGGGAGCTAATGCAGTTA
TATTGATGAGGTTTGCAAATAGTGAAGAACAGGGATTAATTTAGGAAACGCTCCTCTAA
TTGAAGGTATAAAGCCACATTCAGTTGAAGAATTTAAATAATAGTTGATGAAATCCATA
ATGAGTTTGGGGATTATATTAGAGTTACTGGAACCTCCTTTGCATGACCCAGTTGCTGGAA
CCCCATTTGCATTAGCTAAGAAGAAAACAGCCACATTTGGAGAGATTAAAAGACAAA
TAAATGGAGAAGCTACAATAATTACTGGAAATGTAGCATATCCATTTTTAAAAAGATTT
TTGATGAACATCTGTAAATGTTGTTAAAGTTAATAAAGATATCGCCGATTTAATAACAG
CTAAAGATTTAGAAAAATTAGATTTAAAGATGTTAAAGAGACTGTTTTATTCTCCCAA
AGGCTTTTGTGCATGATAGGGTTGCTGAAGAGATTTTAAAGGGATGGGGTAGATAGGA
TAGTTGTTAGAGGAGTGGAGCAATTAACCTTAGACGGAGAAGTTAGTGAATCTATACAA
GAGAAGAAGCATTAAAAATTTGAAATGAAGCATTGAAGAATTAATTGGTATGATTAAAT
TCTTTGGAATGAAAAACATAAAATTTATTTATCTAATTGCTTTTGCAATAATTTAGCTA
CAGCAAACTTGGAGTTGCTAAAGAAACATCTTTTCCATAGGTTTCTTTTATTGATATTA
TATTATACTCATCTAAGGCATCTTTTAAATCTCCTCTCCCAAACAGTTATAACAACAT
CATTTAAATTTGATCTTTTGTCAATAGTATCAACATCTCCTAATTAATTCTAACAGCT
TATTATAAAGCTTATTGGCGAAATCTATTAGTTTCATCATCTTTAACCATTTCTCTATCAG
CACATAAACTCTCACTAACCTTGTTAAGCAACTTTCAAATCCTTTCCAGCTCCATCTG
GAGTGTACAGGTGTAATCCTCTTCTGTAATTTATTTAATATTAGAGATATATCAGCCG
TTATAGCAAACTACTCTGAAGATAGATTAGTTAATTTTCTCTAAACTCTATTTTGTGG
CTAAGAAGCTAACAGGAGTTCTTAAAGTTCCAACATAAACTAACTGATTATTCATCAATC
TATCTAAATCTGTCTTTTTCAGCTAAACTCTTTATCTTTTATTGGAATTATATCTGTGG
TTGTAGAGCCCATATCAACTAAGATACAGCTATCTTTTATAAACTCTGCCACAAATTTAG
CTGTTGCATTTCAATTTGACGCTGAAACATCTAAATAATTTTTCTTAGCCTCTTCTGAAG
TTAAAAATTTCCCATTAACATCAACACATATACTGGGCAGTTAAAGCTTTTTCAACTT
TATCTATTATATCCTCAACTCCTTCTTTTTTTGTTTTGTAGCAGTCAGCTAATTCAGCAG
TCATACTAAGGCAACATAATCAACATTATCATTATAGTTTTTTAATAAATCTTCTAATT
CATCCTTTTTCTTCCACATAGGGAAATAGATGTGATGAATCTTATAATTATCTCCTCAA
TCTCTGTAATTTTTGTATTAGCTCCACCAATATCTATTTCCAAAAATCATAATTTTACCCG
TGAAAAATTTTATAACTCTCTAAAAATAATTATTGTTAATTCCTAAGTCAATACTAAAGT
TGAGGGATAAGTATATGAATACTTTTGTGAGGTTCAAAAAATTGTATAGGGAATATTACA

-336-

ACTTCGCAATAAAAAACAATATCCTTGAAATCCCTGAAGGTATTGAATATAGGGAATTTG
GATATGGTTATTTAAAAAAGTTGATAATAGAAACCTATCTTTAAAAATGAAAGAGAAT
ATAAAGATTGGGTGTTAAAAAACGCTCCAATGCACCTTTATAAATCTTTAGCTTATATGC
5 TCTACCCAAATAAATCAGGTGGAGCTTCTAAAAAAGGTATATTTAGAAGAGAATTAGCGT
TTGATATAGATGTCCATAAAACAAAAAATGTAAGCATGAAGATGATTGGATTGCAAGC
ATTGTTTGAAGAGGCCAAAAATCAAGCTATCTACTTAATTGAAGAATTTTAAATTCCTG
10 ACTTTGGTTTTAAATGAAGAAGATTTAAAGATTGTATTTAGTGAAACAGGGGTTATCACA
TATATATAAAACCAAGAGATGAAAAAATTAGGGATATTATTGAAAGCTATTCAAAAGAA
ATAGAAGATTTTAAATGGATTATATATTAGGAAAAAATTTAACTTAAATTCACTAGGTA
GTGGTTGGAGAAGAGATTAATAAAGGCAATCAAAGAAAGAGATAAAGAATATCCACAA
AAAAACTTGAAAAATGAAAAAATTGGAAAAAGGTTATTGAGAATTTAAAGAGCAAAATA
AAATATATAATATTATTGAAGAAACCAAAATAAAATTTGAATTGGATGAAAAAGTTATGG
15 ATGATGACATAAGGCTTTTGAGGGTTATAAATCTCTACATGGCTACTGGCTTTATGG
TTAAGCCATTAAAGTGGTTTAGATGAATTAAGGAGATTAAACCCATTAGAAGATGCCATAT
TTAAAGATTTTGAAAAATAAGTGTATGAGGTTAATATATTTGATGATAGAAAATTCGAAA
TTGAAATATGTGGAAGAAATACAACAATAAAAGTAAAAAATTTACTGCTTCAGCTTTAC
TATATTTATTTGGTCATAATATTAAATTTGAATTACTTAAATCCTAAGGACTTAACGCAC
TATCAAATATGGAATTTGAATTTTGAATTTGAATTACTTGGATACCACTAACAATAT
20 TTTACCAGCTTTTGTCTTCTTCTCTCTACAAACAGCCTTATTTTCCAGCTCT
ACAAAAGTGTGAACTCTCAAACCAATATCTATTAAAGTTTGTCTATTAAATCTCTCCC
AACGAATCTTTTAGTGTTTCAGAAGTTGAACCACAGGGAGCCTCTCTCAAACATCAAT
TTTTTCAATTTTATTATTTTAAATGTATAATTTTACTTTTGGTTTTCCAAAATATTTTAG
AAATCTTTTAAAGTGAGGATAGTTATCTAAATAATCTTTATAATCTTTTAGTTCATCCTC
25 ATCAATATCACACATTAAATAGGGGCGAGAAAGCGTTTCCAAAACCTCTCTATCTGCTTTT
AAATCCCTCTCCTTTCCAAGCCCCAACAAGAACAAAAGCTTTATTGTTGAGTCTTTTAT
CTTTCTAACAGCTCGTAGGTTAAATCTGGATTAAAGTATAAGTTATAAATAAATCATA
ATCTTTTAAATTTTCAATTGTATTTTCACTTATTGTTATTTCATCAAATCTCCATAATA
TTTAACAGTTATAAAATCACATGGAAATTTTGATTAAATTGTATTATATGCTCTGTCTCC
30 ATAACTCCATCGGTTAAAATAGCAACCTTCACACTTTCACCATGTATTTAAATTAATAA
ATATAAATAGTAAAAATAAAATGGTAGCCCGCGCGGATTGGAACCGCGGTCCCGGGG
TCCAAAGCCCCGGATGATAGGCCACTACACCACCGGGCTACATCAAACGTAAGCAATTTA
ATAAATACTAAGAAGGGGTATATATACTTTTCTTTCTATACTTCTTAAGTCTGATTTAT
CAGATGAGGCGTACTATTTCATAAATAAAGTTCCCATATATATACTTTTCGGCGTAAATGT
35 TTATATATAAGATATAGTAATTTAACTATGCTAAGGTGCTCGGTAGCTCAGCCTGGCGG
AGCGCTGCTTGGTAAGCAGGAGGTGCGGGTTCAAACCCGCGCGAGGCTCCATTTGAA
ACTTTAAGAAAGTTTCATCAAACCTAACACCTCCTCGCTTACGCTCGGAGGTGTAATTA
ATACGCAATTTTATTTAATCACAAAACAAAAGTTTCATTTTTTATTTTATGACATTATAT
TAATAAAACCAATATATAAATTGATTAGATTTAATTGGATTCTTTATTTTCTAACTTT
40 CATTATTTTCACTTTTCTCATCTTCAGAAATTATACCTATTGATTTTAAAAATGTCTT
TTAAAAATCTATAGTTTCTAGCTTTCTCTCTACTTCTAATCTCATAAACCTTCAAAG
GATTTACTGCTTTATATATCTCCTGTTTCAAGATTCTTAAATCCCTACTTCTTGTGAC
AACTCTAACAGCTACATCATTAAATCTTTGAATCTGCTTCATCAGCATAATGGACAATAT
ATGCCTCTATAGAGTTTGGCCTTGTGGAGAATGGTCTCCATGATGGGAAGCAACTATTT
45 TAATAACCTCAATTGGAAAAATCTCTTTGTAGAGCTCCGCAACAGCTAATGTTAAGTGGT
CTAAATTGAACATATCGTAGTGGTCAAAGTGCCATCTTCTTTCTTATATAGTTGTATG
GCTTCATAATATCATGTAAATAAAGCTCCAGCGATTATATAATCTCTAATACTCAACAC
CGTAACTTCTTCCAAAACATCAGCCATTTTGTAGAGCTATTTTGTACTGATATTGTAT
GTTCTATTAACCCACCTTCATATCTATGATGCCAATTTATACTTGCTGGAGCTTCTCGA
50 CACTTATTCAGTATCTACAATTCCTGGATGTGTGCTTTAGGATTTTTTAAAAATCAA
TAACCTTTTTCTTAATCTTCATCCTTTATTTGTTCCGCAATTTTATTAACCTCTCCA
TTAAATGCTTCCCTAAATTTTAAATACATCTAAAGTAAAAATAATATTTAATCTATTT
AAAGGTGTTGTATAATGATAGAATTAGCTAAAAATCATCTAAAGAAAGTTTGAAGTTT
GTGGAGCTAACAGAAATTGTGAATATTACCATGCCACTTTGATGGACAGGTTTGTCTAT
55 GGTGTTACTGCCCTTTCTATCCATGTGAAGATGAAGAATTAGGAGAGTATGTTGAAAAA
AAGATGGAACAAAGATTTGGAGTTGTATGAAGTGTTTTGGGTTTCATAGGGAAGATGTTG
CCACTGAAATCTTAAGAGAAATTTTAAATTTAACCAAAGATAAAGATATAGATGAGCCTT
TAAAGCTCTTAGATAACCATGAGTTGATGTTAAAAATAAAAGATAGGGTTAAAGCCAAAT
ATCCAAATAGGTGAAATTTGTGGATTTGCTAAATGTAGTTTATATTATTAACCTTTATTTA
60 CTCCTTTTAGCAGCAATAAATGATATTAAAGAAAGAAATTATTCCTCATAAATACACAAT
GCCATGATTATAAATAAATAGTTGTTGGTTATTACTATTTTGGATTTAATGCTATTATT
GCGTTTTTCTCTACTCTAATATTATGTTTAAATTAAGTATTGGAATGGGAGGAGGAGAT
GTTAAGCTATTCCCGCTTTAGCTCCAATTTTGGCTATCCAAACTCGTTGTATTTTAT
ATTCCAAATATATTCTCTACTTAATAGCAATTAGTATGTTTATCGCCGAGTTTTTCCG
ATGTATAAATTTTAAATGAGATATTGGAAAGATATTATTCCTTCAGCTTGTATTTAACT

-337-

5 ATGATGCTTGGTATATTATATTATTTTATAAATATCTACGAAATTCATACGCTTCAATA
ATTATATGGGCTTATATTGTCTATCTATCTTTGTCTCAAGAAAAGTTCCAAAATACAAA
GAATATACGAAAAAATTAGGATATTTATCCCTGCTTATTTGTTATTCTTATATATTATT
GATACAACCTTATTTTATTAATATAATGIGCTATTAACATCCATAATATACCTTTGTGAA
ATAATACTAATATCTATCGTTATTTATGCACTCACGGGTGTAGAACTTCTGACAAAAA
CATATTGAAGAATTAAAAGAAGGAGATATTTTGAGGGATGTTATAATAATAGACAAAGAT
GGTGTGAGGTAAAAAAGTAAATATAATGAAAAGAATAAAATTTCTATTAGAACATGAA
ATCAAAGAAAATGAAAAGGAAATAATATTAACCGATGGAGAAGGGTTATCCAATGAAGAC
10 ATTCGAAAAATAAAAAACTCTATATGGAGGGAAAAATCCCTGACAACTAAATGTTATA
AAAACCTACCCATTTGTTCCGTTTGTGTCATGTTTATGTTATAGTTTTAATGTTGATG
AAGTTAGCAATAATCTAAAGTGTGAATACCATGGAAAAATAAATAAATAAATAAATAA
GCCCAGGTATCTCTGAATCTCATTTTTATTCTTGTCTATATTGTTGGCATCTATTATA
ACAATAAGCCATTTTCTATCACAGAAATTCACAAAGGATGATAAGGTTATAAGTATGTT
15 GAAATGCAGCAAAACTGCTGTAATATTGGCAATTCAGGATATAATGGAATTAACCCA
AATGTCACCTTAACTATGSGGGGAATTCATGGTCAGGGAATAAGAAAAATATATACATT
TATATCTCACCTAAATCATATATTACTCCAGAAATAAAGAATTTTATTGTAAGCTATATT
TATAATGTCACAAAAATAAACCAAGTGAATATAATATAACCGTAAATCCATAATAGGCC
ATGATAACAAACCATATAATTTTGTAAATATAAGTTAGGGTGATTGTTGGTAGATAC
20 TCAAAAATTAAGCATTAAAGAGAAAAAGTAGAAGAACGGTGAATCTGGTTCTTAAAA
TTTATATTGATAATCTGGTGTGTGTAATTTGTTGGGTTATTAGCATTTATCGCATATAAT
GAAATCAGTAACCTACAGTTTCAAGAAAAATAACGCTTGAAAACAGAAAAAGCAGCT
ATTGAATCAATAAATCAGATGTTTGCCAAATACCTAACGACCCACAAAACTAATATAT
ATAAACCAAAATCCAAATGGCGAATAATATTGAAGAAATTAACGAAGTGTGGGAAGGCT
25 AAAAAGTACATTAGCTTTAAAAAATTATAAAATTGAGGCTATTAACCAATAAAAAAGTATG
TATGGGGAATATTATCTCTAAGTTTATCTGCTCAGGAATTAGTGCATAAAATAGCTTG
GCACAATCTACTGAAGAGATTGAAAATCTATTAAAGTCTGTTGATATAGAAAAAGACATT
AGGAGCATCATAGAAAAGCAGATTGATTATGTTTTCAGCTCAGGAGATAAATATTATTAT
GTAGAAATTAATGGAAAATCCATGTTTATGACAAGAGATGAAATTTCTAAATATAAAAA
30 TTCTGGACATTATCCGAACCTCAATCTCAAAAAATACTCCAGTATCACAATTAAATAAA
GTAGCAATTGAAATATCTGCAAAACAGTGTGTAAGTTACCACATAAAGGAGATATAATT
TCAATATACAGTAAAGACGGTTCGTTCAATAACATATGGTATCATAGATTCATCTATGTA
ATTTTATCTCTATAAGTTACAGTGAAGTAAATCAACATCAAGTAATATAAATGAGCTT
GGAGAATCTTACTCTCATCTTCTCTCAAGTATATCTTACTCATTAATAACCTTCCA
35 GGCATATTACATGCAACAGTCATAGACAGACTCGATTACGATAAAATAAAAAGATGTTT
GGAGAATATGAAAAAATTAATGAAATGAAGATGATACTCAAAATATCGATGAAAT
GTTAATTATTTCTTAATTATCTCAATTCCTGATGATAAAATTCCTGACATAATACAAATA
GACCTTAAAGATATAGTTATTGTAATAAAGTCCAAAGAATAAGTCCAGGGATTTGAGTTA
AGGATGTTTATGGATTATAAATATTTTTTATAACCATTATCCTAATTTCCATTTTTG
40 TGGATGTTACGAAAAATCATATAGTTTGTGCAATATAACAGACATTATGAACATAATGA
ACCAATAACACAAAAAATCCAAATTATGACCAGAATATATTTTTAAATCATGATTTACC
AAAACTTATCCAAAAATGTATAAATTTCCGAAAAATTATTATGAACCTCTGTATAAAAT
GTTTCTGATGTTAAAAAAGAGATTTAGACACATTAAGTTATATTCTAAAAACTATTAA
45 ATTGCCAGCGTATAAAAAAGAAATTATTACGACTGTTTCAGAGGCATCATGTCTAGATG
GATATTAGAGGGATATGGGTTCAAAACATATTTAGTATATGGAATATTGGACACCTATGG
AAATAGCGGAAGTCATATGTGGGTTGCAGTTTCAGTTAGATAATGGTAAATGGTGTAGT
TGAAAGTACATATTATGTGAAAACCTATTACTGTCCCGACTATGCAATAATTTATAAAAA
TTATAATCTAAATAACATTGTTATAGTTAGAGATATGAAATATATTTCCCAATTTTATGC
50 TGATACCCCTGACATGTTTTAATTCCTCACAATAATAGACGATTTTTAATAACACAGTT
GGATTGGTGAATCATCCAAAAACGCTGAAATCAAAAAAGAAATGTTTAACTCAAAATA
AATTTTGGTGATTGTTTATGAAATCACTCAAAAACTGATAGTATTTATTGTGCTATGCT
CGTTGTTTTTACATTCAATTTGTGGAGAAAGAACAAATTGCAGAGATGAGTATAACATATA
AGCTAACTGGAGAAATAACCAATACTAACCCATATTCAATATTTGTGCGCAGTACCTTCAA
ATATAACATTTGAAGAGAAAACATTGCCAAAACAGAGATTTTTTAGATGTTAGTACTT
55 CCGTTACACAACTTCTGGAATTTGTTTTTATAAACGATATTTAATGAAAGGAAGGAT
TTTGGATTCTCCATATACTACAGTAAAGATTAACATCTACCCTATACTCCAATAACCT
ATGATATAAAAAATTGATGAGTCACAAAGAAATTATGATGTTGTTGGACCTGCTGTAGTTA
ATAAAGTAAATGTCATTGATTTAAATAAGCTCTTTCCAGATGCAAAAATGAAGGGATAA
AAATTGGGAAATTCAAACCTTTATGTTAGTGGATATATTGTAAGGAAATGACACAGAA
60 CATTAAGTATTATTGTGCTGCTCCTCTAGTCATAGACAATTATGATGAGTTTCATAAAT
TTGGAGATGATAACGTCGATATTTGGATTTCTCATATAACGAATGGTATAAAAAATCAGA
TGGAAAGAGAAAATATCCATATAGATAACAATGACCCGCTAATTCCAAAAATGGATAATG
ATGTGTTGGGTGATGATACACACTTTAAATTTAAATAATTCGATGTTCTGCTGCTGCTT
TCACAACCTCATCAATCAACCAATAAGGTTTTTATTACATAATTTATTATAAATAAATA
ATTAACCTACGGGATTTTTATGCTCAAAATTTAGAAAAAGAGTCAGATATCCTTAGAAT

-338-

5 TTTCTTTATTATTTTTGGGGGTTTACTTGCAATTGTTATTGCCGTTGGATATCCTGGAA
TGTTTGGGTTTAAATAAACAGTTAGTATCTCTTCCATGAGTTTAGCTCATGCCGCTGTGT
CTAAATGAAGCAAACATAGAATTAGTATCTTCTGCAGATGAAGGCACTATGAAGATTG
10 TTTATATAAAATGTCCCCAGGAACCTGGGGAGCTAATAATAATATTTATATTTTTATC
GTGATGGAAATATTAAATTTAACATAACGGCAAAATGTGATATTACATAATTTTAAACG
GAAATAAACAGTTTCTACCCCTAAAATAATAATTGCAAATATAACTAAAATAGATGAGA
CACATGTAATTGTTACTCTATACCAATAAAAAACAAAATAGAAAAATAGAAAAGAATAA
TTAAATCCTTGGTAATTTCTATCTTCTAACTCTTTTTGCTTAGCTCTATTCCAGTTTGA
AATATTTTGTAGATATCCTGTTATTCTACTGAACCTTAGCTACATCCTCAGAACCACAATT
15 TATACACCTATCTCTCAAACCTCCCATACTTATTCCACATCTATTACAAACGCTTAGATT
TTTTGTGATGTCCAGAAACCGATATGTGTTTTGTTATCTTTTTTGTATATCCATCAA
TACCTCAGGCTCTGCAGCACTCTCAATATTTCCAAATATGCATTATATGCCACCCTTACA
CAAAGGATGGAATTTCTCTTCAATCTTAACCTTTCTCTCTAAAGTTATAGGGGCATCAAC
TCTAACATGAGAAGAATTTGTATAGTAGAGACTATCCACATCATTTAAGTCTCCTCTAAC
20 AACACTTATGGTTTTCTTCTTTGTAGTATTTGTAATCCAACCTTGCAATCTTCTGCTGT
GTTATGTAGGCAATAAACCCCTTCTCCACCAATAAAGTTCTCAGTACCTTCAACTGAGAT
ATCATATACATATTCTGGAATTTCAATCCAATACTCTTATTGATTTTATCTTTCAAAGAG
TAAGTCATTATCTATCAACTGCCCTATTTTATCCAACAACCTACCATATTTTTCTTCAAT
TTCTTTAAACATCTTCTTATATTTCAAACTTTTTTAGCTCTATATCTACTCATGTTTACC
25 CTTCTTTAAGTCTTCCCATATATGCAGATTATTAACATCAATACCAAATCTTTCTTTCCA
CTCTCTTTGTGAATATTGATTTATTATTTCTTTAACTTCTCTGCTATTTTTGGAATTAC
ATCCTTTCTCTCGTTGTTCTTAATTTCAACATCCAATAGCTTTTCAATATTTTCTTTTCC
AGTAATTTTTATAACATAACAATCTCTCCAATTTTCAATTTACTTTTGATTTTTATCTAT
GCTTACTCTATAGTTAATTTCCAAGGATTTTCAAAGCTAAACATAAGGTATCCCTTAATGT
30 TTCAGATGTTGTGTATAACCTTATGCTATAATCTCTTTTTGATTCTACCATATATATACT
TCCGCTCTCCATCTATATAGCCTTTAATTAACCTTTTAAAGATGTTTCATTGACAATAA
TATGGATGGAATCTCTTTATTTGAGCTTAGTTTATTTAATCCCAAACCTCTCAATATCAT
GGCTACTGTTTTATTTAGTCCAATTACATACAAATCTTTATACCTTCTCTTATCACCTTT
AACAGTAATGTAATATGCATCTTTTCTAATATTTCTTCAATAATCTCTACTAAGTTTTCT
35 AATAAACTCTTTATTGGTGCTCGATATTTCAACACATTTGTCAATCCAATGACCCCTCTGA
CAAGAATGCTCCAATTAGATAACCAAATTTCTCATCAAGTTTTATCTTATTGTTAATGTA
ATTTGCATGCTCAATAGCTTATTTTTTCAATTTTCTCTTTATCGACTAAATCTTCAATTA
ATCTAATCTGAAGGCATTTTTCTTCTTAACTAGGTTTTAAATCTTTCCATTTAGTTTT
ATATTCTTTATAGCTCTCCTTTAGAATTTCTTCATGCTCTTCAATGAATTTGATATGGTC
40 TTTTATTTTACATAGTATTTGTCTTTATTTTTAACGATTTCACTTAAGTAAATCTTATC
TTTACTTATGCTTGGAAATAATCTTTGGAGTTATTATAAAGTCTCCAACCTTTAAATCAGA
TGCCCTTACTTCTACAACATCTAAATTTGTCATTTATAGTGAATACACTATGGTCTCCAGT
AACTCTAACTTTTTTACCCTCTCCAATCTATCTCATAGATTCTTTACCCCTATGCTCT
GATAGCATGAGTAATGGTTTTAAGACAATTTTTCCATCTTTATCAAATGAAGGAGCATA
45 GATGTTTTCATCTTTAATATAAACCTCAATATTGTTATCTCCATAAGTTATTGCTCTATC
TTTATATCTGTTGAGATATTTCTCAACAAATTCACCAATTTTAACTAATTTGTATTCAAT
ATTTTCAAATATCAATATCTTCTCATCGTAAGGTAACGAACCTTTCAGCCGGTGTGTTGT
TACAGTCCATCTTAAACAGTCTCTTCCCTTAACTTATCAGCACTCCCTAATATATTC
AATAACCTTTTCAACCAACTTAACTGCATCTTTGACTCATGTAATTTCTCTCCAAATG
50 ATATTTAAGCATCTTCAATCAATCAACAAATCCAAATGTTTTGTTGTGTTCTCATACCT
ATAATATGATTCTCCATCAAACTCCTGAGTTAGGAAAGGCATTAAGTTATCAACATACAA
CCTCTCTTTTGTAACTTCAATGTTTTATTAATAATGCTTCTTTCAAATCTCTAACCTTTC
ATGCAATATCTCAAATAACTTAGTATCATCTCCATTTGCCTCATAAGCTATTCTCGGTAA
GTTTAGAGAGTACCACTGCATGTTTCCAGTCTTAAAGTGTCTATCTCAGCGTCTCCTGT
55 CCAATTTCCACTCAACCTTGTCTACAACCCATTGCATTTGTATTAGTTACCTGCCAATC
TGGAAGCATGTTTATAAAGTAAGGAATCCCAAACCTTAGCAGACAATTGGTGGATTTTATA
CATAAGTCTTTTATTTTCTATCTTTAAAGGCATTTCTCTCAACTTAATTATAAAGTTTGG
GAATAAGAATGGTTTTCCCATGTCATCTCCTTCCATCATCACATCAACTAATGCCTCTAA
GATTAACCTTCGCCTCCTCCTCATAATCTCCATAAGTTCCTCTTGTAGTTCCAGCTATCAC
60 TGCTGGCTTATCCTTTAAAACCTCTGGGATTTCCAATTTCAAGTTAATGGAGCTGAATAT
TGTATTGTGGCATAAGATACCAGTAGCTGTTATAAAGTTCTCATTATCCTCAACGCTCAA
ATCATAGACATATCCATTATAGTCAATCTCTTAACTCTTTTTATTTCAAATGGGATATT
TAGCTTAAATTTATTTATTTCTTCTTAAATGTGGATTAAAGTTGCTCAATTTTTCTTAA
TGTTTGAATTTTAAATTTCTATTTTGAATTTCCATGCATAATCGTTGTATGGTTTTTT
ATCTGTTATTTTTCTTAGATGTTCTTTTATTTATTTCTATAGTCAATAGGTAATTTGGTCATA
GTTAGCTGGCTTTATTTCTCTCTTTTTTGTATTTTGAATTACATAAGGTTTAAATCTTC
TGTTGCAATTTTGAATTTTCAATGACGTATAGTTTGAATTTCTTACTATTTCAATTTCT
TTAATCTCAATCTTTTCCCTTCTCTTTTATTTTGGTTATTGAATAAATCATTCCTAA
GTCAGATAGCAACAAATGTAATTGTCCTAATAGTTGTTGAGATGTTGTATATATCTGCAC

5 TCTTCCATCTTTACTAACATACCCATCTCCACTTATTAATCCTCCCAAGAATGCTAATTT
CATTTCCTTTGTCTCCTTTTAGTATGAACTCTGGGCTGTTTTGTTTTATTGCTTTCCATT
TATATGTTCTTTAAGAACCCTATAGAATCCTTTATTTACAAATCTTACAGAGTCCTCATA
TCTTTTAACTGCAATATTTTCATTATCTGCTCCTTCACAAATCTCTCAATAAATTTAGC
10 TATGTCATCATCTTTTGTAGTTATTGAAATGCCGTTTGTAAATAAACTTCCCTCAGCAAC
AAACAAACCTAAGAATTGACAAAGTTCTTTTGTATTTTAAATTTTCTGGGATATCATT
TTGCTCTGCTATTATATTTTGAATCAGTTCTTTGGTAGTTAGTTTCTATATAATCTCCAAT
TCTATACTCAACATCATACGGATTGTTAAAGTTTCTGATAATATGCTTCATTGTGCTGG
15 CTTAACACAGACTAAATTACCGTTTTCATCATAGTTAAATAATGAATGGTCTTCTGTTAC
TATTATAGAAGTCCCATCCTTACCAATAACTTTATAAACCTTCCCTCTTGGTTTGTGCT
TGATATCGCATAAACTCTCTTAAACTCTGCCTTTCAGTCTTAAACATTAAGTATTTGT
ATAAACTTCAGCAATGCCATCCAAGTAGAGGATTTCCTGTCTCCATCTACTATTATTTT
ATCTTTATATTTCTCCATAAATTCATCAATCGCTTCTCCAATTTTGCAACTTTTAAATTT
ATCTCCCTCTTTTATGAAGATTAATTCATCTCTACCTAAGCTCTGTCTCCTCTTGTCTAC
20 GTACATTTGATTTAGTTTATAAATAAACATCTGCATTAAGTCTTTATTTTTCATAGCT
AAGCCCTCTAACATAAGGAGCTAACCAACATTAAGTCTTATTAATTTTCTAGCT
CATATTTGTCTGGGCGGCCATCATAACCTTAGCCGATGCTGTATAGCTACTTCAGGATG
CTTTGCAGGTTTGAACAGAGTATGCAATCCAGTTCCATCAACTTTTAAACCATTTT
25 AAAGAAATGGTCTTAAATCATGTTGCAACAAACAGGCTTGTGTGCTGCATATTCCAAATC
GTGTAAGTGTATATCCCTTTTATATGAGCATCAGCTATGTGTTTTGGGAAGATGGCTAA
TAAAGCATATTGCTTCATTGTTTCATCAGCAACCCATTATGGATTGATTCTGGGTTATA
CATTAAAGTTGGCATTCTCTCTTGAACCACTCTTATCAATTTGGTTATATCATAGACTGG
30 CATTCCTAATCTTGTGTGCTTATGCTTAGTTCTTCAATCCATCTATTAAGTTTGT
ATTGACTATTTCCCTAATCATCGGTGCTGTTAAGTATTTGACTTTAAGTTTTTTAGTTC
TCTCTCAACCTCATCAGCTATCTTCTAGCTGTTTCTCATCTGCCCTGTCTCTCTAAT
CAATGCTTTTGAATCTTTCTTTGTCAATGACTCAAACCTTTTTTCAGATGTTCTAAC
CTTCAATATAATCCCATTTCTATAATTCTCAGCTACATCCTTATCAATCTTCTTTAAAC
35 ATTATAACAATGTCTTTAACTCATCGGTGTTATTCCATTATAAACTTTAGCACAAAC
TTCCGATATTATTGTGCTAAATCGCCATAAATTACCCCACTGTTTATTAAGATTTAGC
TAATTTATTTACATTGAATTTCTCTTTTGTCTCTTTTATTACATAGAAATCCAT
AACTTTCTCTGCAAAATCTTTAGCACTTATCATTTAATCAACCAAAATAGTAAAAAT
AAAATTATTTGTAGATTTTAAATGGATGACTTTATTACTTATCTTAGGAATGTGATTTAG
40 TTTTTCAGTAATAACATATAAACTAACGGAATGGATTTCCGCTTAAATATTTTAAATAA
GTGCGATAATCTTTTAAATAGTATATAAATGGAAGAATCCCTTTATTTAACTAAAGAGC
AATTTATATTGATTTATTATGTTGAAATATTGATAAGGATTAATTTATATTTTATCTCC
TTAACTGCTCCCAATAATCTCATCACTCTTTTAAAAATCTTGCCTTTATCTTTTG
45 AACTACTGCTCCAGAGGCAACATCATGCCCCCTCCATTACCACCAACTCCTTAGCAA
CAGCCATAGCAACACTTAAATTTAAACCTCTATTTACTAAATCCCTATTCCTCTGCGAG
AGAATTAGCTATATCTCCCTCAATGTGTAACCAATAACTGGCTTATCATCAACCAATA
TAGAGGCAATAATCCCAATCATCCCTTCTTACCCTCAAAGTAATAGATGTTGTTTAAAT
TTTTTAGTTTAACTTTTAAAGTTTATTGATTAAAGTTCTTTTATCTCCCATAGGATTT
50 GATTACCTATCTTTATGCATTATCATCTTCTAAGCAGATTTCAATACCTACAGCAATA
AGCCATTTCTACCAACGGCATTAGCATTTCTGACAACAAAAGGCATCTCTAACCTTAT
GCTCAATTAAATATCTATCAATCAGTAAGTTCTCAATCTTTGGGTATTTGAAGATTATAG
45 CTGATAAGAGTTTTTCTTGTCTGTGTCATCCAATTGTTTTTATTTGGGTCTATACCAA
TATCTTTTAAAACTTAAATGCCCTTTCCTTCAGAGGCTAAATCTGGGATATATGGTTTTG
TGCAATAAGCAATTGCTTTGTATATTTCAACATCGTAGATATTATAGACAATATCGTTCA
TTATCTTAACGTATCTATACCTCCCTGCTCATTTACAATAAAATTTATTTAAACCTAAGA
55 GAGGGTTGTATTGCATATCTCCAATAATCTTACTATTGCCAAGCACTCAAATCATAGT
AGCCAAATCTCTTGCCACTAAATAACAACTCCACTTGCAGTTATCTCCCTGATCCAT
CTACCCCAAAGATGTGTGGGTTTAGCTGGATGATGTTTTCGTTGATAAAGCTATCTTTTA
TAACTGGAGGATGATGCTAATATAATTGCATTAAAGTTGTGTTTTATTATTTCTCTTA
TTTGCCCACTACCCATGTCTGCAATATAAAAAGTGGTTTATTTACCTCATTTCTCTTAG
60 CTAATTTTTCAATAACCTCTTTTGATAGGTGTTCAACAACAGTTAAATGGAATAATTTGT
TTGTTCTCATTAACTTTTAGCTAAGATTCCTCCACTACTCAATCCATCTGTATCGTGAT
GGGTTATGACTCTAATATATCCATAATGGTTTAAATCTTCTCTTTAATAGCTTTAGTCA
CTTTTCTATTCTTTAAGTTTTTCCATCATAATCTTCCCCCTATTCTTTATCTTTAAC
TTTTTATTAAGATGGAATAATATATTTAATAATTTCTAAAATGATTTCTAAAATTAAT
AACGGTGGTATTTTTGAAAAAATAATTAATTAATAAATTAACCTTAAAGAAAAATTTAA
AAATAAAAAAATATTATTGCCTATTCTGGTGGGATTGATAGCTTACTTCTATCTATATT
ATTGTCAGAAATTAAGTAAATGCAAAAGTATAACTTAAATTTAAAGTTATTAA
AATTGATAAAATTAATAAATGTCCAGAGAGATGTTATTGTGCAAAAAATGTTTTT
TGAAATCTTAACTAAAGAGAAGGAAAAATATAATTACGATGTTGTTGATGGAATAA

-340-

CTATGATGATTTATTTGAAGATAGACCCGGTTTAAAGAGCTAAAGAAGAATTTAATATAGG
CTCTCCATTTTGCAGATTTTAAAGATTGGTAAAAAGATATCTTAGAGATAGCTAAAGAGCT
AAATATAAATATCCCTCCAAAAGAAACGTGTCTATTAACAAGATTTGAGTTTAAATAGGGA
AATTTCAATAGAAGATTTAAAAAGATAGAAGAATTAGAAGAATTTTAAAGAAATTATGT
5 AAAAGGAGCTATAAGAGTTAGAGATTATAAAAAATTTGGCTGTTATTGAAATTGAAGATGA
TTTAAGTAAGATAAATTAATGAAAAAGAAGAAATTATTAAAAAATTTAAGGATTATGGATT
TAAAAAAGTATGCATAAATTTAGAGATATACAGGAGTTATTGATGAATCTTATATCTCAA
TATAGCGGCTATTCCCTTAAATGCATTTAAATCATAGCCCCCTCTCTGTTTCTGATGA
10 AACTGTTACAAGTTTAGCCCCGCTCTGCTCACATAGTTCTGAGAGGTATTCAATATAGTC
TTTTTCTCAACGATACTTAAAGCTCCTCCACATTTTGGGCATTGGGCATTTTAAAGCTC
TTCTTCCAATTTAATAAGCTCAAGCTTATTGACAGTTTCTTCTAAGTAATCGCAAT
GTTACATGCTATCTTTACCTTATATTTCTCCAATTTCTCAGAAACAATTAAAGTATCAAC
AGCTCCCATCATTAAGGCTCTAAAACCTCTTTCTCTCCATAGCAAGCTAATCCTCCATC
15 CTCTTTAATTAATTCCTTTAAAAATCTCTGAACAGCTTCTCTCTCTTTCATCAACTCAAC
ATCCTTTAATAATGGAGCTGCTTCTCTAAGAGCTCTCTTATACCAAACTCCTCTGTATA
GCATAAATCAAATGTATCCAATACAATCTTTTAAAGTTCATGGTGTAAGTAATCTCCTTC
AACAACTCATTCTTTGTATGTCTGGCCCTCCAACCTAAGATTCTCTAAGTTTTTCTC
TTGCAATAATGGAAGGAATTGCTCATTGCTTCTGCCCCAATCTCTGCAAGAATCATG
20 AGCGCTAAATCTATAAGCCTTTCTAATCTTCTGCTGACTGCCCTCCTGCTTTAAAGT
TCCAGGAACCTCCACTTGTAGTTTTTTTAAAGATATTTATGTTTCTACCTTTAACTAACGC
TATTGTAGCTTCGTTTCTATCAACCAATATAACTCCATACGCATCTTATCCTCTAAGAA
TTCTCTAAGCGCTCTAAATAAAATTTCTGAATCACATCTATAGATGTATGTTTTTATTGG
TTCTGGTGGCTCTATAACGTAGGTTTCCATCTTTTCTGTTCCAGGCCCACTTCTTGGAAC
25 CATTCCAGCGAATATAACAACTCCTTTCTCTAATGGCTCTTTAATAACTTTAATCTCTG
CAAAATTTGCTCTATTGCTGATTGAACATTTTCTTGTGCTTTTACTTTTAAATGTTTGA
TGCTGTGACATCTCCTCCTTAAATGCTGAGCTACATCAGATATCCTTCTACCTGCTGG
AATATAAAGGCTGATAAGCTCAGTCCCCTTACCTTTCTTAGATTTTAATTCTTTCAACAT
CTTTTTAAATAAATATAAATGTTTTGAATCAGTTGATGCCATAACTATCACCATGAGACT
30 TTTATTTTAAATTTATTTTGGTATCTAATTTTTTAAATCGTAAAAATGATTAGTGTGTT
TTTAAATGAGACATGAATATTGAGTGTAATATTTATTAATAAAGATTTATATATAAT
TTTGCTAAGCTGATTTATCCTTTTAAATAAGTTTCTAACAACATCCAATATATTTCTG
AGATAACATATTTGCAATTTATCTTTTAAACACATTATTAGCCACTTCCAAAGCCTTACACA
ATTGAGCTTCATCTTTAAAGTATTGTCTTGTGCTGCTGCTACTATTTGTATTGCTTTG
35 CCTGCCCTTCAGCTTCAATCCTCAAACCTCTCAGCAATACCCTCTGCCCTTAAATTTCTAC
TCTGGCTTCTCTCCCTCTGCTCTAATATTGCTGCTCTCTTCAATCTCTGCTTCTATT
TGTTGAGCCATGGCATTTTAATGTCTCTGGTGGGTCTATTTCTTTAACTTCAACCTTT
TCAATCCTAACTCCCCATGCATCTGTCTCTCTATCCAAATTTCCAATAACTTTGAGTTT
ATATACTCCCTTTTATTTAAACCTCATCTAATCCATCTACTACCAATTTATGCCCCAT
40 CTGGTTTGAGCTTAAGTTTATTATAGCATATTGTAATCCTCAACTTCTAAATTTGCTTTT
TCAACATCTATAACCTTATAATAAACCAACCGCATCCACTTTTACAACCTGCATTATCCTTT
GTAATCATCTCTTGAGGAGGGATATCGGTAACCTCTGCTCCTCATATCAACCTTAACAGGC
ACATCTAAGAATGGAATTATTATATTTATCCCTGGCTTAAATTTTCCAATAACCCCTCCCC
AATCTAAAGATTAATCCTCCCTCATATTGATTGACTATAACTATTGCTTTAACAATTATA
45 AATAATGCTATAATTCCTAATATTAGCCAAAACCAAAACATATCATTACCTTCACTTT
TTTAATCTATTAGTGAGACTCCTTCACTCCTACAATCTCAACTTTATCTCCATTCTTTAT
TTTATCTTTAGACTTTGCTAACCATAATTTGGTTCTCTATCTTAATCCTTCCATAACCAT
TTCTTCAAAATCTTCTATTGCTATTCCAATCATTTCCAACAAATCTCTCAGCCCCCACTTT
TATCTCTTTTCCAACGCCATAAACAAATTTATGTAAGATAATTATCGTCAAACTCCAGC
50 AATTATTGCAGAAATAAATGCATATTGTGGGATTATTAATAAACTACTCCATATATCAA
AAGTGCTATCCCCAGGCAGGAAATATAAATCCTGGCACTATAGCTTCCAATGCTATCAC
TAAAAAGCCTGCCAATATAAAGATATAGCCAATCTCCATCTATATCACACATTACAATCT
CCAGTTGCTTAATTAATTATGATTATTATAAATTTTAAATTTTTCGTTTTTGTTCAG
TTATGTTTATATAGGGTTTATATTAAATTTATGAAAGATTTTTTAAACTCATTAAATCATT
55 GAACCTTTGGCTAAATTAATAGAGGTGGAAGATATGGTAGAAAAGGGTAAATGGTAAAGA
TTAGCTATGACGGATACGTTGATGGAAGAACTATTTGATACAACCTAACGAAGAATTGGCTA
AAAAAGAGGGGATTTACAACCTGCAATGATTTATGGTCTGTTGCTATCTTTGCTGGAG
AAGGACAAGTATTACCTGGATTAGACGAAGCCATATTAGAAATGGATGTTGGTGAGGAAA
GAGAAGTTGTTTTACCTCCAGAGAAAGCTTTTGGTAAGAGAGACCCATCAAAGATAAAAT
60 TAATCCCATTATCAGAATTTACAAAAAGAGGAATTAAGCCAAATAAAAGGATTAAACCATAA
CTATTGATGGAATTCCTGGAAAAATTTGTTAGCATAAACAGTGGAAGAGTTTATGTCGATT
TTAACCATGAATTAGCTGGAAGAGAGGTAAATATAGGATAAAATTTGAAGAAGTTGTTG
ATGATAAAAGAAATTTGTAAGAGAAATTTGTAAGAAATGATGTTCCAGATTGAGTGATG
TAAAGTAATATCAGAAATGGAACAGTTAAGATAGAATTTGCTGAATTTGCTCCATTTA
TTCCAAACATTCAAACAGCTAAGATGGCTATTGCTAACGAAATATTGAAGAGATTAGAAG

5

10

15

20

25

30

35

40

45

50

55

60

ATGCTGAAAAAGTTAGCTTTGTTGAGACATTTGAAAGAAAAAGGAACTAAAGAAGAGA
ACAAATAAATTTATATACTTTAATTAATCTAAAAATCATTACGTAGCTTTTTTATAATTAA
TTTCCCAATTCCTATTTTAAACCTTAATTTTGTAGTAGTGAGTAAGTATGAAAGATAAA
TTTGGTAGGGAAATTAGGTCTCTTAGAATTTCTATAACAAATAAATGCAATTTACAGTGC
TTTTATTGCCATAGAGAGGGGCATGATTCAAATAACGATAGATATATGACTCCAGAAGAA
ATTGGGATTATAGCAAAGACATCAACAAAATTTGGAGTTAAAAAATAAAAAATCTCTGGT
GGGGAGCCATTACTGAGGAAAGATGTTGTGAAATTATTGAAATATCAAAGATGAAAGA
ATAAAAGACATTTCTTTAACAACCAATGGAATCCTTTTAGAAAAATTTAGCTGAAAAACTT
AAAGATGCTGGGCTAAATAGAGTTAATGTGAGCTTAGACACATTAAATCCCGAATTATAT
AAAAAATTACAAAATTTGGAGATGTTGAGAGAGTAATAAATGGGATAAAGAAAGCAATA
GATGTTAGCTTAACCCCTTTAAAGGTCAATTTTGTAGCAATGAGTATAAATTTAAAGAT
TTACCAGATATTATGGAATTTGTAGGGATATTGGGGCTATTTTACAAATTATTGAATTC
ATCCCTTTGAAAGAAGAGCTTAAGGGCTATTATTATAACATCTCTCCAATAGAAAATGAA
ATTAAAGAAAAAGCTGATAAAGTTATTACAAGAACTTCATGCAGAATAGGAAAAATAT
ATCGTTGATGGATTGGAATAGAGTTCGTAAGGCCTATGGATAATAGTGAGTTTTCATG
CACTGCACAAGGATAAGATTAACTTATGATGGCTATTTAAAACCATGTTGTTGAGGGAT
GATAACTTAGTTGATGTATTAACTCCATTAAAGAAAAGGAGAGAATTTAGAACCATATTTT
ATTGAATGTATAAATAGAAGAGAGCCATACTTCAAGATTAAGTAGTATTTTTTAATTTTA
TGATATAGTTGAATATTTTTCAATCTCTTTTGCAGCTTTTGAATCTAAGTTAATAGGTT
TTCCCTAAGAATTCATTTTTATAACTTCTTCATCATAAGGAACAAATCCTAAAACCTCTA
AACCAAGTTCCTCTTAATAATATCTTTTAGTAACCTTTATCTTCATTCTTACTTTAT
TAACATAACTCCTAAGTTTTTTATTCTTAATCATTAGCTAATTTTTTCATTCTCTTTG
CAGTTATTAGAGATTTTTTGTGGTTCTATAACAATTAACATTAAATCAACAGTATCTA
TTGTTTTCTTCCGAAATGTTCAATTCCTGCTTCCATATCTAAGATAACCACTTCATCTC
TCTTTAAATTAAGTGCCTTAACAATCTTCTCAATAAAACAGAGGCTGGACAAACACAAC
CCTCCCCCCTTCTCAATAGTTCCCATACCAAGAGAGTTATGTTTCTATTTTATAGC
CAACTTTATCTATTAAATCATCAACTTTTGGATTTATTTTAAAAATATTTCCATAAGTCC
CTGGTTTAGCTCCAGTTCTTTCTCTATTATGTCATGTCTTTTTTGATAATGGAACATCT
CTTCTCAACTCCAAAAGCTAATGCCAATGTAGGGTTTGATCACAGTCAACTCCAATAA
CTTTAAATCCATTTTTTCAAATAATCTCATTAAATGTTGAAGCAATAAATGTTTTCTTA
CTCCTCCTTTTCCAGTTATTGCTATTTTCATTTTATCCCTTAAGATTTTTTAAAGAAAA
ATTTCTAATTCATTATAAACCCCCACATATTTTATAAGTTTCTACTAAATATTTGGATA
TATCAAAATTAATTTTTATCCATTTAAAAAGTTGCAAACATTGTAACTTTTTTTATTT
TTAATAGAGCGATATTATAAATTAATTTTGTATAACAAAGATATAATAAATTTTTCA
TTAGAAAATCTATTGTTATAACCGTTTCATATCGTAAGATTTATATAGTAGTTTGTGGAAG
GTATATACCGTCAATCAAATAACAATACAAAACCTTAGGTGATAAAGTATGGCAATGAGC
TTAAAGAAAAATCGGTGCTATTGCAAGTTGGAGGGCAATGGTTGCTACAGCTTTAGCAAGT
GGAGTTGCTGCTGAAGTAACAACATCAGGATTCAGTGAAGTACAAAGAGTTAAAGATATA
TTAGTTAAAGATGGACAGCCAACTGCTATGTTGTTGTAGGTGCTGATGCTCCATCAACA
ATGGACGTTGTTTTCAGCTGCTGATATTGCTGCTAAAATAGGAAGCTTATGCTACAAAGAA
GGAACAGTTGAAGATGGAAGTGCTGACATAACCGTTTCATGCAGAAGCTAATTCGGATGAC
TTCGACTTAAAGAAAGATTGGAACAATAGTGCAATGCCGCAATGCATACGCATTATTC
GTTGCTGCATCAGATGGAGACTATTTCAGAAAAATTCGAAAAATGATACTGGAAAACCTCA
TTTATGGACAATGGTGTTTTAGGCGATGCTGACAAAATAAACAACCTGTTGATTAGGA
GATATTGCAACAATGATGAAAGTTGATGATGTTGACCCATCAGACTGGTATGACAGTGAT
GATGATGCAGGAGAAATTTGTAATGGTGAATTAAGAACGATACTAGTGATGGATTCACT
GTCTATAAAAAGAACATGTTATATGAAACATTAGTTTATAAGATGATGAAGAGAACTTT
GCTAACACAACAAAATGGAAGAAGGTATGAGAATTCATTCTTAGGAAAAGAGATGGTT
GTTGTTGATATTGACAAAGATGATGCAATATACCTAGGTACTCCAGTATATGATGGA
ATCATAAAGAAGGAGAACTTACGATTTAGGAAATGGATACCAAGTCAAAATAAAGCA
ATATTAAAACTACTGTAAATAACACTGATGTCTATAAAGTAGATGTCCAAATATTAATA
GATGGAAAAGTTGTAGCAGAAAAATATGATAAGGCTCCATTAGAATTAGAATACAAAGAT
GACGTTGGTGTAAACAGTCCATAAAGCTTGGGAAAAATGTTGGTGGAGATTACGGATATGCA
GAATTAGTTATTTCAAAGACCTTAAAAAATTAGAACTTGACGAAGAATACGTAAGTATGAT
TGGAAAGCATACGCTGTATTAAACGATAATGGAACAATGAAATTAGAAGATGACTTAAAT
GATAACAATGTAGATAAAGTTGTAGGTATTGCTTTAAGATACGATGGAGATAAATTAGAC
GACTTAGATAGTGGAGACGAAGTAGATATTTTAGACTATGTTAAGTTTAAATTAGATGAC
GAAGATTCAAATGACAAATTAAAAGTATACCTCTCAATGGACAAAGATGTTGATGCTACA
TTAAACATTGGAGAGAAAGTAAAAGCACTCAACGCAGAAGTTAAATTAAAAGATATAAAA
GCTAATGCAGTTGAACAGTTTTCATTAAACGACCAATCGCTAAGTTAGATACAGAAGTT
AGCTTAGACACAGCTGACAAAACTTGGTCTTAGTTGGAGGACCGGTTGCAAAACAAATTA
ACAAAAGAGTTAGTTGATGCTGGAAATTAGCATTAGACAACAACAGCCAGCAACAATC
GCACTCATTCAGATGCTGCAACCGACATGATGTAATTGTTGTTGCTGGTGGAGACAGA
GAGAAGACAAGAGAAGCTGCTTTAGAGTTAATCAAAAACCTCTAAATTCCTTAACTTTTT

-342-

CTTTTTTATTTTTTTAGATGATTTAATTCATAAATTTAAATTAATTGGTGAAATTATGAA
ATTTTTTAAACAGAGAGAAAGAGATTAACAAAATCTTATCAATTATAGAAGGAGAGCCAAA
TTTAATTTATTTTTATCTATGGTCTTTTAAACAGTGGGAAATTC AACCTAACAGAAGAAAC
5 CCAGTTCATATACTCTATTGTAGTTACTGATGGTTTGTTCATAAATAGTTCCTTTTTG
TGGATTTAGAGAGTAGAAGGTAATTCATTTAAATCCAACCTCCTCAATTAATTTAATAA
CTTCTCAATATCTTCCTCTTTTCTCCTAATCCTAATATTATTGTTATCCCTGTCTTTAA
ACCCAATTCTTAGTTGCTTTAACTAAAGTCCAACATTTATGCCATGTTTTTGTATTATCG
10 TCGGATAGTTTTATTTATTGAATATGTTTATAAGACTGGAGAGTTAGAAGGAAGAGCTGAT
TATATTTTAGTGGATGACTTTGATAAAGAGACCGCAATAAAATTTATGGATTTTTTAGCT
GAAGAGATTCTAAATAAAAAATTTATCTGAGGATGAGAAAGAATTAATTTATTCCTATGTT
GGTGGGAAGCCAATTAATAGAAATGTTATTGATAGTTTAAAGATATGAAAACCTTAAAGA
AATTTTAGAGAGTAAATGTTTAGAGATGAAGTTCAAAATTTAAATATTTCTTAGAGGATGT
15 TAAAGAAGAGGATGAGGAACCTTTATAATAAAATAGTTGATGCATTAAACTGTTTAAAGA
AAATTATGAAATGAGGATATAAAAAATACCTAAAAAATTAGAGTGTCTTAGTTAAGAA
TAACATCTTATTCTTAAATCCACAAAAAGGGAGTTTAAACCGCAGAGTTATCTTGTCTG
GAACGCTATAAAGATGTTATTATAGTAAGATATATATTC AATTTTGATGAAACTTTTTCT
AAAAGTTTCTTTTAAACCTCAAAGCTTTTTAATTTGGAACGCTATAAAAAGATTACTAT
AATTTATTAGGATAATCCTGCCTTATTA AAAAATAGCAAGTTACTAAAGAATTTCTAAAG
20 TGATATAATGAAACTAACTGAAAAAACAATTA CTTTATTGTCTTAACCTGTTTGTAAAT
TATATCTACTACGTGGCTATTTTTAAACCAATTC AACCCAAAAGAAAAGCATATAGCTGA
AATAAAGAAGGAGATTATGTCGTTATAAAAGGATATATCCAAGAGATGTATGTTAAAG
AGATAAATATAGACACGTATTAATATTTCAAGAATTGTTATAATGATGGCACTGGAAA
TTTGGATGTTGTTGCTTTTGGTAAGACAAGAGAAGAACTTTTAACTACATACTAAGCTA
25 TAATCCTATGATTAAGAAGGAGATTATATCGAAGTTAAAGGAAGGGTAACCTTATATAA
GGGGAAGTATGAAATAATTTTAAATAATATTAAAGATTTC AACTTCTAAAAAGAATAA
CTTTGAGAGAGATATTATCTATCTCCAACCAACAGGTATCTACGCTTCAAAGTATGG
AAAAAATACCACACTTCAAAAAACTGTCTTATGGAAAAAGATTAAAGAGGAAAATAT
AATATATTTTTATTCTGAAGATGATGCAAGGCCTTG GTTATGAAAAATGTAAGTGGTG
30 TGAAGAACATGGTGGTTAATTATGGGAAAATATAAAAAATCTTCGCCATAGCTGTTTGT
TCTCTACTGTTATTTACTGTTTATTTTTATAGAGACCCAGATAGAGTAATAACAAAAGGA
AATAACATAATTTTATCTCCAGCTGATGGGACTGTTGAATATATAAAATTTCTACGAAAAT
GGAAATCCAGAGGTTTTTAAAGATGGGAATTGTTATGTTTAAATGTTTCAAGATACTTC
CCAAACGGATGCTATGTTGTTGGTATCTTCATGTCTCCGTTGGATGTGCATGTTAATAGA
35 GCTCCGATAGGTGGGAGGATAGTATATATAAAACATATTGATGGTAGTTTTTACCCTGCA
TTCTTAGAAGGTGTGGAGAAGATAAATGAGAGAAATATAGTGATTATAAAAAATGGTCT
GAATATGTTGGAGTGGTTCAAATAGCCGGATTTGTTGCAAGGAGATGCTGGTTAAGCATA
AAAGAGGGGAGATGTATTAATATGGGGCAAAAAATAGGAATGATAAAACTTGGTTCTCAA
ACAGCAGTAATAATCCAGCCAACATAACATATAACAGTTAAAGTAGGAGAGAGGGTGTAT
40 GCAGGACAAACAATTATTGCAGTTAAAGAACAGATAATTAAATGATATTAAAAAAGAGT
TTTAAAGATTAGAGAAGATTTAGGACTGAAGAAGGTAGAGTTTGATATTGTAGATATTGA
GATAGAAGGGAAAGTTTTAATTATTTACACAAAAACAGAACTGACAAATCAACAATTAT
TGGACCTGGCGGCTGGGTAGTTGGAAAATTAAGGGAGGAGATGAAAAATAGATTTGAGAT
TATAAGGGTTGAGGATTATACTGACAAAGTTTTATTTGAAGAAATTGTAAAGGCAATTAA
45 ATCTTTATTGTATGATGAAGTTATCCAAGACATCTGTAACATTTTTTATACAGAAAGAT
TCCTTAATAGGAAAAAGAATATTATATGCTTAATTCACTGCCAATATGATTTATAGGCTT
AGATATTTTATCAATATTTTTAATGTTAAAGCAATAACTTATGATTTCCAGCATTAAT
CCCAATAAAACCAAGAAGAAGATTGCTAATTTTTTAAATAATAAAGATATAGGCCATAA
ATTTTTTAAATTAGACATTACAAAGGATAAGATAAAAAATCTTATTGATTCCTTTCCCTA
50 CGGATTTTTTAAAGATAAGATTATAGAAGATTTAGAGGGCTACGTATTTACAAGCTGTTT
AGATACTGCAGTTTTTAAATATAATAAAGGAACGATTATAAACTTTTTTGAACCTTTTCC
AATAAAAATTTAAAGGATGAGAATTATTTAAATTACTGTCTCTATGCATTCAAAGTTG
TAAATTTGATAAAAAATAAGAGAAGTTTATAAAAAAGGTAGTTAAAGAGGTTTATAAAGG
CTTTAAAGAACCAACAGATGCATCTGAAGAAATTTTATCAATGATAAAATAAAATATTTG
55 CCTATACTTAAATTAATAATTGCTGTTACTCCAATCTATCTTAATAACAAAAATTATGG
TGATACAGTTGATATTATTTTCGAATATGCCCTTGCGTCTGGTTTTGAGGATAAAACA
TTTTTAAAGAAGGGAAAATGATGTTTGATACACTATTAAAGCAATTTTTGGAGATTGATA
AAGTTATATCTTACTCTATAAAGATTTTGTGATAATTATATAGATTTTAAAAACCTTG
AATAGTTAAGATTAAAAAAGAAATGAAATTTGAAAATAAGCTAAAATCTCTTTAAAT
60 CTGAAAATATTGATTATGCATTAGTTGTAGCTCCAGAAGATGAAGACATTTTATATAATT
TAACAAAAATCATTGAAAGTTATCCAGTAAAAATCTTGGATGTTCTTCTGAAGCAATAA
AAATAGCTGGAAACAAATATTTAACTTACTTAGCAATAAAAGATGCCGTAAAGACACCAA
AAACATTTCCACCAAAAAATATGTAGTAAAAAGATAGATAGCTGTGGAGGGAAATTTA
ATTTATTTGATGAGAATTTTTAATTCAGGAATTTATTGATGGAGAAAATCTATCTGTCT
CTTTGATTGTTGGTAAAAAATCCATCCATTATCTTTAAATAGGCAGTATATTGATAAGA

-343-

GGGGCTTTGTTGGTGGAGAGGTGAATATTAATCATAAATTTAAAGATAAAATATTTAACC
AAGCAATTAAAGCAGTTAAATGCATAAATGGCTTAAATGGATATGTTGGTGTGATGTAA
TAGTAAATAATGACGGTATATACATTATAGAAATAAATCCAAGAATCACAAACAATTT
5 ATGGGCTAAAAACAAACCAAGTTTGGCAGAGTTATTAATTTAAATGCAACAATGAAG
AACTAAAATTTAAAGTAAAGGGAGAAAAATTTACAATAGACAAATAAATCCGGTGATGAT
TGTATGAGAGACATAAAGGATAATCCAATAAGAAGAGGCATTGCCGAGCAAAGCGAGGCA
ATGCATCCCGGGTATACCAATAGGGCGAAGCCCTATGGTTGTAAGAGAGATCCAAAGGAT
10 ATCGTGCTTAAGGAGAGTGAAGATATTGAAGGGATAGCAATTGAAGGTCCTTGGTTAGAG
GATGATATAAGCTTAGAAGAAATAATTAAGAAATACTACCTAAAAATTTGGGTTTCAAGCA
TCACATATTGGAAAAGCAATAAAATCTGGAAACATATTGAAGAGAAAAGAAAAAAGGA
GATGAAATAACCGTATTTTTGGATATACATCAAATATTGTATCTTCTGGATTGAGAGAG
ATTATAGCATACCTTGTAAACATAAAAAAGATTGATATTATCGTTACAACAGTCGGAGGA
GTTGAAGAAGATTTTATAAAATGCTTAAAGCCTTTTATATTGGGAGATTGGGAAGTAGAT
15 GGAAAAATGTTAAGAGAGAAGGGAATAAATAGAATTGGAAACATCTTTGTCCCAATGAC
AGATATATAGCGTTTGAAGAATATATGATGGAATTTTTTGAAGAAATTTTAAATTTACAG
AGAGAGACTGGAAAAATCATTACAGCAAGTGAATTTTGCTATAAATTAGGAGAATTTATG
GATAAAAAATTTAAAGTAAAGAAAAGGAAAAATCAATATTATATTGGGCATATAAAAAAC
AACATCCCAATATTCTGCCAGCAATAACAGATGGTTCAATTGGAGACATGCTATATTTC
20 TTTAAAGTATAATAAAGATGAAGAGTTGAAAAATAGATGTTGCCAACGATATTGTAAG
CTAAATGATATAGCCATAAATCTAAGGAGACAGCATGTATTGTTTTAGGTGGTTCTCTG
CCAAAGCATAGCATTATAAATGCAATCTATTTAGAGAAGGAACAGATTATGCAATATAT
GTCACCACTGCCTTGCCTTGGGATGGTTCTTTAAGCGGAGCTCCACCTGAAGAAGGTGTA
TCGTGGGGAAAAATTTGGGGCTAAGGCGGATTATGTTGAAATTTGGGGAGATGCAACAATA
25 ATATTCCCATTTATTGGTTTATTGTGTGATGAAGTGATAGTATGCTGTATGTTGTAGGTAT
AGGAAGCGGTAATGAGAGGCATTTTACAAAAGAGGCTGAGGAGATTTTAAATAAAGTGA
TTTAATAGTGTGTTATAAAAAATTACAAAAAGTTTGTGAGAGGCTTAAACAAGCCAATATA
TACAACTGGAATGACAAGGGAATTGATAGAGTTGATTATGCCCTTAAAGAGGCTAAAGA
TAAAGATGTTGCATTAGTTTCAAGTGGTGATGCAACAATTTATGGCTTAGCTTCGTTAGC
30 TTATGAGATAAACGCAGTTAAAGGTTATAACGTAGATATAAAGGTTGTTCCAGGGATAAC
CGCATGTTCTAGCTTCAGCAATCTTAGGAAGTCCGTTAAATCATGATTTTGTGTTAT
AAGCTTTAGTGTATTATTAAACCCCTTTAGAGACAATATTAAAGAGGTTTAGATGTGCGTT
AGAGGGAGATTTTGTATATGCATATAACAATCCACTAAGTAAAGGAGGAAAGAACCATT
CTTAAAGCTATGGAATATTGGCTGAGTTTGCAAAGGATAAAGATTATATAATTGGGAT
35 AGTTAAAAATGCTGGTAGAAATAAAGAAGAAGTTGTAATTACAACTTCAAAGATCTTTA
TAAAAACTTAGAAAAATCTTGGAGTTTATAGACATGAATACAATATTAATCATTGGTAA
TTCTTCAACAAAGATTATCAATGGCAAGATGATTACACCAAGAGGCTATTTAGATAAATA
TAAATTTAGGTGAAAAATTATGCTTGAAAAAATCAGAGAGGAGTTAAACTCATATTTTT
TAGAAAGGAGGGAGGAGATTGATATTGCTTTAACTTCAATCTTGGCTAATGAACATCTG
40 TATTTTTAGGAAATCCAGGAGTAGCTAAATCACAATTAATTAGGGCTATAGCTTCCCAT
TAAACGCCAACTACTTTGAAAACTTATAACAAGATTCACAACCGAAGATGAGTTATTCC
GCCCTTTAAGCATTAAAGAGTTAAAGGATAATGACAGATTCGTTAGAAAAACATCTGGTT
ATCTACCAACTGCAGAAATAGCATTCTTAGATGAAGTTTTTAAGGCTAACAGTTCAATAT
TAAACGCTTTTATTATCAATAATCAATGAGAGGATTTATCACAATGGAGATAGGATTGAGA
45 AAGTTCTTTTGTAGTATTTTTCGGTGCTTCAACGAACTACCAGAAGAGATGAGTTAT
TAGCATTTTATGATAGATTTTGTGTTAGAAAAGTGGTTAGGGGAATAAGAAGCTAGAAA
ATCTCTCAAAGTTGATTGATTAGAGGAAGAATAAAGCCAAAACTATAATTGATGTTG
AAGATGTTAAAAAATGCAGAATGAAGCGTTAAAGGTTGATATTTCAAATATAAAGATG
ATTTAATTAATAAATAAATTTGCTCTTTGAAAGTGAGGGAATAAGAATCTCTGACAGGAGAT
50 TTAAGAAGTCAGTTAAAGCAGTTAAGTGCTTTGCCTATCTAAACGGCAAAGAAAAAGCTG
ATGAAAATGATTTAGACATTTTGGAGCATATCTATTGGAATGAGCCAGATGAGTTCTATA
AGGTTTCAGTAGAAATTTTAAATATCAATCACTTTGCTGGATTGTCATTAGAACAGA
GGGAAATTTTAGACAGCTTAATGAATGAGATAAAGAAAAATCAACAAGATAGAATTAAT
TGGGAGGAATAGAATATAGAAAATGCCTTGAGATTTAGGGAAGTTGAATAGCATGTCCA
55 TAACTTTAAAGATGTTAAAAATAAAGCAATTGAGGCTAACAAACCTTATGAACCTGTTG
AAGATGTTTTAAAGAGGTTAGAGGGCTTTAAAAAGTATGTTGAAGGGTTATTGAAGGGAT
AAGTTATGAAAAACATTATAAAGCACGATGCTTATGATAAAAAGGCTTATGAGAGATTTT
TAAAGAACGCAAAATATTTGCAAAACTCATTAGTTATTATTCTCAATATCATCCAATTC
ATGAAAAATTTGGCTGAAGACACATTTTATGCATTCTTTAAATATGTTGTTGAATCAATC
60 AGTATGTTGAAGAAAAATTTAAGATAAACAAGGCTATATTAGAGGGAGCTATAAAAAATA
TTGAGTATGAGAAGAGTAAGCTATTAAGTGAAGTGGATGAGGTAAATGCTGGAAGTCCCA
CAATAATGTTCTGTGAGAAATCTTTGAAAACTTAAACTTGCAAACTAAATAAAGAGT
TAAAGAAATTTGCATCTGAAGGAAAAGGAGAGGGGTTAGAGGATAAATTAAGAAATAG
CCAAAAATACTATGAAGATATAGCAGAGGAGGTTTCTGAAGTTATACAAGGATTCATG
CCGTTGAAAACTTTGGGAAAGGGAGGGAGATAAAAAGCTACTATCGCCAGAGGATAGGA

-344-

TAAAGTTGGCAGATAAAATCTTGCAAAACAAAAAGATTAGAGAGATTGTTAAAAAATTG
GTAAGTTGAGATTGTTGGCTATAAATGAATATAAATCAAAGATTAAGCACTACTCTGGAG
AAATTTATTCAACAAAAATTGGGAGGGATTAAAGCATCTACTTCCAAAAGAAATCGTCA
ATCTTTCAGATGAGATTCTATATTATGACTTTTAAAGAAGATTGCTTGATAAAAAGCTCT
5 TAATCTATGATATTGAGAATAAGTTGGAGAAGCAGAAAGGACCTATAATTAATTTATTAG
ACCACAGTGGTTCAATGTATGGAGATAGGGAGATTGGGGGAAGGCCGTTGCTTTATCCA
TAATAGAGATTGCCAAGAGGGAAAAATAGAGATATCTACTACATTGCCTTTGATGATGGAG
TTAGATTGAGAAGAAGATAAATCCAAAACTATAACATTTGATGAAATAATTGAAATAG
CATCATTATATTTTGGTGGAGGAACAACTTTATAATGCCGTTGAATAGGGCTATGAGTA
10 TAATAAAGAGCATGAGACATTTAAAAATGCTGACATCTTGCTTATAACTGACGGTTATG
CTGAAGTGAATGATGTATTTTAAAGAGTTTGATAAGTTTAAAAATGAGTATAATGCTA
AATTAATCTCTGTTGTTTGTGAACATTTCCCACTGAACTTTAAAGGCTATTTCTGATG
AGGTAATAAAGGTTTATGATTGGCAGATGAAGAGGCAAGGAAGATTATAAATCTATAT
CTTAAATCTTAAATCACAATAATAAAATGTTTAAAGGAAAGTTGATGCCCAAAGGGAAT
15 CTAATAACCCCTATTCAATATATAAACTGTAATAAATCCTATTCTAAAGCAATTTTTCTC
AATAACTTCTCCTCTTGGCTCAACCTCTCAAATATTTGAGCTTCAAACCTATAAATCTT
AACTCCCTCAGCCAGCCACATATCTGGTGGTAGTCCAGCTTTTAAAGCAGAGATGAGCTAA
ATACTCTTCAACATCCCATCCATCTACTGGCACTTGTGGCAATAAAAGCCCTCTATA
AAAGCCATATTCAATAATTAAGCCATCTCTACCAATTTTATTTTTTCCAAATACTCTTT
20 TGGATGATTAACCTTAAATAAGTTCTGGAGGAGTTAATATACTTACCTCAACCAGATGCT
ATCCATCTCTTCCAATGTTACTGGAGGAAACCTTGGGTCTTTTGTGCCGCACTTATTGC
TGCCCTCCTCTAAAGCCTCAATTAATGGCATTATTGGTCTGGAATCCCTATAACCTCT
AAGTTCTTTATCTGGATAAGTATGTAATGTGCAAAAACATCCCTTTTTCATTAAATAC
CTCTGGATAACTCTCTATAACTATTTTTTACCAGCCAAATAATTTCTATAACTGCTCT
25 TGCATATCTTACAGCAAAAGTTCCCTCTCTAAGGTTAATAGTCTCATAATCCCACCAA
TAAAAAATTGATAAAAAATACTAAAGAAATAGTAACGCTCAGCTGTCCAGGTTTCATCAC
AGTTCAGTGAAGTCGGCACTCATCATCGCGTTAATATTTTTAAAGAATATTTTTAAAGTT
TATCTTTTATATCCTTTAGAGTGTCTTAATTTTATTAGTATTCTGTATGCTCACTTA
ATATTTCAACTGTTTTTACATGCATATCCTTAATTTCCAATAACACTTTTTTATGCTCTT
30 CTAATTCAGCAATATTAGCTTTATGTATTTAACTCCTTCACTAATTTTTTGTTTAATT
CCAATATATCATCAGAGGACAATCTACTAATACCTTCTGGAACTCAATGTAAGTATTTA
ATCTTTTTTCTTCTATTTTTTCAATTTCAATTAATTTATCTTTCTTTTCAACCTCTCAA
TGTATTTTTTAAATAATTCTTTATCTTCTCATCATCAAAGTTTGCTAAGATTCTAACAG
TCCCATCCTTATAGTTATAAATAATCCCATTAATGCCTAAACCTTTTCCAATATTTTCAA
35 TTCTATCTCTAAATCCTACGTGTTGAACTTTTCCGTAAATTTTTAACTCATAAGTTGTTG
GCATAATTATCACCATAATAAGTTATTTTGTGTTGATTATAGTTATAGTTTTGGTTGAT
TTACACCTTTAAATCTTTAATTGTGGAAAAGTGTGGCAAAAAAACAATTTAGTAA
TATATTTATATAATTTGATATAGAATTTTTATTGATTTTTATAAGCATAATTGTTCAAAA
40 ATTGATTTTTGATACCTACTAAAATCAAAAAGAGAGGGGAATTATGGTTGTAATGCAATC
TATAACCTTTGTAGTCAAAAAAATAAGCCCAATAAAATATGTTTCAAAGGTGCATATAT
CGAATGTGAACTGATAAAGGAAAAATTGCTATTTGGGGGAGTAGCAATAATATGACAAA
TATTCAAAAAGTGCAGAAATGCTAATACACCATTACACTTACTTCTGATAGATATGTCAA
TCCGTCATGGATTCAACATAAATATTGGATACCCGAGTCAGCAAAATATCGTAATTAATA
AAAAGAAGAATATAATTTAAGATAACATGCCATCAATGCATATCTTATGATGTTTCGCT
45 TTTAGACAGTACTTTTTTGTGAGTATATAAACCATGTAATAAAGCGGACAGTCCCTT
GATTAAGTTAAAGTTATTGCACTACTTAGTTATTAAATCTAGGGAAAGTGAATATGGAT
AATTAATTTCCCTATGTGGTGATAAGATGCTTAAGGAGATTAAGAATGATTATGATAAAAT
TCGAGAGAAAATGACGCAAAAGATACAAGAACTAAATCAACAAATAACACAAATTAAGAA
50 ACAATACAAATTTATAGAGCAGAATAATTTATCAGATCAACAAATCAGACGATTCAAAA
AATAAAGCAGCAAAATATATTCAATAGAATTTGATATACTAAGAGTAGAATCTAACAGAAG
TAATATGATCTATAGTAAACATTTGAAGACATGTGCGAATATCTTGATTCACATAGTGG
CATTGGCAGGATCTTTGCAGAAAGTTTTATGAGAGAAATAGAAAAAATATACAGCTAAT
GAAACAATTAGTAATGATGGAGGATCAAATAATAAATAAAGCAAGAAATACGAATGAT
55 AGAAAAAGATCTCAAAATTTAATATAATAGTAAATATTCTCATTTATCTTTGTCTAAAAA
CCTATCCAAAGTTATTTAGCTTCTTTCTTTTCAACTCATTTTTTGAATCTCTAACTACC
TTCATAATCCTCAAAATCATAAAAAATATTACATTATAAACTATATCAATCTTCTCTCC
ACAAATCTTACATCTTTTAGTTTCTACATCTAAATTAATTATTTTGGCGTTGAATATATA
TCTTTCTATCAACAAAGCTCCACAGTTTGGGCAATAAGTGTTTTCTCCCTCATGCCCTGG
60 AACATTTCCAATATAAACATACTTAAGCCCTCTTCTATAGCCAAATTCCTTGCCATCTC
TAAGGTTTCTATAGGCGTTGGAGGAACATCAGTTAGTTTATAATCTGGATGAAACCTTGA
GAAGTGTAGAGGGGTTTCTCTCCCTAACTCATCCCTTACAAAGTGTATTATAAATAATAA
ATCATCTATGTTGTGATTGTAGTTAGGAACAATTAATTCGTTACCTCTACCCAAATCC
TAATTTTTTGTCAATTTGCAGGTTTCTAAGACAGGCTTAACGTAGCTTTACACACTTT
CTTATAAAAAATCAGCATTCCCTTTAATATCTATATTCAATGTCATCCACTGGAAGGGCTTT

5 TAATGGCTCTTTCTCAATATAGCCGTTGGTTATCATTACATTGAACATTCCATTTTCCCT
TGCTATAAAGTGAAGTGTACATACATGAACCTCATAATATACTGTTGGTCTGTATAGGTGTA
AGATATATCCGGGGCAGTTGTATCTTATAGCAACTTCAACAATCTCTTCTGGTGTATCTC
10 TCTATAAGGAATTTTCATCTGGCGGAAATTGAGAAATTGTCCAATTTTGGCAGTGCAACA
TCTAAAGTTACATCCTCCAATTGCTAAAGAACTACTTGAGTTGTTGGATAGAAGTGGAA
TAATGGCTTTTTTTCTATTGGGTCAATTGCTAAAGAACAACCTTTCCCATAAACCAACAGC
ATATAAACTCCATTGATATTTCTCTATTCCAACAAAAACCCCTCTCCCTTCTTTTAT
AATACAGTGTCTTGGACAGATATGGCATCTAACCTTATTGTCATCTAATTTTTTCATAGAA
15 CATTGCTTCTCTCATAATTTCCCTCTAACGGCAAATATCTCTGTAAGAACTTTAAGAAA
GTTGAAAACTACGGTTTTGTAGCTTGAAsTTACGCTTCGATTTTCATyAAAATGGATGC
ATTGCTTCCGTAAGGAAGCAATknCTcTTAATCTATACTGTAAGTATTTTTTACTAACTT
TCCTCTAACGGCAAATATCTCAGTAATTTCCATCAATACTTTATTTTTATATATTATATT
ATATGTTCTTTTTGGTAATCTACTATAATTTGTTTTTAAAAGTGATTTTAAATCAATC
20 AATTTACAGCAATTCCTATATATTTAATCTCTCTCCTTGTCTTAAGTTGTGTTTTCTTAT
AATTTTACCTATGGGAATATCTGCAGATAGTAAATCTCTCTTTATCTCCTCTCTAAGGTT
CTCTTCCCTCAATATTTTAAATGGTGTTTTTGATACTGCATAAACTAAAGGTATATTATT
GACTTTGAGAATAACCTCTCTATAGTTTGTGTTAGCAACAATTTTTTGGTTAATTGTCTC
TACTCTACACTCCCTTCAAATAAAATTTCTAAGATGTTTGTGTTACACTTCGGTCAGTTCC
25 TAAGAGTATCTTTTCTCATTCAATAAAGGAAATGTTTTATTTAGCTTAGCTATTCTTTT
ATAAATATCATAAATATCAACCTTAATTTAGTTTTTTGCAAAAGTTATTAAAATTCATA
ATGAAAAATGAACGCCCTTCCCAAAGGAAGCGTTTCATAAGTTCCCTTATGTACTTCAAT
GTTTTGCAAAAACTATTGGTGATATTATGAACAATAGGATAGAGAGGTTTTTAAAGTAT
ATGGAAAGTGAAGGTATAAAAAAGGCTGTGATTTTAAAGAAAGAGATATAAACTACTTC
30 TTAGGTAAATACTTTATGAGCTTTCTGTTTTAGTTTTTGAAGAACAGCCATATTTATAC
GTTGGAAAGCTTGACAAAGATTATGCTGAAGAGCATTTTAATTTTTTAGAGATTAGAGAG
TTTAAAGCTGGGAAGAGATATTTAAAGGATGCGATGGAGTTGAAAAAGAATTATCAATT
GGTTATTTAAATACATTGATAAAGAGTATAAGATAATCTCTGACAAAATCAAAGAGATG
AGGATGATTAAAGATAAAGAGGAGATAAACTAATTAAAAAAGCTGCTGAGATTAGTGAT
35 AAAGCTATAAATTGGTTTTAAATAATTTAGATGAAGTTAAAAATCTAACAGAGTATGAG
TTGGTTGCTGAGATTGAATATATTATGAAAAACATGGTTCAATAAAGCCGGCATTGAT
TCTATCGTTGTTTTCTGGTAAAAAACTTCAATTCCTCACGCTTTACCTACAAAAGATAAG
ATTGCAGATATTTTATTAGTTGATATTGGAGCAGTTTATGAGGGCTACTGTTGAGACATA
ACAAGGACGTTTTTATTAAAGACGATGAAGAGATGAAAAAATTTATACTTAGTCTAT
40 GAAGCAAAAAAGTTGCTGAAGAGCATTTAAAGGAAGGAATTCAGCTAAACAAATTGAT
AACATAGTTAGAGAGTTCTTCAATGATTATAAAGAGCTATTTATTCACTCTTTGGGGCAT
GGCGTTGGATTGGAGTTGAGGTTGATGAAGAGCCAGGCTATCAAACAAATTGAAAGATGATGAG
GATATTATTTTAAAGAGGGCATGGTTGTAACCATTTAGCCGGGCTTATATTTAAAGAC
AAGTTGGTGTGAGAATAGAAGATTTATATTTAGTTAAAAAGAATGGATTGAAAAGTTA
45 AGTAAAGCAGAGATTTCAGAATATTTAAATTAACGGCAATGTCTTTCTCAAATCTCTCA
ATCTTGCTATCTCCTTGGCATAATTAATAGCTATTTCTCTCATAACTTTATCTATATCT
TTTATCTCTAAATCTTCCAATCCAATAATTTAACATGCTCAGCCCTTTTGATTTGACA
TTTATCCCAATGAATTTTTGCGGAAACAGTTCCCTTTACATGCAATACAAACAGATAAT
TTTTTGCTCCTCAAAGTATAAATCATCCCATCTCTTTTATAGCTTTATATTATAGCTCTCA
50 ATCACTTCCTTAGCTATAAAAAACAGTAATCTCTGCTTAAATATATTGTCTTTAAATCA
ATGACATCAAATGCTCTACAACAAAATTTATGGCATCCTCTGATTTTATGGGTTTTA
ATATCTTTCTCTCTCTTAATATCTTTTAAATCCTTCATATTCTCTGTAGTAACCTCCATT
CTACCTCTAAAAACAATATGCTATCTTTTTGAATGTCAAAGGTTTTAAATGCCCATAAAT
GTTCTATCTCTTTTCCAGTGTAGTCTAATCTATCCTTAACAAAGATTATAGACATATAT
55 TCAGTATCATAAACTTCAAAATCCATAAAATCACCATGGTAAAGGCCTATGTTCTCTTTT
AATATCTGGAACCTCCGAGAATACATCATAGGTTATATTGTTTAAATATAAAACCATCCAT
TTCCTTTAATTGAACCAATAGGCATCCTTTAATGGTAACATTAAATTTAGGAGCGTTTTT
TTGCATCTCATCAACTATTAGCAGTAAATCTCTAATTTCTTCCCAAGTTATTCAAATCTAT
TCCAGCATTTTTTAAAGAGATTTTCATTCTCTTTGTATGAGATGAGTTGATGAACCATAAAT
60 CTCATCAGCGTAGTTGTTGAGTTCTTTAGCTAAATTTAAAGCTCATTATCATTAAATCC
TGGAATATAAATAGACCTAACAATTGTGTGTAATACTTTGAGGCAATTTTATATTATT
TAAACTCTATTAAAAATAATCTTTCCAGTTAATAGTTTATACCTCTCTCTACTAAAAGA
GCTCAAACATAATCATTATTAAGTCTAATCCCAATCTTTAAGCTCTTTAATAATCTCTTC
ATTTAACAAAGTCCATTTGCTGTAAATCAACTCTAAGCCCCAAATCTTTACAAAACCTC
TATAGCTTTTTTAAACACCTCTAAATCCAACAACGGCTCTCCaTATTGGGATATAGTAAC
TGTCTCAGCCTCTTCTAAGTTTCCATAAATTCCTCTTTTTTACAGTTTTTACGCTTGAGTA
GCAATATACAGTTCAAATTCGATTTTTGTGTTAATCTATTGAGGATGATGTTGAGG
ATTTTCTATCTCTAAGTTTATGCCTTCACAGCCAATGCAATGTCTAACAAATTTKAAaT
CTTAGCTATATTTTCCAATTTATCGCAATCTCATTCTTTAAACTATCATGCAATCCC
ATTTTAGTTTTTATCAATCTAAATCTTTTTTAAATAGTTCTTTATATATCCTCAAGTTC

-346-

TTTGCTATATTTTAAATGCACTGGATAAGTAACTCCTTTCTTCCCAATGAGTATGATTTT
GTTATTTTCTATCTTATAACCTTCAAAACCTTTCCATGTTATAAATCTAAATCCTACATA
TATCCCATTCTTGCAAACACGGATTTTGTATTTTACAAACAACAAACCAAGATAAACAA
5 AACGAAAAATGTTATGGCAAAATGTTAAAGAAAATCTAAACCTTCTGGCAGTTTTTCCCA
GAATAAATACAGAAAACCTTCCAATAAAAAATATAGGAAACCCAAAAGCTAAAAAATCAT
TAAAGCATATTTTTTCCCAAATACGTTAAAGTTGTTATCCTTATAGACAAATAAAGCATC
TTTTATTAAATTCCTTTCTGATTTTATTGCTAAATAAATCCCATAACACAAAATCCCAGC
TAATGCAAGCTTGATTAACCCACGTACGATATAAGAATTACTCCATAGGAGTTCATAAA
10 CCCCCCTTATCAGTGCTTAATAATAACCAGCAGTATTCATCTTCTCTAACTTATCCTTTA
ATTTTAATGCCTCTTCTATCTCCTCATCCTTCAATGGTCTTTCTGAAGCAATACAAACAA
TGGCTTTGCTATATAGGTATTTTAAATCCTCATACCTCTGGAAACACCCCTACCCATAA
AATCCATAACCTTATCTATGAAATCCTTACCTGCATCATAACTTCCATATCTAAATCAA
TATCTGAATCTGTAAACAACCTCAAACCTTGATGGCTGGTCTATGACGTGTATCTTTTTTA
ACAGATGTGGGAGATATGTCTCATCAGTGATTTTTAGCTTGATATTATTTTACCACCTT
15 CTTTTTTTTGCTCTACAATTCAGCAAAATCTCTCAACTTAATAGCTCTTCTTGATGTT
TTGGTAAAACCCCTAATATAAAATAAGGTTCTTTCTCTTAGCAATAAATTCAACCCCTAA
TTATTGATTTTCTTAAAGCAAATCTTCCAACGCTGTTTGATGACCTTTGTATAAATCT
CCTTCCCGGCTTATCTCACAATGGACAACCTATTTAGCCATGTTATCACCATTATAA
CACTCTCTTTATAGCATTGCGAATCATAGGAGGAAACCTCCTATTGGTATACCTCCCGTC
20 CATTAACCAATTATCAAAGCTAAATCATCTATTAAGGAACATTTAGAAGCCCAAAGGGTT
CTATAAGTGCCATATTAATTTAAAACTTTGATAATTGGTTATAAGTTGGGGGCTTTTACG
CCCCAATTAATGTCCAATTTTAAATCATAATAACCTTTTATAGCATTCCAAACTAAATA
ACTTTGAGGTTTTTAAATCCCTTCAATGGGATTTAAAAATAAGATATTCCTTTTAAATCAG
ATAAGTATAAACTGGCACCGGGATATGTTTTTACTAACCTCATACTCATCTTAAATAA
25 CTTTAAAGCTTCAATAACATTATCTTTTTTAAATCTCTATAACTTCATCACCACATCTAC
CTTTGGTTTTGAATAATTGAGCATGTCCAAAACATGTCCAATTTTGAAGTGCATCTTT
TAGCATAAACTCTAAATCTCTCTTAAATCCTTAAATTTGCTTTCTTCAACAACGTATTT
TATGTCTTTTGGCTTTCCACCAACATAGCTATAGATAAGCTCTTATCTTCGTTAGTTAG
GTTAATATTATTCTCCACTGCTAAGAAATCCATAAACTTTAAGGCAGTTTCCTTGTCAAA
30 ATCATCCACTAATAGATATTTGGCCTTCCCTCTAACTCTCCAGTGCTATAAACGTATTC
AATAAATAAGCTATCTGAACCTAGACAAAAACATGGCATAGATGTTGTTCTTTAGTTAG
AGAGACTAAAACTGAAACAACCTCTTTAATAAATACTCTGCCATTTCCGAAGCGAAG
CGAAGGAAACGCTGAAATCTTTGATTTTCAAGTGTTCAATACAACATCTTTAATCATCTG
AAGTTCATCAAAAATTAATATTGGCTTTTTCCCACTCTTTTAACTCTAACAATAAGCT
35 GTTTAAGTATTGGAAGGCATCGTTTATCTTCTCCTCAAATAGTTTATCAAACCTCTACCTC
TGGTATTGGAATTCAGTTAAATCCTAACACCTTGGTTATTAGATTCAAACCTCATC
CTTATCCTTAATCTTCTCAAAGAAATCATCTTTTTTAGTGGTAAAGATAGCTTCAATAAA
TTCCCTCTTTTCTGAAATTAATAAGTCCATAAATTAATATAAAAAACCTTATAATCATC
ACTAGTTTGTCTTCAATGATGTGTTTTATTAAGGCAGTTTACCCTATTATAAGCGGC
40 ATAGATAAAATAAATATCATCTGGCTCTCTATTTAAATATGGAGAATTTTATTAATCTC
CCTCTCTATCAAAAAATTTCAATAATCCACCAAAAAATTTAAAAAATTATGCCTTCAT
CTTCTGTATCTATATCCAGATGATAATAAGCTGCTCCAACAGCTCCAATTAACCTGGGA
GTATCTTGGGACAATAATCTTCTTCTTAAACTTCTTCCATAGCTATAACTAAACCTTT
CAACAACTACTTCTTCCAACCAATATAACTGGGCTCTTAACATCAACCTCTTGTAATTG
45 TTGCTCAAACACTTGTTTCACTACTGAGTGAGCTGCTGCTGCAGCAACATCTTCAAGCTT
AGCTCCTTCACTAATGCAGTAACTAAATCCTGAATACCAAAGACTATACAGTAGCTGTT
CATCTTTATCTTTCTCCAATCTCCCTTAGCTGCCAATTTCTCCAAGCTCTTGTAAGAAAC
CCCCAATCTCCTTGCAATCTCAAAGAACCTACCCTTGGCCAGCACAGATTCTCTCC
CATTGTAAATCCATCTGGAATGGCATCGTATAGAGATATAGCTTTGTTGTCCATCCCCC
50 AATATCTATAACTGTTGCTTCTCCTTCTGCTTATCAGCTAAATATGCTGCTCCTTTTGA
ATTGACTGTTAGCTCCTCTTGGATTAAATCAGCTTTAAAGTATTCTCCAACCTGTATATCT
ACCATACCCAGTAGTTCCAATGGTTTCAACTTGGTCTAATGATATGCCAGCTTCTTTTAA
AGCATTATTAACTGCTTCTTTAGCAGATTCAATAACATCCTTTGTATATATCCATCCAGT
TCCAGCAACTTCATCATCTATCATAACAACCTGCCTTTGTTGTTGTAGAACCGCTGTCAAT
55 ACCTAAGCTTATTTCCCTCCTGCTTTTTCTTGCCAATAAAGATTTTCTTCAACAATTGT
GGTTAATGCCTCCATTCTTGTAAATAACTCAGATGCTTTTGTCTCTGTGAATGAATA
CATAACTACTGGCAGATTTGTGTTTTGTGTATAAGCTTTCTAACTTCATTTCTTACCAA
AGCTCCTTCAGCACATCTAAACATGTAGCTATAAACTGCCTCAGCGTCTGTATTTCC
TTCAATAATTGACATTGCCCTTGCAAACATCAATTTTAAAGTTTGGTGAAGCAACTTTAA
60 CCTAATCTATCCTCAACTTCATCAATATATGATAAATCAACCTCTGGAAAAATGAGTTC
TCCACCAACTTTTTGTGCCGCTTTTTCAATTTCTGTATAAATCCGCTCCATTACAGCACC
ACATGTTAATAATGCAATCTTTACCATTAACCTTCAACCAATTTAATATTTATATAGTAAT
GAAACTTTTCTTAGTTTCATCAAAATATATTGTTATCTGATTCTTGGTTTATTTATAAAT
ATCTTCAACTCTAATATTTATATGGAAATTTTTTATTAATCTAACATTTTATTTTTCAG

ATATATATTCCTTTGTGCCTATAATCAGCTTTGGTTTTCTAATATTCTACCAAACAATA
CTACAGGGCATTATTTTTAAAGCAATATCTACTACTTTTTTCATATTCTTCCTCTGGAA
CTGCTATTATATAAGTCCCTAAATATCTTGTAGCCCTTGGATATGGAAGGGACTTTATCT
5 CAGCTCCTTTTTTGCCTTAATTAACATTTCCAATAAATTCCTAACCATCTCCCTCTG
ATGCATCCTTACATGCGTTTATTTTTATCCCATCTCTAAGATTTCTAAGTATGTGTCAA
ATTTTTCTTTGCTTTATAAATTCTCTCTCCAACATCTCCCTCTACTGGGTCTCCAAGCA
TAATTAGTAAATCTCCATCTTTAGCTCCTCCATCTTTATTATCAAATTTTCATCAATCA
ACTCCCCAAAAACAGCTACTGAAATACAGGATTTCAATTCTTCAACCGTTTGTGTATTTT
10 CCCCCAATTATTGGAATATTAGTCTTACTTTGTTTTCTTAAACCATCAACAGCCAACT
TTATCTCATCTTCATTTTTTGGCTTGAATGGCATTTAATGCAAATTTTGGCTCTGCCCCA
TTGCTACAACATCACAGGCAGTGTGAATTAAGCTGTTTTAGCCCCAATTTTAAAGGAT
AGGGCCCTTCCATATTAATAACCATGTTTTTATAACTACTGCATCATCTCCAGCTTTAA
TTCCACTTTTTAAATCATCAATTAATCATCAAAGTGCCAAAATGCCTTTCTTGGATAGT
15 TTGTTCTAATATATGCTCTATAGCCATTTTTAGCTCGTATTCAAAATTTCCATTTTCA
CACCAACTTTTTATAAAATCTTTAGCTTTTTCAATATTTCCAACCTTTCATAAGTTAA
AGCAATAATTTTATATATTTTCAATGATAAAGGTTTATTTCTTTAATTTTTCAAAACA
TTCTATTGCTTTCTCATCTTCTCTAAATAAATGTATATTCTTCCCATAGATTCATAAAT
CTGTTCTAATTCAAACACATTTGGATTTAATTTTAAAGCTTTCTCAAAATATTTTAGTGC
20 ATGTTTATATTTCTTCAATTGAAGTATGTAAAGGCAACTTTTAAATTAATCAATATC
ATCTGGTTTTAATCTAAAGCTTTTTTAAAGTAGTTTATCGCTTTTCACAATCTCTTC
ATAATATAACTCTCCCAATATTCCAATGCTTCTACATCATTTGGATTTAATTTCTAAAC
TTTTTCAAAGTATTTTATTGAATTTTTATTATCACTCATTAATAATAGCTCTTTCCCAA
TCCAAAAGTGCTTTTATAGTTTATTCTATCTTTTCCGATGCCTTTTCAAAATATTTTAT
25 TGCTAAATCTCTTTTATATAGTTTAAATAAGCATAGCCCTTTTACATAGAAGTTCTGT
ATTTTGATTTAACTCTAATGCTTTGTTGTAACAAAATAATCCTTCATAATAAGCTTTCCA
TAGATATGCTTTTATCTCCAAGGTTTTTCCAAGTTTCCAGTTTTTAATATCTTTATTGCT
TAACTTAAATACACTCTATTTCAACCAATAATTTATCAATATCTTCATAAAGAGTTGA
TAACTTATTATATATCAACCTTAAATCATACAACTCGAATTATTTGGACTATTTTGA
30 TATTTCTTCTGAAATTTTATTAGCAGTTTCTATTAGCTTATCAATCTCATCAATAAGCAT
TTCTGTAAGTTCTTTCCCAATCTTTAACCTATTTTAAACATTATTTTCAATAAGTT
TAAATTTCTAATGTGAAGTTTTTGTCCATTTAATCGCCATAATTTATTATTATTATT
ATTCATTTCTCAATGACTTTTATTGGGTCTAATTTTGATGCTTTTATGCTGGATATAATG
CTGAAATCAGAGATGTTAAATTTCCAAATATTATGCCAATTATCATATAGAAGATTGCAT
35 AATAAGACAGTGAAGTTTTTAAACAGATAATGAACAATCAAATACCCAAAGAATAAACTCA
AAAATGCCCAATTAAAGAGCCAATAACTCCCAATATCAACGCTTCATAAAGGAATAAAA
TTATAATGTCTCTTTTTTGTGCTCCATGCTTCTCATAACTCCAATTTCCGTTGTTCTTT
CAACAACACTCATCAACATAACATTTCCAATTTCCAATACCAGCAACTAACAATGAATAG
CTCCAATACCCATTAAAAAGTAAGAAACCTTAGTTATAACTCCGTTAATCGCTCCAATA
40 TAGAGTTTAAAGATATTATTATGCAATTTTTCTCTTTTCTGTTTAAATTTTATCTGTTT
CATTTTTTATTTTATCAATATCATTTATATTTTTAACATAGAGGATTATTCTTGAATAAT
TGTAATTATTTTCTCCATAAAACCTTCTGTATGTTTTTGCCGTTAAATTAAGAATTAT
CTGGGAATAAAAAATGTGCTGTTATAAATCCCACATATCCTCAATGAGATATTTTTAATCT
CCAATTGATTTCCAACATTAAACATCATTAACATTAGAAAAGAACGTATCAACAGCAACAG
45 AAGTGTGAGAAACCTTCACTTTCAAATTTAAGTATTTTATGTCATTTTATCAATGCCGA
AGATGTTTGGCTATGCTTTTCTATTCTTTCTTTTATATAAACAATAAGTATGCTTCCAT
AACTGGAATAACTTTGCAATTTAAACTCTCAGTTTTTCAATATCTCTTTTATCAAAAG
AAGTATAACCATTTTGATAATTTGGAAAAACAATTATATAGTTAGATATGCTCCCCAAT
TTTCCATAATTCCTTGTTTAATCCTCCTCCTAATATTCCCAAAGAAGATATTGCCGCAA
50 CCCCATTATAATCCCCAATAAAGCTAAATACTTCTTAACAAATTTCTTTTTAAATTTCT
TCTTTGCTAATTCAAAATACATACTCTCACTTATTTAATTTGTTATTTTATCCAACCTTT
TAAAAAGATTTAAAGAAAGAAGAATAACATTAATGTGCTATAACCTCTCATGCTTGGGA
TGTGATTTTCAAAAAATGTTAAGCCCAAAAAAACGTGATTCTTAAATAAAGGTAATTC
CAAAGAATATAGTGAAAAATTTTGCAAAATCCTTAATAATATCTTTTGACGAAAAATATG
55 TCGAAATTGATAAAGATAAGAGAAAACCAATAATATGGATAAAATCATAAACTCTATAA
TATGATATTCATCACTCGGATAAGTTATATATTTTCCAATTAAGAAGAATGCTTCCAT
CTACAACCAAAATATAAAAAATATACAACAATATCGCTACTACAACCTGCTCAACTTTAT
CGAAGTTTGAGATGTTATCTATCATCAATCCCCCTCAATTTTCTTCCCTCTCAACCTCT
CCATCTTTTAAATAAATTATTTCTCTCTCCAAATCTCGCAACATTTATATCATGGGTAACA
60 ACAACAACGGTTTTTCCATCCTCTTCAATTTATTTTAAATAATTGCATTATCTTTCT
CCTGTTTGTATCTAATGCTCCAGTTGGGCTCATCCGCAATATAATTGGTGGGTTGTTT
GCCAAAGCCCTCGCTATAGCAACTCTGTTGTTGCCCTCCACTCAACTGATTTGGTTTG
TGATTGGCAAAATCTCCTCCAACTCTGCCATCTTTAAGCATTTCTAAAGCTCTCTTCCCT
CTCTCTTCTCGCTCATTGCTCCCCATATTTTAAAAATCAGTGGAAAGTTCAACATTTCT
AAGGCAGTTAATAAAGGAATTAAGTTGAATTGCTGAAAGACAAAACCAATTTTATCTCTT

-348-

CTAATTTTGTGAATTCATCATCATCTAAGTCATTGGTCTTTATATTATCAATATAAACCC
TCTCCCTCTGTTGGTTTGTCTAAACAGCCAAATAATTTTAACATTGTTGATTTTCCACTG
CCAGAAGGACCCATAATCGAAACAACTCTCCCTCTTTTATATTTCAGATTTACATTTTTT
5 AGAGCATAAATAATTTCTCTCCCATTTTGTATGTTTTTGTACATTTTGTAGTTAATC
ATAAATTTCCCCCTAAGAATTTTAAATTTATTCGTTAATTACTATTTTCTTAGGAATGCC
TTTAATTTTAAATATTGTTTGTATTTTGTCTTATTAGTTGTTTTTCAATCTCTTCCCA
10 GGTATAAAATGCAATACCCTCAATCAATATCCCTTTTTTCGTAGATTCTTATCCTATAGGT
TTTATAAACTCAGAAATTGTAAATGCCACTATAAATATAAAAAATAAACTGCCTGTT
ATAAAAGTCCCAGAGAAGTATATAATCCAGCATATCCTAAACTAACATTAATCTTAA
AATTTTATAAACTCTATTTCCAAATATTCTCTTAACTTCTTTTTTAAGCCGCTCTTTATC
TATCTTTAATATTTTCTTGAGATATAGATTAAAATTAAGTAATTCCTACTAAACTTCC
AAAAGCCAGCAGTATAAATAGCAGTATTGATTAGTAATTAAGTATGGATACGATTGA
CGCGAGATTAAAGCCATTCCAATATAAAATAAAATGGATTTATTCCTTTCATAATATC
15 ACTTTTTCTTTACGAATCCCTATAAATTAATAAACTACTCCAACACAGAACAATATAG
CTATTCACAACACTAAATAATTAATTCCTCCATTATTATTAGTCTTTAAGGAAACCCTT
CTTTACTGATTTTTACTGTTTTATATATGGTTATTAGGTTGTTATCTTCATCTCTATAGC
TTATTTTAAGTGAATTTCAATTTACATTTCCATTAAATTTGGCAGTGCAGTTCAAACTAC
CATAATCATCTGGATTTAATGTTCCAACGAAGTAGTTTTCATACGGCTTTTTTGGAAATGA
20 TGTTTTTTGTTTTTTCTATTGAGATTAAAGACGCTCTTGCCTTTCCAGTTCCAATGTTGT
CAATATCTCCAGTTATCTTTATTTTCGTAAATGAATTTCTATATCAATCCCCTTAAAA
CCAAATCTGCCTTTCTTACAACATTTATTGTTAGATTTTTCTCAATCTGATTGTTATCGA
AATATATAACTATAGGAATTGAAGTAACCTCCCTCTTTATCTACTTTTATTTGGAAAGTTA
GATTTTTTGTCTCTCCTTTTTTGTGAATATAGATTTTTTGGTTATTTCCAATAAAGTATT
25 TACTTATTTGAACAACAATAAAGAATCTTTATAATTTATTTTTATTGAAATTGTTAGAT
TTTCTATCTTTCCAAGTGAATAGTTGGGTTTTTATATTTATTGAAATTAACCTCATTTG
GGAATACATTGAAGTTAAATTTCCAGTTTCTTCAACTATGTTTTTATTTTGATACGTTA
AGGTCTCTGTTTTTGTAGTCCCTTCTATTGTCTCTGATTTTTGGGTTAATTCCAACAAAT
TATAAGGGTTCTTGTAAAGATTTTTGTAAATTTATAGAATAAACTCCTTCTTTTTTGGCAA
30 AGATAGTTAGTGGAATGTATGTAGATGTCTTTGAACCCAAGGCAGATATTGTGAAAGTAT
TATCTCCTAAACCATTAAATTTTCGAGTTTTGAAATTTCTATTTTATATTTTCAGCAG
TTCTGTCTCTTTATTTGTCAATAGTAAGAGAATTTGATTATTACCAACTTTTAGTATAT
TATTAGTGGTTTTCTATACTAAGTTTGCCTTTCTCTCACTGGAAGGGTAAAAATTTGATA
TTTCAGAATATTGCTGATTACCTTTTGTATAGTTGCAATAACCTGTTATCTTATAATCAT
35 AATTTGGTGCATTAGGATTTATTTTTATTATTAAGTGAGCTACACCATACTCATAAGGAA
AAAGATGTCCAATCCATTGCTTTCTCTAATAATCTCTATGTTTCTTTGGATATTTGAT
TTGTTGGTTCTATATATACAACGTATTATTGATTTCTTTGTCTGATTCTATTGTTATAT
ATAAATCATAGGTTTTAGATGGCTCCAAGTATTGAGCGTTATAATCAATATTTTTGAAGG
TTATATAGGCAGAAACCTGAGATAAAAGAAATAGGAAGATAAAGATGATAAATAAGTTTT
40 TTAATCTCTTCATCTTTTCCCTCATTTTATAGTAACCTTAATACACTGTATAGATTGATA
CAAAACCAATATAACTGTTGGAATTAGTGCAGTTATAAACGCATTTCTTGTGTGAGATT
TCTCGCATATAATAGGCAATAGGTATTGTTATTAAGCTCCAACATATTTGGAAGGAAT
CCATAGCCAGTAAAGGATAATGTTTCTTAAAGCTTCCTTCTCCTTTGAATATCATTGAA
ATGAGATGCATAAATCCAGCTATAATTAACCATGCAACAATTCACCAATAAATGTGGAT
ATTAACGCAATAATCTTGGTAAATGCCAATACTTGCTGATACTGTGGAGGAAAGATTTTG
45 TATATAATTGAAGTTGATGTAGGCAGAAATTTGATCAATATGGAAGAAAGATTAACA
ATTAATAATGTTTCTTTTAGAGAGATTCTTTTTTGGAGAGTTTTTTGAAGAAAGTGTCT
GGATTTGTTAAAGCTTCTATTAAATTCATTAGTATCACCTATTAGATTTTTCAATGATTG
TATTTGTTACTTCAACTATTTAAATCTTACGTTAGTAGATAAGTGGCTATCTTTGGAGTG
ATATAAACTTCAATAAAGCGGCTATAACGATTAGAATTATTGAAATTAGAGATAATTTT
50 AAAAAGTCCCTAATATCTTCTCTGTAAGTGGTTTTTCTTTTTTATCTAATAAGTAGAGA
GTTACTTTGTAAGGAATTTAAACCTGCTACTGCTGATATTAACATTGCTGAGATTTTCG
AATATTTCCGTGTGGAAGAATTAAAGCGGTATTAAATTTTAACGGTTCGTTAGTTAGGGAA
ATAGAACCAATTAAGACACCAACATTAAACCGTTGAATATTAGATTTATAAAGTAGAT
AATCCAAAAGTTATAGAACCAGCCAACATTAGGAAGATAACTTTAAGTTGTTTGTAAAT
55 ATTGAAGGAAAGTTAACTGTATATTGGGTATATAGTTGGATAAATCCTTATCGTTAATT
TTTGATAAGTTGTTTATTGAGATAAATCCAAAAATAAACCCTATGAGAAGAGCATTAGA
GTTAAGATTATTGGTATTTTCATGGTTTCACAATTGTTAAAGTTATTATTTATTTTATCA
TCATTATTGTATAGTATAGTGTCTAAGTAGTACCTCTTATTTTATGTAATAATATTGTC
CTACATACTAATGAACCAAGATAAATAAAGGTACAAAAATTGCACAGAATGTAAAGAAA
60 ATCTGAAATATAGCAGTAAACCATATAATAAATTGCTTATTTAATAATATAATCAGT
AATAATAACGAATAGAATATCGAAACCATCACTTCGATTGTGCAATTTTAAATATAGTT
TTAATCCATTATTCTCTAATATATCTCTTTTAAATCTTCAGTAGATATCCTACATATT
TTATTATAAAGAGCAAATGATGTAATAAACCAGCAAATATAGATAAAACAATCAATTCT
ACTATCTGGCGATATACAAAATTCAAATTAATTTATTAAATGTAATGTAGTATCAAGT

5

10

15

20

25

30

35

40

45

50

55

60

ACAAGTATAAGCATGAAAGGCATAACCAAACATAAGACCAACGCTAAATAAGTGAAAGAC
AATATACCATTTAATTTCTTTTCAAAGTTCATGTATTATCACCCATTATATCACCTAAAA
AATATCAAAAAATTATTAAATTAAGAAAGAAAAACATTTTAAAGCTAATACCGTAGTAC
TAAACACAACAGTAATAACTCCAGAAGCCAATCCTGCAGGACCTAATGCAGCAGAAATAG
CCGCTCCAGTAATAGCTGAATCCGCGAGCTACAAGATAACACTGCTGAGCTGTATCAATAT
CTCTACATAGTATTGATAATACAATCCAGCATCTCCCAAAGCTATTGGCTCAGCCACTA
AAGCCCCATCATACTTACTAAAACTACTGCCCAAAAATCTTATATACTCCCTTCTCTA
AAAATTTATATTGCCACCTCTTAAGGTGGTTGTGTAGGCACTGGCTCAGCTCCATATAG
GGAGCGTCATCGCCAACCTATTCTTAATTTTTGTATGGTGGCCCTATTATTTTCCACAT
TTTTACAAATGTAATAATACAAAACCTCTATATATATTATGATTAAAGTTAAATAGTA
AATTATATATGTTAAATTTTAACTTATTAGAATTTTTAATAATAAAACAATTATAACT
TAAAAAAGTAAATTTTAACTATTTTATAATTTTATATCAAAAAATGAAATATAAC
ATAATCAATATTATTTAAACACGATTAAATGCATTGGTGAAATAATGAACATCTTAAGG
AGAGGAAGATTAGGAAATCAATAAAAGAAGATGTAGCAAAATACACAACAAGCTTAAGC
TTTGATAAGGAGATTTTGAAGCGGATATCTTATGCGACATAGCTCACGTAATAATGCTC
TATGAACAAGGTATAATAAAAAAGGAAGACGCAAAAAAGATTATTGAAGGGTTAAAGAG
ATTTATAAAAAAGGAATGGAATACTCAACTTAGACCCCTTCCTTGGATGATATACACATG
GTCATTGAAAGTGAGCTAATTAAAAACTTGGTGAAGATGTAGCAGGAAGAATGCACACT
GGAAGAAGTAGAAATGATGAAGTAGCAACAGATTTAAGAATTGCATTAAGAGAGAAGGTC
TTAATAATAGCTAAATCTTTAATTAAGATGTTAAAGATATTTTAGAATTAGCTGAGAAA
CATAAAGAGACATTAATCGTTGGATATACACATTTACAGCATGCTCAGCCAGTAACTTTT
GCTCATCATTTGCTTAGCTACGTTTCAGCAATTGAAAGAGATATTTTAAGATTGTTAGAT
GCTTACAAAAGAAATAATATTTCTCCATTAGGTTGTGGAGCAATGGCAACAACCTGGATTT
AAGATAAACAGGAGAGAACTAAAGAATTATTGGGCTTTGATGCTTTGATAGAGAATTCA
ATGGATGGTGTTCAGCAAGGGACTTTATATTAGAGACAATGGCTGACTTAGCAATATTA
GGAACAACTTATCAAAAATCTGTGAAGAATTGATTTTATTCTCAACCTATGAATTTGG
ACTATTGAGATTGCTAATGAGTTCTGCTCAACATCTTCAATAATGCCTCAAAAGAAAAAC
CCTGATGTGGCGGAGATAGCGAGAGCTAAGCTATCCAAATTAATGGAATTTGGTTACT
GCATTACAAATATAAAGCTCTACCAATACTTATAATAGAGATTACAGGAAATAAGC
CCACATTTATGGGATAGCGTTTATACAACTAAGACACAATAAAAAATGGTTTATGGAATG
CTAAAAACAATAAAAAATTAATAAAGAGAGAATGGAAGAATTAGCTAAAGCAAACTACTCA
ACTGCAACAGAATTGGCAGATACTTTGGTTAGAGAGACAGGAATTCATTTAGAACAGCA
CATGGCATTGTTGGAGAAGTTGTTAGAAGAAGTATAGAAGAAAAAAGGATATGATTGAA
GTTATCTATGAAGTTTATAGAAAAATACAATTTGAAAGTTGATGAGGAGAAGATAAAAAAG
GCATTAGACCCCTTATGAGAATGTTAAGATGAGAGATGTTATAGGGGGCCCTGCTCCAGAA
GAAGTTGAAAAAAGGATAAAGGTATTTAGGGAGAGATTAGACAGATATGAAAAAGAGGTT
GATGAGAAATTGCAGAAGATAAATAAAGTTAAGGAGATACTTTTATCCTATGAAATTTAA
TTTATTTTTATTTGCATTTTATCAAAGTAATGATAAATCATATATTTTCCAAACATAAAC
TGCCATTAAAGCCCATATTGCCACTAAAATATACCCTTCTTTTTTCTTAATTTATAGTT
AGATAGTGGATAAAAAGCCCTAACCCAGCTGGTGTCTATCTCCAACATAAATGAGA
TAAATATCCAAAAACAACCTGGTAGTATATAGTATAAAGCTCCATTAACATTTATATTGG
ATTTAAAAATATCCAAACAGCCCATGCAAAACACAGCAAAAAATCATAACTCTACCAAGTAA
AACCTCATTGGTTAACCTTAATAGAGATATCAGTCCAGCAAAAACTGATGAGATAAATGA
GAGTTTGTAAAGCTAAATATCCCAAAATAGAGGATACAAATAACAGAGACCAAAATGTATG
TGTTAAACCTCTATGATCTGAAAAATATGGAATTAAGTATATTAGAAGAATTAAACCC
CAAAATAAATAAATCAACATTAATAGATGTTTATCAAAAAAATACAGTAAAAATTTAT
AAAAACAATCCCTCCAGATATTAAAGCCCTCTTTTAAACAATATCCTCCTTAACATCATG
GTCTAAATCTGGATACAAGGCTCCAGCTAAAGCTAAAAATATCTGTTCTGGTGAGGAGAT
AAAAGGCAATCCAAAGATAATTCCTAAGATTGATGTCCCTTCCAATTCATAAAAAACCC
TTATATTTTTATTTTTATTTTTATTTTACCCCAATTACAACCTCTCCCTCTTTAATCCAA
TAGTATTTAGTCTTTAACAACCTGATTCCTTAATAATTTCTTTTTCTTCTTAATAGAT
ATAGTTTTATGTTAAAGTTATCAAATCCTTAGTAATTTTACCAACTGCCTCAAAATTTAA
TAAGATTTTAAAGTAAATCATACTTATCAACCTTAAATAGTTTTGAAGCATTAGAATTT
CAATTCCTACAACATCACCATTTTATCAAAATCGATTAAATATCATCTAAATCCAAAG
TTTTTTTAGATTTTGGCCCCCTTTTATAAACTAACAAATTATCATTTTATCAATCGTAAT
CTATTTTAACTTTTCAATTTTTTCCCTCTTTTCTATCTTGTGGAAATATTGTAATTA
ATTTATTTGCAATGGTTCAATTGACTTTATGCTCATAACTACAACACATCATGTTTTTC
ATCAAACTCATAATATACCTTAAAAATTTATCATCCTTCTGCTTTAATATCCCAACTGGT
TTATTTTATGTTAAATTTTCAATAGCTCTTCTTCAATTTGGTATATTATCTTCTTAAGT
TCAATTTCAATTTCAAAGTGTGTTGGTTTCTTAAATTTTCTTTGTAGCATTAGATAGA
TAATTAAGAAATTCATCAATATCCATTAACCTTCAACATCTCAAAATCAAAATTTTAAATC
AAAAGCTCAACCTTACTATCTTAAGCTTATTTAATATCTTCAAGGCAATATTGAGGATA
AAGGTTGTTATATATGCTTTATCTGCCTCAATACCTTCTTATCATCTCCATTGCATGGA
TAAGCATTGATTCCTGCCTCATTTAAATTTTGTATAGTGGCTTCTCCACCAACTATCA

-350-

5
10
15
20
25
30
35
40
45
50
55
60

GTATCTGAAATATAAACCTCCTCTGCTTTTTTCAGCAATTGCCCAACTTATATATCTCCCC
CCAATCAATCCAACCTTTTCAGCTGAAATATCATCAATAGTTTATTTATCTTCAATTTT
TTGCATAAATTACTCTCCTTTATAGCCGCCAGTGTGCATCTCCTAAATAAAACCTCCA
ATGCTGTAAGGGTAAATATTCCCTTTCAAAAACCTATTTCTAAGGCAATTGCTTTAACCC
ATATCTTTATCAATAAATGTTGCATTGACATTTCTGCTCTTATTTCCTCTTTAATTATT
CTCATAACTCTTCTCAATCCAAAATTCCTCTCTTTGCAGTTTTTGGGCTATAGCCGCAC
ATATACCCATGATGATTTAATGGAAAGCCAGTTAATATTGTATTTAGCCCACTCCTTAAA
CCAACCTCTGCATTCTCCTCATAAGCTCCATTTGTTGCCACAACCTCCTCTTTAACCAAA
ATCCTTGAGACAGCTATAGCCTTAGCAAAAGCCTTCAACCTATTCTTAGCCCTATTAAAT
GGAGCACCTTCAACAACAAACACATCAACATCTAAATCAATGCATGCTTTAATTCCAGTT
ATTAAATCATCATATCCATCTCCAATGTGGAAAATGCCCTCTAATCCCTTACCATACTTT
TTAGCTGTCTCTGCAACAACTCTTCATCTCTTCTAACGGAGCTGCATGCTCCTCTCCACCC
TGCTCCTCAACAACATTTATACAGAGGGTTGATGCTAATCTTTATCCAATCTTCAAATTC
TCTGCATGCTCTTTCTCCTCTCTATCAATCTCTTATGAATTCTATTTCTTGGACAACCT
TTAAATGGTGGTCCCTTAAAGTAACAATCCCCATAACAGTGAGTTATCTCCTTTGGAAAC
CTCATAGGTCCATACATTCCAAAGTGGTCTATATCTATGGCACATCAACATTTTCTAAA
ACCATTTTAAAACCTCTATTGGCTTTAAACCTCTTTTTCAGCAATATCTGCTACCGCA
TAACCTGCATATATGAATTGGAAATCCCATATAATCGGTTAATATACAATTTTCAATAAAC
TGAATTAAATGTTAATGATGATGAACACGGCCCCACAGCAATCTCAACCAATCACACCCC
ATTGGGAATGTTCTTAAATTACTACCAATTTTGAATCTCTTCCAAGGATAAATCATCA
ACTGCATCAACAATCTCAATTATGTCGCTTTCTTTAATTTTTCTCATTTAGTTTTTTT
ATAATCAGTTTTCTTAGCTCTAATGCTGAATCTAAGCTATTAAGTGCCTCTTAAATGAGT
TCTCTCATAAAAAATCCCTCAATTTATTTATAACAACCTTTAAGAAAGGTTGATCAAAAT
GGATGCATTGCCCTCGCTTTGCTCGGCAATCAGATGAAATTCCTTGGAAATTCATTACTC
ATCTCGTTTTCACTCGATGATGCCTCTTCCATTAGCATTTATTTATTGAGGTATTTCTGAA
TCGATTGTATAATTTGCAGATATCTATCTTCAATCCTCTCAACTAACCTTAAATCATAGT
TGTGTGTTTTTAAGATTATAATGTTTTCTATATTTTTTCCCATCAAACAAATAATCTGGAA
TTATTAAAATACCATTATCAGAGATTTCTAAGCCTAAATCTTCAACAACCTTTCTAATAA
ACTCTGTTTTTGGATTAACTTTTACATTCAAATCTTAAACCAATTTTTTTTATTCTTTTT
CTTTATTTTTTAGGAATTCTATTGATTTATCTATTTTTCTCTCTCTTCTATGCTTAATT
TTTTTAATCTCTAAACTCTTAATTAATCCATAAAAGTTGCTGATTTAACTTCAAAAA
TCTCCGATTCTGGAAATTTAGCTTTTTAACTCTCTCCTTATATCCCTTAGATATAATTAAAA
AATCACAATCAACTTTGGTATTGTAGGGATTAACATCTCATACTCTTCCAAACCTATCA
AATCAGCAATCTCTTTATACATCTTTGTTATTCCAATTTTCATAGTTCCACGTATCAACT
GTTTTATTCAAAACTATCTCTTTTTGATTTCTTTCAGCTATAAACCCCCAAAAATTTAT
TTACCTCTTGCAATCTATCACCACCTTATCAATCTTTAAATCAGCCTATCATTTAAATC
CTCTTTACCAACCTCCCCCATTTATAAAAGCCCAATGGATTAATAAAAAACCCCATTTTC
ATAAAATCTACAATAACATCTCCAACAACCTATTGAAATAATTATAAAAAACGCAGAAAT
CGAATATAAAAACAAATTTAGTATATGGATTTATGTTAATGATACTAAGTTTCCAAAAAG
ATAAAAAATTAATCCCAACAATAAACAATAAAACTTTCAAAATTTTATATTTTTTTTAA
AATCTTAATTTTGTGATTTTTTAATTAATTTTCTTTATTTTTTCCAGCAATTGATTT
AATAAATAATCTAATTAATAAATGGAAATCGGCAATAAACATATCAAAATGACTCCCGA
AGTTATGATTATTGTTTTTAGACCTAATCCGAATGTTAGATACACTAAGCCAAAAATAAA
AAATTCACAAATATTACACTACCTAAGATAAATGGATAGGCTAAATAAACACTTTCTCC
CCTCATAGTTCCACACTTATTATTTTCCATAAATCTTCAATAAATCTCATACCTTCTCC
AATCCAACCTTTGGCTTTAATCCCAATCCATAATCATCTTAACAACCTTCTCCAAATTC
CAGTTTTTGGATTTCCAACCTCCCTTTACGTTTATTGGATGATTTTTAGGAATAACCGTTG
CTACATTAATCTCGCCCTCCAAATAATGCAAACTGCACCAACTCAGCCCTATAGTTGGTG
TTGGTGATGTAATCCTTATATTTGGAAATATCAGCCTTGTTATAGCTATCGTCTTTGCCCT
GCTCCAAAGCAGAACATTTTGGATGATTTCTCCATAGGAGTTCTTTGTAAGGGTTGAAAC
CCATTATTGGAATTTCCCAACATTTAACTCATTTTTTAATAAAAAATAAATGCTCTACTC
TATCCTCATAAATCTCCCCAATACCAATCAATAAGCCAGTAGATAACTCAATATCATATT
TATTAATAATTTACAAACCTTATTCTATCTTCCAACCTCCTCTCCCGGCTTAACCTTTT
TAAAAAGATTCTCATTTATTGTTTCTAAATTACAACATATTGTATCAATTCATATTTTT
TAAGTTCTTTAATAGATTCCCTCTGTTAAATCAGCCCTGCATTAACTAAAACCTTCCAAGT
TTGTGATTTTTTAACTATCTTTAAAGCTCTTATTACTTCTTTTCTTGATAACCATGTG
CAGAAGAGCAACTAACTCTTTTATCCCACTCTCTTCAATGGCTATTGCTGATTTTTTTA
TCTCCTCATCTGTTAATCTAAACGGCTCATAATAGCCCTCTTTGAAAGTTCCGGCAGCAA
AACCGCAATATAAGCATTTAGGATTCACATGGCAGATGTTGGTTATGTGAATTGTTGATG
TGATCTCAATCTTCTTCTTAAATAATCCCTAACCTTGAGGCAATGTCAAATAGCTTTA
AATAATCTCTCAATTTGCTATTTTAAATAATTTAATGCCTCATCTTCATCTATAAGCC
CATTTTTTATAAATTCGTTATATTTTCTTCTACTTTCTAAAAATCTTTTAAACTCTTCTT
CAATTTTTCCAAATACCATTAAATCACCAGATATTTTACTTTACTTATTTTATAAGTAT
ATTTACACTTTTATATTTTATTTTGCATTAAATTAATAATAATTTTAAATATTTTCTG

ACTTTAATATTTTTAATGTATTTTTTGCAAAAAAGAAACAATTTTCCTGTAAATTTTT
TAATGAATTTTTATAGAAAAATGAAAAATTTATCTTATAAAAAATAAAAAATTAGAAATT
AAGTTAAATTACAATTTATTTTGATTTAAATTTTACCTATCCCTTTATTTATTCCTTTTG
5 AGACATTATTTACATTTTGTTTTTCTTCTTCAACTACTTTGTGTTTTTCTAAGAC
CTTTAAAGCAGTTGGTAAGATCTCTGCCAATGGACCAAAGCACATACTATCAGCGGTTCC
CAATAAAGCAGCTGGGTCTAACGCCTCCTCCATGTTTGTCTATTCCTTCTCCTTCATTAA
GTTGTGAATTTGTGTTAAAGCTTCATCAGCCATCATCTGAGCGAAGTCAGCTGGAGCTCC
TAAGATCTTTGTAAGTGCATCTCTGTATGCTAATAAACCCAGCATAACTGTTGCTGTAAC
10 TGCTGAACACATATCACAGACAGGACCAATCAAGTTAGCTGGCATTTTAAATGCTTTTCC
TCTTGCAATTTTACCTATTTTCATATAATTTTAACTGCCTCTTCACTTGCCATAACCTTC
TGCGATATAAACTTGTCCCTTCATCTCTGGAACACATCCGGGGTGGTATGAGGTGATGTT
TAAATCCTCTCTTCCCAAGTCTTTAAAGATTTTAGCAAATTTGTTGTTGGGATTGTACA
TGCGTGGGTTACAATAGCTCCTTCTGGAATTGCATCTGCAAATTTCTTAATAATGTCTGG
15 CTGTTTGTTCCTTTTGGTAACCATGTAATTACAATATCTGCTCCCTCACTGCCTCTCT
ATCATCTGATGTTACTTTTAAACCAACATCCTCTGGATGGACTAAGTGGATACATGCCTT
TGGTGGTTTTGGCAACTCTTTTGCCTTTGCTTAACAACCTCTCTAATCTTTGGCATTAT
GCTCTCTGGSTTTCCAGATAAGTGAGCTTCCATGACTTCTTTTGGSTCAAATTCATCAAT
AACAACATACTCTGGTTCTTCAGCAAAGCATGGGTCTGAAACAATAACTCTTTAATCATC
20 AGGAACTAAGGTGTAAGGCTCAGCTCCATAGGTTATAGAAGAGTGTGTTAAAGCAATTTT
TGGTTTTCTACTTCTTTAGCAACTCACAAGCTCTCATAAAATTGGTTATTCCTGCTGC
TGCGTGGGTTCTGTAACATCCAGCTCCTAAGATTGCTATTTTCATCCTCTCACCTTTTTG
TTAATATTGTGAGTGACTTTGGTAATATTATTGTTATGTTTGGTAATATATAAAATTATC
TATTTGGTTCTAAGTAGTAAATAGCCATAAATAAGTATTATCAATGATATTATTTTTT
25 AATAGCCAATATCAAAATTAATATAGGCTAAAAGAAATCCATAGTCATTTTAAAAAGT
TCTGTATTAAAAAGGCATTTATAAAAAACCAAGGGGCTTTTATATCCATTCCCTAATAAAT
GTGAATAGTTTTGAAAATGACTATAAAATAGCGATACATCTGATAGGTGAGGCATCAATG
TCAAATATCTTCAAAGGTAGTCCATAAAAAATAAAACTCTTACCAACTAAATTCTTCAGA
TTTTCATTTAGATTTTCAATAATTAAATATTATTGGATAAGAGCCTTTTATGCTCCTCA
AATCCACCAATTGTGCAAGCATCTATACCAACACATTTTATGTTGCTTTTAAATAATATCA
30 TCTAAAAATGGTATTTCTGGAATTTTCTCAAAATATTCTCTACCCCAATATTTTGAA
AATCCGGTATAGATTAAACAAAATGTACATGCGGGTAATTTATTTCTTTCAAAATCATCT
AAAGATATGCAATACCCTTTTCCCTTAATAATTCATCTTTAAATGGAATCCTATTTTCC
AATCCAACATGTTTGGATAATCTATGTGTGTCAGAGATGAGAACCCATGATTATTTCT
GATACTATAAACCCATCTATCTTTTTCTCAATAATTCTCAGTTCTGGGTCTCCAGGATAC
35 GGAAATTTGATTAGAGTTTGTAGTTAAATCTAAGATTTCATATTTTCACTTCAGTTTAT
ATATTAAATGTATTTTCAATTAAGTATATATACCTCTTCAATCCACATATATATAAAGTT
TTCGAAACTATATATAGTAGTTATGAATAAAGATAAATCAGCATATATAGrGGGAGCAA
TTTGAAAGTAGAGATACTTCACAAAACGCCAAAGGGTTTCTTAATAGCCAGAGGAAAGAG
40 AGAGATAAAGATTGGTTCAGTAGTTATTTTAAAGAACAAAAGATTGGTAAGGTAGTTGA
TATTTTGGCCAGTTGCTAAGCCCTATATAAAAAATACTCCCTATTAACAAAGATATAGA
AGTTTCTGGAAGTGCATATATAAAAAACGATAAATCTAAATATAAAAAATACTGAGAAGAA
AAATTAATTTAAATGGTGTGGCTTATGGAGGCTCTCAAAACCAAGAAAATGAAACAAC
AAAAGAAAAAAACTCACAAACAAAAGTTGAAAAATCTGAAAAAAAGAAGAAAATGTTAG
45 AGAGGAAGAGATTGTTTGTCCAATTTGTGGTAGTAAAGAAGTTGTTAAAGATTATGAAG
GGCTGAAATAGTCTGTGCTAAATGTGGATGTGTTATCAAGAAAAATTTATTTGATTTGG
ACCAGAAATGGAGGGCATTTGACCATGAGCAAAAGATTAAAAGATGTAGAGTTGGAGCTCC
TATGACTTATAGTGTGATTACAACGAACCAATAATCATTAAAGAGAATGGAGAAATAAA
AGTTGTTAAATTTGGAGAAGTTATAGATAAAATTATTGAAAAGTCAAGAGATATTAGAAG
50 AGAGGTCATCTTAGAGATAGCAAAATGTAAAGGTATTGAAGTTATTGCCTTTAACAGCAA
TTACAAATTTAAATTCATGCCTGTTTCCGAGGTTTCAAGGCATCCAGTTAGTGAGATGTT
TGAAATAGTTGTTGAAGGGAATAAAAAGGTTAGAGTTACCAGAAGCCATAGTGCTTTAC
CATAAGAGATAATGAGGTAGTTCCAATAAGAGTTGATGAGCTAAAAGTTGGAGATATATT
AGTTTTAGCAAAAGAATTGCCGAATATTGAAGAAGATATTGAAATAGATAAAAAATTTAG
55 TAAATATTGGGTTACATAATTGCGGAAGGTTATTATGATGACAAAAAATTTGATTATC
TTATGATTACAATGAAAAAGAGTTTATAAATGAAACAATTGATTATTTCAAATCTTTGAA
TTCGGATATAACCATCTATAGTAAAGATTTAAATATTCAAATTTGAAGTAAAGAATAAAAA
AATTATCAATTTACTAAAAAAATTTGAGAGTTAAGAATAAAAGAATTCCTCTATAATCTT
TAAATCTCCTTATGAAATAAAAAAATCATTCATAGATGGGATATTTAATGGTAAAGATGC
60 AAAAGTATTTGTCTCAAAGGAGTTGGCTGAAGATGTTATATTCTTACTTTTACAAATAAA
AGAAAACGCCACCATTAATAAAAAAGAGTATAAATGATATTGAAGTTTATGAGGTAAGGAG
AATAACAAATATATATACCAATAGAAAACCTCGAAAACTTATAAACTCTGATTTCATATT
CTTAAAAATTAAGAGATTAAATAAGGTAGAGCAACCAAGTGGATATGCCTATGATTAAAC
TGTTCCAAATGCAGAAAACCTTCGTTGCTGGATTGAGGATTGTTATTACACAACACCAT
CCACGATAAAGGTTTATCAACAGTTATTGATTGGAGAAACAAAGATAGTTATGGAAGGA

TTTATCTGCAAATAAGAGAGCCCAACTCTACAGATTAAGAAAATGGCAGAGGAGAATTAG
AGTCAGTGATGCTGCAGAGAGAACTTAGCATTGCCCCTGTCAGAATTAGATAGAATTAC
ATCAAAGCTCGGACTACCAAGACATGTAAGAGAGAATGCCGCTATAATTTATAGAGGGGC
5 TGTGAGAAAAGGATTAATAAGAGGAAGAAGTATTGAAGGAGTTGTTGCAGCCGCTATATA
CGCTGCTTGCAGAAGATGTAGAGTTCCAAGAACTTTAGATGAAATTGCCGAAGCATCAAG
GGTGGATAGGAAAAGAAATTGGAAGAACTTACAGATTTTACGAGAGAAATTAATATATAA
ATTAACCCCAACAAATCCAATTGATTATGTGCCAAGATTGCATCTGAACTTGGATTGCC
10 TGGGGAAGTTGAGTCCAAAGCTATACAGATATTGCAACAAGCGGCTGAAAAAGGATTAAC
AAGCGGTAGAGGCCCTACTGGTGTGCTGCTGCAGCAATATATATAGCAAGCGTCTCTCT
TGGCTGTAGAAGAACTCAGAGGGAAGTTGCTGAAGTTGCTGGAGTGACAGAAGTAACAA
AAGAAATAGATACAAGGAACTAACCGAGCATTGGATATTGATGTAACCTCTGTAGATATT
ATAAATAGTTAGCTAACTTTTGTGTAGTTAAACCTTGATAATTAATAATCAGTTAATTT
15 TTGTTAATTTTTTACGTAATATTAATACTGGTGGTTGTAATGGGGATATTAGACAAA
TACAGAAAAATCTGAAAAAATTGAAAAAGAAAAAATCTGAAACAGTGATTCCAAGTG
ATACTAACTCAAACCTATAGAGCCCCATCCAATTAATAAAAAAGGCAACAGTTGGAA
ATGATGAAACCATATTAGATACTTACAGTATAAAAAATTGATGAAATAGAAATGGAAAGTAG
TAATTAAGAGAGAGGAGGCTTATATTTATTTAGTCCCTGAAATTGACAAAATTAATA
TGTCTCTCTCAAACCTTACAAAGACCACTTAAATCATATAAAATCTCAAATCAGTGATT
20 TGGGTCTAATAGAAATGACCAAAATAGAGAGTATTAACAAATTTCTCCATGAGATATA
ATTTGGCTATTCGGTATATCGACTCATTAGCAAAATCTTTTATTTAGTAATTGGAAGGC
TTGGTTTATTAGAAGTTCCACTAAATGATGATAGATTAGAAGAGGTATGGTTAATGGTT
ACAATGTTCCAGTTTGTATTTTCATAGAAAACATCAGATGTGTGAAACAAATATCGTGT
TAGATAGAAATGAAGTTGATAGGATTATTGAAAGTATTGCAAAATTTAGTTAATAGACCAA
25 TAGATTCAAGAGTTCCAATGCTTGATGCTTTCTACCAGATGGAAGTAGAGTGAATGCTA
CCACAGCAGATATAACTATGAACGGAGCTACATTAACAATAAGAAAATTTCTCAAAAAATC
CATTAACGTGTCATCGATTAAATAAACTTTGGAACCTTGGATATCGACACTGCCGCTTTT
TATGGCAAGCTGTTGAGGGTTACTTTGGAGCAAAACCTGCAACACTTTAATAGCTGGGG
GAACTGGTTCTGAAAAACAACCTTTATTGAATGTCTTATCCCTATTCTCAATGTACAATG
30 AAAGAATCATAACTATTGAAGACACCCAGAGTTGCAGATTCCTCATAAGCATGTTATAA
AGATGGTTACAAGACCTGCAAGACCTGGAATGCCAGAATATGAAGTTACAATGGATGATT
TAATTAAGAACGCTCTAAGAATGAGACCTGATAGGATTTTGTGGAGAGGTTAGAGGAA
AAGAAGCTCATTTGTTAGTTGCTATGAACACTGGACACGATGGGGCTTTAGCTTATG
ATGAACCTATTTATTTATCCGATGGGAATATAATAAACATTGGAGAGTTTGTGGATAAAT
35 TCTTTAAAAAATACAAAAACAGTATAAAAAAGAGATAATGGATTGGGTGGATAGATA
TTGGAACGAAAACATATATATCAAAAGTTTCAATAAATTATCATTAAATTATTGAGGATA
AAAGAATATTGAGAGTTTGGCGAAAAAATATTCTGGAAAATTGATTAATAAATACTACCA
AAAACAGGAGAGAGATTACACTAACCCACGACCATCTGTTTATATATCAAGACAGGAG
AAGTTCTTGAAATAAATGCTGAAATGGTAAAGGTGCGAGATTATATTTACATTCCAAAA
40 ATAACACTATAAATTTAGATGAAGTAATTAAGTAGAAACCGTTGATTATAATGGACACA
TATATGACCTAACAGTTGAAGATAATCACACATATATCGCTGGAAAAACGAAGCTTTTG
CTGTCTCAAACCTGTTCTGGAACATTACATGCTAATAGTGCAGATGAAGCCATTTAAGAT
TAACAAGCCCAACCAATGAATGTTCCAAAGATTATGTTAACAGCATTAAATTTATTATAA
ATCAGCAAAGGATTAGAAGAGCTGGAAAAACGATTAGGAGGATTCTTGGAAATGTAGAGA
45 TTGTAAGAGGTGGTGGTGAAGGTGATGAATTTGCTAAACTACCCTTTACGAATACAATG
GTTTAAAGAGTAGTTTAGAAAGAAGAGGAATTGTATGTGGGAAGAAGAGTTGTGAAA
TAGCGGGGATTACTAAAGAGGAATTATTAAAGAGACAGAGAAAATAGGAAAAAGGTTTAA
GTTACTTGTACAAAAATAATATTAGAAAACCTGAAAATGTCTCTGATTACATAATGAGGT
ACCAGGTAGATCCAGAAAACTTCTGAGATCGATAAGATGATATTACCTACTTGGTGAAT
50 TAAATGAAAGGAATTTTGA AAAACTAAAGAGAAGAAATCGATATACTATTATATAAGTTG
GGTATAAGACCACTTAGTATAGAACTTTAAAGAGTTGAAGGAATCAAGAAAAGAAAGA
GAAGTTCTTGAATTCTATGATGTTTATATGGAACCAAGAGTTTGTGATATAGAAAAA
TATGAATTTATAGTATATGAAGGATATCGTTGGTAAACAGCAGAATCATTGTCAAAA
ATATTTAAAGGTAATTTATTTCCATCAAGAAACGAACCTTAGATATATGGGAGTTAAGGAT
55 GAAGTAGCCTACTTTAAAAAGGTAGTAATCTATATGATTATAACCTTTTGGCATTACTT
TTTATGGGACTTTTGGACAATAACCTACTTCAAGGATTTGTTAATGGACTGATAGGTGCT
GGGATTATATTAGTACTATCGCTATTTTATCCAAAAATTAGATTAATATTATTTAAGGGA
GAGATAAAGCTTCAAACTTATTTACATTAATATATATGATATCAATACTTAGAGCAGGA
CGCTCTACCAAGAGTTTGAAGTCTATTTCAAAAAGTAGAGAGTACGGAGTTGTAGCA
60 TTTGAAGCAAGTCTATAATTAGGGATGTAATATAGGAGTTACAACCTTAGTAGAGGCT
CTTGAAAGAGCTAAAATGAGAACAAGAAATCCCATATTAAAAAATTATACGACCAGATG
ATTGTAGGTTATAACAAAGGTAATCTACCATTACTTTTAGGAAAATTATATGAAGACATA
GTTAGAGAGTCTATGGTTAAATTAGATTCATCAAAATTTATGATACAGAACTTAGGAAAC
TTAGCATTTGGTGTGGATTGATACCTCTTTTACTGGAATGATACCTATCAACTATGATA
GGTAATCAAGGATTTTCAGGAATACTGAGCACTATCAACCTACTACTGTTGAAAATTGGT

-353-

5

10

15

20

25

30

35

40

45

50

55

60

CCATTATTAACACTAATATTTGGAATTTTGTAACTAAAAATAGAATAAAAAATGATT
AATGTGATAGCATGCCAAATACCTGACAACCTCTATATAAAAGAACAAATAAAGGAATA
TTATACTCTTTAAAAAACTTGGTAAGGATTTTGACGAAAAAAGTTTATATTATTGTTAA
TAATTATAGCTGCGATACCTCTCCTAATATCATATTATTTACACTTAACCCATAAAAGTA
TGATTATATTTGTAGTTATATACGTGGGAGCTGCATTGTTTCATTCCATCTATTTTATATG
AAAATAAAATAGAACTCTTGAGAATAACATTCCACAAGCTCTTTATATTATGATATTAG
CCCTCGAATCTGGAAGGTCCATAAACGAAGCATTACTTGAAGTTGTTAAAAAGTAATATAA
AGGAAGTTAGCGATATATTTAGAAAAGTTTATACTTAATGGAAAACCAAAAATTAAGTT
TTGAAGAGTCTATGACAATTGTATCCAATTTATATGATTCTAAAGTATTAAGGATGTTAG
CAAGAATTATGATTGAAAACAGGAAATACGGAGGAGATTGTGTCAGATTCTCTAAAAATAT
TAGCTAAAACTCTTGAAGACTTTAAAATGTATAAGAGACAGTTATTGAGTGTACAGCAA
GTGGTTTAGCTATTGGTTTTATTATATTATGTGGAGTTATTCCAGCTGTGCGCATAT
TGGGAGCTTATTTAATAGCAGTATCAGGCATGTTAAGTGGAGTAGCTCCAATACCCCCAG
TTAAACCAGAAGATATATCAAAAGGATTTGAAATTTGTGCAAAATGGGAACGGCAATTATAG
GAGCTTTATTTGCAATTTCCAATTTTGGTTTAAAAATAGGGAGATGTTCCTAATTTCTG
CAGTAACATGACAATCGGTGTTTTAGCATATTATACAATCTTAAAAATTCGCTCCAGGAA
TATTCTCATAAATATTATTTTAAAAAGATTGTTTTATCTCATCATTTAGCAGAATATTTCTC
TTAATTGAAGGATGATTTTTGCCCAATCTTTTTTCAAATTTTTTATTACATCATATC
TCAACCTCTTAGTTCCAAATATCAAGTTATCAGCATGAGCTACAATTTTTCTCTCCAAT
GTTATTGGTAGATAATCCTTTGGAGGTAATCCAAGTTCTATTGCCTCCTCCTTTGTTATT
CCTGCCCAATATGCCCTCTCAGCTATTAATGCAAGTTTTTCATCAAAACCCAACCTCTCTC
AAAATTTGAGCCCTTACAACACCATGTTCTATGCCATGAGTTCTACTCTACCAATATCA
TGTAACAAACCTCCTAATCTAACAAGTTCAACATCAACCTCATAACCTTTATTTTTTATA
GCCAAAGCTAATTCATAAGCATACTCTGAAACTGCTAAACAATGTTCCACCACATTTCTCA
GAGCATAAGTTTTTAAAAATAGAAAGGGCTTTTTCAAATTTCCATAATCCCCTCCGAGA
CGGGAATTTTTATATAATCACCATAAAAAACATTATTTCAAAAAAGGATTGTTCTTTAATT
CTTCTTTTAAAAATTTTATTTGCTCCTCTAAATCTTTAATTAATTCACATTGTGCAAAAT
CCTGCAACATGTTTCCACAACCTGGACACGAAAAGCCATAATCCATTGCCTCTTCAAATG
TAAATCTCACCATTACAATTTGGACAGAAGAAAAACATGTTGTTTTCTCAAACCTCCAAC
TCTTCTCAAGGTCTTTAATTAACCTATTATTTCTTTTTTACAACATAAGGAAGTTTTT
CAAGTGTGGTAACCATGTGTAGGAATACCAATTTGGTATCTTTCATCTTTCCATCTCTTAT
AATCAACTAATCTTGCATCATACAACCTTATAAAGCAGTTTTCTAACTACATTAAAGTTTTA
CTCCAAGTTCTTTAGCAATCTCTTCTGTTGTCTCGCCCTTCTCTAAAAGAACATCAA
TAACTTCAAATCCTTTCTCATCTCCTTCAAATATATTAAAAAGAACTTCTGAACCAAAG
GGTCGTTTAGCATCTCATATATTCTCTCTATCTTCTTTCTTTCTCATACTCTGCACAC
TCCTCATAAACACTGTTTTATTGATTTAATGTTTTCTTTTGCAATTACTGTAGCTATA
GGCTCTCCTTTCTCTATAACTGCATTTTTCTTTTGAATATCATGTATAAAGTCCCTTTTT
GATATATTAGCGATAATTTCTCTTTAGCAAACAATATTCTTTTATATATACTTTTCTT
GGTTAATCTCCTTGGCATACTTATTATTTAGCAAACCATTTGCCAAATTTTGAGATGCA
CTCATCTCTATGGTCTCATAAGTTCCCTAAATGCGAGGATTTATATCAACAATATAAGGA
CCATTATCTTTAATCAAAAAATCAATGCCACTCATTCTTTTAAATTCAAAAGATTCTATA
ACCTCACCAAATATTCAACAAACTTATTTGGTAAATTAATATATGGAGTTAAATTTCCCA
GCATACATTCCCTTAATTATAATTTGTTTAAAGGTTATAAATGTATTGCCTATAAAG
TTGGCACTAAAACCTTTCCCTCTAATATATTCTGAGCAATAATTGGGAACCTAATTTCA
TTAATTATCTCATCATCAAAGTTATTTAATCTATCTTTAAAAATACTTCTCCACTCCCG
TAGATAGGCTTTAAAAATGCAGGTTTTAAATTTCTCCAAAAATTTATATAATTGAGTCTTA
TTGTTTTATTTCTTAGTTTCTGGTATATTAAAAACCAAGATTTTTTAAATTTCTTATATGTT
TTATATTTGTTACTGATTTTCATTTATCTTTTTTGGCCCCATTACCTATAACATTATCCCAT
CCTGGAATTTTCGAATTTTCGAATTCAAAAACACCTGAAGTTATAAAGATACAATCAACT
TCATCAGCTAATTTATTAGCTATTTCAATTAATTTGTTTTTCATCATAGTTTCTTTTAAAT
CTTCCATGAACATAAGGATTTATCAATAATATTTCTCATCAGCATTAAATCTTCTGGG
GCGTAGTAAAGAGACTGAATATACATAAAATCCTAATTTTTTAAAGAGAAATTAACACAGGC
CTTGTTGTTGATACCTAAAACCAAAGCTTCAAATTAACACCTATAAAATATAAACAGCTA
AATAAAAAGAGCGTGAAATTTATCATAGCTTAAAAGCTCTCTTCTTAATTTCCCCAATGT
AGCAACCTTTTCAGCAAATGCGTCATGTCTATGAATACTCTCCATATTTATCTGCCTAAT
TAAAACCTTCGTCTCATCTGTAAGTGTAAATTTCTCCACTACCTTTTAGCCATCTC
CCTAACACAATCCTCAACAACTTAGGGTTTTTATGGCTTTGTTCAACAACATAAGCTTC
ATCAGCTCTCTTTAATATTCCATGAATCTCAGCACTCATGGATTTTTTAAATTTCTAT
GATATCCATAATCTCAATATCATATCCGGTAGGAACCTCCAATATAATTCTACCAATTTCC
TCTCTGATTATGAGTGGCAAATATAACAGAATCCAATATTTTATCAATATCTTCATCAGA
AAAGCCTTTTTCTTTAAGTTTTTAAATACATATCTCCTTTATTAAATTTTGAGCACATGG
ACAAGCAGTGATACCAACAACCTCGGCCCAACAATCTTTGTGAATCTCCTGGGAATACTTCCAGA
CTTCTTTATTTCCCTTAGCTCCACCATGATTTTGTGAATCTCCTGGGAATACTTCCAGA
TATAGGGCTTTTCTCCTTAGTCATGAATCACTAACCATAAAAACCTCTGCCTCTGTGGC

-354-

ATATTCATGCTTCTCAAACAACCTCTTAACTATCTCCTCACAAATTGTCTCCATCTCATA
ACTCTCCAACCTCTAAAGCCTCATCTATTATTCCTCTATAACTTCAGGATTTCTTGACAT
GTGTATTCCTTTCTGAGAACTCGGCAAATTAACAAAAACCTCAAACGTAGATAACAATAT
5 TATTGGTCTTTTATTTGTTCTCTTTAATCTAACAAGTTTTTTTAGATTTGTAACCTCAAC
TCTTGTTAATGATATTTTAAACATCTGGCTCAAAATTTGAACATCACATCTCCAATTCAT
CATCTTCACCTATTAAAGACATCCCTAAGTTCTTTAGATAGTTTATAATATACGTTGTTTC
CTTCCCTTTCTTTATAAATATATCCCATCTCATAGATGTCAGAGAGATGAGTTCCAATAG
TACTTGGTGATTTTTTTTAAATATTAGCTAATTGTGTTACCGTTGCTGAACCTCCAAGCT
10 CAGCCATTGCCCTAACAATCTCTGATTGGGCAGGAGTTAAGTGGTTAGAATTTGATGTC
CTACACTAATGCCAAGAGAATGCATAGCCTCTTTAACAACCTTCTCATCTATTTTAGTTA
AACCTTTCTTATAGCTATTGATATTGATTAGAGCATGTCATTATTATCTTTCTTGAA
TTCCGTCACACTCTTCAACAATTTTATGAATAGCCTCTTCAGTAAACGGCTCAAACCTCT
CTGCTCCATCAATATGAGCATCTTCCAATCTTCTCTAATTAAATCATAGGACTCATCTT
15 TTGATAAAGGAGGCATATTTATTATTTTTTGAATTCTATCCTTTATTGGTGGAGATATCT
TTGTTAAATCATCCATCAATGTTGGAGAACCAGCCATAAACGTTAAATTTCCCTCTTCAT
ACAAAAACGAGTGGAAAAATTTGTAATAAACTTAAACAGCTCTTTTTTGAAATTTGGTCAG
CTTCATCAATTAAATTTATACATAACTTATCAGGACTTTTAACTTCATTTATTAGATATT
CCAAATCCCTCTCAATCTCTCCCTTGGATAGTGGATAGGAACCTTATCCCCATAGTTGT
20 TTAACCTTCCCTATACATATCTAAATCTACTTGAATGTTCCATGTAATCAGATTTTATCG
TTCCACTCATGGTTATGATGTTTTTCAAGTTAATATATTGTATAAGAGCTGTATCAAAACT
GCCTTGGTGTTACCTGAGAGGCAGTCATCTCAACAACCCAATGTCCCTGCTTTTTTGTG
CATAGTATATGATGTTTAGCATTGAACCTCTTCCCTATCCCTTAGTTCCAACCTATTGCAG
CGTTAGCAACACTACCATGCAATGCAGAACCTAAATTTCTCCAATTTCCCTTAACTCGC
25 TAACTCTACCTACAAAAACTTTGTATTTCCCTTATTGGCTTTTCAGAAAATGGATTGT
ATTTTAAATTTTAAATTTATGCATGGTGCTTGCTATAGAGCTTGAGATTTTGTATAAAT
CTATTGGGTCATGTTTCCACCGCAATAAAATATAAATTAATTTATTTAAATTAATTATC
TACTAATTATCTACAATATTTTCCATTGATTTTGAACCTTTTGTCTTAAGAACGTTATATA
GATTTTCGAAAAATCGAAAGATAGATTGAATCAATTATTCTTAAATTTAAATGTTTTATTA
30 TAAAGTTTATTAATAATCTCATGAATCAACAATAAAATTAATAAATCTAATGAATCAAA
CAATATTTTATATAGAAATAGTGATTATTATTTTCAGAAATAAACTTGAATGAAATTA
TATAATATATATATTATTCTAATGAAATAAAGTTAATTTAATTTCTTCTCATAGGAATTG
CTTCAAAATTTAAAAATAAGATATCGTGAATCAATAATATAACCAATAAAAACTATG
AATCAAAAGATTATGTAATAATTAACAGTATATTAATCTAAGAATTATTAGTAAAAATA
GCATATAACAACAAAATAATAGAAAGAGATAAATATTGGTACAATATAGAAACATACTCA
35 AAGAGACGTTCTTAAAAATGTTAGTATTACTACACCCACACATAGGGGTTAAACCAATCC
CATGAATCAAAAGTTTATATAACGAGTATGTCAATATAATTGAGTATCAACAAAACAAA
ATCACAACAATAATAGTTATTAGGAATACTGGGTGTAATATGGAAGATTGCCTTATGA
AATAGTATCAACTATATTAGAAAGGCGATTTTACATTATGTGTTAATACGTGGCACAAC
CTATCCACAATCACTCGCAGAAAAATTTAAATATATCGAAAGGTCTTGCAAGCTCTTTT
40 GAGGCTATGTTCCGCTCTAAATATAATGAAGAGAGAAAGAGCGGGACATAAAGTTTTATA
TTCATTTACATCAAAAGGATTGGCGATATTAAAAAGATTGGCTCCAGAAATATTTCGATTT
GAGTTTTTTCGAGTGTTCGAACAATTACCTAAAAAGAAAATTGCCACTAAGTATTACCC
AGTGGATAAAATAGGGTTTGAATCAGCTGGAAGAGGATAAACTTGGAGGAATAGTATT
TTCATTCTTTGATTCCAATGGAGAGCATTTAGGTGATGTTTTTAGAAGCAATAAAGGCTA
45 TTGGTGGTGTGTTATCTGTGAGAGTATACATGCAACACATTGATTATTTGAACGGCT
CTATAAACAATTGAAAAATCAAGATTAAACGAATTTTCAATTTTCGAGTTGCATGTGTA
TATGACCAACAGAATGGACAACCTTTTTCTGAAAAACGAATTATCGCAAAATTAGAGTAAA
GGATATTATACACTATTTTGTATTATAAACGTATAACGTTAGAGTTTATAGAGCTAATTAT
GGTTTTTTTATTTTTATTTTTTAAAAATAACATTTTTTAAACAATATTTATTGGAAATATT
50 TTACAATAATTAATATAAATAAATAAATAAATAAATTTTACTATTTTAACTTATATTGT
GAAAAAAGTACAATAGTATAATAGTTGTGCTTGGCATATTCACAACCATTTTTTAAAGTT
AGGCGAAGATTTTTCGCATATACATATGTAACCTCGAAAATTCGAAAACCTTTTTAAGAA
ATTTATATTTAAATTAAGTTTCTTAAATATTAATTTATATGCCAAAAAGAAAACAAAGT
TTTGTACATAACTTTACACAATCAATAAATATTAATACTGTCATTAGTTGAGTATGAATA
55 CTATTAATTATTATATCTTTTCGAAAATTCGAAAATCTGTATATCCCAAGGTATGCTAT
CTAACAAGAAAATAGAGAACCAATGCAATAGTTATTTTAGATTTTTTGGAGAGGTTA
ATAAAATATTTCTGTTCAATCTTATTTTAAATCTTACTTTGCCTTTATGTTTTATTTTTG
TCAGTATTCCTAACTCAACCAACTCATCTAAATATCTGTATATGGTTGATAATTTGTAAT
TAACCTTTATAAGTAATATCTTCAACTTTGAACCTTTCTAGTTCAATTATAACTTCAACCA
60 ATTTTCGATATTTTCAATCTACTATATATGGTAAAACTCAAGCCATGGAATTTTATAGCT
CTCTAAGATTTTTTATCTCTCTTTTTGAGTGTCTTAATATCAAAATATATTGTTTCTAAGT
TTCCATTGGTTATTTTAGGAGATATTAGCCACTCTATCGCTTATATAATAACCATGAA
CCTTTGCAAGTATCTTATGGTTGCTTTTTGTATTTAAATGCCTTCTGGAAAAATCTCCC
TAATCTCTTCATGACAGTCAATTGGATATCTTATTACAACACTTATACTATTTTnCTTA

-355-

5

10

15

20

25

30

35

40

45

50

55

60

ATTCTTTAACAAAGTTTATAAACTCTTCCTATAATGCCATTTTCTTATATCATGAACAT
CAAAGACAACCTATTGGATTCAAAACCTTTAATAGTGAGATTATCTTTCCAACAACCTTTT
CAAAATCCCATTCTTATATTTCTAAATAAATCCCCTATTCCCTCTATACCATGCCCTTT
TGGCTCTATAAATATTTATCGAAGCTATCTTATTGhTCATATATTCTAAGAGATTTTCA
GCCAGTTTGGCTTTTATGATTTTAAATAAGTAGTATTTATCTTTAATTTGATAGACAA
TCTTGGCTATAGCCTTTTAAATTTGGTGTGCTAAAACCTAATTATGGCTATATATTAT
TAACTACCTCAAAATTTCCGTTTTTCATCTAATTTCCAATAAATTTCCCTCTGTCAAGTTGGAA
TTAAATACAATCCATTTAAAACTCTTCTGGAAGTCTTTTATTATTTTCATCTCTTAA
CCTCTTTATTATAGCTAAGGAGAGATAGTCATTAAATTCATCAAAGTTGATTTCTGTCTAA
CTTACCAATTACTACTTTTTTCATCTTCAAAAGTTGCCCTCTTTACCAACCCAAATTATATA
ATCATCTCTATTTTTATAACTGATAGCTTCTCATTTAAATTTCTTGTCTTCATAATAAT
TATAGTGTGCAATTCATCAATATATTTTCCAAATCCTTTTCTTGAGGTAAAATGCAGAG
TTTTTCATCTCCTTCAACTAATGGAATATTTAAAGCAGCTGCAGAGGCAATATTGATGA
AATGCCATTAACTATCTCTACCTCAACCCCTCTTTCTTTTAAAGTTTCCAGACATAGGA
GAATGTGCTATACAATGTAGGGTCTCCAATGGTTATTATAGCTACTTCTCCATCTTCTTT
TAAACCTTCTCTAAAGCATTTTCCAGTATTTTTTTAGCCTCTCTTTATCTTTAATCAT
GGGGAATAAAAGTTCTTCAATATCTTCCCATCAACATAATCCTTTATAATTTCATAGGC
AATAGATTTCTTCCCCTTTTTAGATACTGGGACAAAGATTTTATCTACTTTTTTAAAC
CTCTAATGCCTTTAATGTTAATAGCTTTTTGTCTCCAACACCTACCAACACCATAAAC
CTTCTTTACCAATTTATTACCTTACGATTTTATAAAATTACAATAAAAACTTTTTTAG
ATAACTTACTATATAAATTTAGCTAAATTGACAATAAATTTTGGTGACATGATGATATG
GGATTGGAATCTATCGAAACCTTCTGAAAGTATTAAAAACATAGCGGCACATGGGATAA
AGGCATTGATTACAAACAAACCTATAAATGTTTAAAGAAGATTTGCAGAAATTGAAAAA
CAAGGAATTACTTTATGAAGATGATTACAAGAGAATAGCTTATCTTATAACTTTTTTATT
CCAATTAAGGAATGGTTGTAGGATTTGGGAGGCTATAGCTGGGATGATAACATAGCCAT
CAATATAGACAATCTTAATTGGAATGAGAGGATAACTGTTAAAGTTAGGACTCAGAAGAG
GAAGGATTGGGAGTTAGAGAGCTGATTATACCAAAATGCATTAAAAAGAGGATATTGA
AATGGTTAGGSATGTTTTTTTAGACATTAAAAAGGAGATTGATGAAAAGCTAACATGGA
TGAAAAGTTAAAGCAAAGAAAAAGATTGTTAAGAGATTTGGAGCTTGGCTTTATAAAAA
TTATGGAATTAATACTCACTCCCTGAGGTATGCCATGTTACTTACTTGGGAGAACATGG
CATCCCAGCACAAGTCTTAGCAAAAATAACCAAGCATAAGAACATAAACTACATTGAAAC
TTACACTCAAAGCAGACTGGCAAAAGAGATTCTAAAAAATATTGGGGATTTAGATGATTG
AGATAAAAAATATCTAAGATTCCAAGATGGGATGAGATTAATAAGATTGTAAAACTGAGAG
AAAAAGATTTGGTTTTGCTAAAACCTCCAAAGTCTGTTTATGAACATCCAAAAATGGCTT
ATAAAGTGAATATTTAAAGAAAAAGGCATTTTATAGAGGTTGAGAATGCAAGAGAG
GGAGGAAGAGAAAAAGTTGATGATGAACTGTAAAAAGATTCTGAATTAATTATTGAGG
GCTATTCTGTTAGAGAAATTGGTAATTTTTAGGCATAGGAAAACTACCGTTTGGGATT
ATGCTAAGGATTGTATTAAAGAGTTAAACCTTGAGAGATTAAAAAATTAGTTTGGGAGT
ATAGGGAGTATTTGATTAAATAAGGGTAAGTATTCTCCAAGTCTGCAAGTtCTATTTTGG
AGTTGGAGGCCAAGTGTGATTATGATTGGAGAAGGCCAAGAAGATTTTGAAGATATTA
TAAACATGTTAAAGAATTCTAATAATACTATATTTTTAATATATTATATTCATATCTT
TAAGATAATCGATTTTATGTATTTTGTCCGAAATTTTTAAACCAATGTTAGACTTTTGC
ACAAAAGTCCAACATTAACTTAAAAAATAAAAAATATATAAATTAATTTCTAAAAACATC
TTCTCCTTAGGTCTAATTAAATCTCTTCCCTTCCATTACCAAAAGGCACATTAGCCCC
CCTAATTATTACAACCTGGAATGCCCTCATCAGCCTCTCCCATACCAACCAATCCTT
TGCCCAACTCATCAGCAATGGCAACTTCAGTTGTTTTTAACCTCCCTACCAACCAATCCTT
TTCCCCCTTCCCTATCCCATAAATGCTAAGATTCCACTAACTCCTATTGCTATTTCAACAGC
TCCCTTCCCTGAAAGTCTTCCAACACTATCTGATATTATTACTCCAACCTCTCTTTCCAGT
TAATTTTTCAATCTCTTCCCTAATCTTTTCAGCACTTTCATCTGGATTTTTTGGTAGAAT
TTTTATGCCTTTGTATATGTTACTTTTCATCAACTCCACTGTTAGCACAAACAAATCCATG
TTTGGTTTTCTGTTATAATGAAGTTCTTTCCAACCTTAACTATTTCTTTAGCCTCATCTAA
TATAACTTGCACAACCTTCGGGTCTTTTCCAGTTTTTTTTGGCTAATTCAATTGCTTCTTT
TGAAGGGATTATTTTATCCCTATCTATAACTCCACCTCTAATTTTGAGATTAAATGTTTC
TGCTATTACAATAATATCTCCATCTTCAATTGGGTATTGAGCTATCAACTCAGATAAATT
TATTTGTTCTCCACCTTTAAAAATTGGGAGTTCTAAGCCAATAACCTCTACCTTCTTTT
TTCTTTAATCATCTATCACATCCCTTTTTAAGAAATTATATATAATTACAATAAATGTT
TTAAGTTAGAATAAAAAATAGTTTTTTATGTGATAGTATGGTTAATGTTGAGAGAATCAGT
ATATCATTTCCAAATTCCTTTTTAAAGAGATTGATGAAGTTGTTAAAAAGAAAGGTTAT
TCGAGTAGAAGTGAGTTAATTAGGGATGCTGTAAGAAAGTATGTGTTGGAACCAATCCA
TTAAATAAGAATGAACTGTTAGTGGGATTATAATAGTTGTTTATAATCCTACAAAGGAA
GCATTGGAAGAGATGAGTAAGTTGATTTTTGAACATAATAAAGTTATAAATCTTTGAAT
CAGGCTTATGTAACAACATCTTGGCGGAAAAATGCTAAAGTAGAGATTTTTGTTGTTGAA
GAAACTCTAAAGATATTTCAAGTTTTATGAAGAAATTGAGAAAAATCAATGGAAGATT
TATGACAAGGTTATTATTTTTTAGTTTTTATCATAAATTATAAATTATAAATAAATT

-356-

5 TGTGGTGATATTGTGACAAAGGTAGTTATTTTAAGATGTGATAGTGGGCAAAAACGTG
TCCAGGCGTTGGATGCATAGCAGTAGCATTAAACAAAAAAGATACATTCAAAGACTATG
AGAATGTTGAGTTATTGTGAGTAATAACATGTGGGGGTTGCCAGGAAGGTTAGGATTGA
ATCAGATAAAGCAGTTAATAGGGAAGAATGGGGCAGAGGTTGTTTCAATTTGCAACATGCA
10 TGACTGCATTTAAACCAAAATGTAGATATGCTGAAAAGATGAAGGAAGAGATTGAAAAGA
TGGGAGCAAAGGTTGTTATGAGTTCTCACTTCTAAATTAATTTTTATTTTTATTTTGGCA
CTATATACTTATACATCTGAATATAAACCTATAAAAAGATAATAATATTGTAGGTAATACA
AAATCAGGATTATCATAATAATTATATCAACTATCTTCAAAGTGAGTGATATTAATTAC
CCCTATCTCCAAAAGAAGAAGGTCAAAAATATATTTATACAATGAAAAGAAAAGATTTT
AATGTAAAGCATCTGTCAAATACATTGTAAATGTTTGCAGATATTAAAAGTCTTAGGGTG
AAATAATGAAATTTGAACCAAGACCTACAAAATGTTCTGCTTCCAATGTCAAGAGGCAG
CAAAAAATGAAGGATGTACAATAAAGGAGTCTGTGAAAAGATGATGTTGTGGCAAAACC
15 TCCAAGATTTATTGATTATATACTATAAAGGTTTATGCTATGCTGTGATAAAGGCAATT
ACTTGGATGATGAAGTTATGGATTACATTTCCAAAACCATTATTTGTAACAATAACTAACG
TCAATTTTGATGATAAAGATGTAATAAATTGGATAAAGAAAGGAGTCGCTTTAAGAGAAA
AAATTATAGAAAAAATAATTTAAATAAAGAAGAACTTCCATACTGTGCTACTTGGGCTT
ACGAACTGATGAAGATCTAATAAATTTAGCCAATACAAAAGAAGTTAGCGTCTTAGCAG
AGGATAATGAAGACATAAGATCATTAAAGAGCTTATACTTATGGAATTAAGGAATAG
GAGCTTATCTAAGCCATGCCATGCATCTCGGCTACAACAATGAGGACATTCATAAGCTTA
20 TAATTAAGCATTCACTAAAATCGTTGATAGCAAAAGATGCTGATGAGTTATTTAATTTAG
CAATGGAGACAGGAAGTATGCAGTAGAAACGTTAGCATTATTAGATAAAGCGAACACTG
AAACCTATGGGCATCCAGAAATAACAGAGGTTAATTTGGGAGTTAGAGACAGACCAGGAA
TATTGATTAGTGGTCACGACTTAAAAGATTTAGAGCAATTATTAGAGCAAAGTAAGGATG
CAGGAGTTGATATCTACACCCACTGTGAGATGTTGCCAGCCCACTACTACCCATTCTTTA
25 AGAAATATGAGCACTTCGTTGGAAATTTATGGAGGTTTCATGGCCGTTCCAAAGAGAGGAAT
TTGAGAAATTCACCGGTCCAATAGTGATGACGACAAACTGTTTAGTTCCACCAAAGGACT
CATATAAAGATAGGGTTTATGTAACCAACGAAGTTGGCTATCCTGGCTTAAAGAGAATCC
CAGTAAAAGAGGATGGAACCTAAGGACTTTTCAGAGGTTATAGAGCACGCTAAAAAATGCA
AACCACCAACACCACTCGAAAATGGTAAGATTGTTGGAGGATTTCGCTCATAACCAAGTTT
30 TAGCACTGGCAGATAAAGTAATTGAAGCAGTTAAAAGTGGAATAAAGGAAATTCGTTG
TAATGGCCGATGTGATGGAAGGCATAAAACAAGAGAGTATTACTGAATTTGCTAAAA
AACTGCCATAAGATACTGTTATATTAAACATGTGGATGTGCAAAATATAGATTATTAAT
TAGATTTGGGAGACATTGATGGAATTCAGAGTTTATAGATGCTGGACAGTGAATGATA
GCTATTTCGTTAGTTAAAATTCGACTGGCTTTAAAAGATGCATTTGGCTTAAACGATGTAA
35 ATGAACTTCCAATCGCTTATAACATCTCATGGTATGAGCAAAAGGCAGTTACTGTATTAT
TAGCTTTGCTTTACTTGGGAGTTAAGAAATATAGTATTAGGCCCTACACTACCAGCGTTCT
TATCACCAAATGTGACAAAAGTTTATGTTGAGAAGTTTGAATCTCAACGATCTCAACAG
TTGATGAAGATATTAAAAGATTAGTTGGGTAATATAATATAAAATCCAAAATAACCTTT
AATTTTAAATTTATCTTTTATTTTTCATTTTTTTTATTTTATATATTATAATTAATTA
40 TAAGATTGTAAATCAGCAAAATGATTAATTGAATTAGCAAAATTAGGTTAAAATTCAGTT
GCATTTATAAAAAATATTCTTTAAATATGTGTTTTATATGGGTGATTAAATGATAGAAAA
GGTCTATGAGTTTAAAAGAGACGCTAAAACAAAGGTTGTTGAAAAACTGTCAATACTGA
ACATGTCCAGATCAACCATATTGTCTTACCAAGAGGAGAGCAGATGCCAAAGCATTATTC
AACTCTTACGTTTCAATTAATAATAATTAAAGGAGAGATGACACTAACATTAGAAGATCA
45 AGAACCATACATAATTACAAAGAAGGAAATATTGTGTATGTTCCGTTTAAATGTAATAATGCT
TATCCAAAACATAAATTTCTGATATTTTGAATTTTTTGTGTTAAAAGCACCACATCCAAA
GAAATTGAATGCACCAGAAGACCCAAATTAATGTGAATAGGGTGAAATTATGGATGAAAT
AAAAGAATATTTGGCTAAAATATTAGAAAATAAGATAAAAATATCAATGATTGCAAAATT
TAAATCCGTTGAAGAATATGAGGGTAGAATTTTAAAGGATTTATTTGATGTTGAGATGAA
50 GAACCTGGAGATTTTGTATGAGAAGTATCTCATCTATTTCAATGAAAAGCCAAACATAAA
GGCAGAGGTTGATACAAACGCAGATGTTATAGAGATTCTAAAAGAAACCATTGAGTTGGA
GAAATTTTATAGTAAAAGTTAGGAGTTAATTTTGGAGTTAGGCAGGCAGTTATCCATGC
GTTATCTGATGATGAAAGGTTTCTGTATTTCTTAACATAAAAAGCCCTATTTTTAAATTA
TTTTAATTGGTGAATAATGCAAGCTATATAAAAAATTTTGAGTCGTCATGGTTTGGC
55 GCTGTAATGGGAAGTGGTGTGTTTGGCAGTAACGAGTCTGTTTTATTCTGAATACTTACCA
ATATTTAAAGATATATCATTTTTTATGTTTTATTTTAAATATACTGCTGTTTTTGTATTT
TTAATGTTGTGGATTTTGAATGGGTAAAGTATCCAAAAATATGATTGCAGAGTTGAAG
CATCCAGTTTAAAGTTTCAATTTAGTCTACTGTGGCTGTGGCTATGCTGTTTTGGGTATT
GATTTTCAATTTAATAAAAAATAACTCTTTTTAGGGAAAATCTTCTGGGTTTTTGGGCT
60 ATTGGCATGTTTTTATTCAGTTTGATAGTTCCGTTTTATATGTTTAAAGTCTGAGAGTATA
AAGTTAGACCATGTTAATCCGGGTTGGTATATTCCACCGGTTGGTTTGATAGTTATTCCA
ATTGCCGGGAGTTTGATAATGCCTCATTAACTGGAGTTTGGCATGAATTAACGGTTCTT
ATTAATTACTTTGGTTGGGGTGCCGGGTTCTTCTTATATTTAGCTTTATTAGCAGTTGTG
ATTTATAGGTTTATACTGCATCATCTCTACCTTCAGCAATGGCTCCAACCGTATGGATT

-357-

AACTTGGGGCCAATAGGGGCTGGAATTGTTGCCTTAATAAACATGGTGAATAATCCCCA
TTCATAACTATAAAAGAACCATTCTATATCTTCTCCTTCATATTCTGGGGCTTTGGATTA
TGGTGGAGTTTGATGGCTATAATCATGACTCTCTATTACGTTAAAAAGCTAAACTACCC
5 TACGCAATGTCATSGTGGGCATTTCATCTCCCATAGGGGTTTATATTGCTTCAACACAC
TTGGTTTATAAAATCTTTGGGTTTGAGATAGTTGATTACATAGGCTTTGGGTTATATTGG
TTGTTGTTCTTCTTTTGGATAGTAACCTTTAATAAAAACGATAAACAAAGTTTATAGTGGA
GAGTTATTCAAAGACAAAATAAATTAAGGTGATAGGATGATAGATGCCACACTCACTTA
GATGTTAGGAGCTTTGAAGATTTGGAAAAATGGCATTGAGTGAATTGAGACAATTATA
10 ACCTGTGCTCACGACCCATATAAAATGAGTACTCCAGAGGTTTATTTAGACCCTGGGAT
AGGTTGATTAAATTTAGAGGTTAAGAGGGGAGAGATGGCTGGTGTGAAGTTAAAGTAGCA
GTTGGAGTTTATCCTATGGGGTATCCAAAGAATTGGGAGGTTTAAATAAAAACTTCCA
GAGTTTTTAGATAATGAGAAGCTTGTGCTATTGGAGAACTGGTTTGCATTATCTAACA
GAGGATGAGAAGAAGCTTTTGAGAGAGCAGTTATATTTAGCTAAAGATTATAATATGCCA
15 ATAATTATCCATACACCAGAAAAGAACAAAAAGAGGCATTAATTGAAATTTTAAAGATT
TTAGATGAAGTTAAATAAAAGATAGCTTAGTTATGATTGACCATATAAATAAGGAGACA
GTTGATTAAATCGATAGGGATGTTTATGTTGGTTAACTGTCCAACCGTCAATGAAGCTA
ACCCACGAAGAAGCCGACAGAGATAATTAAAAATTACAACAAAAAATTCATTTTAAAGTAGT
GATTTGGGTAGTTTGAAGGCGGATTTTATGCACTACCAAGAACTAAGTTGTATATGAAA
20 AATATTGGTGTGATGAGGAAAAGATAATTGCCTCAGTTTATAAGAATGCCGAAGGGGTTT
TATAGATTATAAATAATTATATATTTAAATTTTGAAGTATGATAACTTTTGTTTTTATT
GTTTTTAGTAAACCTCAATANTTTTAAAACTTTTAAATCGAAAGGTTTATATATTATGA
GTGTTAATACTTGTTCATAGATATAACACAACCGTGAATTATTAATTTATAATTTTTTTA
TACAATCCTTGTGCATAATATTGACATAGGTGATAAGAATGATAAGAAAGTTTAAAGGTTA
25 AAGGATTGAGAAGTCCTTCATTATTAATAGATATGATTTTAAATGACACAGAGGAGGGGA
TTTTAGTTGTTGAACTGACGGGGAGGAGCAGATAAAAGACATTGAGAAGTTATTAATAA
AATACAACCTAAAGTATGAAGTTGATGGAATGTTGTTAAATCTACGTTGGAGAGATTA
AGGCAGATAAAACCATCAATGTTGTTGGAGCTACATGTCCAGGACCTATAATGATGGTCT
CTGACATGTTATCAAAAATGAAGAATGGGGAGATTTAGAAATCATCTGTGGAAAAAATT
30 CCTTAAGTATTAACTGAAGGATTGAAGGGAATGGGCAATGAGATAATAAAGTTGAAG
ATAAAGGAGAGCGGAACCTTACAGAATATTGGTTAAAAAGGGAGAGAAGAAAGAAAAAG
CAGCGGTAACAAAGATTGATGAACCTCTTCATTATAAACACAACAGGAACAGGAATGCTG
AAAAGGCTTATGCAACATTTCATGATGGCAGATGTTGCCTTAAAAATGAACCTTAAAGCCAA
CAATATTCTTAAATGATGGATGGGGCAAGTTTGGCTTTAAAGGAGAATGTGATAGAGTTA
35 AGCATCCAGCATTTCCAAAATTAGGAGATTTAGTTAGGGATATTTTGAAGTAAAGGGGTTA
AGATTTATGTTTGTGAGTTGAGTGCAGAGTTTAGAGGAATTAATGAGAAAACTTAGAGG
AAGGTTTTGAGATTGCTGGAGCACCACATTTCTAACTATCTATCAAAACCAATGTTA
GACCAGTTTGGTTATAAAAAAGGGTGAGATAATGAACGAGATAATAAGTTTAGTTTCTCT
ATCTGTAATATTTGGAGCAATGCTTTCAGGATTTGCCACATTTAGATTGACAGGAATGAG
40 GTTAATGCCACACTTTGCATCTTTAATGATAGCTTTTATATTAACATTGGCGTCATTATT
TATAAGCAATAATATAATAGGTTATTTAGCAATAGCATTTCAAGTAATAACTCCTTTAAC
AGTTTGGCCAACTATATGCAATATATTAAGACCCAGTTTCAAAATCTGGAATATATTC
AGCTCATTTAGCTTTAATGGGAATGATGTTTATATTGGCTTTAGGGAATGTTATTTTGT
TTAAAAATATAATTGGTATGTAGTAGGATTTTGGGATTGATATCATGAACAAAAAAG
45 GAATTGATAGTTTATTTGTCTCTGCTTTTATTACAGCATAAATAAGGCAATATATGATG
TTATGGGGGATGGAGGAAAGGTTTGAAGGAGAGCATCTTATGAGATGATAAAACTAC
TTAAAGATTTGGGTTTTATAAAGGAAAACATGAGTAATGAGGAGATTAAAAATTTATTG
TGAATACTTTTGGGCTATCTGAGGATTTGAATATTGTTGAAGAAGATAAAAAAGTAATAT
TTGAAGTTATAAATCCACATTAGACCTCTTCTCAAAAATTAATGGAAGAAAACCTTAA
50 AGCCATATGTATGTCCATTATGTATTTGCTTTCAGAAATTTATAGTGTGAGTAATAACT
GCAGATTGATGCTATCAGATGTAGTTCCAGAACTGAAGAAAAAGTGAAGTTAATATTTA
AGAAAGTTAAAAATTTTGGTATTAAACATCAATTCCTTTTATAAAAAATTGTAGGGGAG
AGTTTATGAGGGCAGTTTATTTACCACAAAAATAATCAAAGAATGGAGAAATTCATATA
AAAACCTTTTGAATGAACCAGATTTTGTAGAAATTTGTGATGATTGTTACAATTGCAGAG
55 GAACTGGACTTTTAAAGAAATATGTGAAAAATATCGTTATTGAGGAAGTTTATGAGGAGT
TTGTTGATAACCTTACGATTACCTTCCAGAACTCCAGAGGGGGATATTTGTATAGCTC
AACTACATGAAGATTGTTGTATGAACCTCCTCTACTGTTAAAGAAAAGGGATATAAAG
CTTTAATTGTTCTCTCTGAAACACCACATGATTGTTCTTTGGCATTGAGGAGAGATTTAA
AGAGAGTTTGCAGCAACTATAATATTGAGTTCCGAAAACCCAAACCTTCTGTTCAATTGG
60 AGAAGAAAGAGGGTAATGAATATATAAATAAATTTATTGACTACTTTAAGATAGGAAAGC
CAGAATTGGAGATAGAAGTTGAAAATGGCCTTATTAAGATGTTAAGGTTAAAACTCTG
CTCCCTGTGGGGAAACCTATTATATAGCCAAAAGATTGAAAGGAAAGGCTATAGATGATT
TAAAGGAAGAGATTGCAATGCCACCACAACCTATCCATGTTTAGCCAGTATGGAGATGG
ATAAAGAGTTAGGAGACACTATTTACATAAGGCTGGTTATATTGCATTTGAGGTAGTGG
AAAAAGCCCTAAAAAATAAATTTTTTATTTTCATGGTTGTGCAATAATTTTCAACTT

-358-

AGTAAATTTATATATTTGTTTTCTTACACTACTATATGTAGTTAAAAAGATACATATAC
TATAACTACCCCTCAGGTGAAAAAATGAAAAACTATTAATGGTAATATTGGGAATTGCA
TTGATAGGCATGGCTTATGCCTTTCCACCATGGATGGCATATCAAACCTCAGACAACCTGAA
AATACAGATATATAATCCAGTTGATATTTTAAAAACTGCAGAGGTTGTTTCAGCACACAACA
5 CCGTTTGGTTATAACCTCTCTCACTTGGAGATAGATGGGAAAAATAGTTGGAGTTTTATGG
AAAGATGTTGATTTAAGTAAATTAGAGGTTGGAGAGCCATTCAATACACCATTGGTGAG
AAGTATCCTCTATACATATGACAGAGAATTGGTTGGATTTCATCTTTACGAATCATCTGCC
TCTCAATTACGGATATGGGATGAGAGGAGGATATGGATGTCATTGCCATTGTGGATGTTGT
10 TGCTGGCAACAATAATAACAAAAAATAAAATATTTATGGTGTGACATATGCCAATATGT
TGTTATCATCATGCTTCTTTTACCATTTCATTGCTTTTATTTGGATTTTCTGGATG
ATATTTTGGATAATTCTTTAATTGGAGGAATCATTATAGTCTTACTAACACTTAAATGG
TTATTTAAAAAGTAATAACAAAAATAACAGTAAAGCTTATATTCCTTTTAAACAAAAATAA
TATTTGAGGTGAGAAAAATGTGGAAAAACTGATGTTGCTACTGCTAATGGCGGTT
15 AGTTTCAGCGGTAGCAATCCCATCAATTTCTGCAACAGATGTGGTTTTAGTAAGTGACAA
CTGTGCAGACCAATGCCTGCTTAGAGGTTGCAGATGCTTTAAACGCTACTGTAATAAC
AACTGAATGGGGAATCTACAACGAAAGCTTAATTGATGAAATATTAGCACTAAATCCAGA
TAAAGTAATAATTATAGGAGGACCTTTGGCAGTAGTTGAAAATTACACAACCTGCCTTGA
GAATGTTGGAATAACTGTTGAGAGAATTGGAGGAAGTAATAGATATGAAACAAACGCTAA
20 TGTAACCTTAAGATTCCAAAATCAATTTAGATATGCTTTTGGAAATAATACAACATGCTG
CGTTTGCCATGGATTGATGATATTGCTTTAAATGAAACAATGGGATTAATAAGAACGG
AACCTGTTTAGTCTTATTAATAATGGAGTAAATTTAAGTCTTGAACCACAAAAATTGCA
ATTAAGAATAAATAAAGTTGAAATTATTGAAATCCAATTTGTCCATTCTGTAACCTATTC
AAAATTGATGTTGAAATTGCAAAAGAATGGGTTGAAATGAAATTAAACAAATCCCAAA
25 AGTTAAAGTTAAGTTAATGCTACAAAATAGAATAAGAATAATGGAAAGAAGAATCCTCAT
GTTGAAGAGAATGGGTGTTAATGTCACCTGACTTAGAGGAGAAGTTGAAAGAAGTTGAACA
ATTAATGGAACAGAATAGATATCAGGAAGCATATAGAATAATGGTTCAACTTCAGGAGGA
GCAGATGGTTAGGGTTAAATTGCACTTACATCCAATGTGGAGTAAATGAAAGAGGTAA
AATCCAAGAAAAATAAAAAATGCTTCACACATCTATCATCAAAATATAAATAATCTTACTAA
30 TGAATTAATACTAGTAGAGGAGGTATTGGGGGAATTAATGCTCCACACATATATCATCA
GAGAATAAACAGTACAATTCAATAAATATTTTCATCTCATTTTTTTTATTTTATTTGTA
TGGTTATGTATGTGATTGTCTCAACCATTAAAGGTGATAAATATGAAAAAATAGCGATG
ATATTGGTAGTATTTTAGTAATATCTTCACTGGTCTTATCTCTGGATGTGTAATCAG
AATACAGAAACAGCTCAAAATGTTCAAACCTACTCAAAATAATCAGCAAAATACCCAACTT
35 GGAAATGGGCTTGGAAATGGAGCGGGAAGGAAGATTGTTGATTCAAATGAGATATAA
ACGACTCACTAATGCTTGAATATATAAGCTCATTACCAAAACAACCAATAAGTGAAGAGG
AAAAAGAGGGACTCATTGAGATGAGGGAAGAGGAGAAATTAGCGAGAGATGTTTATTAA
CGCTATATAATAAATGGAAATTACAGATATTTAAGAACATTGCTGAAAGTGAGCAACAC
ACATGGATGCAGTTAAATATCTCTTAGAAAAATACAACATCCCAGACCCAGTTAAAAATG
40 ATAGTATTGGAGTATTTTCAAAACCAAAATTTGAGGAACATATAAAAAAGTTAGTTGAGA
AAGGTGATAAATCAGAAGTTGATGCATTAAAGTTGGAGCTACTATTGAAGATTAGATA
TTGCTGATTTAGAAAAATGGATAAACAAGACAGACAATGAGGATATAAAATTTGTTTATG
AAAATTTAATGAAAGTTCAAGAAACCACATGAGGGCATTGTTAGAATGCTTAATAATT
ATGGTTCTAATTATACTCCTCAATACATAAGTAAGGAAGAATATGAAGAAATAAATAGCA
45 GTTCTACGGAGAGGGGAATGAATAGGTGAAGAATATGAAATATATAAATAAATAGTAGC
AATCTTCTGCTTTTTTCCATTTTATCTTATCTTTGTCATGGAATGACTGCCCTTATGG
AAGGTTAAGTTGCACCTATCCGGGGAGTGTGGAAGATACATTGATAACAAACCAATGG
AATTTGCGACCATAGTGAGCCCCCTCCCAACAACAATAAAAAACAACAACACAGGGA
AGAGATAAAGACCAGTAATGTGAGTAGTTTAGAATTAACAGAGGAATTGATTAATGAGTA
50 TGTTGGTATCTCAGGTAAAGAGTTAAATCCTATACAATAAAACAGGTTTGTGACAAATA
TGGTATAAGTCCAAAATGTTTAAAGGAAAAAGTTGAATATTAATGTTCCAGATGATACAAC
CTTTGGAGAGATTAAAGGAAGTTTATGGAATCCCTCCAAGTGTATTAAAAAGCTATTGT
TGAATGTATGATTGAAGAGGGAAAGATTAACATAAATAACAACCAATACAATTGATAATAA
TAGAGATTTAAATAACAACAACAGTGGAATGAAAAAGTGGGAAATACAATATTGGATAA
55 GATAGTATCCTTTTTATTCTCAACAATAAATTTAAGAGATTGTTGTTCAAATTTTAGCT
GTATATCAGTATAAGTTAAGTCTGCTCAATACAGGGGTCTGTCCAACATGACGTTATAGG
CATAACTCCATGTTGGACTTGGGAATCATCAACCTTAACCTCCCTCTGGGTTTCATTGGGAG
CAAACCATCTGCTTTTCGTATGGAATGAGAAGTCATAAGGTGAAAAAATCAAGAAACT
ATAAAAAGGAGTTGATGGATGATGGAAGTAATTAAAGCCATCGAATTTAAGTATTATTCA
60 GATGTTGTTGAGTTAATATATGATTTTAAAGAAATGGTTAATTTTGCATTGATAAGGCA
ATGGAGCTGGGAATTACTTCTTACGCAAAATTAAGAAAGGCAATATATAATGAATGGAAG
GAAAAATGGTATCCAAAATATCATACTCATTACTGTCACCTCTGCTTGTAGAGTAGCAACA
TCAATTTAAAAATTTTAGAAAGAGGAAGAGGAAGGTTTAAACAAAAAGGATAAGCCAG
AAGTTAAGAAAGATTTTGTAAAATTTGAGGAATGCTGTTTAAATTCGAGGGGGATAAAA
TAAAAATTATCACTGCACCAAGAAAAATTTATCACTATAAATTTAGTTGTTAGTGATTATC

AGAAAAAATTTATTGAAGAGTGGAAAAATGGAACTTCAAATTTGGAGAAGTGATTATTA
AGAAAGATTCTATTATAATCCCATTCAAAAAGTTGTTAATCCTAAAAATTTTGAACATA
TCATGACAATTGACATCAATGAAAAGAATATTACATACTCAATTTTGTATAAAGATGGAA
5 ACCTCATTAAAGACAACCCGTTTAGATGTGTATAAGTTAAAGAGAATTCATGAGAATTTCT
CAAAAAAGAGGGAGAAAATACAAAAGAAGCTTTCCAATAAACCAATGAAGTTAAAAACTC
TCATGGAAAAATATTCTGGAAGGGAAAAAGAAAGTTGAGGATTACTTACACAAAATTT
CAAAGTTTCTGATTTTCAAGAGGCATTAAAATACAATGTAAAGATACTAATGGAGGATTTAA
CAAATATCAGGGAGGCAGTTAATAAAAAATCAAAAAATTTTAGGAGAAGATTAAACAGAT
10 GGAATTTTCCAACTCCAATTTTATTGAGTACAAGGCAAAGTGGGATGGTTTAGATG
TTGAATATGTAAATCCCTCAAGAACGTCCAACTCTGCCAATATGTGGGTGTAAATTAG
ACCGAATGGGCAGAGGTTGTTAAAATGCAATAATTGTAAATTTAGTATTTGATAGGGATG
TTGTTGCTACATTTAATTTATTAAAGAAAAGTCAGGATGTGGGGAGTTTCCGTTCCCCCG
AACGCTCCCTGATGAAGTCTCTTATTAAAAGAGGACAGAACGGGAGAACCAATACAAGA
15 GATTACTTAAAATCTATAAACACCTACATAGTGGAGGACGGTGGTTGTAATGGATAAAAA
TCCAAATATTGAGGAAAATCTCTCAACATTATTTTATTATTTTGTATTTTGTACAA
GTTTTTGTATGTTTTTTTGGGATAATTGAGAAGTTTATTTTAAAGGGAAGTGTGGAC
AGTTGATAGCTAAGTTGGTTGTTATTGTTGTTTTAACTTTAATATTGGGAAGGGTTTTT
GCGGATGGATGTGCCCATTAGGATTTTTATTGAGCTAATGTATAAATTAAGGATGAAGT
20 TATTTATGAAAAAGAAATTACCAACAGTTAATGAGGAAGTTCATAACAAGCTGATATATT
TAAGATATGTTGTTTAAATCTGTCTTAGTTTTAACTTACTATCTTCAATCTATGCAT
TCTGTCAAGTCTGTCCAATTGGATTTTTAACGAATCTTTACGGAACAGTTATATCCCTTA
TAATATTGATTTCTTTTTAAGCCTATCCTTCTTGTTCGATGGCATTGTGATAGATATT
TCTGCCCTTAGGAGCGTTTTTATCAATATTTCAATAAAACCATTCTTCAATTAATAAAA
25 CCAATAACAACCTGTGTTAAATGCAAACTTTGTGAGTTTAAATGTCCAATGCAATAAAAA
TAAGTAAAACTTGACCAAAAGGAATGTATAAGATGCTTTGAATGTAAAGTAGCTGTA
AAAAAGATGCCTTGTCTTTTCTTATGCATTCAAAAAGAGAAGTTAATAAAAACTTCTAT
TTTTTATTAACAATTATACAAATTTTTATTAGATTTATCTAATTTTTATCCTCCTATTT
TTAAATATCTGGCTAAAAATCTTTTTATATTTTGGATTCCAGAGTTTATATTATAAAGT
30 TTGATAATTGGGGTTTTATGGTGAATCTTATGAATAAAATACAAATATTGAGGAAAATAT
CTCAACATTATTTTTTGTGAGAGCTTAAATAGTTACTGGTTTTTATTGAGTATTGTAG
GATTTATTAAGAGATTTATTATAGGAGATAGGATATTAGCTACTATAATAACAAAATCA
TCGCTATAGTATTGGCGTTTTATTGCTCGAAGGGTTTTTGTGGATGGATGTGCTCATTG
GATTTTTATTTAATTTAGTTTATGAGTTGAGGGTAAAACCTTTAAATTAATAAACTAC
35 CAACAGTTGATGAGAAAATTCACAATAAATTAATTTATTTAAGTATGTTGTGCTAATTT
TAGTGGTTTTAGCATACCTATCTGGAGTTAAATCTCTGGATATACATTGGCATATCTGC
TGTGGCTTTTATTTTAGTTTATGAGTTTATTTATCCAATGTTCTTCTGCAGATAGTTT
GTCCAGTGGGGTCTTTGTTGAGTATATTGCGAGATTCTCAATCTTTAACTGAACTTG
ATGAAAATAAATGTGTAGGTTGTAGATTGTGTGAAAGAAAATGTCCAATGCAGATAAAAA
40 TAACAGAAAAATAGACCAGATGGAGTGTATAAGATGTTTGAATGCATGAGTGTATGTA
AAAAAGGAGCATTATCTTTTTCAGCTTTTACTAAAAATACTAAAAAGAATAATCCAAT
ATACACATATTTGAAAAATAAAATTAACAATTTATATAAATCTTTAAGTAAATTTAT
TTATATTGTGAATAGTATTTTCAAATTTAGCAGAGGTATTTAAATAGATATGTTGAAAT
45 TCGAATAGTTAAGTTCTTATACTACTTACACAATAAAATAAACTGATAATAAAATAA
CTAATACTACAAATATAAATTAAGGTGAAAAATATGAAAGCAGACGCAGCAAAATAGC
TGATGGTGTATATTGGGTGGGGTTTTAGACTGGGACATAAGAATGTATCACGGCTACAC
ATTAAAAGGAACAACATACAATGCCTATTTAGTCTTTGGAGATGAAAAAGTTGCTTTAAT
AGACAACACATACCCAGGAACCTCCGCTCAAAATGTGGGGGAGGATAAAAGATGCATTTGA
AAAAGAGGGGAGGGAATTTAAATTTGATGTAAATCGTTCAAACCACGTAGAAAAAGACCA
50 CAGTGGAGCTCTCCCTGAAATACACAAAAATTTCCAGATGCACCAATATACTGTACTGA
GGTAGCTGTTGAGGGACTTAAAAAGCACTATCCATCATTAAAAGACGCTCAATTTAAGGT
TGTTCAACAGGAGATACAGTTGATTTAGGAGGAAAGACATTAACATTCTTAGAAGCTCC
TCTATTACACTGGCCAGATAGTATGTTTACCTTCTACAACGAAGGGGGAATTTTATTCTC
AAACGATGCATTTGGACAGCATCTCTGCTTCCAGCACACAAGAGATTTGATAAAGATAT
TCCAGAGTATGTGTTAATGGATGCAACCAGAAAGTTTTATGCTAATTTAATTACTCCACT
55 GTCAAAGCTGTATTAAAGAAATTTGAGGAAGTTATTCAGTTGGGATTATTAGAAAAGAT
AAAAATGATTGCCCATCACCGGCAGATATGGACAGACCAATGAAAGTTATTAAGGC
ATATCAAGACTTTGCTACTGGTAAAGCAGCTAAGGATAAGGCAGTTATCGTTTATGATAC
TATGCACTACTCAACACAAAAGATGGCTCATGCATTTGCAGAGGGTTTAAATGAGTGGGG
AATTGATGTTGTAATGTATTTCTTACACTACGATGAGAGAAGTGAGATTGTTAAAGACAT
60 CTTAGATGCTAAGGCAGTTCTCTTTGGAATTCACAATCTATGATGAGCCATATCCATC
AATTGGAGATATCATATACTACTTGGAGAGATTGAAATTTAACAGAACAGGATTTAAGAG
ATTGGCGGTTACTTTTGGTTCAATGGGGGAGAAAGGTGGAGCAGTTGCTAAGATTGCTGA
AGACTTGGCGAAATGTGGATTGAAGTTATTAATCAATATGAACCTCTACTATGTCCCAAC
AGAGGATGAATTAACAACTGCTACAATATGGGTAAAGAATTGGCTAAGAGAATTAAGA

-360-

GATGAAGATTGAATGAATTTAATCCTTTTTTACTTTTTTATTTTTTTAAGAATATATTT
GTATATGTAAATTAATAGTATTAGGATAAGTAATATATATATAAGAAAAATTAGAAGATA
TGAGTAATAAAATATCGATATTGGCAAAAATTTTAGTTATTAATTAAATATATGTGCGAAA
TTCGTATAATTAATAATATATACCGTAATAGCATAAAATTTATTTGAATGGTTTGTGAGCC
5 TTATTA AAAATCTTAGTTCAAAATATTTACTTAAAATTTATTTTTATGTGTGGTGAGATTA
TGAAAAAAGAGATAATCAAATGGAGTAAAGATTTTGAAACGGGAATTAAAGCATTGTATG
ATGAGCATAAAATTTTGGTTAAACACTTAACGATATTTACAACCTACTAAACGAAGGAA
AAAGAGACGAAGCAAAAGAACTTTTAAAGAGAAGGGTTGTTAATTATGCTGCAAAGCATT
10 TTAAGCATGAAGAGGAAGTTATGGAGAAATATGGTTATCCAGACTTAGAAAGGCATAGAA
AAACTCATGAGATTTTTGTTAAACAGTTATAGAAAAGTTACTTCCAAAGATCGAAGAAG
GATCAGAAAAATGATTTTAGGAGTGCTCTATCTTTCTTAGTGGGATGGCTCACAAATGCACA
TAGCAAAACAGATAAAAAATACGGAGAGTGGTTTAAAGAGAAAGGTATTGTTATCGAGG
ATGAAGCAGTTAAAATTTGATTAAATTTGAATTAATTCATCACAATGTATCGAATTTTCG
AACCATTAATATTATATAATCGTGATTGTTTATTTTATAATGTAATAATTAAAAAGTTAA
15 AAAGGTGAAAGCATGGAGTTGGACTTAATAAATGAACACAAGATAGGAGTAACAAAAGGA
ACAGAGTTAGAAAAAGAAGTTCAAGCAAATTTTGAAGGAGAGTGCAAAGAGGTTGGATTA
TACTTAGCTATGGCAAGACAAGCTCAGAGGGAGGGGTTACCAGAGGTTGCTGAAGTTTTA
ATAAGAAATGCTATGGAAGAGGCTCAACACGCTGCACACTTTGCTGAAATGAACGGTTTA
20 ATTTAGAAAACCTTAAAGAAAACTTGAATGATGTTAAAGGAGAATGTATGGCAAC
AAAGAGAAAAAGCTGCTGCAACAAAGGCAAAAGAATTGGGTATAGACCCAGCTCATGAC
TTCTTTGATGAATCAAGTAGGGATGAAGCAAGACACGCAAGATGTTAAAAGGAATCTTA
GACAGATACTTCAAATAAATTTAATTA AAAATTTTTATTTAATTTTTATTTTTTAATTCT
GTATTGAATATTGCAACAAATTTGATATTCTGGGTATTATAATATTATTATATGTTTTAT
CACTTTATATTTACTAATTTTTTAATTTGTTTTATTTATTGTTCAACATACTTAATATTT
25 ATGATGTTTGATTAATGTTTAACTGTTATTTGCCATAAAAAGGTGAAAAATATGCGAGT
TGAGCTTAAACAAAAGATATGAAGGAATTTTATAAAATATTCAGTGAAAGTGAATTTAT
AATAACCGATGACAGTAAATTAATAAATGAACAGTAAATTTTAAAGAAAAAATATAA
AAACAGTACTACAAAGAAAAAATTAATTCATTAGATTTATTTAAAGCTATTGTTCTGAT
AATGATGAAAAAGATCAAAGAATTAGACAGCGAGATAACCTTATATGATATTGGTTATGA
30 ATTTGGGAAACACCTAAATCCAAAAAGATACAGCGATTTAAAAAAATTTTTCAAAGAAAA
TAACCTTAGGAACCTTAAAGTGGATAGCAGAAAACCACTGGTTTTAAAGTTGAGAACTG
TTCTTTTGGCAGAGATCTAAGTTTTGAAGACCAATCTGTTATTTTGATGCTGGATTAAT
AGCAGGAGCTTACGAATGCATATTA AAAAGCCAGTTGTTGTTGATGAAATAAAATGCAAT
GGCAAGGGGAGATGATGCTTGCTATTTTAAAGTTGAAGTGGTAAATAAACAAAATTTTC
35 TTTCTATTTTCGGAGGAAATATCTTTTTCTCATTATTTCTTTTTCAATTTCCATTTTTATT
ATTTTACTTAAATACTACAATGCGATTATCGAATTTACATTTAAATATTGTAATAAAG
TATAATGGA AACGATATATAGTTTCAAATAAAAACATAAAAATGACAAAAATAGTCCCA
ACTGACTAATTGATCAGGTGAATTA AAATGGTGATCTACGCTCAAAAAGATATTAGCAAC
GATTTTTTTAAAGAAATTAATAAGACAGGGGAAATCTTGAGAGAAGGACATGTTTCTCT
40 TTTAAAGCATGCTATCAATGTGGAACCTGCCTGGGAGCTGTCCAAGCGGAAGAATACT
GCTTTTAGAACAGAAAATTAATAAGATACGCTCAATTTGGAATGAAATCCGCAATAATA
GACAGTGAAGACCTGTGGATGTGCACAACCTGCTATGAATGTTATGAAAGATGTCCAAGA
ACAGTTAAGATAACTGATATAATAAAAGTTTTTAAGAAATATCGCTGCAAGAGAAGGAAAA
ATGGCTGAGGCGCATAAAAAACTGCCTTATATGTTTTTAAACAGGACATGCTGTTCCA
45 ATCAATAGCAAAATAAAAAAGCAAGAAAGAAATCGGTTTAACTGAAATCTCTCCAACA
ACTCACAAGTATCTGATGCCTTAGAAGTGGTTAGAGGATTATGAAAGACCTGAAGATT
TGTGATATGGTTGGAATCTGCACAGAAACAATGCAATTA AAACAGTGGAAATGGAAGAC
ATGTCAGAATAAGAAATAAAAACCAAAAATAAAAATAAAGTAAGAAAGGTGTTTTAAT
ATGGAATTTGTGTTCTTTTGGGATGTATTGCTCCAAACAGATACCCAGGCATTGAAAAA
50 GCCACATATATAACAATGGAGAACTTGGAAATAAATTAACCCCCCTTTGAAAAGGCATCT
TGCTGTCCAGCTCCAGGGGTTTTCGGTTCTTTTGACTTAAAAACTTGGTTAACCTTAGCA
GCGGAAATTTATGTATGGCAGAGGAAGTTGAAATGGACATCTTAACCATCTGTAATGGA
TGTTATGGCTCTCTATATGAAGCCAATCATCTACTAAAAGAAAACGAAAAGCAAGAAAA
ATGGTAAATGAAATACTCTCAAGTATGGATTAGAGTATAAAGGAAAAGTTAGAGTTAGA
55 CACTTACCTGAGGTTTTATACTACGATTTAGGAGTTGATAGGATTAAAGAAGAGATAACA
AACCATTAAATGTAATGTAGCAGTTCATTATGGCTGTCATTATTTAAACCAACGGAT
ATTAAAAAATGGAAAGTTCAGAAAGACCGAGATCTTTTGATGAACTTGTAGAGGCACTT
GGAGCAGTGTGATCAATTATAAAGATAAAAATATGTGTTGTGGAGCTGGAGGAGGAGTC
AGAGCAAGAAATTTAGATGTTGCCTTAAAAATGACTAAAACAAAATTTGGAATAATATAAA
60 GAAGCAAAAGCCGATTGCATAACCGAAGTTTGTCCATTCTGCCACTTGCAATTTGACAGA
GGGCAAGTAGAGATAAAGGAAAAGTTTGGAGAGGAATATAATATTCCTGTGATACACTAC
TCCCAATTTACTTGGCTTGCAATGGGAATGTCCCGAAAGACGTTGCTTTGGACTTACAC
TTTATTTCAACAGATGAGTTTATCAAAAAATAGATAGGCATTAAATTTCTATTTAAAA
AATTTAGAAAGTTATATATACTATCTAAATCAAAAATATAATATATGAATTAGGTAGTA

-361-

5 AAACCACTCAAAAAATAACTTATAAAGAACTTAAACGATAAAAAAGGTGAAAAAATGAAGA
ATGAAGTATTTTTGGGGAGGGAATGAAAGTAGTTAAGGAGAAATACCCAGATCTCTATG
ACATTATAGTGAATTAATGACACTGTCTTTACTGGAAAAACACTGGATTATAAACTC
AGAAATTGATTGCAATAGGAATTGTTGCATCAAGATGTGATGAGGTAGCGATAGAAAAAC
AGATGAAAAGTGCAATGAAAGAACTCGGAATTACAAAAGAGAGATTGCAGATGTTTTGA
GAGTTGTTTTATTAAAGTGAATGCCTGCTTTCACAAAAGCAATGAAGATATTAGAAA
AACTCTAACTTATAGATAATCTTTTATTTATTAATTTAATTTATTTTCATACCCTTATAC
10 TCTACTTAACTTAGTTTGATTACTATGTATAACGAAAAATCGTGGGGACAATATGACACA
CTACTGCGGAATAAACCGAATGAAAGAAGGAACGTATTTGAAAAGAAACATACTCCATT
TATTGAGTGTAAAGACAGAGTTAAAGCAAACGATTATTTGAAAGTAAAAATTTCAACTGG
AATTCCACATCCTATGGAAGATAATCACTTTATACATTGGATCGAGTTATATATGGGAGA
TCTTTATTTAGCAAGAGTTGATTTTACCCAATTTATGAAACCAGAGGTTAAGTTAATGGT
AAAAGCCCCGTCAAAAGAACATGAGAAATTTATATTAAGGGCATTAAATGAGATGCAATCT
15 TCACGGGGTCTGGGAATACGAAAAAGAGATTCTGCTTGAATAAAATCCCATTTTTATAAA
GTAAAAAATAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAA
CGTCTTTAATTTTATTATATTGCGAAATTTAAGTGATTAAATGATATATACCTCTAACT
GACTAAGATAAATAATGACAAAAATAGCACAAAGGTGATAGAAATGGCAAGGTATCAATG
CATGTGTGGATGGGTGTATGATGAAGACAAAGGTGAGCCGTCACAAAACATCCCACAGG
20 AACAAAATTTGAAGATCTCCAGATACTTTTAGATGTCTCAGTGGGATTAGGAAAAAA
CGCTTTCAGAAAAATCGATTAAATTAATAAAACGCGATGTGAAGTATATGTCTATATGTA
AGTATGTAAATAGTTTATGTAAAGGTGTGATTAAATGATCTCGGTTAAGATGTTGTAAAT
TACAATCCAGAAGAATACAAATTTAAAAGTAGAGAAATCCCTCAGATTTACTTGCAATT
ATAATATACGCATATATGCGAAGGTTAAAGACCTTGGATCAGACACAACCTGTATGAA
25 ATTGGTTATGAAGTTGGAAGATTAGTGCTCTCAAAAAGTTATGAAGATATTAAGAAGTTT
TTTGAGGCCAATAATATTGGTTATATTGAGATTAAGAAAAAGATAACGGAGAAGTGGAG
ATAAAGTAAAGGACTGTATATTTGTAGAACTCAAAAGTCAGAAGAACCAATGTGTGAT
TTTGAAGCAGGACTGATTGCTGGGTTCTTAGAATCAATAAAAAATAAAAAATATTTCTGT
AAAGAGATGTATTGCCAAGCACAAGGTTATGATGCTTGTGTATTTATTGCTAAACCTCTC
30 CATAACTAAAAAGTCAGTTTATTAAGGTGATTATTGATGATAACAACAACCATCCATT
ATATGAAGCATTAAGAGACATCCAGGAGTTTAACTAAGATTAGTAGAATATTTAAAGA
TAAGGACGTTTTTCCAATAAAAAATAAGGTTGAGTTGGCAGAGGCATTGCCTGTGGGAT
TTCACTTCCATGTGGGAAATTAAGCAGCAGAATTGCTTAAATTGCTAACTGACAATGA
TTTTCCAATAAAGATCCAGAGGATTTGGCAATGAAATTAGCAAATAAATGTCCAATAAA
35 GCAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAA
ATGCTCAAATTGCGGCTATGTGTTTGGGAGAGAAACCTCCAGAAAGATGTCCAAATTG
TGGGGAAAAATGTACGTTCTATGATGTTTCTGCTACACTCCCGAATGTGGGTTTAAAGG
ATATGACCCAAAAATTAGTGGCAAGGACTCCAAATCAAGAAAGCAAATGTAAAGAAAG
40 CAAATATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAA
GAGAAAAATGTGTGAAGGAAAAATGCCAGTTATTGGTGAGAAATCCCAGAAGTAGAGGT
TAAACAACCCATGGAGCTATTAAATTACCAGATTATTATGTAGAGAAAGGAAAGTGGTT
TGTTTTATTTCAGCCATCCTGCTGACTTTACTCCGGTTTGCACAACAGAGTTTCGTAGGATT
TCAAAAGAGATACGATGAATTTAGGAACTAAATACTGAGTTGATTGGATTAAAGTATAGA
45 TCAAGTTTTTAGCCACTTAAATGGGTGAGTGGATAAAAGAAAAATTGAATGTAGAAAT
TGAGTTTCCAATTATAGCGGATGATAGAGGAGGTTAGCAGAGAAATTGGGAATGATAAG
CCCATACAAAGGAAACAATACAGTTAGGGCTGTGTTTGTGTAGATAATAAAGGGATAAT
TAGGGCTATCATCTACTATCCGCAAGAGTTGGTAGAACTTGGATGAGATCGTTAGATT
AGTTAAAGCTCTCCAAGTTTCAGATGAAAAAGGAGTGGCTATGCCAGCGAATTGGCCTGA
50 AAATGATTTAATTGGAGATAAAGTTATTATACCTCCTGCATCATCAGTGGAGGAGATAAA
GCAAAGAAAAAGGCATGTGAGAAAGGGGAGATTGAGTGCTTAGATTGGTGGTTCTGTTA
TAAAAAGTTAGATTAAAACTTTCAATGAAATTACTATATATTAAACATATTATAAATT
TCTAAATCTTTTTAATTAATTGTAATTGTTTTTTTGGAGTGGAAATATGGTAGAATTAAAG
ATTGCCTGTAAATTGGACGGAAGTTGTGAAAAACCAAGATATAGAAAATACAAGTGCAAA
55 GTATGTGGATGGGTTTATGACCCTCTAAAAGGAGATCCAAGTCAAAATATACCTCCAAAA
ACACCTTTTGGGAACCTCCAGATACATGGATATGCCAGTTTGTAGAGGTAAAGTAGGA
AAAGAATCATTCGACCGTTAGATGAGTGGGTAGAGTTTGTAGAAATAATTAATAATTTTA
TTCAACATATTTTAACTTTTCAATGAAATTACTATATATTAAACATTTTGTGATAAATATGAAA
GAGACACTAAAAAATAAACAAGCATATATAGGAGAGAGTTTAGCAAGGAATAGATAT
ACCTGTTATGCAAAGATTGCAAAACAAGAGGGATATGAGCAGATAGCTGAGATATTTTTTA
60 TTAAGTGTGAAAATGAGAGAGAGCATGCCAAGTGGCTTTATTACTTAATAACCGAACTA
AAAAAGAAATATAACATTGATGATAAAGCTATAAAGTTGATGGTGTAGAAAGTTCCAATT
GTTTTAGGAAATACTGCTGAAAACTTAAAGCATCGATTGAAGGAGAGCATTTTGGACAC
ACAGAGATGTATCCAAAGTTTGGTGTGCTGACATTGCTGAAAAAGAGGACTTAAAGAGATTGCA
GATAGGTTGAGAGCTATAGGGATAGCTGAAAAAGCATCATGAAGAGAGGTTTAAAAAAGT
CTAAAGGAAGTTGAAGAAGGAACGGTATTTAAAAAAGATAAACAGTTGAATGGGTTTGT

-362-

AGAAAAATGCGGTTTTGTTTCATCTTGAAAAAGAACACCAGAGAAGTGTCTTCTTGCACT
 CATCCAAGGAAATACTTTGAAGTTAAATGTGAAAAATATTAAATTTAATTAATTTAATCA
 ATTAAACAAATTATAAATGAGGTGGGGTTTATGAAAGTTGCCTTCTTAATATTTTCTT
 ACTTTCACAAAAATCAGCCAAATATGCCCGTTATGATGCATACATTACTATTTGCAAAATG
 5 AATTAAAGAAAAGGGAGATGAAGTAAAGATTATATTGGAAGGAGAAGCAGTTTTATGGG
 CAAAAGATCTGTTAAGTGAAAAATCATCCATTAAAAAGCCACTTTGAAAAAGTAAAGATG
 ATTTTGTGTATGTGAAGCATGTGCAAGTATGTTTAAATGTTAAAGAAAGAAATTAAAGGCA
 AATTAAATTAGAAAAATGATTTATTTGGACATGTAAGCTTAAAGAAATATTTAGATGGTG
 GATATAGAATAATTGAGCTCTAATTACTAATCTGTTTTTATATTTATCCTATCTATATTT
 10 ATTTCTATATTTATTTTATATTTTACCCTACTCAAAGGTGATCTTAATGGTATTAG
 AATAAAAAATGGAATATACTGGGTTGGAGTGATTGATTGGGAAATTAGAGATTTTCATG
 GCTATGGAACCTCCCTACGGATCAACCTATAACTCTTATTTGATAAAAGATAAGAAAAATG
 TTTTAATAGACACTGCAAAGGATTACATGTTCAATGAACCTTATTTATGGCATATCAAAT
 TTATAGATCCCAAAGATCTCGATTATATTATAGTTAATCACGTAGAAAAAGACCACAGTG
 15 GTTGTGTTGATAAATTGGTTGAGATCAGCAATGCCACAATAAATACTAATGAAAAGGSAA
 AGGAGCATTATCTCTCTACTACGATACAAAAGATTGGGATTTATCATTGTAGATACTG
 GAGATGAGATAAACATAGGAGACAGAACTCTAAAGTTCATAAGAACTCCAATGCTCCACT
 GGCCAGATAATATGCTAACTTACTGTAAAGAAGAGAAAATTTTATTTCTCAAACGATGCAT
 TTGGACAGCATATAGCAAGTTCTGAGAGATTTGATTACGAGATAGGAGAAGGAATTTTGG
 20 AACATGCAAAGGATTATTTCCGCTAATATATTGATGCCCTATAAAATGCTTATTTCTGATG
 CAATAAAAGCCGTTAAAACTTAGATATTGAGCTTATTTGCCCTTCTCATGGAGTAATTT
 GGAAGGAATACATAAACGAAATAATTGAAAAATATAACGAATGGGCAATGAACAAAACAA
 AGAATAAGGCAGTTATTTGTCTATGATACAATGTATAACTCGACCAAAAAAATGGCTCATG
 CGATTGCTGAAGGTTTAAATGGAGAAAAGGAGTAGAAGTAAAAATTTATAGAGTTTGTGAAA
 25 CCTCTCTAAGTAGAATAATGACAGAAATCTTAGATGCAAAGTATGTTTTAGTTGGCTCAC
 CAACTGTAAATAGAAATCTCTACCCAGAAGTTGGTAAGTTCTTGCATACATGGATTGCA
 TTAGACCACTCGACAAGATCGGTGTTGCCTTTGGTTCTTATGGTTGGATGGAATGCGCAA
 CTGAAAAAATTAAGAGATATTCAAAAACCTGGGCTTTAAGATAGTTGATGATGAATGTT
 TAACAGTAAGATTTGCTCCAAAAGAGGAACATCTAAAAAATGTTATGAATTTGGTAAAA
 30 GATTAGCAGATATTGGCTTCTGATATATATTTTTATTATTTAAATTTTATTTTTTAAAGG
 TGGAATAATGAAAGTCTTTGGGATAAGTGGAAAGTCCAAGATTGCAAGGGACTCATTTTGC
 AGTAAGATTATGCTTTAAATTTATTTGAAAGAGAAAGGGGAGAGGTGAGATATTTTTCAGT
 TAGTAGAAGAAGATAAACTTCTGCTCTTCACTGTGATTACTGTATAAAGAAAAAGAGGG
 ATGCATACATAAGGATGATATGGAAGAGGTTTATGAAAACCTTATTTGGGCTGATGGAGT
 35 GATAATAGGAACTCCAGTTTATCAGGGGAATGTAACAGGGCAGCTAAAGACATTGATGGA
 TAGATGCAGAGCTATACTGCAAAAAATCCAAAGGTTTGGAGGGGTAGAGTTGGAATGGC
 TATTGCTGTTGGTGGAGATAGAAATGGGGGGCAGGAGATTGCTTTAAGAACTATTCATGA
 CTTTTTTATAATAATGAAATGATTCCTGTGGGAGGGGTTCTTTTGGAGCTAATTTAGG
 40 GGCTACATTTTGGTCTAAGGATAGAGGGAAGAAAGGAGTTGAGGAGGATGAGGAGGGATT
 GAGAGTTTTAAGAAAGACACTTAATAGATTTTATGAGGTTTTAAAGAAAAGAGGGGGTT
 ATAAAGAGGGGTAGTATGCTAAAAATGTCATGGGGAATAACCGGATGTGGAGATAAACTG
 CCAGAAGTTGTTGAAATAATGAAAAAGCTAAAAAATAAATAATTTGGATGTAGATATC
 TATCTCTCAAAAAATGCAAAGATTGTTGTAAAGTGGTATAAACTCTGGCAGGTTTGGAG
 45 GATGAGTTTTATGATTTAAGGTTGAGGTTAATGCAACGCTCCATTCTTAGTTGGGAAG
 TTGCAAACTGGAAATATGATTTGTTTTAGTAGCTCCAGCAACGGCAACACAACCTGCA
 AAAATAGCTTATGGTTATGGGATCTTTAATAACTAATTCAGTTGCTCAAGCAATGAAG
 GCAAAAGTACCAGTTTATATCTTTCCACCAGATAACAAAAAGGAACTGTAGAGACAATT
 CTGCCAGGGAATAAGAAATTAACCTATATATGAGAGATGTTGATGTTGAAAATGTTGAG
 50 AGACTTAGAAGAATGGAGGGAATTGAGGTTTTAGATAAACCAGAAGATATAGAGAAGGTT
 ATTTTAAAGCACATAGAGGTGAAAAACAGCAATAAGCTATCTATTTTTATAATATTTTA
 GCAAATCAAACACACTTAAAGTTCCAACAACCTCATCTCTATCATTAAATAACAGGGTAGG
 CAATGTCTTCGTTTTTATTATCTCATCTTATTAATTCATCAGTTACTTCATCATTCTCTT
 TTAATACTTTTATCTCATCAATAAGTAACATTAAATCCTCTATTTTTGAATGCTTACAGC
 55 CTATAAGCAAATCTAAGGCAGTAATCCATCCAATAATTTTCCATCTTCTATAACTGGAG
 CATAATTTTTCTTTCTTTGTAGAGAGTTTGAACAACCTCTCCTCCAATATCATTTGGGG
 AGATTTTTATAAAATCTTTGTTTCATAACTTCTTTAACTTTCATTATCATCATCTCCGTTT
 GATATTACTGCTCAATAATCTATAATTTATTTTTTCATGCAAAAAATTTTGCTATTGTATT
 TTATAATTATTAATTCAAATCTTCTATTTTAAATGTGAATATCGTTTTTCATTGCAAACT
 60 TAAAGACGATTTCCAAACCGTTAATGTTATTTCGTTAATAATATTAATGATTATCGTA
 AAACAAGTTAAAAATATGTTTGGTGATAGGTATGAAAAACTGCATCGCTGCTATTCCAGA
 AGTTAAGGAAATGGTTGAAAAGGCAAGTTAAAGGGTATAGAACTCCTCACACAAGATT
 CCCAAATCAATCCCAAAGTGTCTTACGGGTAAAAGGGGTTTATTGCATATTATGTGC
 TAATGGACCTTGTAGAATAACAGAAAAACTCCTTACGGTGTTTGTGGAGCAACAGCAGA
 TGTTATTGTAGCAAGAAACCTCTGCAGAGCGGTGCTGCTGGAACATCATGTTATGTCCA

5 TTGTGCTGAAACGCTGCAAGAGCTTTATTATCAGCAGGTAAAGGAGAAGGAAGCTATGA
AATAAGAAACGAGAAAAAATTAAAGTTTTAGCGAAAAAAGCTTGGCTTGTATGCAAAATAA
AGATGCTAAGCAGTTGGCTGTTGAAGTTGCTGAGTTCATATTAGATGATATGTACAAACC
AAGATGGGAGAAGAGTGAATTAGTTCCAAAACTCTGTCCAGAGAAGAGATTAGAAGTATT
10 TGAGAAGTTAGATATCCTTCCAGGAGGGGCTAAGGGAGAGATTGTTGATGCATTAAACAAA
GACTTCAACAACTTAAACAGCAATCCAATGGACTTATTGGTTCACTGCCTTAGATTAGG
ATTGCACGCAGGATTTACAGGGCTTTAATGACTTGGTGGTTAAACGACATCTTATTTGG
TTCACCAAAGATTACAGTAGTTGAGAATGGATTTCAGTTCAGTTAAGCCAAACAACGTTAA
TATCATGATTACTGGACACCAGCACGCTTTAATCCAGCCATTATGTGAGGCTGCAATGGA
15 GGAAGACTTAATAAAAAATGGCAAAAGAGCTGGAGCTGATGAGATTAAAGATTATTGGAGC
TACATGTAACGGACAAGATATGGAAACAAGAATTGCCACTTACCAGAAAGCTTCGTTGG
TTACATAGCAAACTTCAACAGAGCCATTGGTTGCAACTGGTTTAAATGATGCTGT
TGTCTCTGAATCAACTGTACATTCCACGGATTGAAATTTGTGCTGAAAAAAGCTAAGAC
AAAATTAATCTGTATTGATGACATGGCTTACGTTGAGGGAGCTGAATACATCCCATGGGA
GCCAGAGAATGCTAAAGAAAAGGCAAGAGAGATAATTAAGAAAGCAATTGAGGCATTCAA
AGAGAGAAAAGGAATGCAGAAGGATTACTACGATGAGAAAGTTAAATCAGTTGTTGGAGT
20 TGGAGAGGAATCATTGGTTGAGTTCTTAGGAGGAAGTGTCAAGCCATTAAATGAATTGAT
TGCAAGTGGTAAATCAAAGGGGTTGTTGGAGTCGTTGGATGTTCAAAGCTTGGCAAGTGG
AGGACACGACAACATAATTGTCACATTAACAAAAGAGCTCATTAAAGAGATATCTTAGT
CTTAGCAGGAGGTTGTGTAACAGCCATTGAAACACGCAGGCTCTCTTTGACCTGCAAG
TGCTGAGTTAGCTGGAGAGAAGTTAAAGAAAGTCTGTAAAGAGCTTAGGAATCCCACAGT
CTTAAACTTCGGAGCATGTTTGAGTATTCCAGATTACCAGTTGCTGCCCTCAGCACCACAGTGGT
25 TGAAGAGTTGGGAGTTGATATTCAGATTACCAGTTGCTGCCCTCAGCACCACAGTGGT
GGAAGAGCAGGCATTGGCAGATGCACCTACGCAGTTGATATGGGCTTACTGTCCATGT
TTCACCAGTTCCATTGTTACTGGCAGTGAGTTAGTAACAAAGGTTTAACTGAAGCAGT
TGAGGGCTTAACAGGGGTAAATTAATCCAGAACCACCAACCCATACAAGGCAGCTGATTT
ATTGGAGCAAACAATCATGGAGAAGAGGAAAAAAGCTTGAATCTAATTAATTTCTTTTAA
AAGCTTTTAAACATTTTAAAAAGGTGGAATTATGAAATTAGAGGGTTTGAAGCTCAAT
30 GATGGGGAAAGATATAGATTTTATCCCCAGCTATGACAAGGTTATGCTGTTTAAATGA
AATCTCCCATGCTTTAGCAGGAGTTATGGCTGTTGAGAAAGCTTATAACATAACAGTTCC
AATGAAGGGCAGTATTTGAGGGAGATTGCAAGATTGGGGGAGATTGTTGAAGTAGATGC
AATTAAGTTGAGAGAATTTAAAAATACAGATGATTTAGCAGATATTGGAACAAAATAAA
ATCTGTGTTAGGAAAAAGGCTAAATATTTGGCTGTTGGTGGAGTTTGAAGAAATATAAG
35 TGATAAAGAAAAAGAAAAATTAATTAATTTGGCAAAAGAGGGATTAACTTAGTTGATAA
AGATTTTGTAGTTAGTTGATGAGAGAAAGGCAAGATTCCATTGCCAGATGTTGAGTT
GATTGATGCTTATAAAGTTGATGCTAATAAAGTGAACAAACCGCTTACCAAAAACAGC
CCTTTATGATGGAAGGTAGTTTATAGTGGGCTTTGGCAAGAATGTATAAGGAGGGCTT
AATAAATCAAAAAAGCTTATGGGATGTGTTATCTTCAAGAATGATTGAGATAGAATCTG
40 CTTAAATAAAATATAGAACTCTTAACAAATTAATTAACACACCCATACATGGAGCC
AATTATAAAGATGGAAGGCAATTGGGGAGGCTGTTATAGAAGGAGGAGAGGGAATCGT
TTATCACAAGTTGAGTTACTTGAAGAGAGATTTTGGATTACACAATATTAACAAGTGA
GAACTTCAACAAAGCAGTTTGGATAGTGTAGATAATGATGAAGCAAAAGAAATCATTCA
45 GCTCTGTGAAAGATGCTACTATTTAAGCTAATTAGATAACTACGAAAAATAGGGGATAA
TTTGAAGTAATGGACATTAATTAGGGTTGAAAGCCCTAAGTTAATGGACAGCTTTTGGTC
AAGCTTTTACTAAAGGTTGAGGGTGATTTATGACCGGATGCGGTTCTTGTGGTAAGAT
TATCAAAACATTGAAAAGAGTATTATAACCAATTAAGAAAAGGACATTGTTTTGGT
TGGAGGAGCTGTTAATTTGGATGATGAGGAAGAAGTTAAAAAATAATGGAATTAGAAA
50 AAAGTCAAAAGTATTGATAGCAGTTGGTAGCTGTGCTGTAAGTGGGGGTTTCCAAAGAA
GCTTATTGGTTTATAGAAATGCTTCCCAAAAGATTGTTAGAAATAGGAGATGTTGTTAA
GGTAGATTATGCAATAATTGGCTGCCCCACAGATGAAGAAGAGGTTGAAAGAATAGTTAA
GGCAGTTATTGAAAAAGACAAGGAAATCGTTGATTCACTTAATACTAAAACCTTATGA
AGTTATTGCTGGAAAAACCAATTATTGATGCCTATATGAAAGTTAATGACGTTTATTAA
TTCAATAAAGAGTTATGTTTAGGATGTGATGATAAGCCAATAAATGATGAGTTCTGTAC
55 TGGTTGTGAACATGCGTTGCTAAGTGTCCAGCAAACGCTTTAACAATTGATGAAAAGCC
AAAGGTCAATATAAGCAAGTGTATTAAATGCGGAAGCTTGCTTCTTCAACTGTATAAGGGT
AAAGGAAGCATTATTGCGGTAAATTTAAAAATCTAAGAGGCATTGCCGAGCGTAGCGAGG
CAATGCATCCGTGGTATCCCAATAGGAGGTATCCTCCTATGGTGTAGGAAGCTTGCTTCT
CAACTGTATAAGGGTAAAGAAGCTTTATAATTAATTTTGCATAATTTAAAGTTTGA
60 GTGATGTATAATGAAATATCTTTCAGCAAAATCAAACTAAATATTGATGCCCAAGATGG
TGGATTACAACAACATTGTTAAGTTACTGCTTAGAAAATGGTATATTGGATGCAGTAGT
GGTTGTTGGAGATAAGAATTGGAAGCCAGTAGCTTACTTAGCTACTACCAACTGAATT
ACTAAAATCAACAAAAAGCAATACTCAATATCACCACCAACAAAGTTGTTGGAGTATGC
AACAGAAAAGTATGATAAAGTTGGATTGGTTGGTTTGCCTTGCCATATATTGGGAGGATT
GCAGTTTGATTAACTTTAAAGGTTGGTTTATTCTGCACTAAAACTTCTACTATGATAC

5 AATAAAAAGCATTATAAAGGAGAGATTTGGAGTTAATATTGATGAAGTAGCTAAAATGAA
CATTACAAAAGGAAAATTTGTCGTTGAAACACTGAAGAAAAAGGCTTTGCTGGAAGTGA
AAAAGTTGTTTATGAAATTCGAATAAAGAGATTGAAAAACTCTGCAACTTAGGATGTAG
GGTTTGCAGTACTTCTCAGCTAAATACGCAGATGTATCAGTTGGAAGTGTGGAAGTGA
10 AGATGGCTGGAACACAGTAATTGTTAGAAACAAGATGGTTGAGGACATAAATAATGAGAT
GGCTGAGAAGGGATTAATTGAAGTTAAAGAAACAGTTGATATTAAAGCAATTGAAAAATT
GGAAAACATTAAAGAAGAAAAACGAAGAGATTAACAAATGCTCTGCATACTTTGCTGTGTG
TCCAGCTCTGTTTTAAATATAATGCTTTTTTATTTTGAATCTAACCGTAAGAGATAT
GAATTTAGTTTTTAATAAAATTTTTCTGTTTTTATAACTTTAGTGGTGATATGATGCTA
15 ATTAATAAGATTGAAGAATTAAAAAAGCTCAGAAATTAAAGATATTATTGACAAAAGAATC
CAGGAATTTAAATCTTTTAAAAATAAATCTAATCAGGAGTGGTTTTAAAGAGCTGTGTTTT
TGCATCTTAACAGCTAATTTTACAGCTGAAGGAGGAATAAGAATTCAGAAAGAAATAGGA
GATGGGTTTTTAACACTCCCAAGAGAAGAGTTAGAAGAGAAATTAAAAAATTTAGGTAC
AGATTCTATAGAAAGAGAGCAGAGTATATTGTTTTAGCAAGGAGATTTAAAAACATTAAA
20 GATATTGTTGAGAGTTTTGAAAACGAGAAAGTAGCAAGAGAGTTTTTAGTAAGAAACATA
AAGGGGATTGGATATAAGAGGCGAGCCACTTTTGAGGAATGTTGGTTATGATGATGTT
GCTATAATAGATAGGCATATATTGAGGGAACCTCTATGAAAACAACCTACATTGATGAGATT
CCAAAGACATTGAGTAGGAGAAAACTTAGAGATTGAAAATATATTGAGAGACATTGGA
GAAGAGGTTAATTTAAAACTCTCTGAATTGGATTGTATATCTGGTATTTAAGGACAGGA
25 AAAGTTTTTAAAAATAAAACAATAAGTTTATTTTCAATTTGCTCTAAAATAATTGCTGGGCAA
ATCTTTTTTATCTTCAATCTTTCCAATTTTGTAAATATTAAGTCAGAGAACTCTTTT
CCATCTTTAGCCAGATTTCTGTCTAATCATGTGGTCTCCTGTTGATGTAAATACCTTC
TTAACTTCTGGAACCTTACAGAGTTCTTTGCAACATTTAAAAATTTATCAGGCTCTGTA
TCAATCCTGTTAAGGCAACGACATTATAACCAATCTTTGATGGATCTATTATTGCAGTA
30 TAGCCCTTAATAACTCCTTCTCTTCCAATTTTTGACCCCTCTTCTTATGGAGCTTTCA
CTTGTCTCTAACTCCCTTGTCTATCTGTGTATGATTTTCTTCCATCTCTCATAAGAATT
TCGATAATTTTTAGGTCTTTTTTCGTCCATAATATCACCGAATTTCCGGATGATTAATAATA
TTAATATAACCTAACAATTATAGTTTCATTGCAAAATATAAGGTATAAAAAGGAATTATAA
TGAACGCCTTCTATAAGAAGGCGTTCAATTTTCATATTTAATTTAATCATTTTGCAATG
35 AACTATATGATTTAGTTGAAATATATAAAATTTTGAGGAAGAAAATGGCGGTTGAGA
TAATTGTAGATAGGGAGAAATGCATTGGATGTGGAAGATGTTATGATGTATGTCCAAAAG
GGCCGTTAATATGGACAAAAGATGAAAACGGAAAATACTATGCCTATGATGTAGAATACT
GCCACAACCTGTAAGTTTTGTGCTGGTAGATGCCCTACAAATGCAATTTAATTAAGTGG
TTAAACCAAAAAAGAAAGATGAAAATAAAAAATAAAAGTAATTATTTTTTTATCTCAGTA
40 AATACTTCATCCAATGCATTAATTAAAGCATCTATATGCTCTTCTCTACAATTAATGGA
GGTAAAAATCTTAAACTGTGTGAGAGTACAGTTGATTAATAATCCTTTCTCAAGCATT
TTCTTAACAATATCAGCTCCATTAAATTCAGCTCTGCTCCAATCATTAATCCTAATCCC
CTAACCTCTTTTATGAAGTTGTATTTCTCTATAAGGTTTTTCGAGTTTTCGAATGAAATAT
45 TTACCTTTCTCTATAACTTTATCATCTTTAATCAATTCCTCTATAACTTCAACTGACGCC
AAAGCGGCAGAGCAAGCCAATGGATTTCTCCTCAACAGTTGTTCCATGGTCTCCATAACTC
AATGCCTTTGCAATCTCTTCTTTAAACAACAGCTCCTATTGGGACCCCCCTCCAAGG
GCTTTTGCCAATGTAAAATATCTGGCTCAACACCATAATGCTCAAAGGCAACATCCTT
CCAGTTCTCCCCATTCCACACTGCACTTCATCAAGAGATTAAGACGATATTTTATCATCA
50 CATAAATCCCTAACGGCCTTTAAATAATCTTTATCAGCTACATGAATTCCTCCTTCTCCC
TGAACAGGCTCAATCATTATAGCAGCGGTTTTGTCTGTTATAGCCTCCTTTAAGCCTCT
ATATCGTTGAATGGAACATACTTAAATCCAGGAGGTAGAGGATAAAACCCATCCTGATAC
TTTGGTTTTGGTGTGCTGCCAGTGTGTTAAAGTTCTACCATGAAATGCGTTATACATG
CTGATTATTTCTCCTCCTCTCTTCTTAATACTTTTGATACATACTTCTTGCAAACTTT
55 ATAGCTCCTTCGTTAGCTTCAGCTCCACTGTTGCAGAAAAATGCTCTATCCAAACCACTT
AGCTCAACTAATCTTTTAGCTAATTTTATTTGAGGGATTGTGTAATATATGTTGGAGGTA
TGGATTAAAGTTTACGCTGTTTTTTTATTGCTTCAACAACCTTTGGATGACATGCCCT
ACATTATTAACCTCAATCCAGCTAAGAAATCAAGATATTTCTTTCCATCAATATCATAA
ACTTCCATTCTTTACCTTCACTAAAACAACCTGGTAATCTTCCGTAGATTTGGAGATGG
60 TATTTTTTCTCTAAATCTATCCAATCTCTTGGCTCATTTAATCACCAAAATGATTTTAA
AATTAATAAATAAACTTTTAAAGGGAAGTAATGCATTATAAGTATTTATATTTTGTGTGT
TTTTTGTGAGTATTTAATCATTTTTGATATGGTTAAGTCACCAACAAAACATTTTAA
TGTGAAAGTATTTTATTAATATTGCTATAATTAATCTTTTTTGGTGATAAGTATGCATAA
AATATGTGTTATAGAAGGAGATGGAATTGGTAAAGAGGTTGTTCCAGCAACAATTCAAGT
TTTAGAAGCTACTGGTTTGGCATTTGAGTTTGTCTATGCTGAGGCAGGGGATGAGGTTTA
TAAAGAAGTGGTAAGGCATTACCAGAAGAAACAATTGAAACTGCCTTAGACTGTGATGC
TGTTTTTATTTGGAGCGGCTGGAGAAACAGCGGCAGATGTTATTGTTAAATTGAGGCATAT
ATTGGATACTTATGCAACATTAGACCAGTTAAAGCATACAAAGGAGTTAAGTGCCCTAAG
GCCAGATATTGATTACGTTATAGTTAGGGAAAACACTGAAGGGCTTTATAAAGGAATAGA
GGCAGAGATTGATGAAGGAATTACAATAGCTACAAGAGTTATAACAGAAAAAGCATGTGA

GAGAATATTTAGATTTGCTTTTAACTTAGCAAGGGAAAGAAAGAAGATGGCCAAAGAAGG
AAAGGTTACATGTGCTCACAAAGCAAATGTCTTAAATTAAGTATGGGTTATTTAAAAA
GATATTTTATAAAGTTGCAGAGGAATATGACGATATAAAGCAGAAGATTATTACATAGA
5 TGCAATGAATATGTATATCATAACAAAACCGCAAGTATTTGATGTTGAGTTACTTCCAA
CTTATTTGGAGATATTTTATCAGATGGAGCTGCTGGAAGTGTGGGGGATTAGGTTTAGC
TCCTTCAGCGAATATAGGAGATGAACATGGATTATTTGAGCCGGTTCATGGTTCAGCTCC
AGATATTGCTGGAAAAAGATAGCTAATCCAACAGCTACAATATTAAGTGTCTTTTAAAT
GCTTAGATACTTAGGAGAGTATGAAGCTGCAGATAAAGTTGAAAAAGCATTGGAGGAAGT
10 TTTAGCTTTAGGTTTAAACAACCTGACTTAGGAGGTAATTTAAATACATTTGAAATGGC
TGAAGAAGTAGCTAAAAGAGTAAGAGAAGAATAAATTAATCTATTTTCTTTAGAAAGCT
TTTCTATTCTTTTATTTTAAAAATTTAAATGAAATTAGGTTTATTTATTAGGAGGTG
ATTTTATGAGATTGGCCATCATTGATTATGATAGATGTCAGCCAAAGAAATGTTCTATGG
AATGTATGAAATACGTCCAGGAGTTAGAATGGGAGAAAAGACAATAGAGATTGATGAAA
15 ACACAGGAAAGCCAGTAATATCAGAAGTTTTATGTTCTGGCTGTGGAATATGTGTTAAGA
GATGTCCATTTAAGGCAATATCAATTATTGGATTGCTGAAGAGCTGAGTGAGGATAAGA
TAGTTTATTCCCTATGGGCAGAAATAGATTTAAGTTATTTGGTTTGGTTATCCCAAGAGATG
GGGTTGTAGGGATTATTGGGCAGAAATGGGATTGGTAAATCCACTGTCTTAAGAAATTTAG
CTGGAGAGTTAATTCCTAATTTAGGAAAACATGATAAAGAGCCAAACTATGACGATGTTA
20 TAAATACTTTAGAGGGACTGAAGTCAAGAATACTTTGAAAAATTAATAAAGGAG
TAAAGGCTATCCATAAAGTTCAGTATGTTGATATACTACCAAGGTTGTTAAAGGAAAGG
TTGGAGATTTATTAAAGAAAGTTGATGAAAAGGGCAAATTTGATGAGGTTGTTGAGAAGT
TAGAGCTAAAGAATATCTTAGATAGAGAGTTAAGCCAGTTATCTGGAGGAGAGCTGCAGA
GAGTAGCTATTGCTGCAGCATATTTAAGAAATGGAGATATATACTTCTTTGACGAACCAT
25 CTTTATGGTTAGATATTAGGCAGAGGTTAATGCGCAAGATTAATTAGAGAATTAATA
AAGTTGTTGATGTTGAACACGATTTAATGTTTTGGATTACTTATCTGATTATATCCATA
TTATGTATGGGGTCCATCAGCTTATGGTATTGTCTCAATGCCAAAGAGTGTAGAGTGG
GAATTAATGAATATCTCTATGGGGAGTTGAGGGAAGAGAATATAAGATTTAGAAAAGAGC
CAATTATATTTGAGAAGAGGGCAGTTATTGACTTTAAAAATAGGCCAATTTTGTGAGCT
30 ATTCCTCAATGAAAAAGACTTTGGGAGATTTTAAATTAGAGGTTAGTGAGGAAGTATTT
ACAAAGGAGAGGTTATTGGTATTTTAGGGCTAATGGTATTGGAAAAACAACATTTGTTA
AGTTATTGGCTGGAGTAATTAAGCCAGATGAAGGAGAGGTTATCAAAGAAGGAGATATAA
AAGTTTCATACAAACCTCAATATATTACTCCAGATTATGATGGAACAGTTGAAGATTTAT
TGAGTTCAATAACCAATATACACACTTCTACTACAAATCAGAGATAATTAATCCTTTAC
35 AGTTAGAGAAGCTATTGGATAGGGAAGTTAGAGAGTTGTAGGTTGGAGAGTTGCAGAGGG
TTGCTATTGCTGCCTGCTTAAGTAGAGACGCTGATATCTATTTATTGGATGAGCCATCTG
CATTTTTAGATGTTGAGCAGAGATTGAGAGTTTCAAAGTAATAAGAAGAATTGCAGATG
AAAAAGAGGCTGGAATGTTTGTGTTGACCACGACATACTATTCCAAGACTACATTTTCAG
ATAGATTTATTGTATTCAAGTGGAGAGCCAGGGAAGTTTGGAGTTGGTAGTAGTCCAATGA
40 ATAAGAGAGATGGAGCTAACAAATCTTAAAGAAATGCAAAATACATTTAGAAAGAGACC
CAGAGACAGGAAGGCCAAGAGCTAATAAAGAAGGAAGTCAAAGAGATATTATGCAGAAGG
AAAAAGGAGAGTATTATTATGTTGATGAATAACTAAGAGGCATCATCGAGCGAAGCGATG
ATGATGCATCCCAATGAATAAACTAATAAAGGGATAAAATGGAAAAAAGGAATAATCCT
45 TCTGCTTTAAATATTTTATGCTTTTTTAAACTTGGGATGGTAGCATTTGGGGGACCA
ACAGCAATTGCCATATGTCAGAGAAATGGTAGTAGAGAAAAATGGATGGATGAAAAA
AGTTTTAATAATGGAGTTGCTTTAGCTCAAATAATTCCTGGAGCTTCTGTGATGCAAGTA
GCGGCTTATGTTGGGTTTTATCTTAGAGGGATTGTAGGAGCTTTTGTGCTTTTATGGCT
TATGCATTGCTGCGTTTTTAAATCATGTTATTTTTAACAATTATATATATGCATGTTAAA
50 TCTTTGCCAAAACTGTTTCAATTTTGGAGGCTTTAAGAATTATTGTTGATCATTAGCT
GCTAATGGAACTAACTTTAGTAAAAAAATATTAGAACTATCGGGGATGTTTTTTTTA
CTTTAATATCGGCATTATTATTTTTTTTAAATTTAGTCCGTTTATTGTTATCTTTGTA
TCGATATTTATTGGATTTTTAATGTATAGGCGTGATATTACAAAACCTTCATTAAAGATA
GATATACCAAGAGAAAAGTTAAGAATATATAAATATGTGGCTTATCTGTTATTTGGAGTG
55 TTTTATTTAATTTAATTTCTTTATATGATTGATTCAAATTTATCCTACTTTCAACACTT
ATGATGAAAGTTGATGTTTTTGGCTTTGGTGGGGGATATGGCTCAGTTCCCTTTATGTTG
CATGAGCTGTAGATAAATACAATCTAATGGATGCTAAAACCTTTATGGATGGAATTGCA
TTAGGGCAAATAACGCCAGGACCATAGTAATAACTGCCACATTTGTAGGATATATTGTT
GGAGGTTTTATTGGAAGTATTATTTCTACTATAAGCGTTTTTACACCTTCGTTTCAATA
60 TTGTTATCTTCAATTTCAATATTTGACAGTTTAAACATAATAACCATTTTCAAGAAATTT
TTACATATGATATTAGTATCATTGCTTGGCTTGGTGGTAGCAGTAAGTATAAGATTGCA
CTCTTAGTTGATTGGTCAATACAGGCATTAATAATATTTATTGTATCATTCTATTGTTG
TATAAAAAATATAATATGTTATTAGTTGATTACTAAGCTTAGTTTTGGGATATTTAATA
TTATAAACATTTTAGGTTGAGAAAATGATTTTTAACGAGTATGAAGAGTTTGCAAAAA
GATGGATGAATGTATTGAAAAATACAAAGGGAAATTTGGATGTATTGTAACCTTTCAATGG
ATTTGTTAGGGAGTATGATTTAAAGATGGAGAAAAAGTTCCATCAAAGGAATGAAGAT

-366-

AGATGAAGACATCTTAGAAAAGTTGAAGTTAGTTATTGAGGAGGCCAAAAATAAGTTTGA
TGTTATTGATATCTTATTTTACCACAACACTGGATTTTTAAGTATTGGGGAGAGGATTGC
TTCAATAGCCGTTTTTGCAGACATAGAAAAGAGGGTTTTGAAGCTTTAGAATATATAAT
5 AAATGAGATGAAAAATATCATTAAAGGACTTTTACCTCAAAGTACAGAAATCATGCC
CAAACCTGCACAGTGAGTTTCTTCACTCTAACTCTCTTGTTTAAATATTTTTCTAAGCA
TCCAGCAATAAAGCCTCCTTCAAACCAACATAATGTCTCTCCAACTCAGGAAGTCCAGA
ACAAGAGATACATTCTATAAACCTAATTTACAATGGCTCTTTATTAATCTCTCCACCTT
TCCAATTTTATATCTCTCACAAAACCTTAACCTACATCTTCAACAGTTTTTGGATTTAATGC
10 CAGTCCAAGCTCTCTTCCACATTCGTAAATAACTCCATGAGCCCCCTCTTCTAAATATCT
TTCCAAATCCATAAATCTTATTAATCTAAAAACAGTTACGTCAATATTTCTTCTAATGT
ATCTCTTTTTTGATTGATAACTCTTCAATGGTGAATTTAATGCCATAATATCACCTAT
ATTGTAATAATCCAAAATAAATTTTGAATATTTCAGTATAAGTATTACTTTATTATGAT
TATTTGAAATAATTTTGAAGCTCTTCTAATCATCCCCCTCAACAGCACTCTTTCCAAAT
15 AATGATACTGCCTCTTTTATTAGCGCTGTGGAGCTACTAAATAGGTCTGGCTGATATCT
TTCTCTCCAATAGTTGATTATCAAACCTCTTCAATAATCTTTAAAGCTAAATTTAAATCC
TCCTGTCTTTTCAATTAACATGTTCTTTGCAGATGAAAGTAAAGCGTCTTTGTTAAAT
ACTTTCATTAATCCCTCCATTCAGGAAGTTTCAATAATTGAAGCAATTTGTTGTAAAGAT
ATCAATATTGCTTTTCTATCATATCTTTGGAGCGTTGATAATCTGGCTTCCACCCCTA
20 TAATAATCCAAAACCTCAACTAAGGCAACTGCAGTGAAGTAAAGCCCCATATCCGCCACT
CCAGGAACAACATCTGCAGGAGTTACATAAGGAATCTTTCCAAAGCTTTTACCAATTCA
ACTAATTTATTTATCTGATCTTCTGTTGCATCTCTTTTCTTCCAAAGCTTTTCTTGCA
ATTGTGTAATATTTTGAAGGAGTTCCAGGAACCTCTGTTGGGTGCATTGAGCTAATA
CCAACATCTCTCCTCTTAAATCTTAAATTCCTCCAACGACCTATACAAAACAGGAGTT
25 GGGATAGTACAAGTGTACAAATAATTGCATTCTCTGGAACATGTTCAATAATTGTATTT
GCAATGTTTAAATGTTATTTCTCCGAATGGTGTAAATAAAACATGAATTTCCCCATGCTTT
GCAGCTTCGATATCATCACTAACAACCTTAACCTCCAGCATCTTCAACCTTCTTCCATAAA
TCATCACTCATAACATCCCTATTTGGTTTCAAGATAAAACAACATCATGCTCTGCCTTAGCA
AATTCAATAGCCATTCCAGCTCTCCATAAGGTGGCTCCCCACCAAACCTTTTCTGGAAC
30 TTCAACTGTTCTAAATAAAGCCTCTGATTCCAGCTCCATATATTGATATTTTCAATCCA
AATCCCTCATTTGTAATTTTGAAGGATTAGAATTTATTTAAACATTGCTTTTATCTTAT
CTGCCGCTCTTTTCTGTTATTTCTAATTAACCCAAATTAACCTTTTGGCTCAGTTAAGA
CTAGTAAATTCCTCTCTGCTGACCATTAATGTTTCCCATGCTCTCCTTCAATCA
TTGTTTGTCTAAACCACTTAACCCATCTCGGAAGAGGTTCTCTCAGCAGCCCCAATG
35 CTGCTGAAGCCATAGCCCCAATAATTCAGCATCTACATTTCTGGCAATTGAGAGGCTA
TAACTAACCCTCCTTCCCAACAACCATTTGAACCTTTAACTCCATCGGTTCTATTTAGCT
CTAATAAACTCTGTCAATCATCTCTCCACCAAAATTTTACGTTTAAATATGTTTGA
ATTTGTTTTATATAAACTTTATCATAAAATTTAATATGTATATTAATAAATTTAATAATA
TCAATTAGATTTTCAAACCTACATATTAATAAATAAATAAATAAATAAATAAATAAATAA
40 ATGGAGATATTTATTTTGGTGTAAATGAAGGTAAGAAATTAAGTTAAAGTTAAAGTTAGTT
CAAGGTGTAGGTTTACACCTTTTGTATAGAAATAGCTAAAAAAATAATTTAAAGGGC
TATGTAAAAACATGGGAATTATGTGGAATTTCTTATGAAGGAAAAAAGAGGATATA
AGAAATTTTATCAATGATTTAAAAAATAAGAAACCGCCATTGTCAAGAATTGATAAATTG
GATATTGAGGAATTAAGGAATTGAAGAATTTGATGACTTCTATATTATAAAGAGTGAA
45 AACGCTAAAGATGAGGAAGAAGGCACTATACCAGCTGATGTAGCAATATGTGACGACTGC
TTAAAGAAATGCTTGATAAAATGATAGGAGATACAGATACCCATTTATTGCATGCACA
AATTGTGGGCGAGATTTACAATAGTTGAAAACTTCCCTATGATAGAGAAAAATACATCA
ATGAGAGATTTTCTTTATGTGAAAAGTGCTTGGAGGAATATAAAAAATCCTTTAGATAGG
AGATTTTCATGCTCAAGCCACTTGTGCCCCAATTTGCGGTCTTAAGGTATTTTGTAGTGAT
50 GGAAAGAGATTATAGCTGAAAAAGATGAAGCAATTAGAGAAACAGTTAAATTTTGGAA
GAGGGTCATATATTAGCTATAAAAGGAATTGGAGGGACTCACTTAGCTTGTAAGTAGGA
GAGGATGATGATGTTTGAATTAAGGAAGAGATTGGGAAGACCAACTCAACCTTTGCA
GTAATGAGTAAAAATAGAAATACAGAGCTGTTTGTGTAATTTGACGAAGATGAAAAAAT
GCTTTGTTATCTTTAAGAAGACCAATAGTTGTTTTAAAAAAGAGCCAAGATTATGATAAA
TATTTTTCAAAGTATGTTTCTAATTTAGACACTATTGGAGTTATGTTTCCATACAGTGGG
55 TTGCATTATCTTATTTGATAAAGAGATTGCTTATGTTATGACCTCTGCTAATCTGCCA
GGATTACCAATGTTAAGGATAATGATGAGATATTAAAAAAATTAACGGTATTGCTGAC
TACTTCTTATTCATAATAGAAGGATAGTGAATAGATGTGATGACAGTGTGTTAAAAAG
GTAGCTGATAGATTAGTTTTTTAAGGAGGTCAAGGGGATTGCTCCAGAGCCTGTAAAG
GTTAATATAAACCAATAAAAAATATCCTATGTTGTTGGGCTGAGCTAACTCAACCGCT
60 TGTATTGTAAAGAGAGATAAGTTTTATCTAACCAGTATATAGGAAATACCTCAAAGTAT
GAGACATTCTGCTATCTAAGAGATGCGATAAACAACATTTAAGATTAAACAAACACAAAT
AAAATTGATGCTATTGTTTGTGACTTGCATCCTCAGTTAATTCAACAAAATTAGCTGAG
GAATTATCAGAAAAATTTGGGGCTGAGATTTTATAGAGTTTCAAGCATCATTTTGCACATGCT
TATAGCTTATTAGGGGACAACAACCTATTTGATGATGCAATAATTTTGTGCTGGATGGG

5

10

15

20

25

30

35

40

45

50

55

60

GTAGGTTATGGATTGGATGGGAATATTTGGGGAGGGGAGGTTTTGTTATTTAAAGATGGC
AAGATGGAGAGAGTAGGGCATTGAGGGAACAGTATCAGTTAGGAGGGGACTTAGCAACT
AAGTATCCTTTGAGGATGCTACTTTCTATATTATATAAAGCCATTGGTGAGGAGGCATTT
GATTTTATAAAAAGATATAAATTTCTTCTCAGAAAAAGAACTTAGATTATTAATAATCCAA
CTTGAGAAAAAACTTAAGTGTCCAATAACTACATCCACTGGTAGAGTTTAGATGCTGTT
TCAGCTTTATTAGGAATTTGCTTTGAAAAAACTTACGATGGAGAGCCGAGTATAAGATTA
GAGCCAGTGGCAATAGGTTTAAAGGAGATATTAATATAGAGCCAAAAATAAAAAATAAC
ATCTTAAATACTACAGAACTTATTTACAAATCTTATGAGATGCTATTAAATAACGAAAAT
AAAGAAAAAATAGCACATTTTGCCCATATTTATATAGCAGATGGATTATTTGAGATTGCT
AAGAAAATATCGAATAAATTTGGAATAAATACTATAGGCATTACTGGAGGAGTCTCATAT
AACAAAATAAATACTGAAAGAATTATGAATAATGCAAAAAGGGAGGGTTTTAATTTTATT
TATCATCAAAGAGTTCCTAATGGAGATGGGGGAATTAGTTTGGGCAAGGTGTTGCCAT
ATCTTAAAAAATGGATATTAATTGGGGCTGAAAGCCCCAAGTTAATGGATAACGGGTATC
CCAATAGGCAGAGCCCTATGGGGCGGGATTAGTTTGGACAAGGAATAGCTTATATTTTA
AAAGAGGGGTAGGATGATTATAGTCACACCAAGATATACAATTATAGAAGATGGAGCAAT
TAATAAAATAGAGGAATTTTGAAAAACTCAACTTAAAAAATCCATTAGTGATTACCGG
AAAAAATACAAAAAATACTGTAGATTTTCTATGATATTGTATATTATGATGAAATTTT
AAACAATCTTGAAATTGAACCTTAAAAAATATACTGCCTATGATTGTGTAATTGGTATTGG
AGGAGGAAGATCAATAGATACTGGTAAATATTTAGCTTATAAATTAGGTATTCCATTAT
TAGTGTGCCCACTGCGTCAATGATGGCATTGCCTCACCATTGTTCTATAAGACA
ACCCCTCATTTATGTTGATGCCCAATAGCCATAATTGCTGATACAGAGATAATAAAAA
ATCTCCAAGGAGATTGTTAAGTGCAGGAATGGGGGATATTGTTTCAAATATAACAGCTGT
TTTAGATTGGAAATTGGCTTATAAAGAGAAAGGGGAAAAATACAGTGAGAGCTCTGCTAT
ATTTTCAAAAACAATAGCTAAAGAATTAATAAGTTATGTTTTAAATTCAGATTTGTCAGA
GTATCATAATAAATCTGTAAAGCATTAGTTGGGAGTGGTATAGCGATAGCTATAGCAAA
TTCTTCAAGACCCGCTCCGGAAGTGAGCATCTCTCTCATGCTTTGGATAAGTTAAA
AGAGGAGTATAACTTAAATATAAATTCCTTACATGGAGAACAGTGTGGAATAGGAACAAT
AATGATGAGCTATCTACATGAGAAAGAGAATAAAAAGTTATCTGGATTACATGAAAAGAT
TAAATGAGTTTAAAAAGGTTGATGCTCCAACAAGTGCCTGCAAGAACTTGGATTGATGA
AGATATCATTATTGAGGCATTAAGTATGGCTCATAAAATAAGAAATAGATGGACTATATT
AAGAGATGGGTTAAGTAGAGAAGAGGCAAGGAACTGGCTGAAGAAACAGGAGTTATTTA
AACAATCTTTGCTAAAGCTAAAATTATCTCCAATAGTATTAAAGCAACAATTTGTTCCCTC
CAACAATAATCCATAAACTCAGTTAAATGTTGCCCTGTGCTATTGTTATATATCACTAAT
CATTTCCATTTTTTCTCTACTCTTTTAAATCCATTCTGAGACGTAGAATATTTTACATAA
TCTTTCATACAAGTCAAGCATAATATCTGTCTCCATACAACATAAGGACATTTTCAATGCT
ATCAAAATATGATATATAGCTGATTCTTTGTAGATATAAATCCTTAGATAGTTTTTTTAG
CTTAAATATCCAAGTTTTTCCCACTGTAATCTGTGAAATATTGTATTGCTTCACTTAG
CATACTGTCAAATACTCTTAAATCAAAACCTCTAATACAGGCAAGTTGATAAATCAAC
TTCTTCCAGAAATCTTCATTTTTATCTAAGATTATTCCATTATCCCAATCCAAATAT
TAAATCTTTTGTGTAATACTTTATTTTGCTTTTTAATAATTCATTTATATATTCCTCTGG
AACTTCTTCATACTGATTTCTAAGAAGTTTGTGTAATATACTCTTATTTTCTTGATAAA
TGAGTCAGGGTCTGAATACTCACTAAAGCAGTATAAAGTGTAGCTCTCTAAGAATTTATC
TGCAATATATTTTTTAAATAGCTTAAAGCTTCATCAAATAGCTCTTCTTAAAGTTCAAA
TAGTTCTATTAAATCCTTATTTTAAATCTTTAACAATCTCTACGATAATGTTCTTTTC
ATATACTTTTATTGCTATCTCTTACTTTCTTCAGTAATCCTTTCTATTAAAGAGTATGT
TGCTAAAAAATCCTCATAGCTACAAATCTCTTCATCCTAAGTTTTATCAATTTGTTTCA
ATAGATATTTCTTTTAAATACCCCAAGTATTTGAACAATCTTACCCTTAGAACACT
ATCCATTTTCTCCCAATTTTAAATCTCTTTTTTAAATTTAATTTTACTTTTGTATATATA
AAAACTTTAATTTAGATAAAATAATTTATATTTATTAATTTAAGTTTCAATGATTAATAA
TTAAAAAATATAGAACTTTTGCAGGAATAAATTTTAGAGAAAATGATGCCCTTTGAG
CATCTAAATTTCCACGAAGTTAATATAAAACTGCGAAAATCTATAAAAAATAGTGCGGGT
ATGGGGGCTATAGCCCGCTTCTGTAATTTCCGTGACATTCCGGCTAAGCGCCGAAACCGG
CTTGACCCCGGGCAGGGGAGATGCCCGTTTCCCGGTTCTCCGGAAGTCTCAACTTTC
ACTATCATCGTCACTCTTCCGGAGCCGTGTCGTTTCTGCTGCATCTCCCGCCCTTCTC
AGGGGACGCTGCCATAAATGGGGTGGGCGGAACCTCCTCCCTCTTAAAGAGGGGAAAG
TCACCAGCCCCCTTACCGCTTAACTTTAAGATTGAATATATAAATGTTATTTCTAAA
ATAATAAAAGTGGCCGGCGGTGTCGCCCTTTCCCGCCAGATGGCAGTACTCGGGGCAT
CGCTGGGGGGCTTAACTTCCGAGTTCGGGATGGGTTTCGGGTGTGGCCCCCGCTATGAC
CGCCGTACCAAGAAATAAATGGTGCCTTTTTTGGGCCATGCATAGGCTTCCACATCCGC
TTAGTGTCTGGATACCCTGCCGGGCCCTTGGGCGATTAGTACCGGCGGGCTGAACGCCTC
GGGCAAGGCCCTCGGCGCTTACACCCCGGCCCTATCAACCTCCTCTATAGGAGAGCCCT
CGTCCCCGAAGGAGTGGCCGCTATTTTCGGGGAGGGTTTCGGGCTTAGATGCCTTCAG
CCCTTATCCCTTAGCGGTAGCTGCCCGCAATGCCCTGTCCGACAACCGGTAGACCAGA
GGCGCCGGCGGCTCGTTCCTCTCGTACTAGAGCCACCTTCCCTCAGGCGGCCAACCC

-368-

CCAGCAGATAGCAACCAACCTGTCTCACGACGGTTTAAACCCAGCTCACGATCCCCCTTTA
 ATGGGCGAACAGCCCCACCCTTGGGCCCTGCTGCAGGCCAGGATGGGAAGAACCGACAT
 CGATGTAGCAAGCCGCGGGTTCGATATGGGCTCTTGCCCGCGACAACCTCTGTTATCCCCG
 5 GGGTAGCTTTTCTGTTATCCCTGGCCCCCATCGGTGAGGCACAGGGGTTTCGCTAGGCCCC
 GCTTTTCGCTCTTGGTCGGCCTCTTTTACCGACCAAGTCAGGCCGGCTTTTGGCCTTGCA
 CTCCACGGCGGAGTTCTGACCCGCTGAGCCGACCTTTGGGCCCCCTGATGCCTTTTCA
 GGGGGGTGCGCCCCAGCCAACTGCCACCTGCCGGTGTCCCCCTTTACGGGGTTAGGG
 ACATGGCCATGGGTGGGTGGTGTCCCATGGGCGCCTCCACCACCCCGGAGGGGTGGCTT
 10 CGACGGCTCCACCTACGCTGTGCACCCACGGCCATGCCCAACGACAGGCTGCAGTAAA
 GCTCCACGGGGTCTTCGCTTCCCACTGGGGGTCTCCGGCCTTTGCACCGGAATGGTAGGT
 TCACCGGGTTCGGGCCCGGACAGTGGGGGTCTCGTTACGCCATTTCATGCAGGTCGGAAC
 TTACCCGACAAGGAATTTTCGTACCTTAAGAGGGTTATAGTTACCCCGCCGTTTACCGG
 CGCTTCGGCGGTTGTACCGGGTTTACAGTACCGGCACTGGGCAGGCGTCGGCCTTTGGT
 15 ACACACCTTTACGGGTAGCCAAAGACCTGTGTTTTTATTAAACAGTCGGACCCCCCTGGC
 CACTGCGACCTGCGGTCCCTCACTTAGAGAAGACCGCAGGCACCCCTTCTCCCGAAGTT
 ACGGGGCCAATTTGCCGACTTCCCTGGGCGGATTCTCCCGACACGCTTAGGATACCTCG
 CCTAGGGGCACCTGTGTGCTTCTGGGTACGGTCACCGGGGATCCTTGCAGCTCCCTTT
 TCACGGGCTCCAGGGCTCAGCCGAACCTCCTAACGGAGGGCCCCATCACGCTTTTGGCCG
 20 GTTCTCGCCATTACGGCACTCCCCGGGCTTATGCGCTTGCCACCCCGACGGGGTGGTC
 GGCTACCCCGAAGCGTCAGGAGCTGGCCTTGCCTTGGCGACGTACCCCGGTGGCGCGG
 GAATATTAACCCGCTTCCCTTTCCCCCCCAGGGAATTACCCCGGGGGTTAGGACCGGCTA
 ACCACAGCTGACGACCGTTGCTGTGGAACCTGGCCCTTCCGGCGGTGGGGATTCTCAC
 CCCACTTTGCTGTTACTACTGCCGGGATTCTCGTTCCCGACGGGGTCCACCCGACCTCACG
 25 GCGAGCTTCTACCCCGCGGGACGCCCCCTACCGGATGGCTTTTCAGCCCCCGGGT
 CTCGGCGGCGGGCTTAGCCCCGTTATCTTCGGGGCCCTGACCTCGACGGGTGAGCTGT
 TACGCACTCTTTAAAGGATGGCTGCTTCTAAGCCAACCTCCCCGCTGTCTTAGGCCAGGG
 ACTCCCTTCTCATTTACACTTAGCCGGCACTTAGGGGCTTAACCCGGGTCCGGGTGTGT
 CCCCTCTCGGACATACGGCTTACCCGTATGCCCTCACTCGGGGGCTACGGCGATGACGGG
 30 TTCGGAGTTTTCAGAGGTGCGGAGGCTCTCTCGCCCCCTAAACACCCCTATCCGTGGCTCTA
 CCCCCGCATCTACCTAACCCCCGGCTAACCTGCGAGTTATTTTCGGGGGGAACAGCTATC
 TCCGGGCTCGATTGGCTTTTACCCCTAGACCGGGTTCAGAGGAGCACTTTGCGCGGTAA
 CACCCCTTCGGGCTCCACCCCTCTGCGGAGGGGCTTACCCCTACCCCGGCTAGATCGC
 CCGGTTTCGGGTCTGACGGGTGTGACTCCGGGCCATTAAAGACCCCGCCCCCTACCCATA
 35 AGGGTTGCGGGCATGTCGGTTTCCCTACGCTCCGGGGTTGAACCCCTTAGGCTCGCCAC
 ACCCGTACACTCCCCGGCCGTTTTTTCGAAACGGACGGCAGCAGCCCCGGCATGCCACCC
 TCGTACTCCTCCCTCGCGGGAGTTTCTCTCGGGGTGGTTACCTTTTCGGGCCGTGCCATTC
 CGTACCCACCTGGTTTCAGGCTCTTTTACCCCCCGCAAGGGGTGCTTTTCAGCTTTCCC
 TCACGGTACTAGTTTCGCTATCGGTCTCGGGACGTATTTAGGGTTGGAAGCCTAATGTCTC
 40 CCAGCTTCCCGCGCGATATCCAACGCGCGGTACTCAGGGACACCCCGACCCCACTGG
 TTACGCTTACGGGCTTTCACCCCTATGCGCCCCATTCAGGGGACTTCGGCTTCCCA
 GTGGGGGTCTATATTGGGGGCCCTGCAACTCCACATCTCCCTACCCCTACGGATAGGGAT
 TCGGTTTGCCTGTGCGGTTTCGGTTCGCCCTACTCCCGCATCCCTGTTGGTTTCTTT
 TCCTGCGGGTACTCGGATGCTTCTTTTCCCCGCGTTCCCGCTCCCTAACGGGAGCGCCCC
 45 AAATGGGGCAGGAAGTCCCATTCGGGGATCCCGGGTTCACGGCTGCCTGCGCCTCCCC
 GGGCTTATCGCAGCTTGCACGCCCTTCTCGGGCCCCGAGCCGAGCCATCCACAGGT
 GGGCTTGGCCGGCGAGATCCAGATTTACCGGGATGTGGAAGCCTATGCGGCTCGCC
 CTATGTTTTTACGGGACTTTCGAGTTTGTAAATTTATAAGGTAGTGAGATGCTGAAA
 GCATCAATTACCAATAAAAAATTATTTCTGCGAAAGTCCCGTATCAGGCCCTTACCTG
 50 CAACTCTTTGGAGTTGCAGGCTGCATATATAGTGGACCCGGTGGGATTTGAACCCACGGC
 CTCGGGCTTGCAAGGCCGCGCTCTCCAGCTGAGCTACGGGGCCACTTTCCCTATGAGG
 CAAGCCACGACTGGTTTGGTGGCCCGCAGCAACCAGCGCTTTTCTCAGGAGGTGATC
 CAGCCGAGGTTCCCTACGGCTACCTTGTACGACTTCGCCCCCCCTCGCTGAACCCAAAG
 55 TTCGACCTGCCCTTTCGGACAGGGCTCACTTGGGCTCAACTCGGGTGGCGTGACGGGC
 GGTGTGTGCAAGGAGCAGGGACGCATTACCGCGCCATGGTGAGGCGCGATTACTACGGA
 TTCGGGCTTACAGAGGGCGAGTTACAGCCCTCGATCCGGACTACGACCGGGTTTAGGGGA
 TTCGCTTCCCCCTTCGGGGTTCGGTCCCATTTGTCCCGGCCATTGTAGCCCCGCTGTAGCC
 CAGGGGATTTCGGGCGATGCGGACCTGTCTGTTGCCCGCACCTTCTCCGCTTAGCGCCGG
 60 CGGTCCCCCATGAGTGCCCTCTCCCGGAGGAGGAGTAGCAACATGGGGCACGGGTCTC
 GTCGTTACCTGACTTAACAGGACGCCCTACGGTACGAGCTGACGACGGCCATGCACCAC
 CTCTCGGCGCGTCTGGCAAGGTCTCAACCTGGCCTTCATCCTGCCGTGCCCCCTGGTAA
 GATGCCCGGCGTTGAATCCAATTAAACCGCAGGCTCCACCCGTTGTAGTGCTCCCCCGCC
 AATTCTTTAAGTTTTCAGTCTTGGCAGCGTACTCCCCAGGCGCGGACTTAACGGCTTCC
 CTTTCGGCACCGCGTTCGGCCGAAGCCGACGCGACACCTAGTCCCGAGAGTTTACAGCCAG
 GACTACCCGGGTATCTAATCCGGTTTGCTCCCTGGCCTTCGTCCCTACCCGTGGACCC

5 GTTCCAGCCGGGCGCCTTCGCCACAGGTGGTCCCCAGGGATCAACGCATTTACCGCTA
CCCCGGGGTACCCCGGCTCTCCCGGTCCCAAGCCCGGAGTATCTCTGCCAGCCCTG
CGGTTGAGCCGAGGATTTAAGCAGAGACTTACCGGGCCGGCTACGGACGCTTTAGGCCC
AATAACAGTGGCCACCCTTGGGCCGCCGGTATTACCGCGGCTGCTGGCACCGGACTTGC
10 CCAGCCCTTATTCGCGAGCTGTTTACACTCCGGAAAAGCCACGCAGGGCTGGGCACT
CGGGGTCCCCCGCTCGCGCTTTCGCGCATTGCGGAGGTTTCGCGCCTGCTGCGCCCCGTA
GGGCCTGGACCCGTGTCTCAGTGTCCATCTCCGGGCTCCCCCTCTCAGGGCCCGTACGGA
TCGTAGGCTTGGTGGGCGGTTACCCACCAACTACCTAATCCGCCGAGCCCCATCCTCG
GGCGGCTTACGCCTTTCGGGGAGGGATCATTCCAGACCTCCTCCCCCTATGGGGGATTAGC
15 CTCAGTTTCCCGAGGTTATCCCCAACCCGAGGGTAGGTTAGCCACGTGTTACTGAGCCGT
GCGCCGGTGCTCCCCGAAGGGAGCCCTTGACTCGCATGGCTTAGTCGGACCCCGATAGC
AGTGGCCTCCGCGAGGATCAACCCGAATTAAGTGGGAGGTACGGTCGCAAGAAAGGATAA
ACCTTTCTTGGCGCTGGTTGCTGCGGGGTTTACCACCAGTCTGGGCTTGCCCTCAGCCC
CAACCCCTCGGATTGGGGACGCATCCTTAAATAGGGCTTACGCATTATTTTATGAATTT
15 GGAATTTTGAAGCCCTAAAGGGCATCATTATTTCCAATAGGAACTTACCCGCGTAAGCC
CTATTTCAGTGCATCCAATAACAGGAGGTTGTTACATGCAACGTTTTTAGGAATAGAAC
AATTAAGGTTGAAAAAAATAAAAAAGGGCCGGGACCGGGAATTGAACCCGGGTACGGGG
ATCCACAGTCCCCAGGATGGCCACTACCCACCCCGGCCACTTACCTATGGTGCAGGG
20 GCAGGGATTGAACCCCTGGAACCCCTACGGGACTGGGTCTAGGCCACGCGCTTTGGCC
AGGCTTGGCGACCCCTGCACATATATATTCTTAATTATCTTAAATAGGACGAATGATGC
TCCGCGCCGGGATTTGAACCCGGGTCCGCGGCTCGAAAGGCCCGCATGATTGGCCGGACTA
CACACCGGAGCTAATTAGTGATTTTAATATGGTGGGCCCGAAGGGATTGAACCCCTTGA
CCACTCGGTTATGAGCCGAGCGCTCTGACCAGGCTGAGCTACGGGCCCATATTGGGTATA
25 AAAAAATAAAAAATTAATGGCGCCCCCAGCAGGACTCGAACCTGCGACCTACGGATTAAC
AGTCCGTGCTCTACCATCTGAGCTATGGGGGCACATCAATGGTCCGCGGGGGTGATT
GAACACCCGACAACCTGGATCTTCAGTCCAGCGTTCTCCAGGCTGAACCTACCGCGGACC
CAAATGTTTGCATAATTATGCATTACATTTAGGTATATAAACTTTTCGGTTAGGTATTT
AAATATTTGACTTACAATTTAATTAATTTTTTCATAAATTTTCATAAATATTTTAGTAAA
30 TGTAAATAATATTAGATTTTCTTATAAACATGGATGTGTCTAATCAGCCCTTTATGGATAT
ATACCTTGTTAGAGTCCCTCTAATTCATATCAAGCTCTATCTTTTTGGGTATGCAAAAA
CAAAGTAGCCGTTATCTTAAATGACCTCTGGAAGAGTTTCTAATATCTTTCAATCTCTC
CCTTTTTTGCTGTAGATATTCATAAGGCGGGTCTGTTACAATGGCATCGACTTTTCTA
TATTTAGTTCATTTAAAACTCTTTTACGTATTGGCATCTAATCTTTTAACTTTTATCA
35 CTTTATCTAATAGGTTGTATTCTTCAAGGTTGATTAAAGTTCCAGAAGCCATTCTCCAAT
CTATATCACAACCAATAAGCTTAGCTCCGATTAAACCAGCCTCAATTAATAAACCCCTCCAG
TCCCACAGAATGGGTCTAAGACAATATCTCCTTCTTAACTCTTGCTAGATTTACCATAG
CTCTTGCAAGTTTTTGAAGCATAACAACCGGATGGAAGTATTTCTTAAATGTGGCCTAT
40 TCTTTTGAAGTATTCCTATCTCTCATCTCTAATACATTGGAAATAAAAAATGTGTTTT
CTAAATTAACAACCTCTAATAATATATCTGGTTTTGTAAATTTACTTTTGCATTGGTTT
TTAATTTTATAATCCCTCCAATTTCTCTCAATTCTTAATGAGTCTATAGATTTTGTA
ATTCATCTTTATGAAGTTTTAAACTCTAACGGCATAAGATTTACTCTCATCAATATCTG
GATAATCAATATTGCTACAAAATCTTAAATGAGTTTATAAATCATTGACAATTTTAT
45 CTACTAAATCTACACTTTTTTCTTAAATTGTATCTAATATTATCCTATGCCCCCTCAT
CTATATACCCACTTCTTTAACGATATCTTTGGCAGGACTATCTCAGTTATAACGTATC
TTTTAATCTCTCAACACTTCCATTGTAATTAATAATTTCTAATAATGCCATAAGTTCTC
CATAAGGGATTTCTTCATGCTCTCCATTTAAACATATCCAATCATAATTACCCCTCAA
ATATTTTAAATTTTATTTAGATTTTATTAATGCTTTTATAGCTAAAACCTCAAATAGAAA
50 TGCAAAAATCCAGCTGTAAATTTCTCCAACCACTAAGCCGCTATATATTCAAACATTCC
TAATCCCAATATTACTGCAATAGATAAGCATAGGATATATGACATATTAGCGACCTAAA
TATGGAAATTATTAATGATTTTTCTCCTTTACCAATTCCTTGAACATTGCGGATGTTGT
TAAATAAATGGTGTAAATAGTAAATATAATGGAACCTATTCTTAAAGCTTTAACAAGTTC
TTCATGAATTCCTATTGAGGTTTTTGTGTAAGTAAATAGATAAGCTAAGATTGGGGATAA
GAGCATTATTAAAGCAACTATAATAATTTCCATTAAACCCCAATTTTTATTGTGTAAAA
55 ATAAGCTGTTTTTAAATTTTCAAACCTCCTTGCTCCGTAAGTGGCTCCTATAACTGAAGT
AGCTCCACTTGCCAAACCTAACATTGGAATAAAGCCAACTCTGTTATTCTTAAAGCTCC
AGTATAGACAGCTAAACCTCTACTATCTCAACCATCATAATTATTGAAGTCATTATAAA
AAATGATACTGCAACAGTAATCTCTATCAATGCTGAAGGAATTCCACTCTAATTAATC
GGCTATAATCTTTAAATCAGGTTTAAATTTTGATAATTTAACTGTAACATAACATGATTT
60 TTTTATAAACAGCTCATAAGCTAAATTAAGAGAGATATAATTATAGCTATCAAAGTAGC
ATAACTTGCCCCACTTATCCCTAAATTTAGCATATAGATGAATATCGGGTCTAAGATGAT
GTTTGTAAAGTGCTATAACGCTTGCTATCATAACTATCTTTGTATTTCCCTCCCCCT
AAATATCCCATATAACGCATCGCAGATTGTAAATATAACAGTTCCATAAACAGTATGCT
GGAGTATTTTATAGCTAATGACTTACAATCTCCATAGGTTCCCATTAAGCTAAATAGCGT
ATCAAGATTTGGATATACAGCTATAATATACAAAATTCAGCAATTAAAGCTAAATAAT

-370-

5 TGCATGATTTGCTACTTTATCAGCTTCTTCTTTATTTTTTGCTCCAACCTCTTCTTGCTAT
TCCAGAGCTAATCCCAATACTCAAACCCCACTAAGTGCATATATGCTAATTAATATTGG
AAAACCTCGCTCCACAGCAGCTAATGCATCTGCCCCCAATCCAGAAACCCAGATACTATC
AATAAGCTATAGATTGATTCAATGAATGTAGCAACAATTATTGGCTTTGATACTTCAAT
TACTGCTTTTTTTGGSTCATCCAACAATATTTCAACATTTTTCATCGTCTATCACCACAA
10 TAACAGTAAAAAATAAATACTACTTATACAACCTTAATTTTCTTTACCATTTCACAAAATT
GTGATAACAATGCCGAAGCTTTTCATATATCATGCAATCAGTGCAATCCAAAAAATGC
ACATCCTTAAAAATGGCTAAGATGAATAAAGCCATTTTGTTAAAAAATCCTTATAAAGTT
CCAAAAAATCTTTAATACTGAATCCTTACGCTGAAAAAGCTCTATCTCCAGAAGATAAA
GAGATAGTGGAAAAGTTTGGAAATACTGCTTTAGATTGTTTCATGGAAGAAGCGGAGTTA
ATCTTTAAGAAATTTAAATTTAAAAATCAAAGGTCTCTACCGTTTTAGTTGCATGCAAC
CCTATAAATTATGGAAAGCCATGCATGCTTTCAACATTGGAAGCTTTTATTGCCGCTTTA
TATACATAACTAATTTAAGGATGAAGCTTGGGATTAAACCTCCTGTTTAAATGGCGAGAA
ACATTTATAAAGGTTAATTATGAATTATTAGAAAGATACTCAAATGCTAAAAATTCAATG
15 GAAGTTGTGGAAATTCAGCAGGACTTTCTCAGGAAATAAATATTCTATTGATTATTGCTG
CCTAAAGGGCATCTAAAGTTCCAAAAGTAAATATATAACTAAAAATTTAAATCTGTCAAA
AAACATAAAAAACATATAAAAAAGTTTAAAAAGTTTAAATATGTTTATTAATAATCTGTAG
GTGAGAGAATGCCATTTGAAGAAGCAATGAAAAGGTTATTTATGAAAAAGATTGTATGA
GATGTAATGCAAGAAACCTTGGAGAGCTACAAAGTGTAGAAAGTGTGGATACAAAGGTT
20 TAAGACCAAAAGCAAAAGAACCAAGAGGATAAGCGAGCTACTTTTGTATTCTTTTTT
ATATCTTAAACTCAATTAAGAAACATGATTTTGGCTATTTTAAAGGTTATAGTCCCTT
CAACAATTCAGCAACTATGAATAGTATTATAGAGAGTATGAGCAACTTTAAAGACTCTT
TTATGTAATATAAAACCTCTCTTTTAGTTCCAAATTTGATATTTATTAAGAAATTAACATA
ATCCCATGTTAAATAAAACCCACCTGATGCTGAAAGTATTAAAGCTGGAATTTCAATGA
25 TTCCATGTGGTAAACTAAATAGATAAAGCTTTCAGCACCAAAATTTGTAAAGCACGTATG
ATAAGATATAGGAATTAAGTGAATAAAGTGAATAAAGTGAATAAAGTGAATAAAGTGAATAAAGT
AAATACATACGGTTAGGTTATTTTCCAAATGCTAATATTATATGTAAGTTATCCTCAT
TTAACGTAATTTTATAGTTTCAACATGTTTTTGAAAATTTTGAAGATGATATCTCCTA
AATATGAGAAATACTTTATATTAACACCAAAATATATAATAATACTAAAGATAAGATAA
30 AAACCAAACTAACAAATAAAATAACTTTCTTATTTCTTATAGGGCTTTTTTAGAATTTCTT
TTAAATCAAATATCTCTTCAATGCGTCCATTAGCACCATCATTAATAAGCATCTCTCA
TAATATCTACCGAGTTCTTGATGAGCTTTTCTTAAATGTCCAGCTGCTAAAGCTCTTAA
TAAAGATAAATCCCGAGCTAAACTGCAAGTCCAGCTCCAAACAATTTAGCAAAATTTTAAAGCTT
ATTATCTCCGTAGCAACCAAGCATCTCTAAGCACTCTTTTGTGTTTCAACCCCTGTTCC
35 TCCTCCAACAGTCCCAATAGGAACATCTGGGAGAGTTACTGAAAAATATAATCCATCATC
TTCAACTTCAGCCATTGTAATTCCTAAACTACCCCTCAACTATATGTGCCTCATCTTGCCC
AGTAGCTAAGAATATTGCCCCAATGATATTTGCATAATGGGCATTGAATCCCATTGAATT
GCTTATTGCTGAACCTATATAATCTTTAACCTATTACTTCAGCTATAGCTTGGGAAGT
GGTTTTTAGGTATTTTAACTTCTTCTCAGTTAAAAATACCTCTGCTACAATAGATT
40 CCTCTACCATTAAATTAAGTTTCACTTCCACTAGGCTTTTTATCTACACATGCATTTCCAC
GACAGCAACTGTTTTAACAAATATGCCTTCTTTTTTAAATCCCCCTCTATAAAATTACA
TGCTTCTCTGTTGCAATTGTAACCATATTTCATGCCATGGCATCTCCAGTTTTAAATAC
AAATCTTGATATAGATTCTTCCAACGATTAAATTTGGCTCTATCTTTATTAGCTTTCC
ATGCCTTGTGTTGATTGAGCAACTTCTTTATCTCTCAAGTTTTCTCTAATCCAAATC
45 TCTGACTTTTTATGCATCTACAACACTTTTGTTTTTAAGCAAGGGGCTCTTGCTACTT
ATCATCTATAACCTAACAGTTGCCCCCCCCACATTTTGTATTATTGAGCAACCCCTATT
AACCAGTGCCACCAAGCTCCTTCAGTTGTTGCCAATGGGATGTAAACTCTCCCTTTGC
ATATTCCCCATTTATCTTTAAAGGCCAGCAAAACCAATGGAATCTGTATAGCTCCAAT
CATATTTTCTATATTCTTCTCATAGCCATTTCTTCATCTATTGAGTAATTGCATATATG
50 CTTAAATTCATCCCAACCTTTTTTTCAATAAATTTTCTTCTAATTTAGTTGCTATTTT
TGAACCAACATTTTATCTAATGATATGGCTTTATTTCTCCATTAAACATTTTTTCAAG
GATGTCATTATAATTTTCAATTTTATCACCAGATTAGTTTAGTTGTTATTTTGTGATTCA
AGTTCTCTTAGTTTATTATTGCAATTTAATAATTAGTTTTTCGAGTTTCATCTTTTAGTTCTG
TTGAATATCTCTTCTAATCTAATCTATTCTTTCTTTTTCTATTTCTCTAATAAT
55 TCTTTTAAATGATGCACAAATATTTCAAGGTATGTTTTATCGTTGAACATCTCATAATTG
CTAATGTTGTTGATGTTTCACTTAAAAATTTATTAATACTATTAATGTCTCTTGTTTTA
ATTTTTCTTCGATAGTTTGTAAAAATGAACTATAAATCTGTTTTCTTAAAGCTTCC
AAACCTTTTTTAGAGTATGGCTTATTTTCTTATTTAAACAATTTTTCTATATTTCAACT
CTTAATTTACTAAGAATTCTTAAAAAATCCCTAAGATATTTTTCACGTTTTTTCATCTTTA
ATAAACATCCAGTATTTATTAAAGTTTTTGTAAATCATATTTAAGCATTTTATTACTGCA
60 TAAACATCTCCACTTTAATCTCTCTCAATAATTTTCATAGACTGCGAATAATCTCGAT
TCAGCATCAGTTAAATCACCATAGCCTCCTGATTTATCTCCTATATCTTTATCTCTCAA
ATTAAATCGACTGCATATTTTGGATTTATAACATTTGCAATGCTTTTATATATAAAGCA
TACATTAAGAAATTTAACATTATAACGTAATAAATAATTCCATAGTCAATTACATGCAAT

5 TGAACATGTGTTAATGAAATAAGAATAAAATAAAACACAGTTGTGAAAGAAATTACTACA
AAAGTTAAAAATCTTACATCTCTAACCCATATCCACATTAAGATATTACTTAATCTATCT
GATGATGTCTGAATAATAACCCCAAGATATTGATACAAGTAGTGCTGAGATAGTTGCTAAA
10 ATACTCCCTACTGTAAGGAAATTACTGCTGCTACTGCTATTGGTTATTAAAGACCATAAT
GAATCATAATTTTTTATTGCAACAACCACTGCTATAGACACAATCATAGAGAGAATGAGA
AGATAGTTTTGAAAAGTTGTTTGCAATTTTTTAAGCCCTTTCCAATCAAATATTTCAACA
ATTTCCCATTTTAAACCTTCAAATGCAACATGTAAAGAAAAGCATAAGCAATTAAGAGA
ATAGATATCCATTTATTAAAACTCCTACAAATAATGTGAATATTGTAGTTATAATAATT
15 TTTTAAATTATATTAATAGCTTAAACTCTATATAACAGTGTGAATATACGATAATTGATA
TAATAATTATGGACCCAATTATTGATAATATAAGACCTTGATATGAACGTTCTTTTTTAC
TTAATATTTTTCTAATGGTTTTAGAAAAAGTAATTAATATTAACACAGAATTAATAA
ACATACCCCATAAAAATTGAAATTGTAAATGCAACGGCACTGATAACAATACCAACGATTG
TAATTATTGGTTTAAATAAGTTAATCCAATTTTTAATGCTTTTAAATTTTATCTCTAATAT
20 TCATATTACCCACCAAAAAATAATAAATAGTTCTATACCTCAACTTCATCCAATAATA
ACACCATCTTTTAAATATGTTTCTGTAAAAAGTAGTGTATTTTTTTCATTAGATTGAAT
TCATCAACTGATAGAATTTTATTAATCACCACCACTTATTAATAATCTCCTCTAAATCTAA
AACCCTTTTATGTTTGGCGTTGCTATTAAACAGCATCAACTCCTAAGTTATAGCATAG
CTCTAAATCTTCCATTCTTTAATTCCACCACCAACATACACCGGATTGTTAGTTTATC
25 TAAAACATATTTTATAAGCTCTGCATTAAACCCCTCTTTGAGTTCCAACCTGAGATATC
TAAGATTATTAGTGGTGTATCATCTCTAACACAAGATAAAATCTCATCCAAGCTGTAGTT
TAAAGATTCCCATCTTAAATCTAAGCTAACAACATATCTTTTTCTTTAAGCAATTC
AATATCTTTTAAATGCTCTCTGTTGCTACAATTGCCCTATCATCTTTATTTAAACCTTTTT
GATAGTTTCTAAATCCTCTCTACTCTTTACTCCAATATCAACAATCTTGTTTATAAATC
30 TATCTCTTTTATAATATCAAAATTTATCTCCATTGCCATTATAAGTTTAAAGTCAGCAAT
ATAGATAGTTTTAGCTCCTCTTTCTTTGTAGGCTTTTGCTACTTCAATAGGATTTGATGA
TTTGACAGATAACTGACTCTAATGGCTTATATTCATCTCTATTTCCACTCTTTCCATGCAC
AGCTATTTTGTCTTTTAAATCAATGACTGGGATTATTTTCATAGTTTCCCTCTAAATTAT
TATTTATTAATATCTAACCTCTAAAACTCCCTATCCCATCTAAATAATGCCCTTCTC
35 CCAACCTTAGCCATGTTTATTATTGGAACCTATTGCAGGTGTTGGGCTAATACCCATCCT
CTTCTGGAATCTGTTTGGCTTTGGAATGTCCCGCTATTAACCATAACTCCTCTATA
AATTCCATAACCGTTGATGTGTATATGCCAGTGTGTAATAATCAATATCCCTATCTAT
AACCAAGTAATCTTTATGTTCTGGAGCTATAGGACATCTTCCCTCCATAAGTTGGACATA
TAGCCTTCTTTTTATCAACTCCTTCATAATAGTTACTGGATTTTCATAACTTGCAGCCCT
40 TATTTGTCCAACCTAAGTCGTCAAAGCTTCTGCCGTGATATAATAGAGTATCAAAGCCATG
GATGTTGAGAGTGCATGGGTTTCCAACGAAGTAGATGTTATCTCTATTAAATAGCTTAGT
TATTTTCTCTGGCAGTTTGGTTGAGGTTCTGCTGGTCTAACAGCATCGTGGTTTCCCTGG
GGAGATGATTATGCTTATATGCTCTGGAATCTGATCTAAATACATTGCTATTTCTCTATA
CTGCTCAATAATATCTACCTCATACAAATCCTCTTCCCTGCCCTGGATAGACACCAACCCC
45 ATCAACTAAATCCCGAGCTATGCAGATGTTTAAATCTGCTAACGACCTTTTCCCTCTAA
TTCAATTATCAACATCTCCATTTAAAAATCTGATGAATTTTTCAAACCTCTTTATGCAAAAA
CTCCTTACTTCCAACGTGAATATCAGATAAAATGCCATATATATCTCTTCATCAATTCT
CTTTGGTTCTTTGGTGGTAATGCTGGACGTATAATTTTCATCAACGTATATTGAACTTCC
50 AGATTTGCTAACAGTCCCAATAGCTCCAATAACTTCATCTAACAAAATATCGTCAGGTAT
TTTTCCAGCTTCGATTTTTCTTTTGGCAGAATTAACGTTGCTTCATCTTCGGTGTCTTC
AATCCTAACTATCAAGTTCCCATTTCTTGTAATCTCAACATCACTAACGATTCTCAGAC
AAAAATATCCTTCTGTCTTTTCAATTTCTTTATATCTTTTAGAGGATATCCCTTTCTTTG
55 AGCTTTCTCTCAATAAAACCTTTAATCTTTCAAATCTGTCTCTAAAGTATTTAACGAA
GTCCTCAAGTAGTTCCAGTGCATGTGGGATTTCCAGACAGTCTGAATCTTCATATATCTC
AATCAACGGCATCGATGCTTTTAGCTATCCATTTTATTCTACTATTTACACTCTCTTTTAT
60 TTTGTTATGTGTTTCATATCTTTTAGCCCTCTCAGCATCGAAATCTTCTTTTTCTCTTC
TTTGAAATTAGTTGTTTAAATTTCTCTTCAACATCTTCATCAGATTTTTTTATAAATTG
TTCTTTTCTTCTTTTCTTAAACAAATCTATTTTTCTTTTCTTCTTCTCTCTCTCTCT
TTTTTAATCTCTTTTTTACTCTTTTAGGTTTTCTTTTTCTTCTCTCCAGTGTAGTA
AAATATAAAGTCAAATCCTTATATTCATTTATTATTTTCATCCAAATCTTTTTGTAAAA
GATGCTAAAAACTTCTCATCTAACAAAATAAAGCGTTGTTATATTTTTTAAATCTCT
AATTTTTTGAATTAATAAGCCTCTAAATCTAAGAATTTATTATTATCTCCATTTTATCCT
AGTTGGTGATAATAAAGCCTCTAAATCTAAGAATTTATTATTATCTCCATTTTATCCT
CCTTCTTTATCTTCTTAAATCTCTCTTTCTTCAAATGTTTATTATATTGTAGCAGAGAT
AATCCAATGGATGAATGATAAATTTCTTCTTGACAAATTCGTCTGGCTTACATAAATAAC
TTAATCCCTTTCCACCATCATCTTGCCAGTTTTTGACGATTTCACAGTGAGTTAATCTTC
CATGCCCTACCTTATAGCCAATATTGTGCATAATATAGTATCTTGTCTTTTCTCATCAA
AGTCCCTCAACATTTTTAAACAACATCTCAATAAGTTTCATCTATAAACCCTCTCAATCTCT
CCTCAGAGGCGATGTCTGTAGCTGAACATTAACCAATTTCCATTTTTATCTAAAGGTC
TTAAGTTAGGGTTGAATTTAGCGCAAAACCAATATACAACAAAGCTCCTCTTGGCTAAT

-372-

GTGAGGGTGAGCCACCACTTAAATGTCATTTAAATTCCTCTGATGCATGGAGGGTGCC
 ATTCTAACGGGATATTTCCCTTATAGTTTAAATGCTTTAATACCACTTATTTGTTTCATATT
 TAACCTTGTCCTTTTAGATAATCACTAATTTTCATTTAATAATCTTTTACTACACTATCAT
 CTGGTAATTTCTTTTTTTTATATTTTCCCCAAGTTTCATTAGCTCTACTCTAATAATTT
 5 CTTTTGCAAAAATTTCTTTAATTTTAGTTATATCTACAAAACCATTTTCTAAATCTAATC
 TCTCCAAGTGTAATCGTTGATTCTTGACCTTGAAGCAATTTTATAAATCCCAGACAG
 AGATTTTATTTGGAAGTTTTTAAATAACTTTAATTTTTTTTATTCTGCATATTTTCTTA
 CAAAGGCATTAAATATGGAGTATGGGATAATAATATAATTAAGGAAATCTAAAAGAT
 TTGTAATTATTTCTTTTTTTTATTCAATCTCCTTTTCCCTTCTAACTCCAATCATAAATC
 10 TACTTTTCATCTTTGGGTAACTCTCTCAACTTCTCCATCAATATCATAATCAATCATTT
 GAAAAATCTTATCAATATGGTTATTTCTGAACTAATATTTGTAAAAATCGTTGAACTAT
 CTCCAAAAATCTGCTTCAATCTCCAAATAATAAATTTTTTGACATTTTAAATACATCTG
 AGAAATTTGATGTCATATTTTAAATCTTTCTAAATACCTTTAAACTCCTCCAAGTATT
 CTGAAAGCATAATAATCACGTGTTTTTAAATTTGTTTTCTGTTTCAATAACCGCTTTAAT
 15 GTGTGGATAAGCCAATTTACATCATTTTCTTTATTTACTTTTTCTAAAATTCCTTGTT
 AATTTCACTTCTAATTTTTGCTTTCTCATAAACATTCACAAGATAAAGTGCTTTTATATA
 AAAAGAATCCTTGTAAATCCAACCTTACAACTGGTTTATCAGATAACTTCCTTGAAT
 GAGATATTTTCTCTAGACCATTTTTCATAAAGTTCTCTCATTAATTTCCAATAAATCTC
 ATCTGCTGATTTCAAAAACATTTTCTGCTTGTATTTATTTAGTGTAAATG
 20 CACAACATGTTATCCCAAATATATGGAGACCTTTTGTAAAGTTTCTATTGAGCGGT
 GAATATATAAGAATTTGGAATAATTAAGACCTTCTGTTGGTTCAAAGGTGCTGTTGT
 TAATTCACCTTAAGTAAATGTGTTGAGTATCTATATCAATACATCCCAGCTCCCATATT
 TTTAATAAAAAATCTATCTCCTATCTTTATTGTTCTTGATATAGGATGATAATCCATCC
 AGCAAAGTTTAAATTTGGCTTTTGTAAAGCGTATGTTACAGCAGCACCAATTAACCAAC
 25 TGAACTACTAATGATGAGACATTTTGGTAGATAACGCCAAAAATCATTAAAGTAACACA
 AACATAAACAAAGATATTTGAAGATATAGTTTAAAGTTAAATATTCGCCAGCTTTCTCCTC
 TCTCGTTCTTGACATCTTTTAAATACCTCCGATGCAATATCTACGATAATAAGTCCAGA
 TAAGATGATGATAGCTATAATCATTATTTGATTTTGATATTTGGCAAGTATCTTAATATA
 CGTCTCTAAATTAATAATTTGACATAAGAGAGTGTAAAGAGAAATTAACAATACAACCTT
 30 TATTACTAATTTTAGTTTATTATCAATCATAAATTAACCCCAATGGTGGTCTTTTTGCT
 ATTAATAAGCCAATTTCTATATGGGGAGGACTTTAAGCTAAGAAAAGGAACCTTAATTAT
 TGAAGAAGGCATAATAAAGGTTTACGGATGAACATAATGAGAGAGAAGTTATTGAATT
 TAAAGGGCTTTGTTATCTTCCCTTCCCTTATAATGCCACACCCACATAGCTGATAATGAT
 AAAGGACATAGGGATTAATAAACTTTGGATGAGTTGGTGAAACCCCAATGGTTTAAA
 35 GCATAGATATTTGACTGAGTGTAGCGATGATTTATTAGCTGAAGGCATGAACTTGGTTT
 AGGAGATATGAGAGAGCATGGAATAAAATATTTTGTGATTTAGAGAAAATGGAGTAAG
 AGGGATTAGTCTATTAAATAAAGCTTTAAATGCTATGATTATCCAAAGGCAATAATCTT
 AGGAAGGCCTATAAAGGTTGATAAAGATGAGATTGAAGAAGTTTAAAAGTCTCTAATGG
 TTTAGGGCTAAGTGGGGCTAATGAGTTTAAAGATGATGAGCTAAAATTGATTTTTTAAAT
 40 CTTTAAAGAAGTTTAAAGAAAAAGATGATAAGAAATTATTTGCCATACACGCAGCTGAGCA
 TAGGGGGGCTGTGGAATACAGCTTAAACAAATATGGTATGACAGAGGTTGAGAGATTAAAT
 AGATTTAAAATAAAACCAGATTTTATTGTTTCATGGGACACATTTAACAGATAATGACTT
 AGAGCTATTAAAGAAAATAATATTCAGTTGTTGCTTGTTGTAAGAGCTAATCTATCCTT
 TAATGTAGGAATGCCAAGTTGAATGAGCTTAAACGACAACTTATTGGTTGGGATTGGAAC
 45 AGATAACTTTTAGGCAACTCTCCTTCAATATTTAAAGAAATGGACTTCATTTAAGCT
 CTACCACATAGAACCAGGATATCTTGAGAATGGCAACAATAAACAACGCAAGATATT
 AAAGCTTGAGAATGTTGGTTTAGTAGATGAGGGCTTTAAAGCTGTCTTTACCTTTATAAA
 ACCAACAAATGCCATTTTGTCTTCAAAGAATATTATTGCTTCTGTAGTTACAAGATGTGA
 AAAGGGAGATGTTGTAGATTTTAGCTTAATGGAAAATGAAGAATAAGACATTTATAGAAAT
 50 ATTTGTTTATAATTTATTATTAGGGTTTAGGATTTTTAATTTTGTATTGTTGTTATGG
 ATTTGCTGTTGTATAGTTTGAATTTAGAAATGAGAGTATTTAGGAATTTATTATTTA
 TTTAGAGGTTTAAATTTAATTTCTAAGGTTTGTGCTGTTGATTGTTTAGAATATTAA
 CTTAATTAATTTATTGGATTTTAAAAATTAAGATTAAATAGGCAAGTAAATAAAATTT
 CTCTAACAAATAAGTTAAATTTTGAATTTAGAAAGATAAAAAACTCTGTTTTATTAAA
 55 GGGAGAAAAGATTTAAATACTAAAAGGTTTATATTATAAGATGGTTATTTAACCTTAGAA
 AAATAAGGTATGGAAAAGCTTAAATATTAGGAGAGTCGTATAAATTATATTGTGGATTAAG
 TCTCCTATTAAATCAGACCTCTTGGAGGATGGAAAGTTAGTGTCTGCTCTCCATAGGTC
 GAATATGCTCTCCGAGATTAAATCAGACCTCTTGGAGGATGGAAACGAAGTTTTGTATA
 TCTAATCTATTTTCATCAGTAAATTAGACTGTTATGGATAGAATATTCAAATAGATAAG
 60 GTTAAATTTGTTGAATAATTAATAATTACATTTCTTTTAGAGATTTAAAAATATTTTTTA
 GAGATGATAAAAAAGAAATTTTATAGCTTAACCTCTCCCTTAGTGCTTATAACTCCCTTC
 CTTTCATCAATTTTTGTAGCTAAATCTAAAGCTACTCCAAAAGCCTTAAACAAAGCCTCT
 GCCTTGTGATGCTCATTCTTTCCAATAACTTCATAATGGATATTTAGCATTCCATAACTT
 GCAACTGACTCAAAAAGTGATTTATATTCTCAGTTGCTAAGTCTCCAACAACTCTCTT

-373-

TTTGGCTCATAATTTCCTACACAATAACTCCTTCCACTTAAATCTATCGCTACAGTAGCC
CTTGCAATCGTCCATTGGAATTATAGCCCAGCCGAATCTAAAAATATTCCTCTTTCAATC
TGATTTAAGGCTAAACCTAAGCAAATCCAACATCTCAACAGTGTGGTGGTCATCTATC
5 TCCAAATCCCCCTCTTGCTTAAACAATCAAATCAAACATCCATGTTTAGCAAAAGATGCC
AACAAATGGTCAAAAAATGGAATACCCGTGTCTATTTTATATTTTCCAGTTCCATCATA
TTTATTTTAGGTAAATATTAGTCTCTTTTGTTCCTCATTACTTCAAAAATCCTCATA
TTCCCAACCAACATTTTTACTAAAAATAATTTTAAATTTATCTAAAAAGCTTTATCCT
TCCCAAACTCCAACAAACATAATATGTGGTCTTTCTCCAACCATAGGAGGAGACCTCCTA
10 TTGGGATACCTCCCGTCCATTAACTTGGGGCTTTTAGCCCCAATTAAATGTCCAATTTTAT
GTTATTTTCCCTCCCAATACCTACAAACATGACGTGGTCTTTTCAAACGGCTCAATAT
CTACCTCATCAACTATTTTAAAACTCTGCTCTAAATTTCTTTTGTCTTTAAAAA
TCTCTTTTGGGTCTTTTGTAACTCTATACTCCTTGCTTTATTGCTATCATCTCAAC
CGCCTTTCTTTAAAAACCACTTAGCATTTTAAATTAATCTCCGCTTGATTGGGTGAG
15 CAACATCCTCATAGATAACATCTACCTTTTCAACAATATTTGCATATTCTTGAGGTTTAT
TTGCATCTCCTAAATTTGGGATTATGTTTCCCTCTCAGCATATGCATCTAAAAGCTCTC
TCATAATCCTTGGTGCATCTATGGCATATACAATGCCTTTATCAGCAATATCTGCAA
CGTGAGATGGTGTAGTTCCAGCTGAAGCTCCTAAGTATAAGATTTTGAATCTCTTTTAA
TTGGCATAACCTTTAAACCTTTAATTATTGCAGCTGCCAATTACTTTTATTGGATTCC
20 AAATTTCTATCTCTCATCTCCAATTTTATTATTTTTCATCATATACTTTTTTCCCT
TAACAATAGATTTTGTGCTATTCTTTTAAAGCCATCTCCTAAATCACTTCATAGATGT
TTTCAAAAATCTCTTGATTTTAAATGTCTTCCATTTATCACCACAAAAATAATAATCTA
ATGCAATATAAATAAATACTTATATGCATATATGGTGGTATTGTGGAGTCTATCTATTT
ATTGCAATTGCATTTTAAATTAAGCTTTATCTCCTATAAAATAACAAATATGCAACCA
25 AAAATTAAGTAGGATTTTAAAGAGTTAAATGCAGTCTTAAATTTGATTGAAGGT
AAAAAGGCAGAGTTTGATAAGAAAGCAATGCCTATATTGTTTGGATTATGATTATTGCT
TTAATTTCTTTAATATTTTATTGTATGTGGTTTATAATTGTCCAGTTTCAATAACTTCA
ATAATTGCAGAAATTTCTTATTATATCAATGATTATTATATGGAAAGCATTTAACAAA
GAAATTTCTGTCTATTTGTGTGATGATGGAATTTATTATAGTAATAAATTTATAAGTTGG
30 AAAAAATTGAGAATGTTAAAAAGATGATGGGTTTATCGTATTGTTCCGGAAGAAAAAG
AAAATATTAGGACGAAAATTTACTTACTTCAAAGAATTTATTTAAAAATATGATGAAGAA
ATTGAAAACATCATTTAAAAACCAAGATAGAAAAATTTAGGGATAAAGCATGAATTTTTGT
TATGTATTTTAGCAATAACTTTAATTTATCTCATGGGATTGATTGTCTTTGGATTTTGGG
ATTTTATAAAATTTTATCAATTAATAGAGGAAATTTACTAAAAAGCTTAAATGAACCTTA
35 TGGGAATTTAGATTTGGAAAAAGCTTTTATTTATTTCCAAATTTTATTATGAAAGTTTTA
GCATTTGAAGAACTCGCACTTTTGTATTTTGTACTCTTAAATTAATGTTAAATTAAT
ATTTATGAGAATGGAATTTGAATGTGGATTTCTTTTATAAATGGGATGAATTTAAAGGC
TATAAATAGAAGACAAATATATAAGATTAAATAGCAAATTTCCATTAAATAATTAGATTG
ATATTTGTAAGAGACATTTACCTAAGATATGATGAAGAGCTTGAAGGTATAATAGAAAAG
40 CATCTAAGACAAAAATAATGGGAGAATATGGATAAAATGTGGATTATATCAACTGATT
GTAGTTATAGATGCATTATTGTATGTCTGTATGTCCATTATCGTGAAAAAATAAAAAAT
CGTAAAAAGTAATTTTCTTACTCTTTGTTTTCTTATAACTTTCTTTCTTTTACC
TTTTTTATCTTTTTCTTATCTTTTTTTCTTTGATTTTTCTTTCTTACCTTTCTTTTCT
TTTTTTCTTTGCTTTAGGTTTCTCTTTCTTTCTTTTCTTTGGTGGTTTTGGGATACTTTCT
45 TCTAATCTCTTCAACTCTCTTATTTAACTTTTCTAAAAGTTCTCTGCAATATAATCCCC
AACATAATCAGCTCTTGAGCTATAGCCAAATTTACATGCTAAAGCTCTTGCTATTTTCCC
TCTTTGCCAGTGTGGAGAACCTTGAATTAAGGGTGATTATATATTATACCATGTTTTGG
AGGCTCCACACCCATCTTAAATGGGCAATAAAGCCTTCTCAGCACCTAAACCTTGAT
50 TGTGGAAGCAGGCATCTTAGCCAAATTTCTCCAATCTCCAGCTAAACCTATTAATCTCGC
TCCTAAGGAAACACAGCAAGTTTGTAAATTTTGGAGCTTCTTCGTTCAATTTTTTC
TAAATAGTTATATAGCTCCTTTCTTTTCTATATAGGTGATTTATTTCTCAGCAATTT
AACAATAACATCTAAATCATAATCTTCCAATTTCTCTCCATTGAATTTTTTGGCGCTTC
AGCAATTTTCCAGCTAATTTTGAAGGAAGGATTTTTTTTAGCTGACTCTTGGTAAAGTT
55 TTCTCTTTTCTTAATTTTGTATTAGGTAGCATAAACTTCATGTTTATTAATAAGTG
GTCTAACTCTGGGAAGTAGAGGGAATACCACTCTCTCAATCTCTCAGATAACAAGTTTAG
AGTTTATCCAAATCAGATATTGCCTCTGCAACTTGAATAATGATTTTATCCTTTTGTG
AGCATAGCTCTTTATAACTTTCTTTGTAGCTCAGTGCTCCAATAATGCATCTTCTTTCT
AAATTCATCATAGTTGTTGAAGTATCCCAATTTCTTTCCAACCTTAAATAAGTTGTTTCT
TAAAAACTCCCCTATATTGAATGGTTCAGTGCTAAGTGTTCATAATTTAATCTCATCTCC
60 CCATTCCTCTTTTAACTCATCTGCTATTTTATTGGCTGAGTTTTTAAATTTAAACATTAT
ATCTGGAATTTCTTCTCATTAACAATTTTTTATACTCTATATCTTCCAATCCGCTAAC
TTCTTTATTATCTTTAACTCCAAAAGCTCCATAAGGTGTAAAAGTAACATAAATCAAAAT
AATCCCCCTGATAAGTTTTTATATATAGAACAACATTAATGAACGCTTCTTTGAAGGCGTT
TTTTTGCAAAATGTCTTATATTAGTAAGCATAAATGAACGCTTCTTTGAAGGCGTT
CAATGTTCTTAATAAATTTTAAATACTTTGCAAAAACTATTATACTTTCTTACTAAAA

-374-

5 AAGTTCGTTTGGATGGGATATTTATGAACGTTGAAGAGATGGAGAGAAAATTAAGCCA
AAAGGAGAAGTTTCAATAATTGGATGCGGAAGATTGGGTGTTAGAGTAGCTTTTGATTTA
TTAGAAGTTCATAGAGGTGGGCTAGAAAAAGTTTATGTTTTTGATAATGCCAAAATAGAA
GAAAATGATATTGTCCATAGAAGATTAGGGGGAAAGGTTGGGGAATACAAAGTAGATTTT
10 ATAAAGAGATTTTTTGGAAATAGAGTTGAGGCATTAGAGAAAATATACTAAAGATAAT
CTTCATTTAATTAAGGGAGATGTAGCAGTGATATGTATAGCTGGTGGAGATACAAATCCCA
ACAACAAAGGCAATCATAAACTACTGTAAAGAGAGAGGAATTAAAACAATAGGAATAAT
GGGGTATTTGGTATAGAAGAAAAATAAAGGTTTGTGATGCCAAATATGCAAAAGGCCCA
GCCAAATTTTTTAAATTTAGATGAAGAGGGGCATATAGTTGTAGGAAGTGGAAATTTATC
15 AGAGATTTTGAGCCAATAACACCATATACATTAGATGAGATTGCTAAAAGGATGGTTATT
GAATGTTTAAAGATATTGTGGAGCAATACTATAAAAGTTAAAACCATAAAATTTATATA
CTACCTCTATATAGTTTATGTATGCAACTCATAGGTTTTGAAAGAGCGGGGTAGCTAG
GGGTAGGCAGCGGACTGCAGATCCGCCTTACGTGGGTTCAAATCCCACCCCGCTCCA
TTTGAACTTTAAGAAAGTTTCATCAAAATCTGAACCTCCTCGCTTACGCTCGGAGGTG
20 TAAATTAAGAGGCATTGCTTCCGTTAGGAAGCAATGCATCCGTTTTGATGAACTTTTAC
TAAAAGTTTCGTTTAAATTTCAACCCCGGCTCCATTTTTTATATTTAACTCTCTCTCTT
TTTTATAGAGTTAAATTTTAAACCTAAAGATGTATCTATCGATAATAATAAGATATAAAT
ATAACCTAATCAAATTAATACTAAGCTTGTTTTATTGGTTTAACTACATATCCTTAAAT
AGATTTTATGCTACAAAACTCATAATCTTAAACACAAAAATAATAGATTAGAAAGAAAA
25 TCAAAATAAATTAATTAATAAATAATTAAGAGAGGTGCAAAATGGTAACTGTCTATGAT
GTTCCAGCTGATAAGTTAATTCAGAAGACAGCTGAGAAATTAAGAGATGAATATAGGA
GTTCCAGAATGGGTAGATTTTGTAAAGACAGGAGTTAGCAGAGAGAGAAGACCAGACCAA
GATGACTGGTGGTATATAAGGTGTGCATCAATCTTAAGAAAAATCTATATTTACGGCCCA
GTAGGTGTTTCAAGATTAAGAAGCTTACGGAGGAAGAAAAACAGAGGTGATGAACCA
30 GAACACTTCTACAAAGGTAGTGGAAACATCATTAGAAAAGCTTTACAAGAATTAGAAAA
TTAGGTTTAGTTGAAAAGACACCTGAGGGAAGAGTTGTTACTCCAAAAGGAAGAAGTTTC
TTAGACAACATTGCTAAAGAGCTTAGGGATGAAATAATTAATGAAATCCCTGCTCTTGCT
AAATACTAAGGGGATGCTAAATGGATGTTGAAGAAATTAAGAAAAAAGCTTCTTGAAT
TGCAAAAAAAGCTTGCTGAACAACAACAGCAAGAAGAGGCATTATTAGAGGCGGAGATGC
35 AAAAAAGAGCTTTATTAAAGAAAAATATTAACACCTGAAGCAAGAGAGAGATTGGAGAGAA
TAAGATTGGCAAGACCAGAATTTGCTGAAGCTGTTGAAGTCCAATAATCCAATTAGCTC
AACTTGGAAAGATTACCAATCCCATTTAGTGATGAGGACTTTAAAGCTTTACTCGAGAGAA
TAAGTGCATTGACAAAGAGAAAGAGAGAAATTAATAATTTGTTAGAAAGTGAACCTTATGGA
TGTTTCATGTTCTCTTTAGTGGAGGGAAGATAGCTCCCTCTCTGCAGTGATATTAATAAAA
40 ACTTGGTTACAATCCTCATCTAATAACTATAAATTTTGGTGTATTCCCTCTTATAAAT
AGCTGAAGAACTGCTAAAATTTTAGGATTTAAGCATAAAGTTATAACTCTCGATAGAAA
AATTGTTGAAAAGCTGCTGATATGATTATTGAACATAAATATCCTGGCCCTGCAATACA
ATATGTTTCAAAAAGCTGCTTAGAAATTTTGGCTGATGAATATAGCATTTTAGCGGATGG
45 GACAAGAAGAGATGATAGAGTCCCAAGCTTAGCTATTACAGAGATTACAGAGCTTAGAGAT
GAGGAAAAATATCCAATATATAACCCCATTAATGGGTTTTGGTTATAAACTTTGAGGCA
TTTAGCAAGTGAATTTTTTATATTAGAAGAGATAAAAAGTGGAACTAAGTTGAGCTCTGA
CTACGAGGCAGAGATTAGACATATATTGAAGGAGAGAGGAAAGTCCAGAGAAATATTT
CCCTGAACATAAACAAACAAGGGTGTGTTGGATTAAAAAGGAGATTTAGGTGAGATGATG
50 GGAAGCAACAAGCCATTAGGAAAGAAGGTAAGATTGGCTAAAGCATTAAAGCAGAATAGA
AGAGTTCCATTGTTTGTCTATTGTTAAACAAGAGGAGAGTTAGATTCCACCCAAAAATG
AGATACTGGAGGAAGGAAGAAATTGAAGGCTTAAGTGAATGGACATTAATTAGGGCTGAAA
GCCCTAACTTAATGGACGAGTTTTGATGAACTTTTACTAAAAGTTTGAAGGAAGAAAT
TAAAAGCTTAAATTTGTTTTCTTTTATATAAAACACTTCTCCTTTGTAGTTTTTTAGTT
55 TTAGCTCTTTTTATTGGCATCTCATTCAAAGAGGTCTTATAATTAAATTTGCATTAACTT
TTTTTGATAAATCTAAAATATACGGCTGTAAATCTCTTGGAGGTCTTATGGAATATATTA
AATCAATATTTTTATATAAACTTATATTTGGATTAAATAAATCATCTTTATAAGCATTTA
ATCCCAACAATTTAGCTTTTCAATAGCTTTTTTCATTAAATATCTATGGCTATCAAATCA
AATATTTACTTAATCTCTTGAACATCAAATTTAAATCCAATTCGAATCTCAGCTATTT
60 TTTTACAGTTATTTCTCTGCGAACTTTTTTATAAACTCAACTATTATCTTAACATTCA
TTTTTTCACATCTTTGAAATTTTAGAAACATTTAAATATAAATGTGAAATAAAAAATTC
TGTCCAATTTGGACTTTTATAGTTTCTTGCAAAAGTTACTGAAGTTCGTAAGGAAGGTTT
GAACACCTTCCTTTTGGAAGGTGTTCAATAATGTATTATTATCTAAAATGTTTTGCAA
GAACTTATACTTTACTTTTAACTGGGAGGGGAAATATGAACTACAAATATCTAATAC
TTTCTTTTAAATAGTTTGGCGTTTTCTTTGCTGGATGCACACAGCAGATGAATGCAG
ATGAGATAGCAAGAAGATGCAGGAGAAGTATGAGGCAATGAAGTCAATGGAGGCAGATG
TTTTAATTACAACGAACATAATGGGGCAGACAGAGACGATGCAATACAAATATGCATTTG
AAAAGCCAAATAAGTTTTATGGAATAATGATGATGTTTAATTGTCTGTGATGGGAAAA
CTTACTATATGTATGATAAAAAAGAAAAATCAATACACAAAGATGGAGATTAAGGAGAAAT
TAAATAATATGTTTAAACCTGACTACGGAAAGTTTATAAAATCAATGCTTGAGAAATTTA

ATGTTTCATACCTTGGAGAAAAAAGCTTATGATGGAAGAAAAATGTTATGTTTTAGAGCTAA
TTTTCTAAAGAAAACCTGAAGAAAAGATGAAGATGTATGTTGATGAAGAGTATTGGCAAC
CTCTGAAGATAGAGATGGATGGCGTAACAATAGAATATAAGAmCGTTAAATTTAATGTGG
5 ATGTTCCAGATGATAGATTTAAGTTTGTTCCTCCAGaAGGAGCTAAATGTAGAGTTCTG
GAGCAATGACAACATCAAAAAATATAGATGAAGTTCAAAAGGATGTTAGCTTTAAATCT
TAGTTCCAAAATACACTGCTGGGCTTGAATTGCAGAATGCAATGGCTACAAAACAAAATG
CCAATAATGAAGAATCAGAGACAGTAATTTTAACTTATGGAGAAAATGGGGAGTTGGCAA
TTATTGAAAGTAAGGACAACAAACCCCTTAACGATTCTGAAAATGGTAGCAATTTAATAA
10 CATTAAAAAATGGAGTTAAAGCATTAAATTCAGACAGTGGAGATGTA AAAATGTTAATGT
TTGAATACAATGGAATAAAAGTAATAATAGCTGGA AAAATGGATAAAAATGAGCTTATAA
AAATAGCAAACCTCAATGATTGAATAAAAAATTTTATTTTTTATTTTTTAAATCGTTTGAA
ATACATGAGATTGGCGATTATGAGGGTGAAAGTATGGAGTTGAGTCATGATACAAAGAAC
CTTTTAGATTTAGTAAAAAAGCATACGAAGGGGAAGTAGCACTCCCTGATTTTCAGAGA
AATTTTGTCTGGACAAGACAAGATATAGAAGAACTAATTAAATCTCTTTTGAAAATATG
15 TTTATAGGAACCTTTTTAATCCAAGAAATAATCCTGAAAATCCACCATTGGGACAATC
TACATTAGGGGGGCGAGAGGAATTAATCCTAATATAACATTAAGAAAACCAAGAATTTTG
GTTCTTGATGGTCAGCAAAGACTAACGTCATTATTTTATGCAATATATAGCCCAATTTT
CCATTAAAAAATACTACAAAACCTTATGCGTTTTTTTATAGATTTAAACAAATTAGTTGAA
GATGATATTGATAATTCTGTTTTTAGCCTGTCTAAAGATTGTAGACAATATAAGCTTTA
20 TTAATGAAGATAATTCTTTTCGATATAGAAAAATTAAGAAAAAAGATTTTCCCATTA
ACATTTTTATCAAAATCAAAATAATTTTATAAGATATGGTATAAGCATTTTAGTGAAAT
TTTCCTGAAGAAGTATTTAATTATATGCATAACATATTGGAATATAAAGTTCCCTACACTA
ATTTTAGGATTATCTTACAATGATAAACCCGAACAAGTTGTAGTGTATTTCGAAAGAATA
25 AACAAAACCTGGTATAAAATTATCGCCTTACGATTATTGTTGCAAGATTTTATAAATTT
ATAAAATTAAGGAAAAGTGGGCGAAGCGTTTGAAAATAACATTTCGCATTAAAAATTTT
GCAGGTGATGTTGAGGATACAAAAGTGCCTTATATGTTTATTCAGGCATTAGCTTTAAGT
AAAGGAATGAGCATCAAGTCAAGAGATTTAATTAAATTGATAACTCCATTTTAAATGAT
GAATCATGGAATAGAGTTGTAGATATTGCTGAAAATAAAGTATTTCAAAGAATTTTGTAT
30 ATTAGCGAATATGGAATTGCAGATATTA AAAATGGAATCCATATACACCAACAATAACG
ATGATGTTGGCATTCTTTTTTAAACATGATATTCCAGATATGGACAAAGTTAATAAATGG
TATTGGAGTTCAGTATTTCTGAGAGATACTCGGGTTCTACAGAATCCAAGATGATGAAA
GATTTTAAAGAAGTTTCAATGGATTGAGAACAATAACAAAATTCAGAGCTGTTGAA
AACTTAAAGATTGAAATACAAATGAGGACATACAGTTTAAAGAAAGTTAAAGTTCTGGA
AGTTCAAATATAAGGGAGTATTTAATTTGATATTTAAAAATAAACCAATGGATTTCTAT
35 AAGCCTGATAATATTGCCTACTATAAGCTTGAAGACCATCATATATTTCTAAAGGATTT
TTAAGAAATAAAGGCATATCCAATGAATATATAGATTTCAGTTTAAATAAAACACCCATT
CTTGATGAAACCAATAAGAAAATCTCAAAAAAATCACCATCCAAATATGTCAAAGAAATG
ATAGAAATTCAGAAAAATAAGGATTATCCGAaGATGAAGCAGTAAATAAAGTTAAAGAA
40 ATTCTAAAAGGGCATTTTATAAATGAAGAAATGTTTGAAATCTAAGAAATACCGATGAT
TCATTATCAAAAGATGAAATTTGAAGAGAATTTAATAGATTTATAGAGCTTAGAGAAAAA
TTAATCTTAGAGAAAAATTTGGAATTAATATCTTAAATTTTTTATTAAATTATCTCTCA
GCAATTTCCCTCAACTTTTTTATAAATCTTATTATTTCTGGAAGATTCCATAAAGGAATG
45 CCTTTTAAATCACTACTCAGCTATTTCTTATTATAAGGAAGCTTCCCAATTAATTCAAA
CCAAGCTCTTTTGCATAGTTATCAATTAGCTCTTCACTCTGGTTTAACTTATTTGCA
ACAACATAGATGCTTTAACTTAACTTCAACTCATTAGCTAATTTTTTAAATCTCTTT
GCAGTCCCTAAACCTCTCTTTGATGCATCAGTTATAACAATCATCACATCAACATTTTGG
GTTGTTCTTCTGCTGAGATGCTCTAAGCCAGCCTCAGTGTCTATAACAACAACTCATAA
50 TCCTTAGCTAAGTTATCTATAATCTGCTAAGCCAGTTATTTACACTGCAGTAACATCCA
CTACCTTCAGGCCTTCCCATAAACCAATAAATCATAATATTTTGTCTCAACCAAAATTTCA
AAAATCTTACTCTTAAATAATCTAATTTCTGTCATTCTGCTGGAATTTTATCCCTCTCA
ACTAATTTTTTAGCTCTTCCCTAATATCTCCAACAGTTTTTTTCTACTTCAACTCCCAAA
GTTTCTGGTAGATTTGAGTCTGGGCTGCTCATCAACAACCAAAATCTGTTTGTCTTTTA
55 GATAATGCCTTAATTAATAATGTTGTAAATGCTGTCTTTCCAACCTCCACCTTTTCCACTC
ACAGCAATAATCATTTTATGCCACCACGAAAAGTATTATTAATTAATAAATTCCTTTT
AGTGTTTATAAATGGTGATGTCATGCTATCAAAAAGGCTCTTAAATTTTGAATCATTGGA
AGTTATGGATATTTTAGCATTAGCACAAAATTAGAGAGTGAAGGGAAGAAAGTTATACA
CTTAGAGATAGGAGAGCCAGATTTTAAACACACCAAAACCTATTGTTGATGAAGGAATTA
ATCTTTAAAGAAGGAAAAACACACTATACCGACAGTAGAGGTATTTTAGAGTTAAGAGA
60 GAAAATTAGTGAGCTATATAAGATAAATACAAGGCAGATATAATCCAGATAACATAAT
CATTAAGGAGGAGTTCTTTAGGGCTGTTTTTGTCTCTATCTTCAATAATAGATGATGG
AGATGAGGTTTTAATTCAAAATCCATGCTATCCATGCTATAAGAATTTTATCAGATCTT
AGGAGCTAAGCCAGTCTTTTGTGATTTTACAGTTGAGAGCTTAGAGGAAGCTTTATCTGA
TAAACAAAGGCTATAATTATAAACTCTCCTTCAACCCATTGGGAGAAGTTATAGATAG
AGAGATTTATGAATTTGCCTATGAAAACATCCCTTATATAATCTCTGATGAAATCTACAA

-376-

TGGCTTAGTTTATGAAGGGAAATGCTATTTCAGCAATTGAATTTGATGAAAATTTGGAAAA
AACCATTTTAAATTAATGGATTCTCTAAGTTGTATGCAATGACTGGGTGGAGAAATAGGTTA
TGTATATCTAACGATGAGATTATTGAAGCAATTTTAAAATTACAGCAGAATTTATTTAT
CTCTGCTCCAACCATATCTCAATATGCGGCATTAAAGGCGTTTGAGAAAGAACTGAAAG
5 AGAAATAAACAGCATGATAAAAGAATTTGATAGAAGGAGGAGATTAGTTTTAAATACGT
TAAAGATTTTGGATGGGAGGTTAATAATCCAATTGGAGCTTACTATGTATTTCCAAACAT
TGGAGAAGATGGAAGAGAGTTTGCCTATAAATTATTGAAGGAGAAATTTGTTGCTCTAAC
TCCAGGAATAGGCTTTGGTAGTAAAGGGAAAACTATATAAGGATTAGCTATGCCAACTC
10 CTATGAAAACATTAAAGAGGGTTTAGAGAGAATTAAGGAATTTTAAACAAATAGATAAG
CAAAACCTTTATAAGGGGCTAATAATGAATAGTAAATAGAAATAATAAAATTAAGCT
AAAAACCTATTAACCAACAAAGATACCCGGAGCAAAGTATGTTATAAATCAATATATT
GGATGCCAATATGCATGTAAATACTGCTATGCAAGATTTATGTGTAATGGTATAATTAT
GGAAAATGGGGCAGTTGGGTTGTTGTTAAAGAAAATCTACCAGATTTAATTAAGAAACAA
15 CACATCAAAGGAAAAATATATATGAGTAGTGTTCAGATGCCTATCGACCGATAGAAAAA
GATTTTAACTAACAAGGAATATCTTAAAAAATATTGATAAGAGGGCTGAGCTATCTATA
CTAACAAAATCAGATTTGGTTTTGAGAGATATGGATTTATTTAAAAAGTTCAGCAGTATA
GAGGTTGGCTTAACCATTAACACTTTGAAGGAAATCTTAAAAAGATATTGAGCCGTTCT
TCTCCAAGCAATGAGAAGAGATAGATGCCCTAAAAACACTCTATGAAAACGGCATTA
20 AACTATGCCTTATATCTCCAATAATCCAGATTTGATTGATGTTGAATATATAATAGGT
GAGACAAAGCCCTTACCAACTTTTATTACTTTGAATTTTGAATTTAAAGGCAACCAGA
GAGTTTAAACACTACTTAGAGCAAACTATCCAGAGAGTTATGAAATAATTAGCAATAAA
ACAGCATTTAAAGATACATAGATGAGSTAATAAATACCATAAAGAAGAAAGATATAGCT
ATTAAAGGCATTTGTGTGCATTAATAAAACACATTAATGGTGATGCATAATGAAAGATG
TATTAAGGAGGCTCTCCGATGTAGTATGGGAATTACCTAAGGATTACAAAGATTGCATGA
25 GAGTTCCCTGGAAGAATCTACTTAAACGAAATCCTATTAGATGAGTTAGAACCAGAGGTTT
TAGAACAAATAGCGAACGTTGCATGCTTGCCTGGGATTTATAAGTATTCTATAGCTATGC
CTGATGTGCATTACGGTTATGGGTTCCGCGATTGGCGGGGTAGCGGCTTTTGACCAAGAG
AAGGAGTTATAAGCCCTGGAGGGGTTGGTTTTGATATCAACTGCCTTACATCAAACCTCAA
AAATATTAAACGGATGATGGATATTACATAAAATTGGAAAACTAAAGAAATTTGGATT
30 TACATATTAAGATTTATAATACAGAGGAGGGAGAAAAGAGTTCAAACATATTGTTGTCT
CTGAAAGATATGCAGATGAGAAGATAATAAGGATAAAAAACAGAACTCTGGAAGAGTTTAG
AGGGAAGTAAAGACCATCCAGTTTTAACATTAAACGGTTATGTACCAATGGGCATGTTAA
AAGAAGGGGATGATGAATAGATTTATCCTTATGAAGGGGTGAATATGAAGAACCCTCTG
ATGAGATAATATTAGATGAGGATGATTTTGCAGAGTATGATAAACAGATTATCAAATATC
35 TAAAGATAGAGGGTTATTACCACTTAGAATGGACAACAAAAATATTGGTATTATTGCAA
GATTGTTAGGTTTTGCATTTGGAGATGGAAATATAGTTAAAGAGAATGGGGATAGAGAGA
GGTTGTATGTGGCATTATTTATGGAAAGAGAGAGACGCTTATTAAAAATTAGAGAAGATTAG
AGAAATTAGGAATAAAAGCTTCAAGAATATATTCAAGGAAGAGGGAAGTTGAGATAAGAA
ATGCCTACGGAGATGAATATACAGCTTGTGTGAAGACAACCTCTATAAAAAATAACTCAA
40 AGGCATTTGCATTGTTTCATGCATAAATTGGGAATGCCAATTGGTAAAAAGACAGAGCAGA
TATACAAAATCCCAGAGTGGATAAAGAAAGCTCCAAAATGGGTAAAGAGAACTCTTAG
CTGGATTGTTTGGAGCTGATGGAAGTAGGGCAGTGTTTAAAAACTACACACCATTAACAA
TAACTTAACGATGTCAAAGAGTGAAGAGCTAAAGAAAATATCTTAGAGTTTTTAAATG
AAATTAAGCTATTATTGGCTGAGTTTGACATTGAAAGTATGATTTATGAGATAAAATCTT
45 TAGATGGTAGAGTTTCATACAGACTGGCAATTGTTGGGGAAGAGAGCATAAAGAACTCT
TAGGAAGAATAAACTATGAATATTACGGGGAGAAAAAGTTATTGGATTGTTGGCTTATG
AATACTTAAGAAGGAAGGATATTGCAAAAGAAATTAGAAAAAATGTATTAAAGAGCAA
AAGAACCTTTATAAAAAAGGAGTAACAGTCTCAGAAATGTTAAAGATGGATGAATTTAGAA
ATGAGTTTATAAGCAAAAGATTAATTGAGAGGGCAGTATATGAAAACCTGGATGAAGATG
50 ATGTAAGAAATTTCAACAAAATTTCCAAAGTTTGAAGGAATTTATTGAAAAATATGGGGTTA
TTGGAGGATTTGTAATAGACAAGATAAAGGAGATTGAAGAAATTTCTTATGATTCAAAAT
TGTATGATGTTGGAATAGTAAGCAAGAACACAACCTTCATAGCAAATAGCATAGTTGTCC
ATAACTGTGGAGTTAGGCTTATAAGAACAAATTTAACAAGAAAGAGTTCAATCAAAGA
TAAAGAGCTTATAAAAACTTATTCAAAATGTCCCTTCTGGTTTGGGAAGTAAGGGAA
55 TTTTAAATTCAGCAAAAGTGTTATGGATGATGATTAGAGGAAGGAGTTAGATGGGCTG
TTAAAGAGGGTTATGGATGGAAGGAAGATTAGAGTTTATTGAAGAACATGGCTGTTTAA
AAGATGCAGATGCTTCTATGTCTCAGATAAAGCAAAAGAGAGAGGAAGAGTTCAATTAG
GAAGTTTAGGAAGTGGAAACCACTTCTTAGAAGTGCAGTATGTTGAAAAGGTATTGATG
AGGAAGCTGCTGAAATATATGGAATAGAGGAAAATCAAGTTGTTGTTTTAGTGCACACCG
60 GTTCAAGAGGTTTAGGGCATCAAATCTGTACTGATTATTTAAGAATTATGGAAAAAGCAG
CCAAAACTATGGAATAAACTTCCAGATAGACAGTTGGCATGTGCTCCATTTGAATCAG
AAGAAGGGCAGAGTTACTTTAAAGCAATGTGCTGTGGAGCAAACTATGCATGGGCAAAATA
GACAGATGATTACTCACTGGGTTAGAGAGAGCTTTGAAGAAAGTATTTAAATACATGCTG
AGGATTTAGAGATGAATATTGTCTATGATGTAGCCCAACATAGCTAAGAAAGAAAGAAC

-377-

ACATAATAGATCGAAGGAAGGTAAAAGTTATAGTGCATAGAAAAGGAGCTACAAGGGCAT
TCCCACCAAAGCATGAGGCAATTCCAAAAGAATATTGGAGTGTTGGACAGCCGGTTATTA
TTCCTGGAGATATGGGAACCGCCTCTTACTTAATGAGAGGGACAGAGATTGCTATGAAAG
5 AGACGTTTGGTTCAACGGCACATGGAGCCGGTAGAAAGCTAAGTAGGGCTAAGGCATTAA
AGTTGTGGAAGGGTAAAGAGATACAAAGAAGATTGGCAGAGATGGGAATCGTTGCCATGA
GTGATTCAAAGGCAGTTATGGCAGAGGAAGCACCAGAGGCATATAAGAGTGTTGATTTAG
TCCGAGATACATGTCATAAAGCTGGAATATCATTAAAAGTAGCAAGAATGAGACCATTAG
GAGTTATTAAAGGATAAACTTCCTCTATTTACTATCTATTATTTTAGGTGTAAGTTTTA
10 AATATGACTAACAATTATTTAGCATAACATCATTATGGATTTTTGTTTTGCTTTTTT
TATTAATTCATTGAGTAATGATATTATTTTTTAAATCTTAAAAGGTGAAACTATGGATA
ATAACTTAGAAATAAAAGATTTGGAAAAATAGCAAAAAGGTAGATATAATATTGTAA
AAATGGTTGGTTTAGCAAAGTCTGGACATCCAGGTGGAAGTTTATCAGCAACTGATATTA
TAGTAGCTCTATACTTTAAACTAATGAAGTACTCTCCAGATAATCCATATAAAAAAGATA
15 GAGATAGGTTTGTTTAAGTAAAGGACATGCTGCTCCAGCATTATATGCAGTTTTGTCTG
AGTTGGGTATAATAGAAGAGGAGGAGTTATGGAAATTGAGAAGATTGGAAGGGAGGTTGC
AAGGACACCCATCAATGGATACACCAGGAGTTGAGATTGACCCGGTTCATTGGGACAAG
GTTTTTCAGCAGCAGTAGGAATGGCTTTGGGATGTAGATTAGATAAGTTAAACAACACTACG
TTTATGTCTTATTAGGGGATGGAGAATGTCAAGAGGGTATAGTTTGGGAAGCTGCAATTGG
20 CAGCAGCCCACTACAAGTTGGATAACTTAATTGCCTTTATTGATAGAAATAAACTGCAGA
TAGATGGATGTACTGAGGATGTTATGAGTTTAGGAGATATAAAAGCTAAATTTGAGGCAT
TTGGATGGGATGTCTTTGAAATAGATGGACATAACTTTGAAGAGATTATAAATACTGTAG
AAAAAGCCAAAAGCATGAAAAATGGCAAAACCAAGATGATTATTGCATATACCGTTAAAG
GTAAGGGAGTTTCATTTCATGGAGAATAATGTTGCATTCCATGGAAAGGCTCCAAATGAAG
25 AACAATTAACAAGCATTAGAAGAATTAAGTGAATAAAATTTTATTTTGGTGATTTA
AATGATTAAATTTGGAGCTTCAATACTATCTGCTGATTTTGGGCATTTAAGGGAGGAGAT
TAAAAAGGCAGAGGAAGCAGGGGTTGATTTCTTTTCATGTTGATATGATGGACGGTCACTT
TGTCCCAATATAAGCATGGGAATTGGAATTGCAAGCATGTTAAAAAGCTAACAGAACT
CCAGTAGAAGTGCATTTAATGGTGGAAATGTTGATTTATTTGTTAATGAATTTGAGGA
30 GATGGATTATATAACATTCCACATAGAGGCGGTTAAGTTTCCTTTTAGAATTATAAATAG
GATTAAAAGTATTGGAGCTAAGCCGATAGTTGCTTTAAACCCGCAACACCTTTGGATGC
AATAGAGTATATTTGGGAGATGTTTATGCTGTTTTAGTTATGACTGTTGAACCTGGCTT
TTCTGGACAAAAGTTTATTCCAGTGATGACAAAGAAGATTAGAAAGTTAAAGAGCATGAT
TGTTGAAATGGATATGATACAAAATATTTCGTTGATGGAGGAATAAATGTTGAAACAGC
35 TCCATTGGCAGTAAAAGCTGGAGCTGATGTTTTAGTTGCTGCATCTGCAATATTTGGAAG
GGATGATGTTAAAAACAGCCGTTAAAACTTAAAGAGAGGCAGCTTTAGAAGCTTTAAACAA
AGATTTTTTAACATAAAAGCTTTAATTCAAATGAAGAAAAACAGTAAAAACAAAAATAATA
AATTAATTTATTTGGGTGAAAAATCATGGTTAAGTTGAGTGGAGTTTATAAGGGGATGAG
GAAAGGGTATGGAGAAACATTGATAGAGTTAGGGAAAAAGTATGAAAATTTGGTAGTTTT
40 AGATGCTGATTTATCTGGTTCTACACAAACAGCCATGTTTGCTAAGGAATTTCCAGAGAG
GTTTTCAATGCAGGAGTTGCAGAGCAGAACATGATTGGAATGGCAGCGGATTAGCAAC
AATGGTAAGATAGTTTTTGCCTTCGTCATTCTCCATGTTTGCTGCTGGAAGAGCATGGGA
GATAATAAGGAATTTAGTGGCATATCCAAAGTTGAATGTGAAGATTGTTGCTACTCATGC
45 TGGAAATTACAGTTGGAGAGGATGGAGCTTCCCATCAGATGTGTGAGGACATAGCTATAAT
GAGAGCAATCCCAAACATGGTTGTTATTGCCCAACTGATTACTATCACACAAAAAATGT
TATTAGAACTATAGCAGAGTATAAAGGCCCTGTTTATGTAAGAATGCCAAGAAGAGACAC
TGAGATAATTTATGAAATGAGGAGGAAGCAACATTTGAAATAGGAAAAGGAAAGATTTT
AGTTGATGGAGAGGATTTAACCATTATAGCAACTGGAGAGGAAGTGCCAGAAGCTTTAAG
50 GGCAGGAGAAATATTAAAGGAGAATGGAATATCAGCTGAGATTGTGGAGATGGCTACAAT
AAAACCAATAGATGAGGAAATTTATAAAAAATCAAGGATTTTGTGTTACTGTTGAAGA
CCATAGCATTATAGGAGGTTTAGGAGGAGCAGTTGCTGAGGTTATTGCCTCAAACGGCTT
AAATAAAAAACTATTAGAATTTGAATTAATGATGTATTGGAAGAAGTGGAAAGGCAGA
TGAACTTTTAAATACTATGGCTTAGATGGGGAGAGCATAGCTAAGAGAATCATGGGAAGA
AATGAAAAAAGAATAAAAAATAAATAAATAAATAAATTTATTTCTATTTTCAAATAA
55 ACTTTTTATTGTTGGGATTATGAACTTAGATTTATTGAGTGCCATATACCTAAGCATTTA
TTTATGGGAATTGATGAAATAAGAGAATGGGATGGGGTTATTTGGGCTAATGTTAAAACA
AATGGGACGATTTCAACTATACAAATTTTAAACAACATTAAGAGATAGTGAGAAGATTGTT
GATAAECTTAAAGAGATGTATGGAGGGGCAAAATTATAGAGTTGTTGTTATTGTAACCACT
ATGACTTATCCACCAATTGAAGAGGAAGAAGAGAAAGAAGAACAGAGAGACTAATTAGG
GAAGAGCTATATAACATAGCCTCAGATATTGCAAATCTAAGTAAAGAAAATATGTTAATG
60 CTTATATTATCAACAATTTGTTGCTATAGCTGGAATTTATAAAGATGATGTAGCCTTATTA
ATAGCTTCAATGATTATAGCTCCTTTATTAGGGCCGAATATAGCTTTTACTATCAATTT
ACAGTAGCAGACTATAAATTTGGCATTAAAAAGTATAAAGACCCTAATAGCTGAGCTGATT
TTTGTATAATTTTATCAATGATTGCTGGGCATTATCTGCCTATATCTTTAGATAATCCA
CAGATACATTCAAGAATTACCTTAGATTTTTGGAGTATCATTATTGCATTATCGGCAGGG

-378-

ATTGCTGGAAGTTTATCAACGGTATCTAATATTTTCATCGATTGCTGTTGGAGTTATGATT
GCTATAGCTTTACTGCCACCATTTGGCTGTGTTTGGTTTGCTAATAGGGGCTGGTTATGTT
GAGCAGAGTTTTTTCAGCATTAAATTTTATTTTAAATAAATATGATAGCAATAAATTTATCT
5 GCCATTGTTATATTCTCAGCTTATGGAATTTCTCCATATAGATGGTGGAAAAAGAGGAA
GCAAGGAAATATACTCTATATGCAATCTTATTATGGGTTACATTATTTATAGCAATATTT
GTGCTAATAATTTATCACTAATAAATTAACATATATAGTTGGAGACTATAATTTCATACAA
ACTTTTATCAATGATTATGGAGGGAGAGTTATGAAAAAGGAACTGACTTATTAAGAAA
GGATTTGCCAAGATGGTTAAGCATGGGTTGTAATGGATGTTACCAACGTAGAACAAGCA
10 CAAATAGCCGAAGAGGCTGGAGCTGTTGCAGTTATGGCTTTGGAGAGAGTTCCGTGCGGAT
ATTAGGGCAGCTGGTGGAGTTGCAAGAATGTCAGACCCAGCTTTAATTGAAGAGATAATG
GATGCTGTCTCAATTCAGTTATGGCTAAGTGTAGAATTGGACATACAACAGAGGCTTTA
GTTTATAGAGCTATTGGAGTAGATATGATTGATGAAAGTGAAGTTTAAACCAAGCAGAC
CCATTCTTCCACATATACAAGAAGTTTAAACGTCCCATTTGTCTGTGGAGCAAGAAAC
15 TTAGGAGAGGCAGTTAGAAGATCTGGGAAGGAGCGGCAATGATAAGAACTAAGGGAGAG
GCAGGGAGCTGGAAATATAGTTGAGGCAGTTAGACACATGAGATTGATGAATGAAGCTATA
GCTCAATTGCAGAGAATGACAGATGAAGAAGTTTATGGAGTTGCTAAATTTCTATGCTAAC
AGATATGCAGAATTAGCTAAGACAGTTAGAGAGGGAATGGGGTTGCCAGCAACTGTTTTA
GAAATGAGCCAATCTATGAGGGCTTTACACTGGCTGAGATTATTGATGGGTTGTATGAG
20 GTTTTATTAGAAGTTAAAAAATTAGGAAGATTGCCAGTAGTTAATTTTGCAGCTGGTGGG
GTTGCAACACCGGCAGATGCTGCTTTAATGATGCAGCTTGGTCTGATGGAGTATTTGTT
GGTTCAGGAATATTTAAATCAGAAAATCCATTGGAGAGAGCAAGGGCAATTGTTGAAGCT
ACTTATAACTATGATAAGCCTGATATTGTTGCTGAAGTTAGTAAGAATTTAGGAGAAGCT
ATGAAAGGAATAGATATAACTCAAATAAGCGAAGCTGAGAAAATGCAATATAGAGGAGAT
25 TAAATTTGAATTTTACTTCATTTTAAATTTTGTTTTAAATTTTATTGAAAGATTGTA
AAAAATATATCAAAATATTTAAGTATTCAATAAAAGTTAAAGAGTGAGATTATGAAATC
ACACGAATGCATGGAGCTGGAGGAAAGGTAATGCAGGAGCTTATAAAAGATGTAATATTG
AAAAATTTGGAGATAACATCAGTTAATGGAGGAATTGGCTTAGAAAGCTTGGATGATTCA
GCAACTATCCCAATAGGTGATAAGGAGATTGTTTTTACTGTTGATGGACACACAGTTAAA
30 CCAATATTCTTCCCAGGTGGAGATATTGGAAGATTGGCTGTTAGTGGAACTGTAAATGAT
TTAGCAGTTATGGGAGCTAAGCCATTAGCTCTATCTCTATCTTTAATAATTCAGAAAGGT
TTTAACTTAGAAGATTTGGAGAAAATAGTTAAATCAATAAACGAACTTCTAAAGAGGCT
GAAGTAGCAATAATAACAGGAGATACAAAGGTATCTGATGGAGTTGATGATATCATAATC
TCAACTGCTGGAATAGGGATTGTTGATAGGGGAAAGGCAATAAGGGATTGTAATGTTCAA
35 GAGGGAGATGCAATAATTGTTTCTGGAATATAGGAGAGCATGGATTAGCTATTTTATTA
TCAAGGGAGGGATTTGATTTTGAACAAACATAAAATCAGATGTAGCTCCAATAAATAAA
TTAATTGAGAGGGTTTTAGAAGAGGGCATTCAAATAAATGCCATGAAAGACCCCTACAAGA
GGAGGTTTGGCAGATGCGTTAAATGAGATGGCTGAAAAGAGTAATATTGGCATAACTATA
TTTGAGGATAAAATCCCAATAAGTGATGAAGTTCAATCAATTTGTGATATTCTTGGCTTA
40 GACCCCTTTAACTATAGCAATGAAGGAAAGGTAGTTATGGCAGTTAAAAAGGAAGATGCT
GAAAGATGCTTAGAGATTTTAAAGGGAGCATCCATTAGGAAAGAAATGCTGAAATCATTGGC
TATGCTACAAAAGAACATAAGGGAGTTATAATAGAGACGATTGTTGGTAGAAGGATAGTG
GATATGCCTATTGGCGATCCGATACCAAGAGTTTGTAAATATTCATAATGCAATTTTTAA
AAGTTTTGATGAACTTTTCTAAAAGTTTCATGCGAGACATATTGTTGGTAGGAGAAATG
45 TCGATATGCCGATTTGGAGACCAATACCAAGGGTCTGTTAATCTTCTGTAATTTTCTC
TATTTTGGTGAATAATGAAATCATTTGGAAAAATTGGAAAAAGGTAAAGTAGAAGTTAAT
GAAAAGACGAAGTTCTCAATACTTTTAAACAATGTTGCTAAAAAGCTGATATTGCTGAG
GGAAAAAGAGCTGTTGAAGATATAATTAGAGTTATCTATAGGCATCAGCCAATATCAACA
50 AAAAAGATTGCTCAAAAAACGAGATTGCCCTTACCAATAGTTGCCAAGGTTAGAATATC
TTAGAGAGAGAAAAATATTAAGAGAACTGAAAGAGGAGCAGAGCTAACAGATTTGGGT
AAAGAATTTGCTGAAAACTTTTTAAATTTGAAGTATAAAAAATCTTTACCTGCAAACT
TCTAATGGTAGAGGTATTGTGTAGATGAATTTTTTGAAGATATTTTAAATAAGGTTAGA
GTTTGGGCTAAGAGAAGGCCCTTAGTTGATACAACTATAGACCAATCCTTTGCAACACCA
55 GAAACATCAACTTATAGGGCTGCTTGTATGATGAAAGAGGAGATTAGAAGGAAAGAGA
ATTTTATTTGTTGGAGATGATGACTTAACCTCTTTACCAACCGCTCTAACAAATATGGCT
GAGGAAATAGCTGTTGTGGATATAGATGAGAGGATTTTAAAGCTTATAGAAAAATTTTCA
CAAAAAGAAGGAGTTAAATTTAAACAATTAAGCATGATTAAAGAAACCCACTACCACAA
GATTTAAAGGAGAGATTGATGTTATCTCAACAGACCCGCATATACTGTTGATGGCTTA
60 AAGTTATTTTATCAAGAGGGATAGAAGCGTTAGGAAAAAGAGGGATTGCTTATCTTCC
TATTCTCAAAACCAATAGATGAGTGGCTCTCTATTCAAAAAGCAATTACAAATATGGGT
TTTGTATCTCAGAGTTAATTCCAAACyTTAATTATTATGAAGGTAGTGAGATAATTGCA
AACACAACATTTATAGCGAGATTGGTTGGGAAAAATTTGAAGATAAATATTGGAGACACT
GAGAAGATATATACTGGTTTGTAAAGCCAGTTATAAGATATTATAAATGCCTAAAATGT
GGAAAAATCCATAAAGTTGGAGAAGAGGTTAAGAAAGTTGAGGATTTAGTTTGTGAGTGT
GGAGGGAAGAAATTTAAATGATTAAGAGGGAAGGTTGAAAAATGAATAATTAAAAAT

5

10

15

20

25

30

35

40

45

50

55

60

TAATCATAGATTAAATCTAAATTATATTTCTCTGCCAACTCCAATGCCTTCTCTATCTCT
TCATAAGTTAATCTTCTATTTATATCAGGATATTCCTTAGCTTTATATTTCTGGGCGATAC
TGAAACATAACATTAACTACAGCGTTATCTAAATTTTTTGAGATGAAGTCAAATATTTTC
TCTGTGCAACAATCTAAGTGGTTTGGCATTACTAAATGCCTTATTATAACTTCCTCATCT
TTTATAAGCAAGTGATTCCTCTTAATTATATCAAAATAGTTTTTAACCTTTTGATAATCTT
TCTCCACATTCTATTTTCCAACTTAAAGTCAGTTAAATAGACATCAACAACCTCCTTTT
AATAAATGCATTTCCTTCAACAGTTAGATACATATTTGAATTCCAAACCTACCGGATGTTT
TTATCTAAATAGCTTAGAGTTTTTAAATACTCAATAAATGTGGTGTAGGGTCTCCACCA
ACAAAATTAACGTTTTTTGAATAATCTCTTTTATGTTTAAATAATTTAGCCATTTCTTTT
GGATTATATGGAATACAGTGGTTAGGAATTGTTTATCAAAATAAACCTGAGATATATCC
CAGTTCTGGCAGAAGACACATTTAAATTAACAGCCACAGAAGAAGATTGTATGTGATGGA
ACTAAACTCTTTCTTCCCGAGATGTAGAAATCTGTGTAGTAATAGCTCTCTTTTATC
CTACAGAAACCTCTTTTCTCTATTTACATAACATCTATGCTCACAAAATGGCAA
TTTTTAAAGATATTTTGGCAATCTCTACTTTTAAAGTCCAATAGCTTTGGTTTTACATAC
TCTAAATCATTAAATCAAAATTAATCAAAATCTACTTTTTCAAGACCTTGTATGGATT
TCCCATATTTTCTTCTTCACTTAAATCTTCAACTTCTATACACTTAGCTATT
ATAAATCTTGTGGGGCTAAATCTTTTGAACCGCTAAATATCTACCAAGTTTCATAATC
TCACATCAGTTGAGTAATTAATTTAAATAGATAAATTATGAAGTATAAAAAATTAATA
ATTAAGCTTGAAAAATTTATTCCTTAATTAATATTGCATTAACAGTTCCATCCTGCCAG
GTCTTGATGTAACCTTTGCCAATCCAATCTCTGTTCATAAATTGCTCCTTTTGTATATA
CGTTTCTCTGACATAGTGGATGTTTGCCTTGTCTCTTAACCTGTTATTATCTTAACCT
TCTTACAAGTTCTGTTTCTGGGTCTAATACGTTAGCAAATCCTGTTCTAACACCTTAA
CCTTTAAGTTTCTCTCTCTTCTTCTAACCCTTTTTTATTTTAAATGCCTCTCTGCTACGT
GTGTTTCTATTTGGTCTCTACCCATTTTCTATTTTCTCTTTTTTCTGCTGGTCTATACA
ACCCACCTGTTGGTTTTCTTCTACTTCTTCTTCTTCTTCTTCTTCTGCTGGTCTATACA
TAATGTTTTTAAATATTTTTTAACTGGATTCTTCTTATTTATTTTATTTTCCATGCC
TTTTGGTTAGTTTATTTCCAAATACTTCAATAATCTATAATTTTTACTTTAAGTTTTGTT
TTGTAAGAGAGACAGGGTCCAGGCTGCGAGTCTATGAATAATGAATAAACATACAAGA
GATATAAAAACTTAACTATTAACATACCTAAGTTATAAAGTAAAGAAATAAATCTGGTGG
GGGAGGATATGAGATTATCCAAAGAAATTTATAGGCTTAGGGATAATTACAGCTTCTCTT
ATTTTTGGCTCATCTTTACCAGATATATACAAAGGTATTGTTATATTAATAGTTGCTGGA
TGTTTATGGTTTTTTGAATTATTGCCTCTTCCAGTTACATCCTTAGCAATACCAATAATG
GCAGTGTTTTTAGGAATTTTTAAATTTAAAGAGGCTTTAACATACTTTGCCCATCCAATA
ATATTTTTGTTTTTGGGAGGATTTATGCTTGACAGGCATTAATAAATCATACTTAGAT
AAATTTATTGCCATATAAGCTACTAAATTTATGGAAGGATTTTAAACTACATGTTTTTTA
ATGTTTCTATCGGCTTATTTTCTATCAATGTGGATTAGTAACACCTCTGCCACATTAATT
TTGTTGCCCATAGCTCTTGGTCTATTACATAAAAAAAGTAAATTTGAGAGATTTTTTA
TTGTTAGGAGTTGCTTATTCTGCCTCTATAGGAGGAATAGCAACAATTATCGGCTCTCCA
CCAAATGCCATAGCAAGTAGCTATCTAGATTATGGATTTTTTAGCTGGTTTAAAGTGGGA
TTTCCAATAAGTTTATGTTATTTTTGATTTGTACTTTAACATTATATTTACTTTAAA
AAGTGGATTCCAAAAGAAGATATTGCTATTCAAGCAAGAATGGAGTTGAGTAGAAACGCT
TATAAATTTATTGTCATATTTGTGTTAATAGCTTCACTTTGGATAATTAGCGACTATTTG
AGTGAATTTTTAATGTCCAATATTTTGATTGAGTTATTGCCATATTGCGCCATAATTTTA
TTGTTTGTATTTAATTTAGTTGAAGTTAATGATTTTAAAGAAATAGATTGGGGAACCTTA
ATTTTATTTGGTGGAGCTTTATGTTTGGGAGGAGTTATTGTTAAGAGTGGAGCAATACA
TTCTTATCTGAAAACTTATAGCTATCTTAGGAAATTTAACTCCAATTTGTTCTTTTATTT
TTAGTAGTTACAATAACAATAATTCTAACTAATTTTATAAGCAACACTGGATTGACTGGA
ATAATAGTCCCAATACTATTTGGAGTATCTTTAGGAATCCAAAGAGATTTTAACTAGT
GCTGTTGGTATGTCAGCATCGTGCTCTTTTATTCTGCCAGTAGGGACTCCTCCCAACGCT
ATTGTATATAGTGAAGGTGTCAAAAAAGAAGAAATGATGAAATTTGGGATGATTTTATCA
ATCTATCTGCAGCTGTAATAACTCTATATTCATTCTTTATCTATAAAATTTAGCTATC
ATTTAGAATATAAACTTAAATTTTATTAATACTAAACATTTAAATTTGGTGTGTTAATGG
AAAAAAGCCATACATTTCTCAAATGTAGGCATGACCTTAGATGGAAAGTTAGCTACTA
TAAACAACGATTTCGAGAATTTTCATGCGAAGAGGATTTAATAAGAGTTTATAAGATTAGGG
CTAATGTAGATGGGATTATGTTGGTATTGGGACTGTTTTAAAGGACGACCCAGATTAA
CAGTTTATAAGATTAAAGTGATAGAAATCCTGTTAGAATAGTTGTTGATAGTAAGCTAA
GAGTTCCATTAAATGCAAGGGTTTTTAAATAAAGATGCTAAACATTTATAGCAACAACAG
AAGATACTAATGAAGAGAAAGAAAGAAATAAAAAATCTTAGAAGATATGGGAGTTGAAG
TAGTTAAATGTGGTAGAGGAAAGGTAGATTTAAAAAATTTGATGGATATTTTATATGATA
AAGGGATAAAAAAGCATCTTATTGGAAGGAGGAGGAACCTTTAACTGGGGTATGTTTAAAG
AGGGCTTAGTTGATGAGGTCTCCGCTATATAGCTCCAAAAATTTTGGTGGGAAAGAAG
CCCCAACATATGTAGATGGGGAAGGGTTTAAACAGTAGATGAGTGTGTTAAATTAGAAT
TAAAAAATCTTATAGGTTAGGAGAAGGAATTGATTGGAATTTAAAGTAAAGAAATAAA
TATAATGTGAGAGTTATGCTTCCAAACAAAAAGCCTTAGAAATTTATAGAAAGTATATG

-380-

5 AAAATTTACAATGGAAAGAATGAAAAAGATATTAAAGAGAGATTAATTAAAGAGTTAAAG
GAAGAACATGTCTTAGTAGAACTGAGGATGGAACCTTACACTTTAAAGGCAGAGGATGAA
GAGGAGATGATGCATTCAAAGGTTGGAGCTTTAAAGAAGCAATTTATAAGTTTGCTAAG
CCATCAAAGATAACTGATTTAAGCAATCCAAGAGTTTTGGATTTGTGCAGTGGTATGGGA
TACAATGCATAGCTGCTTTACATTATAACAAAAATGCAGAGATTGATATGGTTGAGATT
10 TGTGAGGAAGTTTTATTTTAACTTTATTTTATAGATATTCCATATAAAGAGCATGAGATT
ATAAAGATAAAGTTAGAGAGTATTTTTTAAATAAAATTGGCATTGAATATAAGTCAGAT
TATGATAATATCAATCTATACGTTGGAGATGCGAGAAAATTTATAATAAAGAGTGATAAA
AAATACAATGTGGTTTTTCACGATGCATTTTCACCAAAAAGAGACCTACCCTCTACACT
TACGATTTTTTGAAGAAATTTATAAAGAATGGAAGATAATGGAGTTTGTATATCTTAC
TCTTCAGCCATTCCATTTAGAAGTGCTTTGGTTGATTGTGGTTTTGTAATTCAGAAAAAG
GAGAGTGTGGGAGAAAAAGAGGAATAACCTTAGCTTATAAAAACCCAAATTTTAAACCA
AATAGAATTAATGAGGTTGATGAGAGAGTTATAGCTTTATCAGTTATAGCTTTACCTTAT
15 AGGGATGAAACATTAAGCTTAAGCTAAAGATAAAAATAATAGAGGATAGAGAGGAAAGAAGA
GAAAAGTTAAAGAAAAATTAATTAATAAGGAAATATCTATCAACAAAACAGATAAAA
AAAGGTAACATCCCAGAAGAAATTTTAAAAATTCAAAAAGAGGATTTAAACTCATCAGAA
ATAATTA AAAAGATGAGATTGAAGTTTTTCAAAGATGCAAACATTTTATACTATAAGCC
CATAGTTGTTGAGGATGCTAAAATCTCTTTTAGCATCTTTAAAAATTAATTTTATTGG
AAGTGGATTTGAATTTTAACTTAACGATTAATTTTGTGAGATAATATCTTAAATGCCATTA
20 GAAATAAAGGTTTTGAAAAGCCAACAGATATTGAGATGAAAGTCATCCCACTATTTTTAA
ATGATGAATATAACATTGTAGCTCAAGCAAGAAGTGAAGTGGGAAAAGTCTTCGTTTG
CAATTCATTAAATTGAGCTCGTTAATGAAAACAATGGAATAGAGGCAATTATTTTAACTC
CTACAAGAGAATTAGCTATACAAGTGGCTGATGAGATAGAGTCATTAAAGGTAACAAAA
ATTTAAAGATTGCCAAAATTTATGGTGGAAAAGCTATATATCCACAAAATTAAGGCTTTAA
25 AAAATGCCAATATAGTTGTTGGAAGTCCAGGAAGAATTTAGACCACATAAATAGAGGAA
CTTTAAATTTAAAAAATGTTAAATATTTTATATTGGATGAGGCAGATGAAATGCTCAATA
TGGGTTTTATTAAAGGACGTTGAAAAGATTTTAAATGCCTGTAATAAAGACAAGAGGATT
TGTTGTTCTCTGCTACTATGCCAAGGGAGATATTAAATTTGGCTAAAAAGTATATGGGAG
ATTATAGCTTTATAAAGCTAAGATAAACGCAATATTGAACAGAGTTATGTTGAAGTTA
30 ATGAAAATGAGAGATTGAAGCTTTATGCAGACTTTTAAAAAATAAAGAATTTTATGGAT
TAGTTTTTTGTAAGCTAAGAGAGATACTAAAGAATTGGCAAGTATGTTGAGAGATATTG
GATTTAAAGCTGGAGCAATTCATGGAGATTTAAGTCAATCTCAAAGGGAGAAGGTTATAA
GATTGTTTTAAACAAAAAAGATTAGGATTTTAAATGCCACTGATGTTATGAGTAGAGGGA
TAGATGTCAATGATTTAACTGTGTAATTAATTAATTAATTAATTAATTAATTAATTAAT
35 ATATGCATAGAATTGGAAGAACTGGGAGAGCTGGAAAGAAAGGGAAGGCAATATCAATTA
TAAATAGAAGGGAATATAAAAACTGAGATATATAGAGAGAGCAATGAAATTGAAAATCA
AGAAATTAATTTGGATAAATCTTTTTTATTTTTGCTATTGATAAATTTTATTTTTATT
ATTTTAAATTAATATATACCCATAGGCCTTGCATAACCACATATACAGAACAAAAAT
40 TCATAAATACTTTTTAACTAAATATTACAAATTAGATATAAATTGTTATTTTATTGTTGTT
TTATATGTTGTTTTTTTTGGTGGTTATTATGGAACGATGAAAAAATTATTGAAGATT
AAAAATTATTAATAGCAAAGCAAAATTTGTTGGAATTAATTTCTTATGATAAGGCATAT
TATTGAATCCCATATGAAAGATAAGAAATCAATATATAAATCTTAGAATCTACAAAAAA
CACAGAATTATATAAGTTAATTTAATTGCATGTCCTAAATTAGAAGAAATTAATGAAGA
ATCAAATTAATTAAGAACTTTTAAATAAATGTTTTATTGAAATATGATGCTTTTTGGT
45 ATTTAAGTTCAAACAGAATTGTATATAAAGTGGGGAAGGTCCTATTTAGAAATCTTGAAA
TTTTTTGGAGTAACATGCCCTCAACTTTGATTGGATACAATATTCTTGCTAATTTAATAG
CTGATTTTAGCCTTTCTTCAGAGTCAGAGTATATGGTGTATAAAACATCTCCTTTTTCAA
CTTTATTTCTTACTTTTACGTTTAGATAGATACCAGCTTTTATCATTTGGAGCTCCAG
CTTCTTTGGCAATTTTGTAAATCCAGCATTTGATATTCTGTAAACATACCCATCAATTG
50 GTGAGTGAATATCAGCTTTATATTTTCCAACCTCAATTTCACTGAACTAACTTCTTTTC
CTCCCTGAGCTACAATAATCTCCATAAATTTGTCATGTGCCTTCCCTCTTGCTAATAAAT
CTTCAGCTAACTCTTACCTTCTCCAGTAGGAGCTACTCCTCCCATCTCTAACAAAAATTC
CAGCTAATGAATAGATTTCTCAACAAGGCTTGTAGGGGCTTGAGTATAATCTTCCAAAG
CCAATAATGCCTCTTTTGCTTCTAAAGCTGGACCAATAGCTCTTCCAATTGGCTGTCCTC
55 CGTAAGTTATAGCACATTCAGTAATCTCTCAATCTATCACTCAATTCATAAAGTCTCC
TTGCTAAGCTTGATGCCCTTTTATAGATTTAATTTTGTCTCCATATCCTGTTGGAATAT
CAATCAATAGCTTATTAACACCCATAGCTAATTTTTTGGCATGACACTTGATAATAATA
AGGGCTCTGGGCTATGCCAAGAGGCTTTTCAACATTTATTGTTATATCATCTGCAGGAG
CTAAATCTAAAGCCCCCTCCCATACCATACAACCGTTTGTTCCTTTAACAACCTCTTTTA
60 TTTCTTCAATGGTTAAATCCACTCTTGTTAAACTTCAACAACATCTGCTGTTCTCGCCG
CTGAAGTTATTGCCCTGAAGATGTTTTTGAATCTTTAAGCCAGCAGAGGCAACTATTG
GCACGACTAATAAAGCATATTTGTTTCCAGGAACCTCCTCAATTGAATGCACGTCAAATA
TATGCCCTCCCAATTAACCATCTCTCCAGTTTCAGCCATTCTAATTGTCATTGCTTCAA
TCTCATCCATATCCATTCCATTTATATATAATGAGGTGACAAAGGCAGATATTCAATAT

5

10

15

20

25

30

35

40

45

50

55

60

TTGTTAGCTTTCCATCCACCATCTCATCTATAATTTCAAAAAATTCCTCTTTTTTTAATT
TATTTCCATCCATCTTTTTCTTATATATGGGAGAGATTTAGGTTTTTCAGCATGTTTAA
TTGTAACAATATCCCCTTCTTTAACACCTAACTCTTTAACTACTTTTTGTGGAAGCCCTA
TTTCTCCTCTGTTTATCAATGTGGTGAAGAATGTAGGATTCATAAATCTTTTCCTT
TAAACTCCACAACACTACTCTATCTTGAGGAAATACTGAGAGCTTTTTAAGTCTTCAGAAT
TAATTAACCAAAATTTCTCCAAGTCAATATCTAAACTCTAACTTTTAGAAATAGCATT
AAATCACCCTAATTTCTTTATCTATTAAATTTTATATTTTCTAACTTTATATATTTT
CTTTAATATTACTTCTCATTGGTGAAACATGAAGCTTATAAAAAATTTAATGCCCTTAA
AAAGTGCTGAAAAGATTGTTTTGAAAAATTATCAGAGTATTGGATGAGAATAAAAAAG
TTAAAGAAGTTGATATTGTTGAAGCTTTAAACAGGATATCTGCTGAAGATATTAAAGCTC
CAATTGATTTACCTTATTTTAATAAGGCTGCGATGGATGGTTATGCTGTTATAGCGGAAG
ATACTTTTGGAGCTTCTGAAACAAACCAATAATACTAAATCTTGCTGATGGAGATGAAA
TAAGTTATGGAGAAGCTAAAAAATATTCACTGGAGATAAACTACCAAAAAATGCCAATG
CTGTTGTTATGAAAGAGTTTGAATGAAGTTGATGATTTTGTGAAGTTTATAAACTG
TTCATCCAAACGAAAATGCTCAAGGATTGGGGAGGATGTTAAAAAGGGAGATGTAGTTT
TGAAAAAGGGGGAGATTATTAATCCTTATCATCTAAATATGCTCGCATCTTTAGGAATTA
AAAAAATTAAGGTTTATGATTTAAGTTTTGGTATAATATCTACGGGAGATGAGCTCATCA
ATTTGGATGAAATTAGGATATTGAGGAAGATATTAGTAAATTAGATGGGAAAATTATAA
ATTCCAATTCATATATGTTATATGGTTTAGTAAAAATCTTGGGTTTAAATGCCAAAAATTT
ATGATATTGTTAAAGATGATAAAGAAAACTAAAGAAAGCTATTAAACAGCTTTGAGTG
AAAATGACGCTTTATTAATACTGGAGGAACCTCTGTGAGTGAGAGAGATATACTGTTG
AGACTGTCAGAGAATTGGGAGATGTTATAGTTTATGCTGTAATATAAGACCTGAAAAAC
CATTGAGTTTGAATAATTAATGATAAACCAGTCTTCATGCTGTCTGGCTATCCTGTAG
CTTCAGCTGTTCAATTTGAGTTATTTATTCAAAGATTTTTATAGAAAGGAAGAAAGTTA
CCTTACCTTTAAAAAGAAATATGGCCTCTGAGCTTGGTAGAGTTGATTTTGTAGAGTTA
AGGTGGATATAGAAGTAGAACCTATAAGAAATTACTGGAAGTGGAGTTATTTCTCGTTAA
TAAAAAGTGACGGCTATATCTTAATTCAGAAAATGTTGAAGGTTATGAAAAAGGAGAGC
TTGTAGATGTGATTTGCTAAATGATTATTTATAATTATTGATGGGTGATTAACCTTGA
TGTGTGGATTGATTTAACAACCATAGGGCTTCGCCCTATTGGGATATCCAGAGCGGGATT
GCCCTTGGCAACCCCACTTTCTATTGGAGGTGTGTCCCAATAGAGGGCTATATCCCT
CTATAGTGGGATACCCAGAGGGAACCTCTACGTTCAACCCACTTAAATATATTTAATGGGT
GATTAACCTTGGATGTATGGATTGATTTAACAACGCCCCCATGTGCATTATTTCTGCCA
ATTGATAAAAAAATTTGAGAAAGAGGGATTGAGTATTTATTAACCTTTAGAGATTCAGG
GAATTTAGCTAAATTAGTTGAAATTTACAATTTTGTAGGGAAGTGTATAGGAAAGCATGG
AAACACGTTGAAGGATAAGTTAATTTCTACGCTGAGAGGGTTATTGGATTAAGTGAAC
AATATCAAATGTAAAGCCAAAAGTAGCTATAGCAAAACACTCCGTTGAGTTGCCAAGGGT
AGCTTTTGGTTTGAACATTCCAGTAATCTTTGTTGTAGATAATGAACACGCTGAAGCTCA
AAATAAATTAACCTTACCATTGGCAGATGAGATTATTAACCTATAGCAACAGATGAAAA
TAAGCTGAAAGAATTTGGAGGAAGAAATTTTATAAGCTTTGAAGGAACCTGTGAAGTGGC
AAATGTAAATTCACGGCTAAAGGGTTATTATCCAATAGATAATGAAATTTAAAAAAATTT
GGGAATTTGTGATGATAATCCAACAATAGTTATGAGACCTTGCCCAACTCTTCTATTG
TAATGGACATAAAGATATACTACCAAAATTTATTGAAAAGCTTCAAAAAAGAAATTGACTG
TAATATAGTTGTGTTCCCAAGGGATGAACATCAAAAAGAGATATATAGAGAGGTTAATGC
TATAGTTCCAAAAGAGACAATAGATGCTCTTTCTTTATTGTATAATTCGATTTCATGAT
TGGTGCTGGAGGAACGATGAACAGGGAAAGTGCTATCTTAGGCATTCCAACGGTATCTTG
CTATCCTCAAGAGTTACTTGGAGTTGATAAATATTTAATTGAAAAAGATAGGATGATTCA
TACAAATGATATCAAGGAATAATAAATATGTTGAAGATAATTTAGGAAAAAGAAATGGG
TGTATTGAGTTAGAAGACCCAACCTGATTTAATGTTTGAAGGGTTTGTAAATTTTAA
ATAAATATTAATATTTATTTCTTTGGAAATCTTCTATATAGACAGTTTGGATAATTT
GTGCATCCCAAGAACTCTCCTTTTTTTGTTCTAACTACTCTCAACTTAGCTCCACACCAT
GGCAAGTGTTATCATCTATCTTTGACATTATATCCAATATAGCTGGATTTTTATTACAC
AATCTCTCTTTATTGTAAATTTATTTATTGTTTATGGTATCAACATATACAATGAAGTTT
TTAAACAAGTGAGAGTTTCTAAATCAATTATAACTCTACCATTATTGATTTTTATTCCG
GGTGTATTGTGATATTTGTTTTATTGGTATTAAATAAATACCTTGCCAGAACTACTCT
AAAATTTCCATATTTATTTATCCTTCCAATTAACCAATTGTAATCTCTATTAGCAACG
AATCTTATTGTTTCTCATCAATATTGTCAAACATATTTCTCTTTTATATTGTTAAGAACT
TCTTTAATGAAATGTCTTCTCATAGCCCTTAGTGAGCATTCTATAGCTTTTCAATA
AACTCAGTTTTATCAAATTTTATTAATAATAAGAGTCCGTTAAATGCATTAGCAACAACA
TACTTTTCTTTTCAATAATATCTCTCTGTCAAATATGTAGTAGATTCTTGCAAAAAATC
TGTTTCTGACCTTTTGGTGAATCACTTTTTTAATTTCAAATTTCTTTTTATATGAATTT
GTTATTCCATAGTAAATACTGGCATTTTAGCATTTCATTTCAATTCCTATTATTGATATAAC
CCCTCTGGAACCTTTCCAATTTTGTTCATAAGTTTCAGAAATTCAGTTTAGTGGCATTGAAG
TGTAATCTTTTGATAAAATTTCAAATAATTCATTTAAACTTCTCCCATATTATCCCTC
CGTAAACTAAATTTTTCAAATTTTATAAAATTAATTTGTTAAATTTAAATATTTGGTTT

-382-

AGGCAATGGCTCGTTTTCTGTTTCAACAACCACCAATAACGGCTTATTCTTTTTTAAATA
GCCTTTAATTTCTGAACCAATTTTCATCAACATTTTCAATGTAGCAATTATCTATTTTCAAA
TGCATCAGCTATTTTGTGAGTTTGGATTTTTATCTTGCAGAACTCTGCCAACTGTT
ATTTTTCATCACAACCATTAAAGATTTTAAAGTTATTTTTCAGCTACAACCTGCAACTCCTC
5 AACATTCATCAAAAATCCGCCATCCCCACTAATTAATACAACCTCTCTATCGATGTTGAA
ATCTATAGTTCCAAATTTTACTCCAATGGATGCAGGCAAACCAAAACCCATAGTTCCAAA
TGAGTGTGAGGAAATGATATTTCTTGGAAATAACGCAGGTTTTTAATAAGCAGGTAAATAC
AGTATGCTTACCAGCATCTGTAACATTTATGGCATCTTCTGGAATATTTTAAATAATCTC
10 ATAGATTTTGTGAGTAATCTCCAGAAGGCTGAAATTTGTTGCTATTTTATATATCCA
GCTACTATTTTTTACATCTAAATTTTCAAAAAATTTCTTTTAACTCTTTGATGCTTTTTGG
TTTTAGTTGTATATTTTCACTTTTACTTAAAAGCTTTTCCCTAACACTCTCTACATAGGT
GTTGTAAGATAGAGATGAGCCGATATTTATATCTTATCTGCCTCTAACAAAGATTTTAA
ATCCCCCTCTCCCAACTAAGCCTATGCAGTCTCTAATTTTTCTAATTAATAACTCTCT
CGTGGAAATGTTGTAGCTATGGGACAGTTTATCTTTTCTAATATTTTGTATATTTTAC
15 TATCTCTTTTAACTTAAAGTCCCAATATACCCTGCCCAATTAATAATAGTGGTTTTTT
GACATCTATTTCTTTTATGTTGTTGGAAGGAGTTTCATCATCTTTATATATATCTGTATA
TGTGGTTATATTTATATCTTTTGTCTCTCTTGTATAAATCAACTGGAATATTTAGCTG
AACAGGTTTTTTATTAATAGGCAGTCAGCAATGCTTTTGTATATAACTTACTTTCAGC
TTTATCAACAAATATCTCTTTATAAAAAATTTAAAAATCCATATTTACCTCTTGAATA
20 ATTTTTGCCAATATATTTTCTCTGACATCTTCCAGTAATTGCCAATACAGATGAATTATC
CTTATAGGCTGTTGCTATTGGCGTTGTTAAATTCGTAGCTCCAGGACCTGCAGTAGCTAA
GCAAACTCCTATATAGTTAGTTATTCTTGCATAGCCATCAGCCATGAACCTGCTCCTCT
CTCATCCCTAACCATATATTTTTTATCTGCTACCTCTATTTTCAATATACAACGGCAA
TATCTGCTCTCCCGGATAGGAAATATAGTTTTTACATTTCTTTCTAAGAAATCTACCAT
25 AGCTTCTAAGAATTTAATATTACCACCACAAAAATATTGATTTAAACGGTGAGATTGTG
GATAAAAGGATTTTAGTTAGATTGGCAATCTATCCTATCGCCTATGTCTTATGGGCGGG
TTGATGTGGTATTCTCAAATTATAACTCCACTTGATGTAAACAAATTTGTTATTAAAGCTT
CCCTTATGCAATAAAGAATTTTATATATTTTACAGTCATTACCAATATTTGTTATTGAA
TTTTTTAAATTTATTTTATATGAGTTTTCTTCTATGATTATTGGAGGTATCGCCTAT
30 TATCTATTTATAAAGAGAGATTTTTTGAAGAGTGATATTATTTAATTGACTTAGCTTTA
GGTTGGCTGTTTGTGTTTAAATATACACCTTTGTGTTGTAATACTCCATTTACAGGTA
GGTGTGCTAAGGATTTAATAAATATGCATTATTTTGGATATTTACAAAACCAATAC
GAAATTCATCATTGCATACAGCATATTTCTTTTGTAGCATTACATTTTAAAGATGAA
AAGCCATTAAATATATTTATTTTGCACCTGGCGATATTAATTCCAATTTCAACTCTAATT
35 ATGGGAATGCACTGGATTGTTGATGTCATTACAGGGGTTTTATATGGTTATATTATATAT
AAATCCCTAAAACCATTCATATAAAAAATTAGTAAAGCACTTGATTTTTTAGCTGGACAT
ATAAAACCATGTATTTTATGTGGAAGTGTAAGGAGAGGGAACTCATGAAAAATAAGAA
AATAAAATTTGATGTCTATTTGAATGGAATAGCTTATCATTGTATAAAATGCGGATTCTG
CTGTGATGCTCCAAGTGTACAAAAAGGACTTGGCTAAAATAGCTGGTTATCTAAAAAT
40 ACCATTTGATGAGGTTTTAAAGCGATATGTTAGATTTTTTAAATGGATATATTGGTGAGCT
TAAAGAAGTTGGAGGAAAATGCATATTTTAGATAAAAAAACCAAAAATGTAAATTTA
TAAAGTTAGGCCCTTAATTTGTAGGTTAAGACCTTACTCAGTCCAAGTTAGAAATGGAAA
ATTAACCTTAACCTATGATATATGGTTTTTAAAGGTATTGTAGAGGGCTTTATTTGGGAGA
TGGTAAAGTTGAGGATGAATACTTTAAATATGCTGAACCTTGTTTTAAATACTTAGGATT
45 TGAGGAGGGTGTGATGAAGAAGAGTTTAAAGGGCTAAAGAGAGGTTATTGGAAGAATC
TTTTAAAGTATAGAAAAAAGAAAGATTAAACCTTTTTATTTATAGTTGTGTAATAATAA
AAATTTTGACATCCATAAGTATTTATACCCCTTTTGACAAGGTTGTTATTGAGCGAAA
TGCGATGAATCCTTAAATAAATTTGGTGAATTGAATGTTTAAATAAAGGAAGAAGAAA
50 TGTAAGAAATAATGAAGTTAGAAGAAATGTTCCAGTTAAAGAAGGCGAAACCTACACTGT
TACAATTGAAGATATGGGTAGAGGCGGAGACGGAATAGCAAGAGTTGAAGGATTCTGTTGT
CTTCGTCCTTGAACACAAAAAGGAGAAACAGTCAATGTAAAAATAACTGCTGTAAAAAG
TAAGTTTGCAATTTGCAGAAAAAATTTAAATCTCTTTAAGGTTTAGCTAAACCTTTCAAT
ACTTTTTTCATTTTGAGAAACAATTTAAAGATTAAACAAATTAATTATTAATTAGAGTTT
55 ATTTTCCTAATTCATCCAATAAAGCGTTGATAATTGCCATTAATATTCCTTCTTAATTG
CCCTTGACTTAATTTTTTCAGCAACTTTTAAATGCTTCTCTGATTTCTTTATTTCTATTA
ATTTTCATAGCTATTTTTTCCAAATCAGTTTCTGTCTTAATTTTCTCCACTAAAGCCATTG
CTTTGTCTATTTCTCCATTTTCAATGTATGCAATAGCAACCTTTCTCAAAACCTCATCTT
TCAATCCAAAACCTGATATCTTCTGCAACTTTAACAGCTTCATCGCAGTAACCTTTTT
60 CTATTAAGTTAAAGCAATTATCTCTAAGTGAAGCTCTCCTTTTATTTCTTCAACTTTTT
TAAGGACTTCTTCTATTTTTCTTCTCAATTAATTTTATTATTTCACTAACCATTTTTTA
TTCACCATTTTAGAATTTTTATTTCATGTTTTTACATTATCTACTATGTATCCACTTGAT
ATATATAATTTACTATTTTGTGTAAATTTATGTCAATATTGGACATCTATAAATATAA
AAATTAATAAAGTTAAATCGGATTATATAAATTTATAAACTTCCAGTATAGCCAAGAG
ATTTTAATAAAGCAATATCATCATTATTTAACTCATATTTTTTTGTTGGAGGAACCTCTT

TCCCATCCCTTG CATATATAACTCCTTCTTTTCTTAGCGCCCAAGTATTTCCCTGCAT
TACCATCAACAAC TATTATCCCATCTCTCATTTCAAACCTGTGAAGTCATTAGTATTTT
CGTTAATTATAACAGTTCCACCATTAAAAACAGCCCCAGTATTTTTCCAGCATTTCCAT
5 TAACATAACCTTTCCCTTTCTCATTAAATTCAGTGGATAAATCAACATCTCCATTAA
CTACAATTGTTTTATCTTCATTTAACCTTGCTCCAACAGTATCTCTTTTATTTATCAT
TAATCTCTAAAATTCCTTTATTTTATCAAATTTATTTGGTTTTAGAAGCTTCTCTTCTT
TATATCTCTCTTCAACAACTCTGTTATGGATATAAATTTCCCTATATCTTTTATATCGC
TTTCAACTTCAATAACATTTCCCATCGGCTCTTTTATCTTATTTTTTTCATTAATATAGA
10 CGGTTCCAGACAACATGCTTATTCAAATCTTGATCGACATCTCCATCCACTATAACAG
TTCTACTTTTATCCTTTCTCCACTTCCACTAAAATATTTTAAATCAACGCCCATAGAGG
AGCAGAATCTTTTCCCTACATTTCTTTAATATAAACTACCCCTCCATTCTTTAAATGCT
CTACAAGGGTTTTAAAGGTAATATTTTCTTTTATCTCAGTTTCTGGATTGAATTTACTCT
GCCATATAAAGTTGTAGGTAAAGTCGCATAAGCAATCTACTGGTTTATCTAACTTCAATG
15 TAAAACCTTTATCTTTATTTTCATTTAAAACTCATCCAATTTCTTTTTATTGGATTTTT
TGAAGATGTTGAATAGCATAAACCCCAACAAAATTTATTTGTTCAATCTTATTTTTGTT
TTAAATTTGTTATTTAAAGTTTCTATATTTGTAAATTTAAATTTACAAATATAGTTTCAA
ATAAAAAATAAAAAAGAGAAAATAAGAATTGATTTATCTTCTTCAATAATCTGCGAGC
ATCTAAAGCTAATTTAACTTCTTCTGTTGAAGCTCCTTTGGGATATCAACTTCTTTTC
20 TGTTGGTTCTAAGTGTTTTATGTTGCATCTTCTCTCTTAACTAACCCATCAACTATAAC
GAAGTTTTTATCTAAGATATCTACGATAACACAACTTTTCTGCTTCTCTTCTGCTGT
TTTTATACAACTCTTCTACTTCAATAGCTGGCATTTACCTCACCTCATTTTTGTTGTT
GTGACTCTCGGAATCACAACCTCATCTCCATGAGGGAGGTTAAATATCGCCCCCTCGT
TTTTATTTTTTTAAGTTATCAATAGCAGAGGAGACAATATTAACACTCCCTCCACGTCC
25 CATTTTGAAGTATCAATAACTAAATCGTAAATAGATAAGTCATCTAAATCTATATTATAA
ATTTCTTTATATCTTTTTTCTCACTTGCTTCTCTTCAATCATCTTTTTTAAAGCAACG
TCTTTATCTATATTTTCTCTCTTGCTAATTTCTTTCAGCTCTGACTTCAAGGGGGCTTTA
AACCAGATTGTTAAATCTGGCTTAATTCATTTTTTAAAGCATCCATGCGGCTAATCTT
CCCTCTAATACAACATTTCCCTGCTTTGCTATCTCTACCTGTCTTCTGTCTATTTCTTCA
30 TCAATCTCTTTATGCTGTTCTGCATACTTGCTGAATTCCTGTAAATCCATTCCCCTCTCT
TTTGGCATCTCTCTAATATGAATCCTGCACATACGTGCTTAAAGTTATATTTCTCTGCT
ATCATCTTTGCAATTGTTGTAGTTCTGTCCTGCCAGCCCCCAATGGTGATTATCATC
TATTCACCCATCCAAAATGGATTTAATTAGTATAAATATTTTTTTCATTGTAATTTGATG
GCATTAATTAATAAATTTAATTAATTTAGAGGTTTCTTGCCTTCTGAATCATCAATCT
35 CTTTAAGCATCTTGGGCATAAGTAGCCTCCGTAAGGTCTCTCTGGTCTTCTCTGTGATTT
TGGTAATTTTCTTATCTCAACAGGCCTTCTCTTGGAACTCCGTGTAATTCAGCTCCACA
TATAGCACATTTTGGTTTGCTTGCTTTCTTCTTATAATGGATAACTATTCTTCTCTCC
TGGTGTCTTCTGTATATTCTCTGTATGACCTTGACCTGTATCTTGGTGCTGGCATGTT
TAACTCACCTTTTAGTATGAATTTTGATAGTATTAGAATTAGCTTCTTATTATTACAAA
40 AAATCGTAATCATAGTGTGATTTCTATAATGTTTTCTTAATTTTAAATTTACCATTA
AATTTAATATCATATACCATAAGAATTAGTATTTAAAACCTTTGGTTGGGTGAATGTAT
GTTGAAAACAAACATCTGTGGAATAGAATTTAAAAATCCTGTTTTTTAGCAAGTGGAAT
AATGGGAGAACTGGAAGTGCATTAAAAAGAATTGCTAAAGGAGGAGCTGGAGCTGTAAC
AACAAAATCTATTGGATTAAATCCAAATCCTGGACATAAAAATCCAATATTGTAGAGGT
45 TTATGGAGGATTTTTAAATGCCATGGGTTTGCCCTAATCCTGGAGTTGATGAGTATTGGA
GGAGATAGAAAAGGTTAGAGATGAGTTAAATAGGATGGATGTTAGAATTATTGGCTCAAT
CTATGGGAAAGATGAGGAAGAATTTGCTGAAGTAGCTAAGAAAATGGAGAGGTATGTAGA
TATTATTGAGCTAAACATTTTCTGCCCCATGCTAAAGGTTATGGAGCTACCATAGGGCA
AAATCCAGATTTGTCTATGATGTTTGCAAGGCAGTTAAAAAAGCTGTTAAATTTCCAGT
50 TTTTGTCTAAATTAACACCAATGTTACAGATATTATTGAGATTGCTCAGGCAGTTGTAGA
TGCTGGTGTGATGGATTAGTAGCTATAAACACAGTTAGAGGAATGGCTATAGATATTAG
AGCAAAAAAACCAATTTTAGCTAATAAATTTGGAGGCTTAAGTGGGAAAGCAATAAAGTC
AATTGGAATAAAAGTAGTTTGGGATTTGTATGAGAATTTTGTATGTGCAATTTATCGGTGT
TGGAGGAATTATGAGTGGAGAGGATGCCATTGAGTATATGATGGCTGGAGCTTCACTGT
55 TCAATAGGAAGTGGAGTTTATTATAGAGGTTATGATATATTTAAAAAGTTTGTGATGA
AATAATAAGCTTTTTAAAGAGGAAAATTTAATTTGGAAGAGATTGTTGGGATGGCTCA
TGATAAATTTTTAATATTAGTTCTTTTCAAAAAGTTGTTAAATTTATTTCCAAAATGT
TTTGTAAGAAGTATTTATTTCTTTTCTTCTTCAATTTCTATGCATTATCGCATAG
GTATCTTCTTGTATATAACCTAACTCTTCTTGTATAACCAAGTTTTCACAAATTTCCATT
60 TATATACTCTTCACTAACTCATCGGTATCTAATGAAATAACTTCTTTTTCTTCTGGTGT
TATTGATGCATACTCTATAACTATTTCCAACAACCTCTGGAGATACTCTAACTATATCGCT
CTGTGTAACATTTCCAACCACTCTCCATCTTTTCAACCTGGTAATCTTTTAAATCCCATG
AGTTGCCATAAATTTAGCTGCTTCAAGTAATTGAAGCATTTTGGAGGATTGTAATAATCTT
TTACTCATCACTTCTCAGCCAATACATCCTTTGGCTTTAAATTTTTTGAACCACTCT
CTTTACAATATCTCTTCTGTTACAATACCAATGGTTTATTGTTTTCTACAATAACAAC

-384-

AGCTCCTATATTATTTTCTGTCATTATATTGGCTATATCGTAGATTGACATATTTTTTGT
GGCTTTAATTACTGGAAAACCTCATGACTTCTGAAACAGGGATGTCACATGCGATTTTCAT
AACCCACCCTAAAAGTTTTCTAATAAAGAAAAATAAAACATTATAATGGTTTTATATAT
ATTTTATTATTTATACAATGAGGTTGTTAAGTTAACGACTTCATCCAATTGTAGAACATT
5 ATGAAGCTTTTTATCCAATAACAACCGTATCGAATTACTATTACTTGGAAATCTATTT
AAAACCTCTTTAATCTTGTGATAATAAATTCTAATCGATTCTGACTTATATCTTCGAAT
TTGGAGGGGGATAAACCACTTTTCTCAATGATAATCCGAGGTAGTATAAAAGCCCTGCTA
AGATTTTAACCTCTATCGATTCTTATTCCTTTAAAAAGCTTCTCTCTACGATTTTCTT
CTTTATACTTCTATCATGAGCCTCATAGTTTATTATTTTTTATCAATATTTAATAAAAA
10 ACTTAACCTTGACAGTTTCTGCTCTCAGGATAACATTAGATATATATACCTTTAAAAATCATAC
CTTACATTAACCTATTTTAACTTAATAATATATAATAAATTTACAGTAATAAAATTTAAA
AACTATTTTTGGTGATATTTATGACAGAAGAACAAAAAGAAAACCTTACTGGAAAAATGA
AGAGAATGCTTAGAGCTAAAGCTCATCATTAGAACCTGTTGTATGGGTTGGAAAAAGAGG
GAAGTGAAAAGGTTATTAAGAAGTAGATAGACAGTTAAAAGAGAGAGGTTTAAATAAAGG
15 TTAAGTAAGAAAAGCTGCTTTATTGTATGAAGATAAATATGAAATTGCTGAAAAGCTTG
CTAAGGCATGTGATGCAGAGGTTGTTAGTGTAGTAGGACATGTTATAACCTTATTTAGAC
CAAGAGAAGGTTGGAAGAAATATTTAGCTAAAAAACCAAGAAAAAGGTTAAAAAGGATG
AAAAGATTATGAATTATTTGAGAAGTTAAGAAGAAGGCAGTTAAAGAATAAATAATTG
AGGGAGATAATGAAAAAATTTATATCATCTTCTAATCTTTTTGTGATTTTAAATAGT
20 TTAATAGGGCAAGTATATTATTAGTTATGAGCTTATCAGGAGAAAAATGTCGATTTGTGTT
GGTGGGAAAAAATAGCCAAGGTTATTTATGCAATGAAATCTATTTTGATTATAATCAA
GGAGATGGAATCTTCCACAACAAAAAAGATGCAAGATATTATATAAATTTATTAGAT
GATTTAGAGAAGGACGATTGAGTTAAAGGGGTTTATTGGTTGTTAATCTCCCGGAGGA
GAGGTTATAGCAACTGAGAAATTAGCAAGAAAGCTTGAAGAAGTTGCAAGAAAAAGCCA
25 GTAGTTGTTTATGTTGAGGGCTTAGATGCTTCTGGTGCTTATATGGTTTCAGCCCTGCA
GATTATATAGTGGCTGAAAAGCACTCAATAGTAGGAAGTATTGGGTTAGGATGGATTTA
ATGCACTATTATGGATTGATGAAAAAGCTTGTATATAATGTAACACAAATAAAGCTGGA
AAGTATAAGGATATTGGTTCTCCATTTAGACCAATGACTAAAGAAGAAAAGGAATACCTA
30 CAAAAATGATAAATGAACATACATGGATTTTGTAAATGGGTAGCAGAGCATAGGCAT
TTGTCAATAAACTACACTTTAAAAATAGCAGATGGAAAGATATATAGTGGGGAGGATGCT
AAAAAGTTGGATTACTTGATGAAGTGGGAAGTGAAGAAGATGCTTTGAAAAAATTAGAA
CAGTTAGCTAATGCTCTCAATCCTGAGATTGTTGAATATGGCTTAGAAGAGAATAAAGGA
TTGTTGTGATTAAACATACTATTATAGTTATGGAATTGGAAGGAATTGGAGAAGTTTAA
35 TATGGAATGGAAAAGATTAAATGGAAGAGTTGAGTTATTAAGTTAATTTCTTATTAATTTT
TACCCTATATAAATGGCTATAATTGTTAGTATAATAAATATGAGAATATATAAGTAATT
ATTATACGAGGATTTCTCTTTATAGTGGTATTCTTCAACACAAACGGTCTCTTTTGGAAAT
ATCAATTAATTCACAGTTGATAACAGTTTGTGTTGTCATAAATTTCTATTGTATTATA
GTAGTTAAATATGTATAATGTATAGTTATCAATTTCTATTGAACCAGGATTTTGTGAGT
40 TACAAATTCGTTAGTGTATTATTTTATAGATAAGCCAGTGATCATTGAGTCCAAAGCCA
TACTTTAATTAAGAAAGCTGTTATTTTATAGGAATATATTTAATTAAGAAAGTAAATGCAAA
ACCAAAATCTCCATAAATCTTATGAAGGTTGTCGTTTATTGGCAGAGATTCATAACTTCC
ATTATCATAAACCTTATATAAGATAGCATCTGATGAATACGGGTGATTATATAAACACAC
TCCACCACTAACCATAATCTCTCTTTTGGATTGTAATCCATTGCTTCAAAAATATAGCA
45 TAGCCCATATTTTCATAATTCGTATAATTAATTATAGTAATGAAGAACCATTATATTT
GATTAGACATTTTATAGTCCCAATTAGGATATACTCTTTATTGGATTTTAAATTTTACA
TATTGTGATGTTTGAATGTTTCAATCATAGAACTCTTTCCATCAAATTTTATTAA
CGATTTTGACGGATAGTGAAGATTTACTTCATCTAATCCAATTAACCAACAATCTTTCCC
ATAGGCAATAGAGGAATCAAATCTGAATTTGAAATATTAGCTCTCTTCGTCAAATCAGT
50 TATATTCTTTCCATTATAAAGTAATAAACACCTTTCCACCAATTAAACAATATTTTCC
ATTATATCCTATAGATGTCAAGCCCTTGCCCTTGTATATTATCTTTTTATCTATCTTTGA
GTTGTTTATTGTAGTTTATTAAAGCACCAATATTGGATTTTTGGAAAGTCTTCTAT
AGATTTTAAGGTAATTAAGTATTGATTATCATTAAATTTTGAATATCGGTTATATAAGT
GCCTAAATACCAACAATTTGGTGTAAAATTTGCTGACTCTCCAACCTTAATCTTTTTAA
55 TTTTCCATTTTGGAGGCATAGTATTCATAGCTATAGCTATTATCTCTTGAGAAATTCAC
AATCTCAACTATCCAATGTTTATTTATCCAATCACTCTTTTAAATGCCCATCAAAGTT
ATATTTATAAATCTTTGAACGATTATTTTCATATGACAAAATATAATTACACCTATCTTT
GTATTTTGAGAATTTTCCAATATTAGGTATGATGTTCCATTAAAAATCAACATCTTCTAT
TATATTATAACAACCCATTTTATTTGGAGGTTTGGAAATATTGAGTTTGGGGATATGTC
60 TTCTCCATAAGTCCCATAAATTTTATTAACAGTTTGTCTTCTAGAGTAGTAGTTAC
AATCAACCAAAAAATTTCCGTTTGGAAATATATTTATTTTAGGAAAAGAAAAATCATCAAT
TTTTATATTTAAATATTTGTTTATATCTTCAATTGATTTGTTATTATAGATTATAAAT
CTTGGATTTTTATCTGGACAGAAAGCAGAACTAAAAAATAATCTCCATTATCATCTAT
ATCTTCAATTAAAAAATTAATCTCCCAAAATGAATAAGTTTTTGCCTCTAAAAGATA
TATATCACTGCTAACGTTGATATACTCTCATTATTTGTTATAATTAGCCATGACTCCCT

5

10

15

20

25

30

35

40

45

50

55

60

ATATTTGTCCCATTTGATTATTTCAATATTATTTAATGGCTTAGACGGCACAATTAAAAAT
GGGAATTTTCGTTTACTTAAATAGCTTACACTTATCAGATATTAGCCAGTATTTGCCATT
GTAATCTCCAAATAAATCCCAATGACTTCAATFGAGAAACATCCTTATCATAAAATATCAA
ATGTGCTTTTAAACTACCACAAAATAATAAAAAATAATAAAGAAAATTAAGATTCTTTT
CATAAAATTCACCAATTATTTATTACTCAACTTTTTCAAAGCATCTTCAGCAGCTAATGA
TAATGGCTCATGCACCATAGAACTGGTGGAGCATAGCAGAACTCCATATTTGCAAGTTC
CTCTGCACTAACTTTTTTAAATATTGCTATAGACATTGCATCTATTCTTTAGCAACTCT
CTCTCCACCAACGATTTGACATCCAACACTTTGCCATCTTCATTAAATATCATCTTTAT
CTCAATCTCTTTTCTCCTGGATAGTATCTTGCTCTTGTTAACGCCCTTAGCTCTACCAAT
AACTATTGGAATTCTCTTTAAATTGGCAGAGAATGCTGTAAACCTGTTCCTCCAATCTC
TAAATCTCCTATTTTGCTAACAGCAGAGTTTAAACTGGATAGAACTTTGCTTCAACTCC
AGCTATATTTTTTACCAGCAACTTTTCTTGCTTACAGCAGCAGTTCCAAATGGAGATAG
TGTCTTCTCTCCAGTTATAAAGTCAATAACTTCAACACAATCTCCAAGTGCATAGATGTT
TGGTATAGAGGTTTGCATCTCTCATTTACTTCTATTGCAAAATTTTCCAATTTTACAGCC
AGCTTTTTTTAGCCAACTCAATATTTGGCCTTACACCACTAGCCATAATAACCATATCAAC
ATCATACAACTTACCATCAACATAAACTGCTTCAACCTTCTCTTTTCCAACAATCTTTTC
CAATGGTTTTGATAGCATAACCTTAATTCCTTCTTTTTCTAAATATTTTGAACATCTC
AGCCATATCTGGGTCTAAGAATCTTGTAACACTTGAGGAGCCATCTCAACAACCTAAGAC
ATCTAAACCTCTACATTTTAAACCATAAGCCATCTCCAAGCCAATAGCTCCAGCTCCAAC
AACAGCAACTTTTTTACAGCCATTTTCTTCAATGTATTTAATATAGCCCTACCATCCTC
AATAGTTCTAACTTTAAATACTCCATCTAAGTCTTTTCTTCAATTGGAGGGATAAATGG
CTCTGCTCCAGTTGCTAAACTAAGTAATCATAATTCATCTCAAACCTCATTTCCATCTTT
ATCTACACACTTTATTTTGTATTTTTTGAATCAACATCTATAACGGTAGTTTCACTTAA
TATATCGATGTTCTCTCTCTTTTGTAACTCTCTGGAGTGTGCATAAATATGTCATCAA
GCTCTTTATGCTCCCTCAATAACATAGGGAATTGCACATGGAGAATAAGCTATTTCTCT
TTCTTTTGTATTACTACTATTTCCATATCTTTGTTGTATTTTCTGATTGTTGATGCTGT
TGTTAAACCAGCAGCTCCACTTCTATTTATTTGCTCTCATTTTCTCACCATTTTTTATT
GGGGTTATTTGGTTTTCTATTAACCAAAATTTTTTTATCCTTTTTGATGATCATGATTT
TGACACAAAAATGAACCTTAAACCAAAAGTTTTTATAGAACCTTCTAACTAATAAATAATT
GTGAAATAAATTTCTAATATATTACTTAAAAATAACTTAAAAATAGAATAAGATTATTA
TAATAAAGAGGGGATAGTATGGTAAATGAAGTCATAGACATAAATGAAGCAGTTAGAGC
ATACATAGCTCAAATTGAAGTTTGAGAGCTGAAATTGGAAGATTAGACGCAACAATAGC
AACATTGAGACAGTCATTAGCAACATTAAGAGCTTAAAAACATTGGGAGAGGGGAAAAAC
TGTCTTAGTTCTGTTGGAAGTATTGCTCAAGTAGAGATGAAAGTTGAAAAGATGGATAA
CGTTGTTGTTTTCAGTTGGACAGAATATTTAGCTGAGTTAGAGTATGAGGAGGCATTGAA
ATACATTGAAGATGAAATTAAAAAGCTATTGACATTCAGATTAGTCTTAGAGCAAGCAAT
TGCCGAATTGTATGCAAAAAATAGAGGATTTAATTGCAAGAGCTCAACAAACATCTGAAGA
AGAAAAAGCAGAAGAGGAAGAAAAATGAAGAAAAAGCTGAATAATGAGTTTCAAGAAATGA
TTGACTTCTTGAAATCTCTTCCAGAGGGGAGGAGATATATTGAGATGCTGCGCATCT
GGATAGAGGTTACTAAGGAAGAGGCAATAAATTACTTAAAAAGTAAAAATTACGAAAAAG
AAGCTTAATTAACCTAATTATATTATTTATTTTTTTATTTTTTATTTTAAATT
CATCTATACTCTTACAAACACAAACTCGCACAGGAATATTCATTAAAGCTGTTATTTTT
TTACTGGGCAATAATAGTTATTGCTTTTTTTTAAATGATTTTTTACATTTCCAGGAAATGTTA
AATATTCTGGATGCAATGGCTTTTTAGCAATAAATGCCAAGTATGGGCAGAGAAATTTTG
AAAGGTTTATAAATCTCTCTTCACTGCTGTATAAATTTCTTAAACCTTCAATCTAT
TGAGCATCTCATTTAATTTTTCTTCACTCAATTTCTTCACTTGAATCTCATCAACGCTTT
TTTTTCTAATCTCGTTAAATGTTTCAATTAAATACTTCACTCATCGCCTCAACATAATGGT
TTTTGTATTGTGGAGGAGATATTAGCATCTTTTTCAATAAACTTCTAATCATCATT
TATCGTATATGCTAAATATTAAAGCTTTTTTTAATTTTTCAAATAAATCCCTTGCTT
TCATAATCTCACAATTAGAATGCTTTCTCTATCATAAAGCATAAAAATGCCACAGCTAAA
GCTCCAGCAACCATCTTTATTCCTGAAATTATTACATTTTCTTAGAAATCTTTCTTATA
AACACTCCCAATATGAATAATATCGCTATAGTTATACCTATGGCAACATATAAGCTGTT
TTTATATCAAATAAAAGAAAGGCACTACTGGAAGAGCTGAACCAATAGTTGTTGATATT
CCATCAATAAGCCACAAATCATCGTCTCTCTAATAGCCTTTTGTAAATTATTGACTTC
TTTAAATAACCGTTCTTCTTAAACAAGCTCTTTCTTTTTGTATCCTCTCCCTCTCCAA
GATGCTTTCTCTGAGTGAAGCTCCAAGAATATTAGATAAACCGTTAGCTATCCCTCCT
CCAAGCCAGCAGCTATAATTACTGATGCATCTGCTGAGCCACTCGCTCCAATAACAAC
CCAAGAGCTGATAAAGAACCATCGATGAGACCTCTAACTATGATCTCGTCCAGATTCT
CCATTTATTGTTTATAATAGATTTTCAACTACGTGGAATTCTCAACACTTATCACCTT
AATTTTTATTATTCTAATTTATTCTAAATTTAAACATCTCTTAAATCCTGCCCTCTTA
GAATCTTTTCTAATTTTCTTTCTTTCTTTTATATTTTTTAGCATTTTCAATAATCT
CTGGAAGAGATTCTTTTTTATAACTACCCTCCATTGCAGTCTCCACAAATAATATCTC
CTGGTTCAACTATCACACCACAACAATTCAGTCTACATTTATCTCTCCAAGATTTAAG
GTTTCCCTGCATTAGGGCAGAAATTTTTGCAAAAACCTGGGAACCTTAAAGCTTTTATAT

-386-

CTTCAACATCCCTAACACATCCATCTATAACAACCTCCTCTAACTCCCTTAATTTTGGCAT
TTAGAGAGGCTAAGCCTCCCCATACTGCTGTCTCATATTTTCCTTCGCCAACACCTCAG
CAACGATAAATTTATTTTGGCAAAGCTTATTGTCTTAATTAAAGTTCCCAATCGTTAT
5 AGCTTATCTTTACAGTTATAGCCTCACCAAAAACAAGCTTTTGATTCTCTAAAATTGGTT
TAATGCCATTTAAAGGCTTAGCTCCAGCATCACATAAATTGGGAAGTGAATAATTTT
AGATATTCATAGCCCTCCCTACAATAATTTTAAATAGGACTTTCACAGTTTGTAGGTTTT
AATAAGGTAAGTATGAGCTAAAGGCATCAATTTCTTTATAAATTTTATTCTGTGAAA
GTCTATTTTACGCAACCTCCTTAGCCCAATATGTTATAATAAATCAGCTCCAGCCCTTT
10 TTATACTTAACAGTATTTTATAAATTAATTTTCTCTATCTAACCATCCATTTCTTGCTG
CTGCTTCAACCATTGCATACTCTCCGCTAAGCAGTATCCACCAATAGGCACATCAAACC
TGTCTTAGCCATCTCTTATTATATCCAAATAAGGCAAAGCTGGCTTAACCAAAATTAAT
CAGCACCCCTCCTCTATATCCAAATGCAATTTCTTTAAAGCCTCTCTTGCGTTTCTTATG
CCATCTGATAACTCTTCTATCTCCAAATTTAGGGGCACTTTCAGCCGCTTCTCTAAACG
15 GGCCGTAAAATGATGAGGCATATTTAGCTGAGTAAGTCAATTATAGCAACATCATCATATC
CATTTTCTTCTAAAATCTCCCTTATAGCCCTAACTCTTCCATCCATCATGTCTGAAGGAG
CGACAATATCAACACCAGCATCTGCATAGGATAAAGCTATCTTTGCCAATATTGGGAGTG
TGGCATCGTTTCAAATCTTCCATCTTAACTATTCCACAGTGTCCATGGCTTGTGTATT
CGCATAAACAATCGGCAATAACTAAAAGCTCATCCCTAACTCTCTTTAATTTCCCT
20 TTATAGTTCTTTGAACAACCTCCATTTTATCGTAGGCAGAGCTTGCTATCTCATCTTAT
GCTTTGGAATACCAATAATATTACAGCTGGAATGCCTAAATCAGCTATTTCTTTTGCTT
CTTCTATAGCCCTTCCACACTAAACCTATACTGATTAGGCATTGAGCTAATCTCCTTCT
TCTCATTTCCCTTTTAAATTTTCTATCTACAAAATTTGGCATAATTAGTCATTTTGTGTTA
ATATAGTTTCTCTAACTAATCTCTAATTTTGGTTTTTCTTAATCTTCTTGGCCTTA
25 TCAGCATAAAATCACCAAAATTTATTTTAAACAACCTTTATAAAGTATTTTAAATCATT
TCTCCATTTTGATAAATTTTGGGTGAGTAATTTTCACATATTTCTCCATAACTTCAGAG
CACTTTAGTGTTTTCAAATTTTAGGTAATCTTTGGTTGTTATATAAATCTCTTATTTT
TACGCTCTAACTTTAAAAAATGAGGATTGTTTTTAAACAATCTTTTATGTCAATATCC
TCTCCATTGTGTCTAATATACACACATCAGCATATTTGCTCTGCTGTTAAATATTTTT
30 CTATCAATATAGTGATAGTTAGTCCCTTCAACATTTTCAAATAGGTAATTGCCTTTTATT
TCCCTAATCCAATTGGGAATATAGTGGGATTTCCATAGATGTATGGTTGGTTTTATGA
TAGCCAAAAATGCCACAACCTGGTTATATTTTATGCTTCTACTATTTAAAGATTTTAA
ATCCTTTCTTTTCTCAATTTATCTTGTAAATACCTTCTCAGCTTTTATATTTATTG
TAAATGAGGCGTAAACTTTATCCACTCCATTTTCCCAAAACTTTGGTTCTTTGTAG
35 TTTCCAGTTTTTGTGTAGGGAATGTTATTTTATCCAACCCTTAGATAATGGATTGAAT
ATATTCCAATCAATTAATAATATCATGTCCGGATTTATATTTAAGATTTCTCCATAGTTT
ATTTTCCATCTGTTCCAACATTTGATATTTTCCCTTTAAATATCACTGTATAGAGGA
TAATATTTTTTAAACACAAAATCAGCCCCAAAAACCTCTTAATGCTTTTAAATCATCTTT
TTAATCTTTAAGAGATATGCAGTGTCTATAAACATAGAATCTGAAACAATAACATTTTT
40 AATGGTTTTTTGAAAGTTTATGTTATTTTATTTTTCAGCATCAATTATTGAATTTATTA
TTGAAGTGTAAGGCATACCTTTATTTGCCGACTATAGTATTTGTAAAAATTTAATGCCATA
GTTATCACATCAGTTATTAATAAATTAATAATTATTTAAGATTTCTTTATATTTATT
CTTTCTGCAAAAACCTTAAAAACTTTAAATGATAATTAGGAAATATCTAAGAAAAGTTT
CTACAAATGACGATAATCTATTAATAAATCTTAAAAACATAAAAACTTTAGAGGGATGATT
45 ATGTTTTTGACGTTGGATGACTTTAATTTGAAGATAAGAGGGTAGTTTTGAGAGTAGAT
ATAAATCTGCAATAGACCCAAACACTGGAGAGATTTAGATGATAAGAGGATTAGAGAA
ATAAAAAAGCACAAATTACAGAGCTTATAAACAAAGGTGCTAAGGTTGTTATCTTAGCTCAC
CAAAGTAGGCCAGGGAAGAAAGATTTTACTACATTAATAAACCATGCAAAGGTTTTATCA
GATGTTATTGGTAAAGAAGTAGAGTATATTGATGAAGTTATAGGCTCTACAGCAAGAGAG
50 GCAATAATCAATATGAAATGTGGAGATGTCAATTTATTGGAGAATGTTAGGTTTTATTCT
GAGGAGGTTTTAAGTGATTGGAAAAAATGGGAAAAATATAACTCCAAAAAACAGGCAGAG
ACAAATTTAATTAAAGATTAGCCCCATTATTTGACTATTTTGTAAATGATGCCTTTGCA
GCTGCACACAGGGCTCAGCCATCATTTAGTTGGTTTCTCTTACTATATGCCAATGATTGCT
GGAAGATTGATGGAGAGAGAGGTTGGGGTTTTATCAAAGGTTTTAGAAAAATCCAGAAAAG
55 CCCTGTGTTTTATGTTTTGGGAGGAGCTAAGGCAGATGATTCAATAAGAGTTATGAAAAAC
GTCTTAGAAAAATGGAACGTCTGATAAGGTTTTAACTTCAGGAATTGTTGCTAACATCTTC
CTTGATAGCTATGGGATATGATTTAGGCGTAAATATGGATATTTTGAATACTTTGGATTA
AAAAGCCAAATAGAGATTGCTAAAGAGTTGTTAAATAAATTTGAAGATAAAATCGTTGTC
CCTGTTGATGTAGCCCTAAATATTAATGAAGAGAGGTTGAAGCTGATTTAAATAAGGAT
60 GAAAAAGTAGAACATTTAATTAATGATTTGGGGAGAAAACTATCGAACTTTACAGTGAA
ATAATTAATGAAGCAAAAACCATTTGTTGCCAATGGTCCAGCGGAGTGTTTGAAGAAGAG
GCATTTGCAAAAGGAACCTGAAGAGCTGTTGAAGCGATAGCTAACTCAAAAGGGTTTTCA
GTTATTGGAGGAGGGCATTTATCTGCAGCTGCTGAATTTTGGAAATTGCTGATAAGATT
GACCATGTTAGTACGGGAGGTGGAGCAACCTTAGATTTCTTAGCTGGAGAAAAATGGCA
GTAATAGAGATGCTTAAGGAATCATATAAGAAATATAAGGGACAATAAATAGTAATTA

5

10

15

20

25

30

35

40

45

50

55

60

TTTAATTTTAAATTTTAATATTCTACTAGTTTTTCTATTGTTGAGTTTAAATTGGAAT
ATGTGAAATAAGAACAATCGAAAGTTTTAAAGAAATGGTATTAATAATTAAGACG
ATATTACCAAAAAGAAAGGGGATTCTATGAATTTAAAAAAGTGGTTAATGAAATAAGAA
ACTTTGAGGGCATTTTAAGGAAGATAGCTATTAAAGATGTTGTTGAAACGTTTGTATTTA
ATGATGAGGATTATGAATTTGATATTATAGTAGATTTTGGTGATGATGCTGCTGTTATAG
GGATAGATGGAGATAATGCTATTTTATTAGCCGCTGATGGAATTTGGGGAAGCTTTTAG
AGGCAGACCCATGGTGGGCAGGTATTGCTCTGCTTAGTTAATTGTAAAGACATAGCGG
CAATGGGAGGAAAATGTGTAGGGATGACTAATAATAAGTATAAAAGATAAAGATATTT
GCAGAGAGGTTTTTAAAGGAGTTAAAGATGGTGTGAAAAAATTTGGAGTGCCAATGGTTG
GAGGGCATACACATCCAGATGCTATGTGCAATGTTTATAGATGTTTCTATAACTGGCATTG
CTAAAAAGGATTGTATATTGAGAAGTGATAATGCAAAAATTTGGAGATAAGATTATCTTTG
CCTATGATTTTAGTTGGGCAGATTTATAAATCATTTCATTAAATTGGGATACAAACAA
TGAAATCAAAGAAATTAGTTAGAGCCAGATGGATGCTTTAGTTCAAATTCAGAGAGAATA
AATTGGCTAACTCATGCAAAGATATCAGTAATCCAGGGGCTATTGGAACCTTTGGGGATGT
TATTAGAGGTTTCAAGGAAAGGAGGAGTTGTTGATATAACAAAAATTCCAAACCCAGAAG
AGATTGATTTAATCCACTGGCTTAAAGTTTATCCGGGTAGTGGATATGTTTTAACTGCAA
AAGAAGAGAATTTAAAGAGATTAAAGATATTTTGAAGATGTTGAGATGACTGCAGAGA
TATGTGGTGAGGTTATAGCTGAAAAGAAATTTGATATTACGGATGGTGAAAATAAAGAAG
TTGTTTTGATTTTGAAGAGAGTTTATTGTTGTTGTTAATTTTTAATATAATTTTTAA
TGGTGAAACTATGAAATTAGCTGTAGATGCTGTTTTTTATGTAAGAGAAGGATTTAACTT
TGAAAAAGCATTTAAAGAAGTTTTAAAAATTTTAGGAGAGGATGTTAAATCTTATCTGT
TGAATATCCAGAGCTGGCTTTAATTTCAAGAGAACGGCTATTATTACAGATGCGGATTTAT
GCTTGATAAAGAGTTAAGAGAAGAAATTAAGTGGAGAGGAGATTAATAAATCAAAGAAAA
AATTAATAAGCTGTTTGGAGATGAGATAATATATACACTGACATGTGAGATACTATGAAG
GAGGTTAAAGATTTTATGATAAGTGGGAGCCAGAAGATTTCCCAACTATATAAAACTT
CTTATGAATTTTGTGATGAGCTGATTTTGAAGAAATCTCTTATTGTTAAAAAAATTT
GAAAATAAAAAGGATTTTTTGGTTTTAGATTGTGGGTGTGGCTTTGGAGCTTTTTATAAT
TTAACAAAAGACTTCAACACTATATATTTGGATATATCATTAAATTTGCTCAAAAGATTT
AAACTCAAAGAGAGAGAAAGATTTGTGCTAATATCTTACATTTGCCTTTTAAAGATAACACG
TTTGATTTAGTTTTATGTATAAATGTTTTAGAGCATGTAAATTATTTAAAGCTTTAAAT
GAAATAAGGAGGATTTTAAAAATAAAGGAAAATTAATAGTTGTTGTTGTTAAATAAGAT
AGTTTAATTAAGAGAAATTTTTAATGATTTCAAATCTTCCATAAACCATTTATCTATT
AAAGATTTTGAATAGATGGTTTTAAATTTGTTTATCAAACCTCAGTATATTTCCCTACCT
TCAATTTTTAAGATATCTCCACCAATAATTTTATCAAAAATCATAGAATATTGGAAGCCA
GTGGATAAAAACCTCTCAAAAATTTTTAAAAATAAAGGGCAGTTTTTAAATTATTGAGATG
GTGAAAGAAATGAATAAAGCAGTTATTTATACATTACCAAAAGGAACGTATAGTGAAAAAG
CTACAAAGAAAATTTTAGACTACATTGATGGAGATTATAAAATAGATTATTGCAATTCCA
TATATGATGTGTTTGAAGAGTAGATAACAATGGCTTAGGAGTTGTTCCAATAGAAAACCT
CTATTGAAGGTTCTGTATCTTTAACTCAAGATTTATTATTGCAATTTAAAGATATTAATA
TATTAGGAGAGTTAGCTTTGGATATACACCACAATTTAATTGGTTATGATAAAAAATAAGA
TAAAGACAGTTATTTCTCATCCGCAGGCATTAGCTCAATGTAGAAATTATATAAAAAAGC
ACGGTTGGGATGTTAAGCAGTGGAAGCACAGCTAAGGCTGTGAAAATTTGTTGCTGAAA
GTAAAGATGAAACTTTAGGAGCTATTGGCTCAAAGGAATCTGCAGAACATTATAATTTAA
AAATATTGGATGAAAATATTGAAGATTATAAAAAATAAAGACAAGGTTTATTTTAATTG
GTAAAAAAGTTAAATTTAATATCATCAAAAATTTATAAAGTTTCAATTGTTTTTGGAGT
TAAAGAAGATAAACCTGGAGCTTTATATCATATTTTAAAGGAGTTTGTGTAAGAAAATA
TAAATTTAACAAGGATTGAGTCAAGACCTTCAAAAAGAGGTTGGGAACCTTACATATTTT
ACATTGACTTTGAAAATAAAGGAAAAGTTAGAAGAAATTTTAAATCTTTGGAGAGGC
ATACAACATTTTCAATCTTTTAGGAAAATACCCAGTTTTTGATTAATTTATTTTTTGT
CTTTGTTTTTATGACCTGAACCTTTTATAAAATATGTCAGTTGATGGATGAACCTCCATG
AAGTTGTTATAAACATCTATCCCCCTAATTAACCTGAGTGAAGTATGGAAGAATTTTCAGCA
CAAGGCATCATGGTTATAGCTCCAACAATTTTCCATCTTCATAATAGATTTTATTTATC
CCAACACCACTCAAACTTTAAAGAAATTCCTCTCCCTACACAGCTTCTTATTGTTTTA
TAATTATTGTCGCTTCCCTACATAAGATATAGTTAAAGACAGCCTTATAGTCTTTGGA
ATTAATTCATAATTTGGTTTTATTAGAGGCTTATTGTTTTATTTCATTGTAGATATTTTGG
GCTACCACTCTCCCCCTCCATCTTGATATTGGAGTATTTCTCCACCGTTGATTAAACAA
TCTCCACATGCATAAACTTTCTCTTCATTTAAAAACCTCAAGTAATCATCTGTCTTAAAT
CTGCCATTTCCACCAATGGCTAAGATTTTGTATAACTTTTCATCCTTTAACAGATTTTCA
AGCTCTTCTTTGTCAATTGATTATTTTAAAGTTTATAACTTTCTTCATTAAGTAATCTCTA
ATTTCTCATCTTAATCTCTTTCAAATCTTAGACCTTGTGTATAGAACAACATTACAG
CCAAAGTCAGAAAATATTGAAGCATATTCGGTAGCTACAACCTCCACCAATAATTAAG
ATATTTTCTGGCAGTTCTCTTAAATTTGGTATATCTTTGTGAGTTAAACCTCATATCCA
TTATAATTGGAAGGATAATTTCTTCCAGTTGCATAGATGATGAATCATAATCGTTCTTA
TGCTTATTCTTAACTCTTTGTATTTTATATTACTCCAAGTTCTTTTGTCTTTTTCT

-388-

AATTTATTCCTAATTCTATCCTGAATTTTATTTATTTTTCTCGCAACTCTTTAAATGAA
ATTATTTTCTCTAAATGAACCTTCTCTCTTTTTAAATACTTAAATTATTAATAATATCT
GCCATTTCTCTTAATCCAGTTATATATGTGCATCCATAGTTTAAACAAGTTCTCTCCAAC
5 CTATCTTTTTCAAATAAATCAACATCAAAGCCATTTTTGCCAAAAACATAGCCGATGTT
CTTCCTGCAGGACCTGCTCCAACAACAGCTATCTTAAATGTCATACTTTCACCAAATAAC
AAAATTAATAAATTTGGTTTAAATGTTATTGAATATAAAGTTAATGGTTAATAACAATTACAA
TTAAATTTTTTAATCAAATAAAAAATAAGAACAACAATAACAATTGAAATAAAACCA
TGCAAAACCTTATCTAAACCTTTCGATACCATTGCAATAAGCTATTTTTCTGCAAAATG
10 AGAATAACTTTCTCTTAAAAAGAAAATAAAAAAGAAAATAGATATTATTTAAAAAATTTTA
ATTAGATTTTAAGTTCATCTTCAGGACCTTCTACTGTTACAATTAAATACTGTCCATCCA
ATTTTATATCTGCAGTAATTCCTTTTTCTCCATTTCTCTTTATCTCTATCTTTTTCTT
TTAATAACTCTTCATATTTTTCTTTTGCAGTCTCTTCATCCTTGATTTTTTCAACTCTAA
CAACTTTAACTCTGTCGTTATTTCAAATGATATTGACATTCCTTCTGCCACTGTTTTAT
15 ACCATGGGCTGTAAGTGCCACTAACTTCATAAACACAAGCATCTGATGGAAGTCTATCAT
ATATTTCCATAACTTCTCTATTTTTCAATAAAGAATCCATCTCTCCATTAATTACATTTA
TGCAGTCATAAACCTCCCTGCTTAGTCCCTGCAATTATCATATCCTTATAAAATGTTAATG
CAATTTTATCATCGTTAGGTTTTGTATATATCTTAAATCCTCCATACTCTTCTACTGGAT
TTACCCCAATTTCTTGAGATGATTTTTAAACTTATCAAAGTCATAATCTCTCTCAATAA
20 TAATAACGAACCTATCATAAACCCTGCCTGAAAAAATCATCCTTTAGTTTTGTGTGATAT
ATATCCCTGCTTTTCAACGTTTGCATTTCCCAATCTTAAAGCATTCAAATTTTTGAAC
GGTACTCTGATGAATATTTGCTATCTTCAATATTTTTAAATTCACATATACAAAGCCAT
TATAATCAACTGGTAACATTTTGATTAATTCATCCGCCCTCACTTTTACTGTCATTTAAAC
ATCCACACAATGAAGTTCCTATAATTAGGGCTAATAAAATAGCCAATATTCTTACTATTC
25 TCATAAAATTTACCTCCCCCTAACAGGTTATCATTAGTTATAACCCACTGCTTTTTCTA
TCTCTTCATATTATCACCTCCATTTGTGAAGCCCCACAAATTTGCGATTCTAATATATAA
ACTTTTCGTCATAAATTTATTTAACTATATAAATACAATAATATAAATAAAAAAGAGTG
CGCAATTGATAAAAAATTAGATAAAATAAATTAGAATAAAAAAAGTAGAAAGTTTAATAAT
AATACCATATTGTTTTATCTCCTCAATGTTTTCTCCAATCTCTTTAACTGTCTAAGT
30 ATTCCTTAATTGGAACATCTTCATATGTGTAGAGTTTAGTTGGATATATCCCTTCTCCC
ATGGATGCATTAATAAACCCTACTTCCATTTGGCTTTATAGCTATTAACCTCTCTATCCT
GCCATGCTCTCAAGTGATTTTTCCCCATTCTTGGGACGTTGAATATTGGCTCATCTGTTT
TAAATGAACCTTGAAGCAATCTTGCTTCCCTCTTAACTTCTCGAGCTAATCTTGCTATTG
GAACCAAGTAATCTTTATGTTCCATCTTCCCTTTTGGATAAAAAAGTATAGTAAGGAATAA
35 TTCCAACCTTCTTTAAAGCAATCTTAAAGCTACGTTTTCAAATCTCTACTTACATATC
TGTGGAATACATGTTGATTATAGATGTAGATATTATTGTTCTCAACTTTTTAACAGCCT
CAGCAACTTCTGGAGTTATCTCATAACAACCTCTCTACATGTGTTGAAATCATCAAACCT
TTTCAAACCTTCTTAATAACTCAGCTAATTCATCCGTTATTCTCATTGGGGCAGTTACTA
TTGTTCTTGTTCCAAATCTAACTCCTACAACGTGGTTCATCTCAGCTATTCTATTAGCA
40 TTTTTTCGATAGCTTTATCGCTTAAGCTGAATGGGTCTCCTCCTGTAATTAAGATTCAA
TCATTGAATCGTGTTCAGCAAACCAATCTAAAGCTTTCTCAACCTTCTCCCATCTGGGA
ACGCCTTAGCATCAAATCTTGCACCATCCAGTTTCTTTGACAATAGACACAAATCTGTG
GGCAGGATTCTAAGGCTTAATGATTGCTATAGTTACATATCTCCTTGTACTAAATCTA
TTGGAGAAGTGCATGCTCTCCCATGAAGTCAAATGCTATGTTCCATCTCTCTTTATGCT
45 CAATCATCTTTTCAACATACCCTCTGGTGGAAATAACCTGCCTTCTAACTGCCAAATCCT
CAACGTAAAGGTTTTCAAAGTCAAATAAGTGGAGATAATAAGGGTTAATCCAAATCGTA
TGCCATTCTTTACAGCTTTTTCAATAATCTCTAAATCTTCATCTGATATTTTAAAGTTTG
TCACCTCTCTTAACTCTCTCAATATCTTAAAGCCTTTTAAACCTCTCAATACATTCTTAA
ATTGCCATTTGTAATTAACCACTCTTCGTCAGTTATCCAAAAAATTCCTCTAAATCT
50 CTCTATTCTTTTTCTCTTTAAGATAATTCTCTTATCTAACCACCTTGGATATCTGCTTA
TATACTCCCTCATAATTTCTATAAACCTTGTCTAAGAAATTAGACCTCGCTATCCCTGCCT
CTCTACCTTTTTATTTTGTGAAATCAATAAATTTAACTCCTTCTTCTAATAATCTCTTCC
CTAAAAACCCTAATGAATAATCTGCCTTTCCAGACATTGCTAAGAAATAAATGTCTAAAT
CTTCAATAAACCCCTCCCTAATTTCTTTTAAAGCCTCTTCATCTCCCTTATATGCTTTCC
55 ATAAATATTCTAATGTGCTGAAACCTGCCAATCTCTCATTATCTTTGGATATTATGTTTA
AAAATACCTCAATTGCCTTTAAAGCCAACCATCTATCAACTTCATTATCAAACCTTATTC
TTCCCATCTAATTTCCCACTCTAATTCCTTTACAAAATTCAAATAATTTCTCTCTCGCTT
CTTCTACACTCTCACTCTCTTCCAAAATTTCTCCAATCTCTGGAAGTGGAGAAATATGT
CCAAAAATGTTTATAACTAATGGTTTCATACTCAGTCATGGATTTTATTGTCATAAAT
CACCTCTACACCATTTAATTTAAATAATTTGATATTCTATTAAACGACCTCCAAACATCTT
60 CATAAATTTTTTTGTTAGAATTTTCATCGAAAATTACATCAAATCTTTAAATAAAAAATAG
GAAAAATTCCTTTAGCTAAAACTTAGAGCTTTTAAAAATTAGCATTCTCTCATATCAAT
AATGTTGATAATCATATAAAAAATTTTTTTATTATTGAGATTGTTAATAAGACCATTTCT
TATTTTTATGTTGATTAGATAAAGATTTTATGAGAAATATACGATTAAGAAAAGAAAAC
AAAATATTTCAAAGTAAAAGCTAAATATTTATTATAAAGAATAAATATTTTTATTCAAG

5 ATAAATAGCTGGTTTAAATGGAATGGCTACTCTCTTTTTATTAGCCTTATCTTCTCCATT
AATTATAATATCCTCAACACCAACCTCTTTCTTTAAGAAGCTTTTGGCATTCTTCTAAAAC
CTCAACCTCATTAAATATCTCTGCATTAAGTTTTTATTAAATGATTAACCTAATTTGGAAT
10 TTCCTTACCATACTTTCTAAATCTGGATTCTTTCATAATGATTGGCATTAAATCTTTAAT
AGTCTTCCCTTCATTTCTTTAATAATCTTCAATATCTCGTATTTCCAATCATCTGCAGT
ATATAAGTAGATTCTCTTTGGCTGAACCTTAGCAACGTTTATAATCTCTTTGATATCCTC
CATAACTGCTTTTAAATACTCCTCTCCCTTCTCAATCTCATCATTTATAAACTCCTCTTT
AACCTCTGGGAATTTTGCTAATGAAACAAAGCCCTCTTTTCTAAAATCTCCACATCTC
15 TTCACATAAATGTGGTGTAAATGGCATCATCAGCTTTATTATAACCTCTAAAACCTCCTC
TAAAACCTCTTATATTATTTCTCTCTTTCTTCTATACCATTTTAAGTCATCCAACAACTG
ATAGAGCAAATTCAGCTTTTCTTAGCTCAAAGTTTCCATATATTTCATCTACTCTGTT
AACGGCTTTTATACAATCTACTCAATAACCATTTTATCAATATAGCTGAATCTTCTCTGT
TTCTCTCTTCTCTCAGCAATCTCTTTTGCAAATAAATAACAACCTCTCTAAAACCTTTTT
20 GGTATTTTCCATTTCTTTAAACTTGATATCGGCATCTTGTGGTAGTTTACGACAGGTTGT
TATATAGAATCTACCAACGTCAGCTCCAAATTTCTCAGCAACTTCTAAAACCTGGCAATAC
AGGACCTTTTGACTTAGATAACTTTTTCCCTTCAATTGTAACATAACCATTAACCTACTAT
CCCTCTTGGCCAAAACCTCTTCTGGGAATATTGCAACGTGGTTAAAGATATAGAATGTTAA
ATGGTTTGGAAATCAAATCCTTAGCTGAACATCTCCAATCAACTGGATAGTAGATAGATAA
25 TTCTTTTCTCATACCTTCAATAATATCCTTTGGAATTCCTGTCTCTTTAGCAATTTTATC
AACATCCCTTTTCTAAGAACACATAAATAAATCAACTCTAAAGTCAATGCTCTGGCTT
TATATTATGCTGATTGATATATTTTGCTACTGTGTAGTATGCTGGATAAATGTTGAATC
AGATAGAGATTCAATAACCCATCCCTCTTCAAATGGGAACCTTGTCTTAAACCTCTTCT
TCTAACACATGCTTGTCTTCTCATCCAATCAATCTTCTCATGGAATACCTGCCTTAAAT
30 CTCTGGGATGAATCTCATCTTATCTATACATTTGTGAGCTAATCTTTCCACTTCTCATC
TGAATATTTGATGAACCATTTGCTTTAACCATCTTAACTATACATGGGGTTCCACATCT
ACAGATAACCTTTTCTTCACTAAATTCATACATAATTTCTGCCAAACCTTTATCAATTAA
ATCCTTTGTTAATTTGCTTTAATCTCTCTAAGTGAATTCCTTCATAATCTAAGCAGTT
TTCATTTAAAACCTCCCTTGTGGAATTCATCTTTATAGATTTTTTTAGTTGCTTCTCTAA
35 CTTATCCTCTTCTTCTGACTTTTAAATACCCATCTTTTCAACAATTTCTTTGCAAGATA
TTTTCCATAACCAGGGACGTTTAAATTAATGGAATTAACCAATTTTCATCAACTAATCCTAA
ATCCCTTAACGCTATGTAGTCGTAAGGTGCATGTGCTGGAACGTGACATGACATCCAGT
TCCAATATTTGTTTTTACAACTTAGCTGGCAATATTGGAACCTCTTTTCTGTCAACCG
GTTTTTTACTTTTTTATTAAGCTGTTCTCTTTAAATCTTCAATAATCTCTATCTT
40 TCTATCTTGGTGTTTAATTTTTTACGACACTCCTTTGCCATTATCCATATGCCATTCTC
AATTAATCAATCCATTTTCAAGTTTCTTCTCTAAATAGACCTTTGCCCTTTACATAAGT
TGCTTCAGGATTAAACCAACGTTTGTAACTCCAAAGACAGTTTCTGGCCTTAAAGTAGC
CATTGGCATTATACAGCCATCTTCTGTTGTGAATTTTATTAAGATGTATTCAACTAAAGT
TGCGTTTTCTCCAATAATATGTGCTGGTCTTCTACAGGGTTGTGCGATCTTGGACAGTA
45 TCTAACTGGGTGAGAACCTTTAACAATTAACCCCTTCTCTTTAATTTGTGGAACGTGCA
TTCTATAAATTTGTAAAACTTTATCATCCGTTTTAAAGTTTCTTCTCAATCTAAGCT
AAATCCCATCTTTTAAATGCTTCTTCAAGCTTTCTTTGAGAAATATTCAACAATTTTCTC
TGGTGTGTTAGTTCTAATAACTCTTCTTTGGTATTCATGTAATTCAGTATATGCCCA
AATTGTCTTTTCTATCTATTTTTTATTAATTCAGCTAAACCTAAGATTGGTGTCTCTGT
50 AACATGATAACCAAAAGTCCATAAAACGTTTTTATTTTTTCAATCTTTGGAATCTTGCAAC
AACCTCTGGGATAGTGAAAGTTCTTAAATGTCCAGCATGCAAACTCCATTTAAATATGG
AATGCCGCGAGTTATAAAAAATTTCTCTATCATCTGGATTTGCTTCAAATATCTTTGC
CTCTTCCCATCTTTTTTGGCACTTCTTTCAATCTCTTTAAAGTCAATCATAACCATCAC
ATCCTTTCATTTTAAATGTTCAATACTTAGTTTTTACAAAACATTACATTATTAAATAA
55 TTAAGGTATATTAAATAAGGCGTTTAAACTCCATTTATTAATTTAACCTTTTGCAAAGG
ACTATAACTACAAAGTTCTACAATATTCTTTTTATAGCGTTCCACACTAAAAAACTCTGC
GGTTTTAAAGTTCTTTCGATTGGATTAAAGAATAAGATGTTTTTCTTAACATAAAATTTCT
CTAAGTTTTTTAGGTATTTTTATATCTTCAATTTCTGTAACATCTTTAAATATTTTTAAT
GCATCAACAACCTTTTTTATAAAGTTCTTCTATCTTCTTTAACATTCTTAAGAAGTAT
60 TTTAGTTTTTGGGTTTCTTCTTAAAGCATTGAGGTTAAGATATCTTCTAATTTCTTATAT
TTCATCTCATTAAATAACGTAGATTATATCTATTGGTTTTTCCCCCTACATAATTATAGATT
AACTCTTTATCTTCAATGTTAGTTAATATTATTCTCTTTGCTAAAAATCCATAAAC
TTTAAAGCAGTTTCCCTATCAAAATCATCAACTAAATATATTGTCATCTTCTCTTCTAAC
ATTGCCTCATTATAAACCTCTCAATAAATAAGCTATCGGAGCTTAAACAAAAACATGA
CATAGATGCTTATGCTTAGTTAGAGAGACAAAGTAATTAAGGCTCATAAATTAATAAT
CCATTTAGTTTTAAGTCCCTATTTTTTGTAGTTTCATCTATAATAATTATTGGTTGTTTT
CCTTCTCTTTTAACTTTGATTAATACAGAAGTTATATATCTAAGACATTTTAAACATTC
CTCTTTTTTAAACAAATTCATTTAGGGTATTTTTTGGTATTGGAATGCTATCAACAACCTCT
GTAATGTTTAAACAAAGCATAACTCTTAAATAACATCTGGATAATCTTTAATTAGGGATAAA
AATAACCTCTTAACTTTATCAATAAATGGTTCTTCACTCCTCAACAAAACCTTCAATG

-390-

5 AAGTCATCATACTTAGATATAAATATTTCCCTCAAATCAAAATAAAACACAACATACTTA
TCCTTATTTAATCTATTATTAATAATCTCATTATTAAAGCAGTTTTTCCAGAATTTATA
GAGCCAAAGATAAAATTTATTCTTTGAGGTCTGACTCAATAATATGCAGGATTTCTCT
10 ATTTCTTTCTCTCTGTTGAAGAATTTCAATTTAAACCCCTAATCTTATTAGCTAATTT
TAGCTCTCTATAATCTCAATAAGTGTATTACTAATTTATCCCCAGATAATTTAACTC
TTACAGATATAGGGCAAAATCTATAATTTTGGCTGAATTCCTAAATAATTTATTCTGC
ATTTATAAATTTTTTTAAATATTTAACTATTATAGACAATGGCAATGTATGAGTTGAGAA
ACTGTAATTTATTATTTTCATCCTCTTTTATAATCTTAACCTCTCCAACATCTTATCCAT
15 TAGGGCACAGTCGATTATTAAATATGAGTTGGTTTTATCTCTTTTAAATATCTGTAA
AAAATCAGGAACAGTTCCAGCATTATTAAATAGAGATTTTTGATGTTTATAAATCTTT
TTCTTCTCCAAATACCTCATCAATTTTTAACTACATAAATGCCAACAGCATCATCTCC
TTTCAACTCATTTCCCAATGCCATAATAACCAATTTTTGCAGTTCTTTAGTTTATCCAA
TAACATTTCTCTTCAATTATATCATCTATTATTATAAAACCAATTATTAAAGCTATT
20 GGAGCTACAACCCACCAAAAAATAATATTTTTTAAACTTTCCATCTTACTGTTTTTATT
CCCTTAGTTAAACCAACCCCTAAGATTCCACCAACAATTGCTTGAGTCGTTGAACTGGC
ATACCTAAAGCAGTAAAAATTGTTACTGCCAAACCTCCAGAGAGTTGGGCAATAAATGCA
GAGCTAACACTCAAATTTGTTATCATAGATAATGTTTCTGAAACCCATTTCCGTATAAA
TAAGCTCCCAAGCATAAAAAATAGCTCCGATAATAAATTATTTGGGATGTTGTAAAT
25 GTTCCCTAATCAGTTGGTAATCGTTACTTCCTAAGTTGAACGCTACAACAGCAGCACTT
ATTAATAGAAAAATATCTAATCATTGTTATCTTTTTGAGAATTGAGATATCTATCTTTCA
TAAGCTGAATACAATATATAGGCAATAACAACAGCTATAATTGGAGATAATATCCAGCTT
AATAATATCTCACCATAATACATATAGATTTGATGAGTTAAATTTAATCCAATTAGAGAG
CATATAAATACTGTATGCAATGATATTGGCACTTTTTTGTATGTTGAGAGTGTCAAACT
30 AAGGCAGAGATTATTAAAGCAGTTAAAGCATCAGAAGATAAGCTATTAACGTACTTCCA
ACATTTTTTGCATAAAGAACCAATTATAACTGAAATGCTAAATAAAATAGCAGATTT
CTATATGTTGTTGCTCTTGATGCATAGGCAGTGCCTATAGCGTTGGCAACATTATTAGCC
CCTAATATAAACAATAAATAAAACTTATGATTAGCTCTAAATTTATAGAAATCTCTATA
GTAATCACCCATTTATCTAAACTCATTTTATTTTGTGTGTAATAAATTATATGTAAT
35 CATCAGCCACATCTTCTATGTAGTCGCTAATATTAACAATATTATCTATAAAATCACACA
AAATTTTTCCCTCCCAAAATGATTCAACTTCCAAATTTATTAAATACTTATAAATCCTAT
TTTGATAAATCATCAATAAATTTTTCTTTGTCTTTAATCTCTTTGATAATTGGGCTTA
AATCCCCACCTTTTTCAATAACATCTAAACTCTATCTAAGTGTGAAACATATCCACGG
TAATCATTAACAAGGTCTATTTCAATTTTTTAAATACTCATCAAACTCTTCTTTAATA
40 ACTCATATAACATAGCGGCATGTTTTAAGCTGTCTAATGTCTCATCTAAAGCTCTGCAG
ACCTTGATAACTCTCTCTCATATTTGGTAAAAATGCCTTTTCTAAGTTTATCCTTATAT
TTTTTGATGTTTCATCTCCTTCTCTCTATTTTTATAATCTCTTTAATATTTTTTCAT
CTTTGGAATTCATATAATCTTTTAATAGCTCAATGCTTTTAAGAGACATCTGAATTAATA
45 ATCTAAGATTATCTATTACACTTTTCTCATTATCCCTCTCAAATAAAAAATAGACATAG
TAATCACATCCATTTTATAGATTTTCTTAGTATTTTATCTATTTTACTTCTATCTTTTAAA
ATATTTTCAACATCTGATTTTGAATTTACAATAATTTTGTATTTATTTTATAGATAATCA
ACGTAATAATCATCATTAAATCAACCATTTCTTTAATGGATTTAACTCTTGCTGGACTT
TCTAATTCATAATCTGATGCATTTCTTAAATCTCTCAAATAGATAAGGCATTATAAACT
CTTCTAAATTTTCCATCTTCTTTTTAAGCACATTAAGAAATCTAAATAATTTTATGA
50 GAATTAGACAGTTCAATTAAATATAAAATTTCTTTTGCCTCTTTTGAGTTGTAATTTTT
AAATTTCTCTTTTAAATCCCTCTTAAAAATAGAAATGACGCATAATAGTATCTCCCAATA
ATTGTTTCGATTTTTTGCCTCTTTTTTATCTACTTTTGATTCTTCTAAGAATTGCAATA
TATACAAATCTAAGGGATTAAACATCTGTCCACCTGTAATGGGATAAACTAAAACATT
TTTAGATTTTGGATTTTCGTATATTTGTTTTCAATCTGTTCTGAAATTTTAAAGATATT
55 TTCTTTGTTTTTAAATTTTATAACAACATTAATAATGCGGTTCTGGATGATTTTCAGAATC
TATGAGCAGTTTTATTTCTTTTATATGATTATCATAGATTTTCAAAAATCTTTCAAGAAT
TTTCATAAGATATTGAATAATTTCAAACCTATTGTCCAAGCTCTCTCAAATATTGATTT
ATCAAAATATATTTTCTCATTACCTCTTATAGTATTGATAATTAAATCTGGGCTTTTAAAC
ATCAATTTCCATAATTTCAACAAAAAGTATTATAAAAAATTATTATTTGCCCTTAGTAGC
60 TATTTTTATCCCATCTTTATCAATAACAGCAACAGCACATGCAACAGGATGCTCAAATTC
CTCATAATTTAATATATAATCTGCTATCTCTTCAGCTGTCTCTCTTTAATATCTATAAT
CTGGTTTTTCATCTATTTTACAGCGGTTATAAACTCCCAATAATAGCCTTTCCCATCTTT
TAGTTCAACTTTCTTAACTCAATGTCTCATCATGAGCAACATAACCCATATAGCATTCGTT
TTCATCTAAATAGCCGCAATCCTTGGGGTCTTATAATCATCTTTTTCATAGTCCATAAC
TGCCAATAAGTAAGCTAACGCATCTCTCTTTCCAAAGTGCAATTTTTCAGCTATAAAGTC
AGTATGTGTTCCGTTAGAAACAACAATCGTTTTATCAATAACCTTTATGCAATTGTATGT
GATATATGGGTTTTTAAACATCTCATTCAAATCCTTTGGAATTATTGCAACTGTATTGTC
ATCCATTTTCTTTGCCCTCTCTGTTGGAAAGCTTCTACTTGAGACTCTATAGGCAGCGAA
TGGTTTTCTTTCTTTAGTTTTTCCAACAACCTAAGAATCTTCCAATATACATAAATTCACC
TCTCCCTACCATAATAGCATTATATTGTTTTGAGTATTTTAAACCTTAATGGTTTCAT

5 TACATAATAAAAAATCTTTTAGGTTTAGCCTTAAAAATCTTAACTTTATTTCAAAAATCTCT
CTTATAGCATACCATTTCTTTACAGAGGTTGGCTTAATAATTCATTAAATAACATCATAA
AATAAAATCTCATTTTTAATTAAAACTTAAAAACTTTCATCTCCTCTTTTTTAACTTCT
TTTTCATAGAGATTTTTATTTTGTCTTAAATTTAGATAAAACTTTATAAAGCTCCTCT
10 TCATCCAAATCAGTTGTATCTATTAAATACTTTATTTTATCCTTCTCAATATTAATCCAT
TGCCTTATTGTCTCTTCAACAGACAAACCTAATTTTTTATTCTCAATCAAATCAACTATT
TCATAAGGTAGAGATAAATAATCTAAACAATAATTAATCTCTTCTTCACTAAACCCCTCC
TCTTTCAAAAATATTTCTTATAGTTCCCTTTCTTAAACCAATCAATTAATAATACTTTGAA
GTATTCTCTAAAGTTGAACCTTTGATAAATCTCCTCTATAAACAATGTATCAGAGGTTAAA
15 CAAATAACATGGCATAAATGCTCCATTTTAGTTAGAGAGACGAAGAGATTAAACAATTCA
TTAACAATGACTTACCACCGTTAAAAATAAATATTTTTCAACTTCTGCAACTCATCAATT
ATCAAAACTGGTTTCTTCCATCTTCTACAACAGCATTTATACTCTCATTTATCTTTGCA
AAGACATCATTTAGTTTAAAGTTATTAAATCAAAGTTCTCCTCAACACCAAACCTTAAAA
ACTCCCAAGTTAAGTTCTAACTTATTTAGCAGATATTTTTTTCTGACTTCTCAAAAAAT
20 ACTCTTAAAAATTTCTTTTGTCTATAGGTTGCATACTTCTTAGATTATAATAGAAAAAC
ACTATATTACTATCTTCTAACTCTTTAATAACTCTTCTCATTACAGTTGATTTACCAGAT
GATTTAGGGCCATAAACAATAAATAAGAGTTTGGATCTAATTGACAATAGGTTTTTAAAA
TAATTCAGCTCTTCTCTCTATTATAGAATTCATAATATCACCAAAAAGATATATAAT
GTTTGTAAAAATCTGTTTAGCTCTTATAATGAGGTATCTACTTTTATGGCATTTATAGG
25 ACAATACCTTGCACAAATCCCACAATTTGAGCATTTATTTTTCATCAACTATAGCAACTCC
ATAGGTTTTTATTGCTCTTCTTGGGCAAAATACAACACAGTTCCCACAACCAACACATTT
CTCTAATATCTTTATCCCCATTGTAGCACCAATATTATTCTTCTATTGGGATTAATTTA
GCCTCCAACCTTATCCTCAACACTTAACTTCATAATAGATTTTAGAGGACATCTTGGGACT
GTTGGAGAACCAGGATTTAATAATAAATAATCTCTACAATCATCTATAAATGGTGTGTGG
30 GTGTGTCAGATATTAAACATCAACTCCCATCTCTTTACCTAACAACTCAATTTTAAAT
CTATCCCCCTTGGATAAACTACATCTCCATGAATAACTCCTATCTTAATATCATTTATC
TCTAAATCTCTTTTCTTGGTAAATTTAAATAATCCATATTTCTTTAACAGCAACAACC
TTAGCTAAATCTTTTAAATGAGTCTAAAATTTCTTTATCAGTTACATCTCCACAGTGAATA
35 ATTAATCCACATTTGAAAACCTCATCAAAAACAGCTTTTGGTAATTCAAAAGCTCTATCA
TAGAGATGGGTGTCTAGAGATAAAGCAATAGCATAGTCCACCTAAAAATAAAAAAGTG
GTGTGCATGGCTTCTTGGGGTGGGCATGTCTCCAGTCTCCTCGCCCCAGATTCTCT
TCTCCGTCCCGCACCCCGGTGAGCGCCGACGTCTGCTACCGTTGCTCCCTTCCGGGCC
TGGCGGGGTTCCGCGAGTAAAGGGGGTTACATCTCCCTACAGGAGATGCTCCCCACCG
40 CCGAGCCCCACGGGACGAGACCTCATCGAGGAGTCTGGGAAGGAAGGACTGGAGGACATG
CCGCCCCCAAGTTTTCGGCCCCCGCATAAAGGGCGATTTCCGGTTACAGGGGACGCCCAAC
CCCCCGCCTAGCCATGCACACCAATTAATAATATAATAGGACTTTTTATATATAGTTTG
TGGTGGTGGCTAGAAGTTTATCAGATTAATTTTAAAGTTAAAGTATATATAATTGAAAAA
45 TATAAAGTAAATTTGTATAGTTTTCACAACTAACTAAATGGGTATTGATTAAACCTTA
ACTTATTGGTTTGAAGGTTATTATGTGTAATTTATGAGAAATGGGAATGATTTATAAA
TTCAACATTAGGAATTTAAGGATGATAATTATGAAACTCGTAAAGATGCCTTATCAAGA
AGTGATACAACAGATATTTAAAGATGAGTTTGGAGAAGCAAGAATCGTAGTAGTTGGT
50 TGTGGTGGAGCTGGAAATAACACAATTAATAGGTTAATGGAGATAGGTATCAAGGAGCA
GAAACGATTGCAATTAACACTGATAAACAGCACTTAGAAGTTATACAGGCAGATAAGAAA
ATTTTAAATTGGAGCTACATTAACAAGAGGTTTAGGAGCTGGTGGTTATCCAGAAATTGGT
45 AGGAAAGCCGCTGAAATGGCTAAAAATATATTGGAAGAGCAGTTAAAAGGAGCTGATTTA
GTTTTTGTACAGCAGGAATGGGTGGTGGAACTGGGACAGGTTACGCTCCTGTTGTGGCT
GAGGTGGCTAAAGAAAATGGTGCTATAGTAGTTGGAGTTGTAACATATCCATTTAAATTT
55 GAGAGGGCAAGAATGAAAAAGCAGATGAAGGAATGCAAGAATGTCAGAGGTTTGTGAC
ACTGTAATTTATTATAGATAACAATAAATCTTAGACTTAGTTCCAAATTTACCTATAAAT
GATGCATTTAAAGTAGCTGATGAAATTTAGCTCAAGCCGTTAAGGGAATAACTGAAACT
ATTGCTGTTCCAAGTTTAAATAAACATTGATTTTGCAGATGTTAAGGCAGTGATGAGTGGT
60 GGAGGCGTAGCGATGATTGGTGTGGGGAAGTTGATAGCAGTGACAGAGGAGATAGAGTG
CAAAATGTTGTAGAGAACTTTAAGCTGTCCATTATTGGATGTTGATTATAGAGGAGCT
AAAGGAGCTTTAATTCATATAACTGGTGGGCCAGATTTGACATTAAAGAGGCAAAATGAT
ATTGGAGAAGGAATTACAAAAGAACTTGACCCAGAGGCAAAATGTTATATGGGAGCAAGA
ATAGACCCTGAAATGGAGGCTGTATTAGAGTTATGGCGATAATTACCGGAGTTAAATCT
65 CCAACATTGTAGGGAAAGACACAAAGCCGAAAAAGAAATTTCCAAAGTTTCAAAAGAA
CAAAGTCAAAGAAAAGAACGTAAATAGGAGGTATTGACTTTATAGTATAAATTTAATTA
AATTGATTTGGATTTATTTTAAATTTTAAATTTTAACTTTTAAATTTTAAATAAATTT
TTTAAATTTTATCTTTAAAGGGGTATTTATGAAGGCATGCGAAAGATTGTTATTA
AGATAGAGTCCCAAGAGAAATTTGTTGAAGAATTTAAAGAAATTTGCTTGAGTTGGGCT
70 TAACTTTAAAGGAATTTTCTGAAATTTTCAAGGATTTCCATACAGCACATTATACAAAGTTA
TTCAGGGGAAGGATTTTAGGGTCTCAACTCTAATAAAGATTTTAAAGACGATAAGGCTTT
TTGAAAAGGATGAGAATATTGATACAATAGCAATTAATGCCGCAAGACCTGCCCTAAATA

-392-

AAATTACGACAAGGAAGATAGGGATTAATGGAAAAAGTTATTTAATAAAAGAGTATCCAG
CCAATTCCTTTGGAGGAGTGATTGTTGTCAGCTGTTAGAGCTGAAAGAGAAGGGGTTAAGG
GCATAGTTTGTGCTCCTATTGTTAGTGCAACTATTGAAAAAATCGTTAATGTCCCTGTAG
CTGTTATTATTCCAGAAAAGGATGCGTTTATGAAAGCATTAGAAATAATTGCAAAAGAAAA
5 TAAATGAATAATATATTAAGATTTAACATATTGAATTATTTTTCTAAGAGTTTATCGGC
TATATTTAACCTCAGAGACCTTAGATAATCCAATCCAAGATGGTGTGAATTTACTTCTAA
AACTTTTAAACCATCTTCTGACTCAATTAAATCAACTCCAGCATAAAATAAACCAGAGC
ATTTTTTGCCTTTTAAAGCCAATTTTTCAATTTCTTCAGTTATTTTACATTTCTCAACTCT
10 TCCTCCCTGAGAAACATTGTTTTTCCAATTTTCTCCTCCAATCCTATACATTGCCGCAAC
GACCTCATCATCAACTACAAAAGCCCTTATATCTCTATGTTTCAATTTCTTACTGGTTTTAT
AAATTCCTGGATATAGAAGGTATTATTTTTCTTTAAATTCATTTAAATCTTTAACTT
AGTAGATATTGGCAGTTCTTTTTTAAACCCTAACAAATCCCTCCCCACCACATCCAAATAT
TGGTTTTAAAACTGCTTCTTCAAATTTATCTATCCAGACAATTGCTTCATTTATATCTTC
15 AGTAACAACAGTCTTTGGTTGTGGGAGATTATTTAATTCAAGAAATACAGAGGTTAAAAA
CTTATTTGATGCCCTATCTATTCCATCTGGAGGATTATAACGGGAATATAATGATTTAA
ATACTTTAAGACATCAAATCTAAAAAACTATCCAGCCAAGATTTCTAACAAAACAGCA
ATCTAATTCATCTAAAAATGACTTGAATATTTTAAATTTAAATCCAAATTAATCCAGC
TACAATATTTGAAGGGGTTATAACTTTATAATCTACTTCATACTTTTACAGGATTTTAT
20 TAAATCATTGACTACAGCATCTCTTTCTATGGTAATTATACCAAGTTTCATTACTATCCC
CTTATATAACTAAACAGTTAAATATTAATGAAGTATATAACAATTAATTATAAGTATGTT
ATGTAGTTTTATCTTTATTGCATAGAGTAAAATTAATGTCTTTTGAATAATAAAACA
AAAATTAATAAAATTTACCAATGAAGTTGAACGCCTTCTTTTGAAGGCGTTCATGAGTG
CCTTAGTTATTCTAAAAAGTTTTTAAAGACACTATATAATTTTTGACATGAGAGATGTTT
25 TTATTAATAATATTATATTTCATGCATATATTTTAAATATATCAAATTTATTATGGTGATG
GAATGGAGAAAAAACGTTATCACTCTGCTCTATATGTTTTAAAAAGAATCCCTGCGACAA
TTTTAGAGGAAGACGGGAAATTTATTATTAATAAAACCTGCCGAGAACACGGAGAATTTA
AAGATATCTATTGGGGGGATGCTGAGTTATACAAAAAATTTGATAAATATGAGTTTATTG
GAAAAATGAAGTAACAAATACAAAGGTAAAGAATGGCTGCCCTTATGATTGTGGTCTTT
30 GCCCAATCACAAATCTACAACCTATACTGGCCAATATAGATGTAACAAATAGATGTAATT
TAAACTGCCCTATATGTTTTGCCAATGCCAACAAATCTGGAAAGGTTTATGAGCCATCTT
TTGAAGATATAAAGAGGATGATGGAAAACCTTAAGAAAAGAGATTCCACCAACACCAGCTA
TTCAATTTGCAGGGGGAGAGCCAACTGTTAGAAGTGATTTACCCGAATTAATAAAATTAG
CCAGAGATATGGGATTTCTGCATGTTCAACTTGCAACTAATGGTATAAAATTAAGAACA
35 TAAATTTATCTTAAAAAGCTAAAAGAAGCAGGATTATCAACAATCTATTTACAGTTTGATG
GAATCTCTGAAAAACCATATTTAGTTGCAAGAGGTAAAAACCTCCTTCTATAAAACAGA
AAGTTATTGAAAAATTGTAAAAAGTAGGATTTGATAGTGTTGTTTTGGTTCTACCTTGG
TTAGGGGTGTTAATGATAATGAAGTTGGGGGTATTATAAGGTATGCTGCTGAGAATGTGG
ATGTTGTTAGGGGAATTAACCTCCAACAGTTTCATTCAGTGAAGGGTTGATGAAAAAA
40 CACTTTTAGAGGGAAGGATAACAATTCCTGACTTTATAAAGTTAGTTGAGGAACAAACAG
ATGGAGAAATAACAGAGGAAGATTTCTATCCAGTTCCCTTCAGTAGCTCCAATCTCTGTGT
TAGTTGAAAAATTGACAAATGATAGAAAACCAACTTTAAGTTCCCATCAACACTGTGGAA
CTTCAACATACGTATTTGTTGATGAAGATGAAAACTAATTCCAATTACAAGATTTATAG
ATGTTGAAGGATTTTGTAGAAATGTTAAAGAGAAAAATAGAGGAAATGGAAATCAAAAA
45 TGCACGATGTTAAAGTTTATAGGAGAAATGCTTTAAATTGCCATCTTTAATTGATTTAG
ATAAAGCACCGAATCAGTTAATATAAAAAAGATAATTGATTTAATCTTAAGTGTTTTAA
AGAGTGATTACAGTGCTTTAGCTGAACCTCACTACCACATGTTGATGATTAGTTGCTATGC
ACTTTATGGATGCATATAACTTTGATGTTAAAGGGTTATGAGATGCTGTATTCACTACG
CAACCCCTGATGATAGAATCATCCCATTCTGTACATATAATACATTACATAGACAAGAGG
50 TTGAGGAGAAGTTCTCAATACCATTAGAAGAATGGAAAAGAATGCATAAAATAGGAGGAG
AAGATGATAGAGAAGATTATTAAGAGAGTAGGGAAGGGGTTTTAATTGATATTGATGTT
CAGGCAATGCTAAAAAGAATGAAATGTTGGTATAAACGAATGGAGAAAGAGATTATCA
ATAAAAAATAAAGCTCCTGCAACAGAAGGGAAGGCAACAAAGGAGATAATTAAATTTTTT
AAGGAAATTTTTAAAAAAGATGTTGAAATAGTATCTGGAAAGCTAAATCCACAAAAAAT
55 GTATTGATAGGAGATATTAAAAAAGATGAAGTTATTGAAATATTAAGAAGATATTATAA
TCCTATCAATTCATTAAGCTTTTCATAAACTTTTTTATTTACCTCCTCATAGATGCTGTT
TCCATGACTATCCATTGCCACAATTAAGGGCCAAAATTTAATTAACCTCCAACCTCCCAAC
AGCCTCTGGCATCCCTAATTCATCTAAAAAATATACGTTATCAACTCTTTTTACTGAATT
AGCTAACAAAGCTGCACAACCTCCTGGAGCTGCTAAATAAACACACCATAATCTTCAAA
60 AGTTTTTAATAAATCTTTTTTCACTTCTCCTTCCCAACAATTCAGAGATGTTAGTTAA
TTTTATGAACCTCTCTTCAACATCATTCATCCTTGCAGATGTTGTTGGGCTATAGAAAC
ACAAACCCAGCTATCATTTACTTTTTTCAATTATTGGGCCAGCATGGTAGATAATAGATTTC
ATTCAAATCAAAAGGTAGTTTTTTCATTGCTTTTATGATCTCAATAATTTTAAATGTGC
TTCATCCCTCGCAGTGATATTTTGGCATTAAATAGACAATATCTCCAACCTTTAAGCTT
TTAACATCTTTTTTGTAAATTTGTTAAATGTATATCCAAATATCCCTCCTGATATT

TTATAGCTTACTCTATAATCAAACCATAATTTATTTATAATTAGTTTTAAATCTCTTA
CATAAAAAATTTAGACCTTTTTGGTGAAAAGATGATATGTATAATCATGGGTAGTGAAAGC
GATTTAAAAATAGCTGAAAAAGCAGTTAATATTTTAAAAGAATTTGGTGTAGAGTTTGAG
5 GTTAGAGTTGCCTCTGCCCATAGAACACCAGAGTTAGTTGAGGAGATTGTTAAAAATTC
AAGGCTGATGTATTTATAGCTATAGCTGGATTAGCCGCTCATCTACCGGGAGTTGTAGCA
AGCTTAACAACAAAACCAGTTATTGCTGTTCTCTGTTGATGCAAAGTTAGATGGTTAGAC
GCTTTACTTAGCTCAGTCCAGATGCCTCCTGGAATTCCTGTTGCTACTGTTGGAATTGAT
AGAGGAGAAAACGCTGCTATATTAGCCTTAGAAATCTTAGCTTTAAAAGATGAAAATATT
10 GCAAAAAAATTGATTGAATATAGAGAGAAGATGAAGAAGAAAGTTTATGCATCAGATGAA
AAAGTTAAGGAAATGTTTAAATAACTATAACCATTAAATTTTATGTTATAACGTTGCTA
ATAATTTTTACTTTATAAAAGTGGAGAGGGATTACATGCAGAGAGTGAATCCAACAAGAA
TGGAGTTATTAAAAATAAAAAATAAAATTAATTTGGCAGAAAAAGGGCATAAATTGCTTA
AGCAGAAAAGAGATGCTTTAATCATGGAATTCCTCCAAATTATAGAGCAAGCTTCAGATT
15 TGAGGGATAAGGTTGAGGCAAAGTTAGCTGAGGCATATAAAGATTTGATAATGGCTCAGA
CAGTTATGGGAACCTTAGCAGTTAAAGAGGCAGCATTAGCAGCTAAGAATGATAAATTAG
AAGTTGATATGGATACAAAGAATATTATGGGTGTTACTGTTCTCTACTTTTGAAATATACA
ACGTTAGAAGAAAGGTTGGTGAAAGAGGCTACTCACCTTACGGAGTTAGCTCAAAATTAG
ATGAAGCAGCTAAGAAATTTGAAGAAGCTTTAGAATTAATAACTGAATTGGCTGAAATTAG
20 AGACATCAATTAACTCTTAGCTGAGGAGATTATAACAACAAAAGAAGAGTTAATGCTT
TAGAGTATGTTATTATCCCAAGATTAAATCTCTCAAAAAGTATATATCAATGAGATTGG
ATGAGATGGAAGAGAGAATCTCTCAGGTTGAAGTTAATTAAATCGAGAATTGAGAAGA
GAGAAGCCGAAGGGGAGACAGTATAATTACAAAATAATTTTTGATGCAACTGAAGCGTT
AGCTTCGGGTTACAAATTCGAAGGATTGTTTAAACAGAAAGCTTTGCTTCTGGCTACAA
25 AAACCTCGAAGAGTTTTTGTCTTAACTTTTCTAAAGTTGCAGGGAAAACCTCTTCAGATT
GAAGTTGATTAAAGTCAAGAATTGAGAAAAGGGAGGCAGAGGGCGAGACAGTATAGAAAT
AAATAATTATAATAAATAATTCTTAGTTTTTGGTGATGTTTATGGTATTCAGAACTT
GGAAGAATGACTAAAATAGAAAAAGAAATTAAGGAAGAGAGGCAAAGTACGATTTAATA
ATTAAAAATGAAGCAAAATTTGAACCAATTGTTGCTGAAGAGGATATGGAGTTTAAAGCAG
30 GGTGATATAAAACCTATAAGAATTAAAGAAATTAATTTCTCCCAATGTCAGTTTTGTTA
ATTTGCTCTTACGGTAGCCACAGAGTTGGGCATGTTGTAGCTGTGGGAGAAGAGTTCCA
ATGCTTATAGATGTTGAAAGAGAAGTTGATATGGCAATGTTTGCATGTGGATTGAGGGGA
GAAGTGAAGAAAGGAGATTTAATCGGAATGTTACTTATACTTGACAGCTGAAAAAGAGAG
TAAGTAATTTACTAAAACTTTTTTATTATTTCTTTATAGAAAATTTAACAAAATTTTAT
35 TATTTTTGAAAGATGCTAATTTTGGGATTCCTATGGAGTTAATTGAAATATTGCTAAAAA
AACTAAACAAAAATGCAGTAGTTACAGAGATAGCCAAAGATAAAGACCCTTTAAGGTTT
TAATATCAACTATAATAAGTGCAAGAACAAGGATGAAGTAACTGAAGAGGTTTCTAAAA
AACTATTTAAAGAGATTAAGGATGTTGATGTTTATTAAACATAGATGAAGAAAAATTAG
CAGATTTGATATACCCAGCAGGATTTTATAAAAAATAAGGCAAAAAATTTAAAAAATTAG
40 CCAAAATTTTAAAGAAAATTTAATGGGAAAGTTCCAGATTCTTTGGAAGAGTTGTTAA
AGCTCCAGGGGTTGGAAGGAAAACAGCTAATTTGGTTATAACCTTAGCTTTCAACAAAG
ATGGGATTTGTGTAGATACCCATGTCCATAGGATATGTAATAGATGGGAAATAGTTGATA
CTGAGACTCCTGAAGAGACAGAGTTGAATTAAGAAAAAGCTTCCTAAAAAATATTGGA
AAGTAATAATAATTTTGTGGTGGTTTTTGGAGGGAGATTGTTCTTCAAAATCTAAGT
45 GTGATAAATGTTTTAAAGAAATTAAGAGAAATGCCCTTACTATGAAAAATTAAGCACT
TTGAAAATATATTAAAAAATTCATTTTAGAAAAGTCTCAAAAAACAAAATCCCTAATG
AAAAAGGAACCTTACATCTTAAAAATTAGGTTAAAGAAAGGTAAGAAAAATAAATTTGGAA
AAACAGAGAGATTTTTTAAAAAGGATATTATTTCTACATTGGCTCTGCCTTTGGAAATT
CAATGAACCTTAAAAATAGGATAGAGAGGCATTTAAAGGATGATAAAAAGATGCCTGGC
50 ATATTGATTATTTATTAAATATGGTAAGATTGAAGAGATTATATTACAAATGAGAGAG
TTGAGTGTGAGGTTGCAATGAATTTATAAAAAAATTTGATTTTGTGAGAACTTTGGAT
GTTCTGATTGTAAATGAAGAGTCATTTATTTTATTTGAAACCATAGAGGGGGCTAGCC
CCCTCTATGGTGTGGATACCCAGAGCGGGGCTTCACTACGTTTCAAGCCCCACTTAATTAAG
AGGCATTGCCGAGTGAAGCGAGGTAATGCATCCTGTTTTAATGAAATGGAAAGCTACGCT
55 TTCCAGCTATGAAAACCTCTTTTAGTTTTTCAATTAACCGAAGCGTTAGCTTCGGGCTATGA
AAATCTTTGATTTTCAATTAACCTTTTCTAAAAGTTTCATAGCAATAGGAGGCTCTCCTCC
TATGCTGTAAAGAGTCATCTCTTCTATTATAAACCATAAATTTACTTAAATCTCTCCTTTCC
ACCAATATTTTAAATATCTTCAAAAATTCCTTTCTATATTTTTTAACTCATCCTTATT
GTATCCATAAATCTAAATGTTATACCTTTTATACCCTTCTTCTATTTTTTCTCCTCATA
60 AACATCAATATCTCAATATCGAACATTTCTTTAATAAATTTAAAAATAACTTCTCATC
AACATCCTTTTTAAATAAAACAGACACATCTATATATTTTTTTTCTAAGTGCTTCTTTTT
TAGTTTACTCAACTCATCTCCAGCAAATACCTCAACCCTTAAAAATATAAAGTCTGCTC
TTTGCCATTTTTTATTTAATATTAAGTAATCATCTTCAATGTCTTTTAAAGTCCAAATG
AACAAATTTGAATTTATATTTTTTACAGCCACATCTTACCAATGAGTTTATTTAGCTT
TCAATTTAGATGTTAATGCAACACGGCCTTATCTGAATAAAGCCCCCTCTCTTTC

-394-

CTCACTACCAAAATGCTTTGCAGCTTCTTTCATTATCTTAACAAAACCTTCTCTATCTTT
ATTTTTAAACAATTTCACTGATTTCCCTTACACTGATTTATAAAGGTTTCATGAATCTCCTT
TATCCTTGGATTAAACATTTGGATGTCAGCATATAAATAGGGATTCTGTCTATAATCCT
5 CCAATGATAGAAATCATCAACTCGTATATTGGGGAGGCAAACTTTCTTGACTCTTTTAT
ATCAACGTTGAGTTCTTTTAAACGTTGCTCCTAAAGATATAAAGGCGAAGTGAGTCAAACC
CTGAACAATCCCCATAATTCTATCATGTTTTCTGGAGGGATGACTATAACCTTAGCCCC
TTCTTTCTTTAAAAAATTATAAACCTTGTAAACCACTCAGTATTTTATGCTTTTCAGA
AGGGGTTAAGATAACCACCTGCTTAACAAAGAAGGTGTTGATGGGCCGAACATTGGGTG
10 GGTGGAATAACTGTAACCTCCTCTTAAACATGCTCTTCCATAGCTTTTGAAGGAATCTC
TTTAATTGAGGTTATGTCCATTAATAAACATCCTTCCCTAACATGAGGAGCTACCTCTTT
TATAACCTTTCTGTAACATTTATTGGAACCTGCTACAATAACAATATCTCCTTTTTTAGC
AGCTTCAATGTGTTGTTAGTAAATTCAACCCCTAACTCTTTCTCAACATTTTTCTCTTT
CTCAATATCTCTCCAGTAACATAACGTTAAACCTTTATTTTTTAAATATCTTCAAAA
CCACTTCCCTAAACCATCAGTTCTCTCAATAATTGAGATTGTTAAGTTCGTATTTTTCAT
15 AATATTTCCCTTTTATAGGATTGTAGTATATATATTTTGATGAACTTTTTCTAAAAGTT
TCATTGTTAGGTTTTTATTTTCCATGAATTTTACCTAAATAAGATTAAATAAAATATAAT
TAACTGAAATTTCTAAATTTGTTCCAGCAATAACTTGAGAACTGTATGTTTCTTTAAAT
AGATTCTTGCAATCCAGTAATGATTACTAATATTAGATATATGGTGGATAACCAATAC
20 TGTGTTGGAAGCATATATGAGATAAGCCATGGCAGATAATCCATAATTATGCATGCTTA
TCTTCCAAAATTTTGTGATTATTAAATTAATAAACCTTAACAGAAAAATTATTATAA
AGATATTTTTCCAAAATATTGCTAATATTGATAAATAAATAAGTAAAAATTAATGGGA
CTAATCTATTTTTCTGTTAGGAATATCCCATGTTTCATTTTTATCTTTGCCAACATA
TCCAAAAAACACATGGAAAGAAAAATGCTAATGATAAAGAGATATCAAATTTTGAAATGA
25 GTAAGAATCCAATGTATAAAAAATAACAAATACATCAAAGAGAGTATTTGAAAAATCTCTC
TTATACTCAAGATTTTACCAGAACATCATATATAGCATATATCCAATTAAGGGAGTCC
AACAATTTGCCCAAATAAATGGATTCCATTTTAAACCTTTTCTCCATCAAATGGAGGTAT
TGGAAGCATATTAAAGCCAGCTAAGAATAGGTTTATATGGAATCCAAAAATTCCTATCCA
ATATAATAAAGAACCCGGTTTAAAGATTAAACATTAATATAAAAAACACAAATGCCAAAGC
30 AACGTTTGTAGAGGTCCAGCTAAAGCTATTTTTCCATCTCTTCTGGGGTTAAATAATC
TTTGTAATATAAATGCCCCGGGAGCTATGAATGTAGCTCCAAAGACAAGCTTTAATAT
AAAACCTAATATTAGCCTTCATACCATGCTCTAAATTCACCTCCAGCTCCATACCTCCT
TGCTACAGTTCTTATGATTAAATTCATGGAATATAAAGCCACTACCAACGGCTATTAAAGCT
AATAATAAAAAACAAGAAATTGAAAAATTTGGATAAGAGAAAAATAAACGCTATTGCCAATAC
35 CGATATTGTTAAGTCAATTATCTCTCTTTGTGAAAATCTAAAGATACTCATTTTTTCACC
ATTGGATTTTTAATAGTATCTTACATCCATTTTCTATATAGTAGTTTTCCAAATATTAA
TCCAGTTATAAGCCCAGCTAAGTGTGTATGTGTGCAATTCCAGTTTTTAAAGAGTAAGG
GAGTAGAATTAATCTATAAGTGCAATATGATTACTGCCACTCTTATATTTACTGGGAT
TGGAAGGGAAATACAACTCTTAAATGTGGAGCTAAAAATAGCTAAAGCTCCCATTA
40 TCCAAATATTGCCCCAGAGCTCCGACTGATGGGTTGTAATCCCAGTGAAATAGGCATA
GGCAATATATGCTAAATTTCCCAATAATTCCTGAGAATAAAAAAGATTATGAGATATTTTTT
TGAGCCAACTATATTTTCCAAGTATGTTCCGAATATAAATAATACTAACATATTCACCAA
TAAATGAGTTATGCCTGCATGCATAAATATGCTTGTAAATTAATTGCCAAGGCATATTGGT
AAAGAGATTTGGCCATAATGCAAAATAGTAATATAGCTGTGGCATAAAAAACACTAATAAT
45 AAACATAGCTATGCAATCCCCACTATTAAATGTTAATCATTTTTCTACCTCCCCCACA
CATTTATTTATAAATCGTTTATATTATTGTTTTATAACAAATATCACATTTATGTGACAT
TTTTAGATTATTTTAAATAGTTATTGACCTATAAAAAAGGTGATTGAATGGGACTTTAATAT
AACTGGACTCATCCCTAAACACATGGAGAATAGGGGAAAACTAACTTTAAAGAAAACTT
AAAAATTATTGAAAAATTTTATAGAGCAGAGAAAAGCTCCAGAGAATGGAATCGATGAAGA
50 GCATATAAAGCTATTGTTGAGGCTCTTATCTTTTATGGACACTGACAAAGACCCAAATGT
TGTGCAGATTGGTGAGAGAGAGGCAAGGGTTTATACAAAACCTTCAAAGGGATGGTGTGTTT
TGATTTCTGCCATGGTGTGGAAGGAGTGGGAATTTAATAGACCTCAACCAAAGCTCC
AGGAGCAAGTGTGATGTATAAGCTAATAAATTATTAGAGAGTTTTTAAAGCTTT
AGGGTTAAAGGTAAATGCGATAGCAACACAGTAGCCACTGGGATGAGTTTAGCCCTCTG
55 TTTATCAGCAGCAAGGAAAAAATAAATCAATGTTGTTATCTATCCCTATGCAGCCCA
TAAAGTCCCTATAAAGGCAACTTCATTTATTGGTATGAGGATGAGGTTGGTTGAGACTGT
TTTAGATGGAGATATTGTTAAAGTTGAGGTTTCAGATATTGAAGATGCTATAAGAAAAAGA
AATTAATGAGAACAACAACCCAGTAGTTTTAAGCACTTTAACTTTTTTCCCACCAAGAAA
GAGTGATGATATTAAAGAGATAGCAAGATATGCCAAGATTATGACATCCCTCATATAAT
AAATGGTGCTTATGCTATCCAAAATTTTTACTATATCGAGAAGCTAAAAAAGCTTTAAA
60 GTATAGAATTGATGCTGTAGTTAGCTCATCAGATAAAAAATCTATTTACGCCAATTGGTGG
AGGAATAATTTATACAAAGGATGAGAGTTTTTAAAGAAATATCTCTTACTTATCCAGG
AAGGGCATCAGCAATCCAATTGTTAATATTTTAAATATCTCTTGGCAATTGGAACCTAA
AGACTATCTAAATTTAATGAAAGAACAAAAAGAGTGAAAAAGCTATTGAATGAGTTATT
GGAAGATTTAGCTAAGAAAAAGGAGAGAAGTTTTGAATGTAGAGAATCCAATTTCTTC

5 ATGTATAACAACAAAAAAGACCCATTGGATGTTGCTGGTAAGCTTTACAATTTGAGAGT
TACTGGGCGGAGAGGAGTTAGAAGGAATGACAAATTTGGAAGCTTGGTATTTAAAAGAGTA
TCCTTATGACTATATAGTTGTAAATTCAGCTATTGGAGTTAAAAAGAGGATATCTACAA
AGTTATTGAGAAGTTGGATGAGGTTTTATAAAAAGGGATAACATGGAGTTAAAAATAAA
AAGCTTAGTTTGTGGGAAGCTGTTTCTATGGCTGTTGGTGTAAATGATTGGGGCAAGTATA
TTTTCTATATTTGGAGTTGGAGCTAAAAAGCTGGAAGAAACCTTCCAGAAACATTTATA
TTGCTCTGGAATTTATGCACTTTTAGTTGCTTATTCCTATACAAAACCTGGAGCAAGATA
GTTTCAAATGCGGGACCTATTGCATTCATCCATAAAGCCATTGGAGATAATATAATACT
10 GGAGCTTTGAGCATTTTATTATGGATGAGTTACGTTATATCCATTGCTCTATTTGCAAAA
GGGTTTGGCTGGCTATTTCTTACCTTTAATAAATGCTCCAATAAATACATTCAATATTGCC
ATAACTGAAATAGGCATAGTTGCGTTTTCCTGCTCTGAATTTCTTTGGTTCAAGGCT
GTAGGGAGGGCTGAATTTTTTATTGTTTGGTTAAGCTCTTAATATTAGGGTTGTTTATA
TTTGGCTGGGTTGATAACAATTCATCCATCTTATGTAATTCAGATTAGCCCCATCTGCA
15 GTAAGTGGGATGATTTTGCATCAGCTATATTCTTCCTATCATATATGGGTTTTGGAGTT
ATAAATAATGCCCTCAGAACATATTGAAAACCTAAAAAGAACGTTCCAAGGGCTATATTT
ATAAGCAIATTGATTGTGTATGTTGGAGTAGCCATTTAGCAATAGGAAAT
TTACCAATAGATGAATAATTAAGCCAGTGAAAATGCCTTAGCAGTGGCGGCAAAACCA
TTCTTAGGAACTTAGGGTTTTTATTAATATCTATAGGAGCTTTATTTTCAATTCATCA
20 GCAATGAACGCCACATATACGGAGGGGCTAATGTTGCCATTCTATTAGCAAAAGACCGA
GAACCTCCAGAATTCTTTGAGAGAAAGGTATGGTTAAATCCACAGAGGGACTTTATATA
ACCTCAGCCCTTGAGTGTGTTTGCATTACTGTTAATATGGAGGGGTGGCATCAATA
ACAAGTGGCGTATTATGGTTATATATCTCTTTGTTATTCTCTCCACTATATCTTTATC
GATGAAGTTGGAGGGAGAAAGAGATTGTAATCTTAGCTTTATTGTTGATTACGAGTT
25 TTTCTACTTTTATTGATTATCAGTGGATAACCAATAGATTGTGTTTTATGGGATAATA
GCAACATTTATTGGAGTGCTGATATTTGAGATTATCTATAGAAAAGTAACAAAAGAAC
TTCTCCAACAATATGTATGTTAAAAGCTAAATTTTAACATTATTAACATTAAAGCTGTAG
GAGTTCGTGCTGATCGTGGTCTCTTCATTGAGCAAAAGCCCTCTTCCACGACGCGCC
CAGACCTCCTTTTTTGTTCCTCCCAACTTCGAACCCGCTATCATCGCAACTCTCTGGATAT
30 GCTCCATTTGGGTCGGTTCTGTTGGGATAAATATATATCTCTATGCGGTTATATAAAATT
TAGCACAACAAATAATGAAGGTGAGAGAGTGAGATATGTAGTAGGGCACAAAATCCAG
ATCTGATAGTATAGCATCAGCTATTGTTTTAGCTTACTTCTTAGATTGCTATCCGCAA
GATTGGGAGATATAAACCCAGAAACAGAGTTTGTGTTTGGGAAGTTTGGAGTCATGGAAC
CAGAGTTGATAGAATCAGCTAAAGGTAAAGAGATTATCTTAGTTGACCATTAGAAAAGA
35 GCCAAAGCTTTGATGATTTAGAAGAAGGGAAGTTAATAGCTATTATAGACCACCACAAGG
TTGGTTTAAACAACAACCTGAGCCAATTTTATACTATGCTAAGCCAGTTGGTTCAACAGCTA
CAGTTATAGCTGAACCTTACTTTAAGATGCTATAGATTAAATTGGAGGTAAGAAGAAAG
AGCTAAAACCAGATTAGCTGGGCTTTTTATTGAGTGCAATTATATCAGATACAGTTTGTG
TTAAATCACCACAACAACCTGACTTAGATAAAGAGATGGCTAAAAAATTAGCTGAGATTG
40 CTGGAATAAGCAATATAGAAGAGTTTGAATGGAGATTTTAAAGCTAAGTCAGTTGTTG
GTAAGTTAAAGCCAGAAGAAATCATAAATATGGACTTTAAGAAGTTTGAATTCATGGAA
AGAAGTTGGAATTGGGCAGGTTGAGGTTATAGATGTTAGTGAAGTTGAGAGTAAAAAG
AAGATATTTATAAATTGTTAGAGGAGAAGTTGAAAAATGAGGGCTATGATTTAATCGTCT
TTTTGATACTGATATTATGAAGAGGGTAGTGAGGCATTGGTTGTTGGAATAAGGAGA
45 TGTTTGAGAAAGCATTAAATGTCAAAGTTGAAGGAAACAGTGATTCTTAGAAGGAGTTA
TGTCAGAAAGAAACAGGTTGTTCCACCATTGGAGAGAGCTTATAATGGATAAAATCTTTT
TAATTTTTTGTGATACTATGGGAGCTGATATTAACCTCTAAAGAACTCTTAAAGAAC
TTGGAAGAGATTTTAAAGAGATATTGAAGATATAGATTTAGAATTTTATGAGATTAGTT
50 ATAAAAAGATGAAAAATAAAGAAATGAGGAAATTAGGGATGATTTATGCACTACTCCATA
ATAAAACCAAAATGTAAAAAGAGATTATTGAGATAGATAAAGGTTTCAATAAAAACAAG
AGGAAGTTTGCATTTTGTGTAAGAAATAGGAGATAAAATCCTAAACAATAAAGAATTTAT
GCAATGATGATGTTGAAGTTGTGGTTGATTACTCTTTTACTGATTCAAAGAGACCTAAG
GAGAAGATAGAGCTTTATATAATAGAAGATATAAAGAGGGATTAATATGGATTTAGAAGG
55 AAAATGCTGCTTAATTCACGCAATTGGTGGAAATTTTTTGGATATTTGGCAAATTTATGT
ATATACTGCTGGTTTGGGGATATTTAGTGGAAATAGCTACTTTGATATTTTTATTATTGG
AGCTGTAATTTTTTGGGCATATTTCTGCTAAAACATTTGGAGAGGAGAGTTTAACTCAAAA
ACAGTGGCTTGGTTGTGAGTTCTACCTTTCTTTTGGTAGCTATAGTTGTTTGGGTATT
GAAGTTTAAATGGGCTGATTTAAATCGGTTATTAGAATATGATGAAGAAAGTTTGAAATG
60 GTTTAAAGGCTATGGAGCTATATATTTATTGTTAAGGTGAAAGCTTTGCTTAATAAGAT
ATAAGGGAGGAGATTCAAGCACTTATAGAGATTGCAGAGGAGAATTTATCTGCAGCAAAA
ATTTTATTGAAAAATAAATTGTATAGGGATGCCGTTGCGAGGGCATATTATGCTATATTC
CATTCTGCAAAAGCGCTATTATTGACTAAAAATCTCAATCCAAAAAGCATGCTGGAGTA
ATAAGATGTTTGGGCTTTATTTTGTAAATGAAGGATATATTGAAGAAATATATGGGAGA
ATAATAACAAAAGTTATAATTTAAGATGGAAGGCAGATTATACAACTGACAAGCCAAT
GAAGAAGAAGCAGAATCAATAATATATGAGGCGGAGATGTTTGTGATAGGATAAAAAAG

GCATTAAAGGAGATATTATGAATGAAGAAAAAGCAATAAAAGAGTTTGTGAATGCATTAA
AATCAAAATATAGAGGTAGAATTAAGAAAAATTAATACTATTTGGTAGCTATGCAAGGGGAG
ATTACACTGAAGAGAGTGATATTGACATTTTAATAGTTGGGGATGTGGATTTTGATTATG
5 TTATTGATTTATGCACTAAATTGCTATTGAAGTATGGAGTTGTTATAAATGCAATTGTTG
AGAGTGAGGAATTATTTAATAAAAAAATAAATTGGTCATTCCATAGGAATGTTTAGAGG
AAGGAAGAGTGTTGTATTAGAATAAAATCGATGGTTAATTCCTCTCCATTATGGAAGAA
GTTAATGAGAAAAATGTAAAGGTGAAAATATGGCCTTAAAAATGGACAAGTCAAAGGAATT
ATTTGAAGAGGCTAAAAAATATTTGGTTGGAGGAGTTAATAGTCCAGTTAGATAATTTAA
10 ACCATATCCATTTTTTGTGGAGAAAGCTAAAGATTGCTATTTATTTGATGTTGATGGAAA
CTGCTATATTGATTACTGCTTAGCTTACGGGCCGATGGTTTTAGGGCATGCAAAATGATGC
TGTGATTAAAGCAGTTAAAGAGCAACTTGAATTAGGAAGTGCTTATGGATGCCCAACAGA
GAAAGAGATTATTTTAGCTAAAGAGGTTGTTAAAAAGAGTTCCATGTGCTGAGATGGTAG
ATTTGTTAATTCTGGGACTGAGGCGACGATGTCAGCTATAAGATTGGCAAGAGGAGTTAC
15 TGGAAGGAAGAAGATTATTAAGTTTGATGGAGCTTATCATGGAGCTCATGACTATGTTTT
GGTTAAGAGTGGAAGTGGTGCTCTAACCACGGACATCCAACTCTCCAGGAATCCCAGA
AGAGACAACAAAAATACTATCTTAATTCCGTTTAATGATGAAGATGCTGTAAAAAAGC
AATAAATGAAAAATAAGATGAATTGCCCTGATTATAGTTGAGCCAATTATGCGAAATGT
TGGTTGTATATTACCAAAAGAAGGTTATTTAGAGTTTTTAAGAGAGATAACTGAGGAAAA
20 TGATATTTTGTGATATTTGATGAGGTTATAACTGGGTTTAGATTAGCTAAGGGAGGAGC
TCAGGAGTATTTTGGAGTAGTTCCAGATATAGCTACCTTAGGAAAGATATTGGGAGGAGC
ATTTCCAATCGGTGCTATTGTGGGGAGAAGAGAGCTTATGGAGCAGTTTTCTCCATTGGG
AGCTATATATCAAGCAGGAACATTCAACGGAAATCCAATATCAATAACTGCTGGAATCGC
CACTCTTAAGCAGTTGGATGATAGGTTTTATAAAGAAACAGCAAGAAGTCTAAGATATT
25 GGCAGATACTTTAAGAGAGTTGGCTGATAAACATAATATTAAGCTAAGGTTTATAACAT
TGCTTCAATGTTCCAAATCTACTTCAATGATAAGGAAGTTGTGAATTATGAGATTGCCAA
GCAGAGTGATACTGAGAAATTTATGAAATACTTCTGGAGATTGTTGGAGAAAGGGGTTTT
TGTTCCCTCCTTCACAGTTTGAATGTTGCTTTACCTCAATAAAACATGATGATGAGGTTGT
TGATAAGACAATAAAGGCTATGGAGGATGTGTTTGGGGTTTAGAATAATTTAACTTAT
30 TTTTATAATTTTCTCTTAAGGGATTCAATGCTGTGTTAGAAAAAGCAAAATAGAGATTAT
TGAGCAATTTATACATATTTTAGAAATTTTAGAGATGTATGCAAAGGAAGGCAGTGATGA
GAAGGCAATTAAGATTGATGTTAGATTACCTTGAAAAAGGATATGTTTAGATGATGA
TATATTACCAATAGCAAGCAAAATTTTCAAGAAATAGCTAAAAAAGTTGGTAGTTTGTAT
GAAGAGGGAATAAGCCTTTTACTATTTGGAGAAAGGAAAAGATTAAACAAAATCCAAAA
35 AAATAAAATAAAAAAGATTATTGAGATTTTAGAGTATCTAAGAGTTATATAGAGAAGAA
GCCATACAAATCTTATGAAGATAAACTCATCTAAATCTAATTGGTTAAAAATTTTGAG
GTTGGATAATGGGATTGTTTTAGATTATAATCCGAAGTTAGGAGCTTAACATACATGGC
TTTAAGAGTTGGAAGTTATGAATTAATAAATGAGATTGAGCTATTATTAAGTGAAGAAG
AAGGAGAAATTAAGTGAAGAATTTATACAGAAGAGATTGTCAATTATAAAATTTTAGA
40 GATGGTTAAAGACTTTATAGACAAAAAGAAATTTAATCATCTTTTGATTATGAAGCCCT
CTTCTTAATAAATTTAAGATTTATAGAATTGAGGAAGGCATTTTAAAAAATTTTGATGA
AGAGATTGAATCAATTTTAAATATTGCCAGAAAAGTGGGAAATCACAATGAGAGAGCA
GATTGTTTTATTAAAGAGAGATATAAAATTAATAATTATCTTTATTTTCAACTTTTC
AGTAATTAATTCTGCACATAATTTCCCTGATAAATACATTCCACCAAATATTGCCCCAT
45 TCTGTATCCGCCATGAGAGGCAATGGCAGCCATTCCACAACAAATAGATTGGATAAAC
TTCTCTGTGTTTCTTAATAATGCAATTTCTCCCTTTTCAGCCACATTGATTTTCTCC
AGGAACATCTGCCTCTAAGTTGTTCTTTTTACAAGGATATTAACATTTGAAGCCTCATG
CCCAGTAGCATCAACTACAACCTTTACTTCTATAGTCAATGGGTCAATATGCAATCCAGC
CCTTCAATTGCATAGCTGTTTATAACAACCCCGCAACTCCATCCTCTCTTAAATTA
50 ATCTTCAACAACAATTCAGTCAATATTTTAGCTCCAGCATCCATTGCTGCAACTGCCAA
TTTGGCAGGAACCTCAACAGAGTCAGCAACGTAATAACCATCTCCCATATCAATTAACCT
AATTCACCTCTCTCAACAACCTCATCAGCTGGCTCTTCAACAACAATGTATGGGAAGCC
CATTCCTCTCTCCCGAGTTCCCTCCACCAATGCTAAATGCCTCTCTAAAAACAACGACTTT
AAAGCCCTCTTTTGCCAAATATCTCGCACATGTTAAACCACTTGGTCCAGCTCCAACAT
55 AACAACATCAGCTTCAACAATATCTAACCACATATCAAAGCTTGCCTTCAATATAGCTTT
AGTTGTTTTTGTTCATCTGCATTCAACTTTATATCCTTTATATTCAATTAGATTACCAT
CTGTAATTTTAAATATTATTTAAGTTTAGTTTCAATATTATTTCAAGATCAAGTTTTT
ATACATTTTGGAAATTGAATAATGGTATCATTACAAATTTAATCTAATATTACTGAGT
TAATATTTCTTTTAAATAATCCTTCTTTAACCATTTTAAGTTTAAATAACAACCTCCACT
60 ATTAAACTTTCTTTTAAATGGATTCTTTGCTGATTCCATCCCTTTCCATCAGTTATCCA
TATAAATTGAACATTATTGTTATTGTTTTTATAAATTCATTTAATGATCTATACTCTCC
AGCAGTAGCTTTTAACTTTGAACCTCCTCCACTATAAAATTAACCTCAATGAGATATAA
CTTTTTAGTGTTTTTATTAAAACTGCAAAATCAATTTTCTATTGTTTTATCCAATGT
TAAATTTATCCCATTTTTGTTTTATTTTATCTTTTGTGCTTGGGAAGATATAATCAAG
GTTTTATTTGTTTGCATAGATTTTCAATATATTTTTTAACAATATTTTCCATTAAATC

5

10

15

20

25

30

35

40

45

50

55

60

TCCAATTCTATTTTCTTGCATTGGTGTCCATTCTACCTCAACACCAAAAAACATAATC
CACTAAATCTTTATTTTCTATTTTAAACAAATCCTCCAATCCAGTCTCTTTAAAAA
TTTATAATATCTTTCAATTTCTTCATCAGTTAAATATTTCTTTTCTTTAAATTTCTAAGGT
TTCTAATTTCCATATTTTTCGTTTAAAAATGTTATTTTGTATCTCTAACAGCTATTAAAT
TGGAAAAACAGTAATAACCTCTGGATACTCTTTTAGTAATTCAAAAAATCCTCTTTAA
ATTCTCTTTTCCAATTAGATAATTTAGGATATGTAATCTTTTCTCTATCTTTTATATTT
ATTTTCAATTTTTCCTCAATCTACAAAGAAATTTAGGTTTTATGGTTTCTAAGAGGCT
GTTAATGATGTATTCAAATTCATAAATATCCCTTAATTATTTGATGGTTTCTTCGTTA
ATTCTGTATACAATCTTTTACAATTTCTTTTTTGGCATTATATAAATCTCATCACATTTT
TCATATAAATAAACTCTATTTTGATTATTACGTAATCTTTTAATACTTCATAAGTTGCA
CCAATTACTTGGCTTTCTTCGTTATATCCCTTCTTTTGTGAGTATATTCTATCTTCAATG
ATTGCACGATGCCAGAAATAATATAAATAGCCCTCAAGTCATTGTTATTTACACTAAAA
TTAACATTATTGATTAGGTAATCATAAACATCTTTATCTATATTTCATATCAAGTATTTA
CATAGATGGCATAAGAAATTTATTAATTTCCGTTGGATCTAAACAATCAACTAACCATTTT
CAAGCATCATTTGCATAAACTACTTTTTTATTTCCAAATTTTTTGTGAATACGTAATTTTT
ATTCGTAAATCTCCACATTCAACATCATATTTATTTTTCTTTTTCTATGATAATAACAT
GTTTCGAGTACCTTTATCAATTTCTATTATGATATTTCCAAAATTTCTATTCCAATTAGGA
ATTCCTGGGACTTTATCTGGCTCATCTGGATCCCATCTGGATAGGGCTTATCTCTTCA
AATGGCTTTATTTGCATTAAATCACCTTAAAAATTATTCAATAATTCATAATCAATAACTC
ATATATACCATCTTTTCTTTTATCTCCTTTGCAGTTAATCATCCTCTTAGCAACAACCTT
TTTTATATTAAAGCCCTCATAAAGCTTTCCAAAGAAATCAACATTATAAGAGTTGCTTAA
CATCAACTTAGCCCTCTTTTATCCAATTTCTATAAAATTTTGCCAACTAATTTGATC
ATCATCGTTAAAAATCATACTTTGTATAGGATGTGAAGGAAGATGTTTTATTTAACGGCTT
ATATGGTGGATCGAAATAAACAAGCTTTTCAGCATCAACATACTCATCAACAATCTCAA
ATCTCCACAGAGGATTTTAACGTTCTTTAATAATTTTGAAACATTTTCAAATTTTGTTC
ATCAAAAATCTTTGGGTTTTATACCTTCCATAAGGAACATTAAATTTCTCCTTTTTATT
AACCTATATAGCCCATTTATAACATGTTTTATTTAAAAATATAAACTGTGCCACTCTTTT
AACTTCATCACAATCATCTCTGTTTTTGTAAAGTCATCTCTAACTTTATAATAAAATTC
TTTCTTTTTTCTTCATCCAATGATAAAAATTCATCCCTTAAGGATGATACTCCTCAAT
TAATCTATCGACATCATTTTAACTTTTATAGCATAGCATCAAACTCCTCGTTAATATC
ACTGATAATAACTTTTTTAAATTCGTATTTTTGTAAAAGGTAAAAATAAACTGCCCTCC
ACCAACAAAGGGTTCTATATATTTTTTAATGTTTTCTTCTCAATTTCTTTGGTAAAT
TTCTTCTATTTGACTTAAATTTGTGTTTTCTCCAGCCCATTTTAAAAAGGTTTAACT
TTCCATTTTATCCCAAAAATTAGATTAAGTGGCTTTAATCTTCTTAAACTTTAGATA
CATAACTTTCTATCTCTCATTTATATTTTCTCTAAGCTCCTCAACCTCTTAATATTTT
CGCTACTTATATTTATCTCTTCTCTATGTATGGGTTTTCTCTAACACTTTTTTCCAG
CCAAGATATCAATATCTGTAAATGTCCTAACAACTCTCTACCAGTTGCTAAAATCTCTT
TCTCTATCCAATGAGCTTCTTTTCCAAATCTGAAATAATGGGAATTTGGTTATTA
CATTTGGAGCCACTCATAATTAATGGGCTTATCATTTGGAATTTTGTCAACCAACTCCAG
TAATAATCTTAATCTTTGGGAATTTCAACCTAACAGAAGAAACCCAGTTTCATATACTCTA
TTGTAGTTACTGATGGTTTTGTTTTCATAAATAGTTCTTTTTTGTGGATTTAGAGAGTAGA
AGGTAATTTCTATTTAAATCCAACCTCCTCAATTAATTTAATAACTTCTCAATATCTTCT
CTTTTTCTCCTAATCCTAATATTATTGTTATCCCTGTCTTTAAACCCAATTTCTTTAGCTT
TTAATAAATTTCTTTAATCTTATCTTAATGGCTTTCTGGGCAATCCAATCCCTATCTT
TGCTTACAGTTTCAACAGCCCTACAACTCCTTCAATTACATCCAAATTAATGTTGTCTA
AATCAATAACTCCAACATTTCAATACTGCCTACATTTTTGAACATAAGCCACCATTTTCAG
CAATATCATTTATTTCTTTGGGTGTATAGCCATAACCACCAGAGATAAACTCTAATTTCC
AACCAATTTCTTTCAATTAATTTGCTCAGCTAAAACACTCTCCAATCTTCTTCTTGCCT
TTCTTGGGTCTTTATTTTGTTTTTCTGTGTAGCCATGTAGCAAACTTACATGGCTGTT
TTAGATTACAATAACCAACCTAAAAAAGAGCCCTCTCAATGTAAGTGTATTTCCGAAAT
GTTTTGTTGTTAATTTAAATGCCTTTCTTGCTTCTCAATATTTCTTCAACCTTCATTT
TCTCTCTCCCGATAGTCAATCTTCAAACCTTCAATTTTAAATAATGAACCTTATAAGCTTTT
GGCTTAAATAATAGAAAATTAATTATCTATTTGAAGATTGACTATTCTCAATATATTTCT
CAATAACTTTTGGAGAACTCTTGTGTTGAATTCCTAATCTCTCAATATTATGTTATTTA
AAATAGCTTTTAAATATCTCTTACCTTCTTTGATTACAGTAATCTCATTTAATTTCTTG
TAGTTGCTGGAGATTTAATTTCTTTAAACTTCTGCAATCTCTTCTCTGTAATCCTTC
CTTTTTTCTTTGATATATTTCCATCTGCAATCTCATATCAAACTTATTTCATATCAAATGGCA
AATATTACAGGATTTTATTTAAACTGTCTCATCTATTGATGCCAATAACCTCGCTATCT
CAATATCTTCAGTATTTTCATCTATTTTTAATTTTTTCACTACGAACCATTTTATGCT
TAGCCATAAACTCAATTTTATCTTCCACAATCTCACCAAAATAAAATTTTAGACTTAAT
GAATGTTAAAAATGGATTATAAATAAAAAATAAACAATAAGATGGATGTTGAGATTT
TACAGTTTATATAAATCAATTTAAGACTTAGATGCGAAGGTTATCATCTCTTTAAT
AAGTCTCTATTAGGCAGTAATAATTTCTTTAAGACAGGGTCTGTTACATCCTCTGGCTT
TATTTCTCAATATTTAAGATTTTTATTCTACTTCTTTTAACTTTGTATCTTCTCCAA

-398-

5 TTCAGAGTATAATATCTCTAAAGCATCTTCTGGTTTTAATGCTTTGTATTCCCTTTCTAAA
GTATAATGGGTCTTTACCTTTTTTGGTCATAATCCAGTTATTCTAAATATCTTAGCCAA
ATTACCACCTCCTCATTCTTTACAAATCTTATAAATGTTTTGTGCAACACCTATCCATCT
10 TAAGTAGGAATAGATAGATGCCTTTAATATAGAAATATCTTTAGCTTTAACATTTATCGT
TATTATATTTTTATTTATTTCCATTGTGGCGGAGGATTTTATTTGAGAAGTTAAATGTTT
CAAAAATATGGATTTATAGATAATTTAGCCCTCTTCTCACTATCAAACCTCAATATTTAA
CTCAAAAGAATTTCATGAAAATCCCTTTATAAAAGGCTGTCAAACAACCTTAATAGATTTTA
TTCTAATCAAAGGCCCTATTTTAACTCTCCCTTTATAAAATGTATAGCAAATAGATATT
15 TTGGGTCTTTTTCCAACCTCAATGTTATATCACTATCCTCATTAAATATTTAAATGTTGGA
ATAAAAAATTCATCATAAATTTTCATAGTATTTTTGAAATTCCTCGTTATCTTTAAGTTCTC
TACTTATTTTTTATTCTTATTTCCATCATCATTATATATTTTTCTCTCCACAAATCTCTCTCT
GTAATTTAACAGAGATAAAGCTTGATAGTCTTTTTTCATTTTCAACATCATAAACAACCTA
AAGTTCCAGGGTTAGCTTTTAACTCACC AATTAAGAAGCATGCTTATCAATTTCAAAA
TCTCCTTTAATGAAAGCTTCCCTCTCTGAACATAGGGAATATTTAAAGTTCTCTCTAAAT
20 CTCTCGCAAAACTCTTGTCTTTGGGAGGGTTTTCTGAAGTTGTTAGTATCATTTTTAT
CTCGCTTTACATGTTTAACTACTTTTGGTCTAAGTTTAAACCAATATCTTATAACTGCAG
TGAGGACATCTTGCTCTTTTTCCCAGCTCTTCAAGTTTATTATCTTTTACAGTTTAAA
CACTTGATTTCTACCATATACATCCCCAAAAATAAAAGTTATAAAAATTTATAAAAATAAT
AATGCTAAATAATGAAAAGTTATTTCTCTTTCTCTCAACAATTTCTTAATTTGCCTTCA
25 TAACAGCCTTTCTGCACCTGTTTCTGGTGTGTATGCTCCTCCAGCTATCTTAGCTCCAC
ACTTTCCACAAACCCATATTGATGTTGAAGCTCTCTTTAATTTTGGAAATCCACAGACAG
GACATTTATATTTCTTTTTAGCTTTAATTTCAACATCTCTAACTCTAACTCTTATTTTTTA
AACCATATCTTGGTCCAAATCTTCCCTGTTGGACCTACTTTCTTTGTGTGGCTGAACATAC
TCTCTCACCTCGTCTTTAATATCTATTTAATATCTATAAATTATTCAGTGTATTTCTTAA
30 CAACCTTTGTTTGGACATTTCTTTGGTTATTTTATTTAGATGAGCATAAAACCTCCGCTT
CAATACCCTTGGTATTTCAATTAATACAATTAGAGAACCATCTGGCTGCCATTTCTCTCT
GCTTAACAGCTCCAAATTGGTATAAAGCATTATATGCTTAGAAGCGAATTCTGCTGGGA
TTTTAACAGCGATATCTCTCTTTTCAATCTAATAGGTAGAAGCTTTTTTAAGCTTTTTAA
CAATTCAGGGACTTGTCTTTCAGCACCTTTATAAATGTCTATGTTAATTTCTTAACCTCTT
35 CCATTCGCTTTTCAATTTCTATGCGGTGGATGTGGAGTATCTGTTTGAGGGTTTATTGTGT
TTCTACTAATTATGGTTATAATTTGCCTCTTTTTTTGTTCTCTAATTTCTTCTCTGCT
TAGCAGTTAATTGAACCTTGACCTTTAATATAATTTTTTTAGCAATTTCTTTAACATCTG
TTGTTCCAAATATTTTGTATAGTAACTCTTCAGGGGCTTTCTCCCTTTACTTGCATCTC
TAAATACAACCTCAATAGCTAAAAGCTCATCAAAATCTACATTTTGCCCTTCTTTAAGCT
40 TAGCCGCTAAATATGGGTCAACTAAAATTTCAAATTTTTTCGCCATGGGATGTATATCTTG
CTATTACTGCCTCTTCTAAGGACACCATAATATCCCTCCCACATTATATAAATGTTTCG
GCTAAGGGTTTTGAATTTATAAAAATTACTTTAGTGAGAGTGAGTAGGATACTCCCAAAT
AATATTAATACTCTAAAAATAATTTAAAAATAGTTGGATTTAAAAATTTTACTATAATTTA
TTCTTCTTGTTTTTTCTTTAGTTTCTTCTCTATTCTCTTCCCTTTCTTATTTTCTTCATT
45 TAATTTCTTTTTTAACTTTTTCTATAAGTTTTTTTATCTCTTCCACAGGAATTTTTTTAA
TTGTGCGTCTTTAACCGTTATGATACAAACATCAACATTTTCAGGTTTATGTCTTCGTT
TGCTTTTGTTAAAGCAGTTATAGCTAATTCAAACCTTCATCTAATGTTATATCATCTCT
ATACTCTTTCTCCAATAATTCCATAACTACGGGTCTTCCACTACCTATTGCTGTTGCTTT
ATATTCAATTAAAGCCCCACTTGGGTCTGTTTCAAATAATCTTGCTTCATTTTTGTCTAT
50 TCCAGCAATTAATAATGAACTCCAAACGGTCTAACTCCACCATGTTGAGTATAAGCTTG
TTTAATATCACAAATCTTTTAGCCAGCATTTCAATTGATATTTCTCTCCATAAGTTAA
TCTGTAAATTTGGGCTTCTAATCTCGCTCTATCTATTAAACCTCTCGCATCAGCTACCAA
TCCAGAGGTAGCAGCAGCAACGTGGTCTCAATTTGGAATATCTTTTCTATTGACCTGAT
TTTTACGAGTTTGCTTGTATTCTTCTATCTACCGCTAAAACCTACACCATCTTTACAGGC
55 AATACCTATCGCTGTTGTCCCTCTTCTCACTGCCTCTCTTGCACTCTACTTGATATAA
TCTACCTTCTGGGCTAAACACTGTAATAGCCCTATCATAAGCACTTGGAGGTACCATTTG
CATAAAATATCACCATTATAAGTATTTTAAAGTAGTTAAATAATTAGCTTAATGTTTTTA
ACTAATTCATTCTCATTATAATATCTTATTATTTTTATTCTTTTCTTTTATTTTTATTT
TTATAGTCTTATTTTATATGGTTGTGTTAAGTATTGACATAACCATAAATTATATATATG
60 AGATATAGGATTATAATAAAGTGGTGATATGGAATGAAGAAGGTTGTTATATCTGATGA
AGCTAAGAAATTCATCTTAGATAAGTTAAAGAAAGCTAATCAGGATAAAGTAGTTATATA
CTTTGAAGGATTTGCTTGAGGAGGTCTAAGTTTGAATAGCTATCGCCACCCCAACGA
AAATGATAAATAATTTACGATAATGAATTTAAAGTTTATATTGACCCCATAGCAGATCA
ATGGCTTGATGAAGTTAATATCTATTGAGAAGTCAATTTTGGAAAGTATCTTAAGAT
AGAAGGTAGTAGTGAGTGCTAACCGGGAACCAATTTTGGGACCGGTTAGCTTCTTATAT
TGTGTGGATTTATCTGTTTTTTCAGAAATAAATAAATTTATTTAATTTATTTCTTGCAATCA
CCTATACATCCTCCCTCTTTTTTCATTAAAGACAAATACTGGGTTTAAATCAAGCTCTTTA
ATCTCTTTGTGAATATCCATAAATACTCCAATCTTTATTAGGGTATCAACAATAAAGTTA
ATATCTCTCTTAGGTCTTCCCTCTAACGCTTCTAAGACTTTATAGGATTTCAATTCCTCT

5

10

15

20

25

30

35

40

45

50

55

60

AACATCTCATGAGCAAAGTCCCTTGTTATTGGCGAAATGCCAAAAGATACATCTTTTAAA
ACCTCAACAAATACTCCTCCTAACCCAACCATAACTACAGAGCCAAAATATCATCCCTC
TTAGCCCTATTATAATTTCCATCATATCTTTCTCAATGAACCTTCAACTAACACTCCC
TCTATAATTAAATTATCAATGCCATTCTTTTGGCATATTCTTAGCATTTTCAATTAAT
TTTTTAAATGCCTCTTTAGGATTTTGGATTATTATAACTCCTCCTGCCCTCCGTTTTA
TGTATTATTGTGGTGAGACAATTTTCATTACGCATTTACCTAATTTTTTGCAATATTCT
AAAGCTTCATCTTCATTTTAGCTAAATAGCCCTTAGGAAGTGAAGACCATAAATGCTT
AATAATTTTTTAGCAGTGTATTCATTTGGATTGATAATAATTCTTTAATAATTTCTTTA
TTTTCTTCAGTAATTTTTATGAACCTCTTCTTAATATTTTCTAAGTATTCATCATAATCT
TCCTTAACCTTTCATTAAGCTATATTTATAGAGATGAGATAGGGCTTGACACCATTTCT
GGAGTTATGTATGCAGGGATTCCATTCTTCTTAAATAACTTTTAGCTCCTTTAACTGAA
ACTCCTCCAACAATGAAGTAATTAACGGTTTATTTTTAAATCTTTATGGGAATTTTTA
ACTTCTATAATAGATTTAGCAACTTCTAATGGTTTGTCTATCTCTTGTTGGAGTTAAGATA
ACTAAAAGCCCTTAACATTGCTATCTTCAGCTAAAACCTCTATAACCTTTTTATATCTC
TCTGGTGTGGCATCTCTATAATATCCAATGGATTGATATATTGGCAGTTGGTGGCAGA
ATATTTTTAAGCTTTCTATTGTTGATTTTTTCAAAGTTAGATAGCTTCATGTTATAATCA
ACACAGCTATCAGCTGCTAAAACCTCAAATCCTCCTGCATTTGTTATTATTTCAATTTCA
TTTGAGCTTATTGTTGGCTGTGTTGAGAATAAATGGATTAAATCAACTAACTCTCAAC
GTATATGCCCTAATTATCCCAGCTTCTTTAAACGCTGCCTCATAGATAACATCTTCTCCA
GCTAAAGAGCCAGTGTGGGATTTTGCCGCTTCTTTCTACTTCAGTTCTTCCAGATTTT
AGGGCAATTATTGGCTTTTCTTAGATAATTTTTTAGCTACTTTTAAAAATCTCTTATCC
TTTAATCCTTCTATGTATAAAACAACATCTTAGTATCTTCATCATCTAAAAAATCTCT
AATAAATCACTTCTCTGAATATCAGCTTTATTTCCAATGCTAACAACTTTAGAAAAGCCA
ATATTCAATAAAGGGGCTATGTCTAATATGGCATTAAACAGCCCCACTTTGTGAGATT
ATTGAAACTCCTCCTTTTGGAGGAAATACCTTCGCAATGTGGCATTAAAGTTATATGG
GTGTTTCAATTATACCTAAACAATTAGGCCCTATAATTTCTTATGTTGTATCTTTTGTCTATT
TCTTTAATTTTATTTTCCAACCTCATAATTTCTACTTCTGAAAGCCAGCTGTAATAATT
ACAGCCCCCTTAACCCCTTTTTTCCACATTCTTCCAATACCTTAGGAACAACAATATTT
GGAACCTACTATAACTGCCAAATCTATGTCATCCTCAACGTCCAAAACCTGATTTATAGCAT
TTTATTTCCGAATATTTTCATCATATTTTGGATTATGAGGATAGATTTTCCATTAAGTCT
TTTAAATTTTTTCAATTATGCATATCCAACCTTCTTCCAGTTTGTGAAGCTCCAATAATA
GCAACTGATTTTGGATAGGAAATATATTAAAGCTCATAATCCTCCCCACATTTTTCAG
AGAAAATTTTTATAGTGATTTTTAATATTTCTAATTATTATCTCTTTTAACATTTATATA
CTCTCACCTCCTAAACAAATACGATTATGGAGGTGAGATTTTATGAGATTAAAGCTAT
AAAAATAACAAGTAGAGATGGGGAACATTTCTTAAATGTCCAAGATGTGGAAAAATTTT
CAGATATTTCAAAGATTACACAAGACATGTAAATAAAGCTCACGGCCATCTCTTTAAAAA
AGAATAAAGTTATTTCTTTATAAATAAGATTCCATCTTCATTTTCCACTATTTTGGATG
TAACCTTTAGAAAAGATTTTATTGCTGGTGGTATATTCCATTCAACACCATGAACAAGTT
ATCCCAATTTTCAACAAACCTCTTTTCCCTAAAACCTCATCCAACCTTCTCTCAATTT
TTCAATAACTATTTTATCCTTGGTAAAGCTTTTTATCCTATAAGCCCTCTTTTGTGTTT
GGAGTAAAAAATCTTATCCTCATCATAGTAATTTTTTGTCTATCTCTAACAACCTCTCTCCA
GACCTCTTTAGGTCTCACACTATCCCAATTAAGATTTAACTAATTACTATTAAAGTAT
TGATGTTGATTATATGTATTTTTTGTGATTGAGCAGAGAAAGGAAGAAAGTGAAAAAATTT
GAAAGAAAAATTAAGATATAGAAAAAATTAAGAGACAGCAGAATTAAGAAAAAGCT
AAAAGAAATGCCATTAAACATGAATAAATACTTAAGTATGCTTATACAGGAGGAATTAT
TAAAAAATATCCAGAGGATTTTATTGTTGAAGAGATAACTCCAGAAGGAATTATTTTAGA
AGTTGGAAAGAGTATAGAATTTAAAGATGAAGAAAATTGGAAGGGAAATTATATACACTT
CACATTAGAGAAGAGGAATTGGACAACCTTTAGATGCCATTAGAGAAATAGCAAACAGAGT
AGGAAAGCAGAGAAAGCATTTTGGATTGCTGGCAATAAGGATAAATATGCCGTAACTAC
TCAAAGAGTGGGCTGTTTTAATGTAAAGTTAGAAGATTTAATGAAAGTTAAGATTAAAGG
CATAATATTGAGAGATTTCCAAAAACAAATAGAAAAATAAGGTTGGGGGATTGTGGGG
GAATAGATTTACTATAAGAGTTAGAGAGCCTGAGCTTAAAGGAAAAGAATTGGAAGAAGC
TTTTAAATAAGTTATGTAAGCTAAAATACTTCTTAAATTACTATGGTGTCAAAGGTTTGG
AACTACAAGGCCAATAACTCACATAGTTGGGAGGTTTATTATAGAGAGAGACTGGGAGGG
AGCTTTCCATGCATATTTGTGGAACCTCCCTTCTTACGATGACAAAAAATCAAAGTTGGC
AAGGGAGTTGGTGGATGAAGAGAATTTTAAAGAGGCGTATAAAAAATTTCCAAAGGCTTT
CTTTTATGAAAGAAGGATGATTAAGCTTATATAGAAACTGGGAGCTATCAAAAGGCATT
TATGATTCTTCCACCATACTTAAGGTGCATGTTTATAAATGCTTATCAATCCTATTAT
CAATGAGATAATCAATAGAAGGTTTGAAGTATGGCTTTGAACCTATGGAAGGGGATATTTT
AATTGATAATGTGCCGAGTGGGGCATTGTTTGGATATAAAACAAGGTTTGCATCTGGAAT
ACAAGGAGAGATTGAGAGAGAGATTATGAGAGAGAAAATCTAAGTCCAGAGGATTTCAA
GATTGGTGAGTTGGTTCATTTATTGGAGATAGAAGGGCGATGATTGGAAAAATATACAA
TATGAAATATTGGATTGAAGATGACAGCTATGTTTTGCAGTTTGTTTAAAAAAGGAAA
TTATGCAACCTCTGTTTTGAGGGAGTTTATAGAAAAGAAGGATTAAGATTTCAGTAAGA

-400-

AGTTTTAGGAAAATAATAAAAAATAATAAAGGAAAAATTATTGTGGGATTTAAATATCTC
TTAAAAAATTAGGAAAAATAAAAAATAAGCCCCAATGGTGTGCCATGGTTAATGAATA
TAAAGCACACTCTTCATTCATACTTAAGGTTGTCATTACACTTATTGGTTATTGGATTGC
5 TTCGATATTAGCAATTATTATTTATTCAATGTTTTTTAAAAATAGAGACTAACACCTTTT
ATTGTGTTTTATTACTTCCAACGCCCATAATCTGGTTCATATTTTAATTGGAATGGGTTT
AACCTATAGATGTATGGAAAACCTTAACCATTTATGATAAGCATAAACTCTGGTGTGTATT
TGTCAGAGATTTAACACTAACCAATATTGGCTACAATATTAGCAACATTAACCACAATGGA
ATTATATCAAATAGAACACCCATTAAAACCAATCGAATTCGTATTCAATTGTAGGATTAGT
10 TTTAATCGTAGGATTTACAATAATAACAACCTTAATTATCAAATACCTAAAAATCATAAA
AAATCTAAAGAAAATAAGTAAAAATTAATTTGCATCCTTCATATCTTTCTCAAACCTTGCT
AAAATAATAGTAAAAATATTGCCATAACTCCACATATAAAAAACAAGTATTGCTATAACTCC
AATAATCAATGGATTAAAGTCCATCACTCATCAACCTCTATTTTACTCATACTTATTG
ATGTATTTAAATAATTTTGGTTATGAAATTGTATTTTATAGGGGCTACAACTTACAAAC
TGCTTCTGGAGTTGTATCCTTTAGTGTAGGAACGACTTTGATAATAGTAGATACAGTAGC
15 AATATTTTTTACTGTTTGGGTATTTTCAGCCATATTATACGATATTTACAAAAAATTAAA
ATAAGTTAATCCTCTATCATCTTTCTACCACCTAATTTAAAAATACCAGATATATAATCCT
ACTACAAAACCTTATGATAACTGCAAAAGAAAGTATTGAACTAATAAAAAATAGCTTTCT
CCTTCCATCTTATTACCTCATTATTTCTTAATTTTAATGAAATCACCTAATGTAAATCCA
TCTTCACTCTTACCACCATTAATGAAGTTTCTTCCCAATACTTTTCAGTTAAGCTTATT
20 TTTAACTCTTTCTCTAATATTTTAATTTCTTTTTCAATTTGGTTCTAACTCATACCTTTCA
AATTTTTGTAAAGTACTTGCTTTCATTTTAAGTTTTTTAGCAAGTTCTTCTATTGATAAA
CCTCTCTTTTCTCTTGCTTCTCTAATAACATCCCCATAATCCTCTCTTAACATTGGTAAA
GTATCAAATATATCTCTTCTTTTAAATAGGCTTTTTAACTTGTTTATTAGTAGTTATT
25 GTTCTTTTTCTTATTATAGTTTTTTTACCTAATCTTGAATATGTTTTGGACTTTTGCCA
AATTTAGCACACTCTTTACAGACATTCATTTTCAGAGCCTTCAATAATTACCTGTAAAGC
TTATCTGTAAGCTTTCCGCATAACTCACACATTTGCATAATACTATCCCTCAAAAATTTA
ATAACATTTATATACCTTTGGATAACATTAGTTTATATTGTGGGTATAAATAACTAAGT
GTGAAAATATGGAAAGGAAAAATTAATAAAAAAGCTTCTTCATACTTTACATCATACAG
AGGAGCATTTTGAAGCTATACTAAACCAATTAAGAAGCTTGGCTTAGAACTAAGGATT
30 ACGAAGAGCTATACAACAAATTAAGAAGTAAATGAGAAGGTTAAAAAGAGTTATAAA
TTTTTAATACTTTTTTATTATAAATTTAACTGCCAAACCAATTAATATCCATCCATACAT
TGAGATTGGTATAGTTATTAAAGGCTGTAGTAAAGCTTCTTCTGCGCATTCGGGAAC
GATAAATTTAATATAGACAAATAAAGGCAGTGCTAAGATATTAAATAACCAATTCGGAAT
TTTAAATTGTAAGAATGGGACTATCAACCCAAATATTGCCAAGAATAACAAAAACTTATC
35 TTTTCTAAGAATCCATAATGTAGCTAAATTTATCCCTAAAATTAAGATTGAGATAGCAAT
AAACCATTTTCATAACCTTATTGTTATATTCCCAATCTCTTCTGCTTTCCTGCAATTTCCAATCTC
TTCACCTTTGGATATATGCCAAAGTTTCATTATATTTTAGATTTTGAGATTTTAATTCATG
CTGTTTCTCTATCAATTTGTTTGTAGTTTCTTTTATATTCTTCAATCCTCTCATCGTTTGG
40 ATTTTTACTCTTAATTTCTTTTAAATTTTACAGTAAGTTTCATTAATTTCTTTGCTGTAAT
TGAGATATTGTCATCTATAGCATTTACTAATGATAAATTAGAAAATACAATTAAGAAT
TAAAAAAGCTAATTTTTTCAATTTCTTACCATAATATTATCTATCTGAGGATTATTCCAG
CTATATAGCCACATATTGTTGAGAATATAACAATAAACCATAATATGTTAAAGCCTTCG
TCTTTCTAAGACTTTTGGAGTGGTTAAGACTGTGGAATACTCAAACCTTGGTCCAGCTA
45 ACAGCAGAGCCATTGCCGGCCCTACACCCATACCAAGCTCCATCAATGCCTTTATAATTG
GCACCTCTGTAAATGTGGCGAAATACATCAAGCTCCAAATAATGAGGCAATAAAGTTGG
CAGTTATGGAGTTTCTCCTACATAGGTTGCTATATAACTTGGTGGGATAATTGCCTTAA
TAGCTCCAGCTATGGCACTCCAATAATTAGCAGTGGAAAGACAATCTTTAGCAGTGTA
AGCTCTCTCTGAGCCAGTTCTTAATCTCCTCATCTTTAAACCAGATTTTGTGTTACAG
50 CCAAGATAATCCCAAGTATTATAAATAGCAGATGCTTTAATAAAAAATCCATCGTATAGAG
GCATTGATAACGTTGGAAACAGCTTGGGTGAGGCGGTAATTACCAACAACATGATAAAT
GCAGAGCAAAGAATGTTATTGTTGATATAGAGGCTTATCTGATATTTTATCTGCCTTTG
GGACTCTTAAAGCTCTCTTTTCTCATGGCTTTTAAATATTATCTCCATTGATAAACCAA
TAAGTATTGAGACTACTACTGCAACACAGCCCTTAAAAATCCAATGTCCCATCCAAGCA
55 ATGCCGCTGAGTAAATATAGCCAAACATTTATTGCTGGCCAGAGAACAAGAATGTTG
TTGCTGGCCCTATTCCAGCTCCTCTTTTGTAAATACCTGGCAAATAATGGAAGGATAGTGC
AAGAACAGACAGCTAATAAGCTACCACTAACAGCAGCTACAGTATAGGATATGTATTTG
GTGTTGTTGAACCGAAATATTTATAATAAAGTTCTTGTAAATCATTGAAGCAATGCCTC
CAGCCTAATAAGAACCATCAATAAGGCTAAGACTCTATTACATTTAAATAATCGATGA
TTGTGTTTATCATACATTAATAATGTTTCATTATAAAGCTCATACATCCATTTTCATCC
60 CCTCCTAATTTCTCTTCTTCTTTTAAATGAAGTATAATCATGAACCATCTTTTCTCCACA
ATCTGGGCAGTTTGGAAAGCTCTACCTCAGAAGCCATGCACGGGCAACATCTACCTTATA
TCTCAACCTCTTTCCACACTTTGGACAGATTAAGTTCCAAACAATCATATTTTACCACA
TAATCTATAAATTTGAGTTAATTAATCAAAATATTTATAAAAAATAAATATAGGGTTATTC
CTTATTGTCTCCACAGGTGCAACAACCTTCTCCTTTCTTAACCAATGTATGAGTTCCAAA

5

10

15

20

25

30

35

40

45

50

55

60

TACAATTGGAATCTCCAACCTCTTCCATCAACTTCTTACAGATTTTCATCAAAGTTTATGTA
TGGGCATTCTGGCTGTAAGAAGGTGCAGTTTGGCTATATGAATAGCTTCAGCTCCAGCAGC
AGTTTTTAATAGCTTTACTCTCATTGGAAATCTCCTTCCAGGACAACCCCCACAGGTTGT
AAATGCAACTAACTCAACATCTTTGTATCTTTCAAAGCTCCACTCTTCTCATTATTGTC
TTTAAAGCAAGATACGCATGCCTCTTTCCAGGACATCCCATTTCAACCATTTTGTGACA
TGCGATAATTGCCACTTTTCATTATTTCCCTCTAAGTAACCTTTTAACTCTTCTTAATT
TCCTCAACAGAGGGAATTTTCCCTTCAAAGACAATTACATCGTCAAATGCTACTCCAGGT
GTAACAAAAACCCATTACGCTATCTCATTGACATCTGTAACCTTTAACAATCTCTGCATCT
ATGCCAAGTTCCTTCTACTGCTTTTTTAACGTTCTCGTATGTTTGGTTACATTTTGGACAG
CCCGTTCCGAATATCTTATCACTACCATAACCCTCACCATTAGTGCTTTTCAAATTA
ATAAATTTATTAAGGAAAATTTGAACACCTTCTTAAAGGAAGGCGTTCATTAATACCTTA
AGGTATTACAAAATGTTTGAAGACACTAAATATTATTGGGTTTAAAGATAATATTTA
TAGTTTTCGATTAATTGATATATTTTAATATTTTAAAAAGAAATCAAATATTTGGATAA
TATTTTCAGTAAATTTATATATTTTCTCGCATAGCGTTGTAATATTGAAGAATGACGAA
AATTTTAAAGGTGAAATTAATGAAAATAGCTCTACCTATAGATAACAATCGGCTATCTCC
ACACTTTGGAAGGTGTGAAAAATTCATGATTGTAGAGATTGAAAATGGAGAGATAAAAAA
TAAAGAGATCATTGAAAACACTGCAAGAAATGGCATGCATGGAGTTGGAACATCATCAGC
CTCATTAAATTGCAATATGGGTGTAAATGCCATAATAGTCCAAAATATAGGACCTAAGGC
ATACAGTGTTTTTAAACAGCTTGGCATTGATGTTTATAAAGCTAATAACAACATCTATTGA
TGAATGCATAAAGCTATTTTTAGAAGGAAAATTAGAAAAATTTGAGTGAGATGATGATTG
TTGCAGTAACTGGTGGTAAAGGAGGGACTGGAAAATCTACCTTGTGAGCAAACTCTTTT
TTTATTTTATGAGAATTATAAACTGCTTTAATAGATTGTGATGTTGAGACGCCAAATC
TTCCCTACTTAAACAGGTGTGAGGATTTATCTTAGCAAGAGAAGTTTTATTTGAAGTTT
CAAATATAGAGGAGGTAAAACCTTACAACATAAATAATGTATGTAAGAAGGAGCTTTAT
TAAAAGTTGGAGATAAATTAATTTTATTGAGGATTTATGCAGTGGCTGTAAAGCTTGTG
GAATAAATAGCAATATAACATTTAAAAGAGAGCATTGGAAGATTACGAGAAAAAAT
TTGATAATGGATATCTAATTGTAGGAAAATCAAACCTTGGGAGAGAGAAAGACAGCAAAA
TCGTAACCTGAAACAAAGAAATATGGTTTATCAAAAACTGCGAAATTAACATTGTAGATA
CTGCCGAGGAACTCACTGTACGTTGTGAGAGCATTAAATTAACGCAGATAAAGTCCTTA
TAGTTACAGAGCCAACACCTTTTGGTGTTCAGATGCAAGAGGATAATCAAGGTTGTGG
AAAAGCTAAATATTCATACAAGATTGTTTTGAATAGATATGGAATCAGTGATTTAAAAA
TTGGTTATAACTTCAAAATTCCTTATGATAAGAGAATAGTTGAATGCTACTGCAAGGAG
AGAGTTTTTTAAATATAATGATTGAGAAATTATATAGAAGAGATTGCAATTGGATTA
TTTGGGGATAAATGAAGATAGCAATTATCTCAGGGAAGGAGGAGTAGGAAAATCTTC
TATTTCAACATCCTTAGCTAAGCTGTTTTCAAAGAGTTTAAATATTGTAGCATTAGATTG
TGATGTTGATGCAACCAAACTTAACTTAATGTTTGTATGTTAAAGATAAAAAATTGTTGA
AGTTATCTATCGTGAGATATATGAGATAAATGATGACTGCATAAGATGTGGAATATGCTT
AGATGCTGTCAATTTGACGCTATAGGGGATTTAAGATAAATCCAATCTGTGTGAAGG
TTGTGGAGCTTGTGAGCTAATCTGTGAATTTGATGCAATAGAGCCAATTAACCTGAAAG
TGGTTATATCTACGAAGGTTTTGTTGGCTTTCGTTAATTTGGGGAGAGTTAGAGGTTGG
TGAGAGTGAAGTGGAAAGATTATTGAGCATATAAAAAACCATGCCAAAAATATAAAGC
AGAGTTGGGGATTATAGATGGCCCTCCAGGAGTTGGATGTCCATTAACTCAACGGTTAA
AGATGTTGATTTAGCTTTATGATAGTTGAGCCAACAAAATCAAGTGTTAATGATTGTTT
AAGATTAATAGAAACACTAAATTTCTTAAATGTTGAATATTAAATGTTGAGATAAAAA
GGGCATGAATAACATTAACCTACCCATTCAAATATTCCATTCAATTCCTTTGATTTTGA
TGTTCCAAAATTGATTGCAAAATAGATTTTGTCTTGTGATAGTAATAGCAAAGTATCAGA
ATCAATAAAGAGCTTTATGAAAAATTAAGAATTTATTTAGCTATTTTTCTTTTAAAC
AACTAAAACCTGGTTTGTGATTTTTAATGACATTTTCAGTAACCTGAACCAAGTAATAT
CTCTTTTAAGTTTTGTTTTCCATGAGAACCCATTATAATTATATCTACTCCCTCATCTTC
AGCTATTTTAACAATTTCTTCATGAGGAATTCCTACAACAATAATATCTTAACTTTAAA
TCCAACATCTTCAAGTCTTTTTTGATATTTTCCATTTTATTTTAGCTTCTTCAGTAAG
TTTATTCTTTAGCTCATTTTCAAACCTCTCACTGATTTATTCAAACCTGCAACACCTAA
GAGTAGAGAGATAATATCTCTCTTTTTGATTTCTCTTCATCTATAACATGCAGTAAAAA
AATTCTTCCGCTTAAGAGTTTTAAACGCCTTAACATGCTTTAATGCAATCTCAGCAGT
TTCAGAGAAGTCAGTTGGATAAAGAATCTTTTTATACATAACACTCACCTTTTATTAAT
GACCTTTAAACACTTCTCCAGTATAAACTTTGTTGTTGTTTTATTAAAGTTATCGCCCC
AGAAGAAGAAATAACAACAGTATAATCCAAAGCCTATGTAATCGATTATACTAAATtGA
ATATTTTATAAACTAAATGTGATGATGCAACATAAGCTCCCAATGGGAAGATGAATGCCC
ACCATGACATTGCATAAGGAAGTTTTAGCTTTTTAACATAGTAGAGAGTCATTATTATAG
CCATCAAACCTCCACCATAATCCAAACCCCGAATATGAAGGAGAAGATATAAACGGCT
CTTTTATGTTATGAATGGGGAGTTATTAACCATGTTTATTAAGGCAACAATTCAGCCCC
CTATTGGCCCCAAGTTAATCCATACTGTTGGAGCCATTGCTGAGGGTAGAGGATGATGCA
GTATAAACCTATAAATTACCCTGCTAATAAAGCTAAATATAAGAAAAATCCAGCCCCC
AACCGAAGTAGTTAATAAGAAGTGTAAATTCATGCCAACTCCAGTTAAATGAGGCATTA

-402-

5 TCAAACCTCCCGGCAATTGGAATAACTATCAAACCAACAGGTGGAATATACCAACCCGGAT
TAACATGGTCTAACTTTTATACTTTTCACTTAAACATATAAAACGGAACTATCAAACCTGA
ATAAAAACATGCCAATAGCACCAAGAGTCCAAAATACTCCACCCCAAAACATATTATGCC
CTATATTTATAAAGTCAGCTCCTAAAACCTAAACAACTAACTGCAATGGTTGGATAAAAGG
CACTCAAACCTGGATGCTTTAAATCAGCTAAAGCATTATCTTTGAACATAATCCATCTTA
AAACCCAGGGAATAAGAATATAAAGAACAAACAAACATTGAAATAAAACAATCCAACCTG
CAACATCTTTTAAATTTGGCAAAATAAGATGAATATAGTAAGCTATCAACTGCTAAGATTG
CAGTTCCCATCACTGCAGCAAACCATGAAGGGACGAAGTTTTTAATTATGTCTAATTTTG
ATTACACCGCCTCTAACATGCTCTCCCTCTTTTAAATATCCACTTATGGGTAAAATAAA
10 ATACACAACAAATATTTATAGTTTTCGATTAAATTGATGTATTTTAAATGTTTTTAAAAAG
ATTTAAATATTTAAATGAAAATTATCCCTTCTAAAACAGCCTCTTTGTGTATGTTTAAATG
CTTTTGTCTTTCTACAATCTCCTCTAAAATTTTATCTTCCAGCAACGCATGGATATC
TTTGAATTAGCATGGCAGATTTTGGCAAATTTCTTCAATATCATTAACTCCATCCCT
TCATCAGCTTAGCCATAAATAAGGTTGAACCGCAGATAGATGTTCTTAAAACCTCCACAT
15 CTATAACTTTGTGTCTTTAACATAAACCTTAACTTTGGAGTTCCAAATTTCTCTAAAA
ATTCTTTTAAATTTTGGATATTTATCTATCAAGCTTCCAACCTCATTTCATCCAACAAAC
ACATCTCTTCTGGACATATAGCATCAAACCTCTTTAGCTCCTTCTCTCTCCCTCTCCAC
TCCACGTAGCAACGATTATGGCAATATCTTTATTCAATCTCCTTGCCTCATAGCAGAGAT
AATAGGTGTTGTCTGGATGTTAGTATAAAGCAATAAATATCAGCCTCTTTAATTTT
20 CCAACAACCTCATCTGGAACTCTATATCATCAACTATCAATCATCTGGTTTGTGATTT
TATAGATTCCAATGAATTTATTTTCTTTCCAAAGGAGTTTATTGTTCTTTAATCTGT
ATCCATAAGCTCCATCAGTTACTACCAATATTTTGGCATTGTTATCTCTTTACTCTTA
GAGTTTCTTTTAGATAACAGATAGTAAATTATTGCTCCAATTATCCCTAAAACAGACA
ACCAATATCCATAAGATTTTTTCAAGAGTATCTAAAGCATCCCTCTTAAAATATCCACA
25 ATGGTAATAATAATTATTAAAAAACTGCTATTCCAATAACAAAAACAATCCCATAAAG
AAAAATCCAAAAATTTGAAATCCAACCTTCCAACCTTGGACAAGGCCACATAAAT
ATCCCTTAGTTTATTCAATGAGACAAATCCTATTCAAGGATGACATTCTTCTCAATCTCA
CAGCTTATAGAGTTGCTTATTAAACATTTTTTTGAGCCTTCTAAAACCTAATTTCTTTAAT
TTCTCTTTGTCTATGTCTCCATCAACTTTTACATAGATGTTTATAATTACCTTCTTTATC
30 TTTCTTCTTCAAAGGATTTCTCAACCTTTCCATCTACTTTTATCTCAGCATCTATGTTG
TTAGCTTTTAAATGTATTACCAACAGCTATGCAAAACACATCCACAAAGCCCAGCTAAAAAC
AAATCCATTGGGGATATTTTTCTTTTATTGCCCCCTTTCTCTCTTGAATGGATTTTT
AAACCTTTAATTTAGTAGGGCTTCAACATATCCAAATATTGAGCAGAACTTTT
TTCTCATCCTTGCTTACAATTATATCAACAATTCTTGCTATAAACTCCTTTCTTTCAATTT
35 TCAGGAATATATTGCAAAACCTTCTCTAAAGCTAAAGGCATCATCTTGGCATCATTTTA
GGAGCCATTTCTTTAGCAATGTCTGAATTCATCATCTCCATAATCATCTCTGGATTCTATA
TCCCCACCTCATTATTTTCCGCTTATGAGTAAAAATATATTAGGTAATATTTATACCTTT
CGATTAAATTAATACATTTTAAATATTTTAAAAAAGATTTAAATATATCGATAAATTTTAA
40 AATAAAATAAAGAAGTTTATTTATTTTATCATCATCAGAATTATATTTTATGCGTCAGA
TGTTTTTCAACAGCTAAACCTCTAAAAAAACACTCCCTTGCTTCCCTCATACCTCCCCAA
ATTCTCAGAGCTAAAGCTTTTATTAACCATGCATCTCTATAAAATGGGTTAATTCTATT
GCTTTGTTAAATACTCTAAGGCTTTTCTACATCTCCTTTATTCCAACCTCTACACCT
TTTTTATAATAATACTCTGCCCTTTTAAATATTTTATCCATATTAACACCCCTAAAAATTA
45 AAAATAAAAAATAAAGATTTTAGCTGTTAGTTTTTTCAATAAACTTCTCGTGCAATTTT
CTAACACAATTCAACAAATCCTTTTATCAATAACAAATGATATATCACTTCTGATGAA
CCTTGAGCTTATCATCTTTATATTTTGGCCCGCTTTGAGAAACAGCAGTGAATATCTTTCCA
GCTATGCCCTTTAGCTCCTCTCATTCCAGCCCCCTACAACGAAATAACACAAACATCTTTA
TCAACACTCACATCCCTAATTAAAGTTATTGTTTAAAAAGCTCTTCTTTCCAAAATCCCCA
AATCTCTCTCTTTAATGCTTTTAAATGCTTTATCAACATCCTCCTCACTTACAACGAGGGAT
50 ATATTTGTTTTCAGAGGAACCTTGCTTATTAAATTAACATTAACCTCCTCTCTCTCTAAA
GCTTTGAATATCCTTGCCGCTGTTCCACTAACTCCAACCATCCCAGCTCCAAATATGTTT
ATTAAAGCGACATTTTATTTATTTGTTGATATAGCTTTAACTATGCTATCACTCATCTCCATA
TCGTTGGTTATTAAAGTTCTTCACTCTCTGGCTCAAATGTATTCTTTACCAATATTGGA
ATGCCCTTCTCCATAGCTGGCTCTATAGTTCTTGGATGCAAAACCTTAGCTCCAAAGTAT
55 GCTAATTCATAGCCTCTATGTAACCTAAGTTTTGGAATTTCTTCTGCGTAGGAACTAAT
CTTGGGTCTGTTGTATAAACTCCAGAAACATCTGTCCAAATTTCAATAATATCTGCATCT
AAGCCATAACCAATTAAAGCGGCTGAGTAATCACTTCCGCTCTTCCCTAAGGTTGTTATA
TAACCTCTTTCAGTGGTTCCCTATAAATCCTGTAACCACTGGAATAATGCCCTCTTTTAAAT
AATGGTAACCAATCTCTCTTTAACTCTAATCTTTTAACTCTTGCCTTCCAAAGTTGTTA
60 TCCGTTATTATTCTCTGCTTCTCTCCTTCTAAAGCAATAGACTTTTCTCTAAATCTCTA
ATAGCTCCACTTAATATTGGTGAGGACAACCTCTCTCCAAATGATAATATATAGTCTCTT
GACTTTGGTGTAAGCTCCCTAAGTATGCTACACCAATTAACCTTCTCTAATTTCTTCA
ATCCTGCTGTCAATTATTTTTTTTACTTCTTTAATTTCTTCTGATTTTATAGCTTCT
TCTATAGCTTTGTAGTGTCTCTCTAATAAATTTTATAAAATCTCCTACTTTTGGCATA

5 TCTCTAACATCTAAAGCTTGCTGAGATATCTCCACCAATGCGTTAGTTACTTCACTCATT
GCTGAAACTACAACAACCACATCATCATCTCTTTTTTCTCTTTGTTACTATTTTCGCC
ACATGCCCTAATCTTTCTCCAGAACCCTACAGAAGTTCCTCCAACTTCATTACTGTTGTC
ATAACTTACACCAAAAATTATTTTATAATTGATAAGATTAACCAACACAAAATTTTAGACC
10 ATGTATATTTAAAAATTTTCTTTATTGGGGAGTTAGGAGTTATTGGAGCATCTTTTATT
AACCTTTTATATTTTAGTTTCATAAGCTAAAAAGAGAATATAATGTTCTATTTTAAATT
TGATTAAACTATTTAGGAAAAGCTTTCTCTTAAAGAAGTTAATTATTTTATTCTTTA
TACTAAAAATATTTGAAAAATAGTGAAATATAATTTTCTTAGTTTTTCATCTCTTAGA
GGTCTGATTTTAAATTATAACAATTTGGGAGGTAGAAGGAAAAAGAACTATGTTTCCAT
15 TCCGAATCAGTCTGATTTTAAATAGACATGAACCAAAAAATCTCAATTAGATTTAGTTGT
TTCCATTCCGAAACGGTCTGATTTTAACTCAAAATTAAGATGATAGAACATTATTAATA
TAAAAAGTTTCCATTCCGAAACGGTCTGATTTTAACTCAAAATTAAGATGATAGAACAT
TATTAAAAATAAAAGTTTCCATTCCGAAACGGTCTGATTTTAAACCGGTGTTGATGCTATA
GTTTATAGATTTGAAGAGGCAATAAGGTTTCCATTCCGAAACGGTCTGATTTTAAACACTT
20 TAAFAACATCCACTCCAGAGATTCTCATTCTTGTTCATATTTCCATTCCGAAACGGTCT
GATTTTAAACGATTAGTTTGTGCTGAGTTTCCAACCTTTTCGGGGGGTTTCCATTCCGAAAC
GGTCTGATTTTAACTTGTAGAATGTTATTTGCCTCTTCTGCACTCATGTTTGGTTTCCA
TTCCGAAACGGTCTGATTTTAAACAAGTCATTTGTATTTAGTTTCTGTAGAGAATGTTTC
CATTCGAAACGGTCTGATTTTAAACGCTTGTGCAATATAGTTAAGAAATCTTCATTAC
25 ACTGTTTCCATTCCGAAACGGTCTGATTTTAACTTTTATTTATTCTTTTATTTTGGAG
GGATAAAAGTTTCCATTCCGAAACGGTCTGATTTTAACAATTTATATATAAATCCATATA
TAAAAATTTCCGTAGTTAAAAATCAGAGTTTCCATTCCGAAACGGTCTGATTTTAAACAGGG
CAATCATTACACACATAATATACCTTCACTCTTAATATTTAAGCTTTTCTATACCATA
TTTCTTAAGGTTAAATAAACCATCTTACAATATAAACCTTTTAGTATTTAAATTTTATC
30 TCTTTACTAAACTAAGCATTTTATCTTTTAAATTCAAAAATTTAACTGTCTGTAG
AGAAATCTTATTTAGATAATTATTTAATTTTATTTTCAAAAAATCTGAATAATCAATAA
ACTTAAATATTTCTAAATAATCAAACCAGCAAAACCTTAGAAATTAATAAAAAATCCTTG
AACTAATTAATAACTTCTAAATGCTCTTATTTCAAATTTCTAACTTATCCAACAAGACA
ATCAATAAACCAACAACAATAATCAGAAATCCAAACCTATATCTATAATAAATATATGG
35 TAACAAAAATATATACCTTACTCTATTTTATAACCAACCAATTTATGGTGATTGT
ATGAAAGTCGCTGTTTGTATTCTGGAGGAAAAGATTCAAACCTATGCACTATACTGGGCA
TTAAAGAAGGTTTGTATGTAAATACCTGTAAATGTTGAAAGTGAGAATAAGGAAAGT
TACATGTTCCATATTTCAAATGTGCTTTAACTGAGTTAAGTGCTGAAGCTGTAGGAATT
CCTCTAATAAACTATACACAAAAGGAGAAAAGAAAAGAAAGTTGAAGATTTAAAAAA
40 GGGCTTGAAAAATTAGATGTTGAGGGGATTGTTACAGGAGCTGTGGCAAGTATTTATCAA
AAGTCAAGGATTGACAGAGTTTGTGAGGAACTTGGATTAAATCCTTTGCTCCATTATGG
CACAAAGACCCAGAGTGGATTTTAAAGAACTGTTAGCGAGCTTTTAAATGTGAGAATTGTT
GGTGTCTATGCTTATGGCTTAGGAAAAGAAATGGTTAGGAAAGAGAATAACCAAGGAAAT
ATTGATAAATTATTAATATCTGTGAAAAATATGGAATACATAAGGCGTTTGAGGGAGGA
45 GAAGCTGAGACATTGTTTTGATGCTCCAATGTTTAAAAAGAGGATAGAGGTTGTTGAG
GCAGAGATAGAATGGCATGAACTTGGGGAATTTACCATATAAAAAAGGCAAAATGGTT
GATAAAGAATAAAGGGAGATTATGATTAGAATAGGGACAAGAGGTAGTAAATTGGCATT
TATCAAGCTAACAAAGTGGCTGAACCTATTAATAATCTTGGTTATAAGGTAGAAATAAG
ATAATTAAACTACTGGAGATAGGTTTTAGATAAAAAAGCTATCGGATATAGGTATTGGC
50 GTTTTTACAAAGGAGTTAGATTTAGCCATGTTAAATAACGAAATTGATATAGCAGTTTAT
AGCTTAAAGACATTTCAACTATTTGGAATGAAATTTAATGGTTGGGGCTTTTTGGAG
AGAGATAGCTATCACGACTTGCTAATATGGAATAAGGATATAGATTTTAAATGAAGATAGT
AAAATAGTTATAGGAATTTCAAGTATGAGGAGGAGGGCTTTTTTAAAGTTTATTTATCCA
AATGCAAAATTTGAGTTATTGAGGGGAAATGTAGATACAAGATTAAGAAAGCTAAAAGAA
55 GGGCTTTATGATGCTATTGTTTTATCTGAAGCTGGAATAATAAGATTGGGAGTTAGTTTA
GAGGATTTTAACTATAAAAGATTGGATATCCTTCCAGCTCCTGCTCAAGGAATTATAGCC
GTTGCTTGCAAAAGAGATGATGAGGAAATGAAAAGCATCTTAAAGAGATTAACCATGAA
AGAATTTACTTAGAGAGTTTATGTGAAAGAACTGCATTAAATGAATTTGGAGGAGGTTGT
AGTGTTCATTTGGAGCTTTAGCAGTTTATGATGAAAAAATGAGTTATTAATAATTAATA
60 GCTGCAAGTTGTTACCAACGATGAGTTAAAAAATGCCTCTGGAGAGGTTAAATGTAAAT
GATGAGATTGATAAGGCAGTTGAATTAGGGAAAAAATTTGAGTAAAAATTAATAATTA
ACTTTATCTTTAAATTTCTCCATAAAAAATTTTAAATCTCTCTAATTTTATCTGATAAT
GCATGTTCTAATTTGCAAGCTTCTTCAGATGCTGTTTTTTTCAATCCATCCTAAAACTCC
ACTAAAAATATTTTAAATGTTTTATGTTTGTCCAATATTTTTTTAGCCTCTTCAATGCCT
TTTTTCAGTTAAAGTTATCCCAATATATGGCTCATAATTAACATAACCAATCTATGCAGT
TTTTTTGCCATATTTGTAAGTCTGATGGCTTTATATTTAACAATTTAGCCAGTTTCAAGT
GTTTTTATTGGTCTGTTATTTCTTTTATGAATAAATAAATCCTCTCTAATAATCCTCA
ATACTTTGAGACATGATGCCACCGAAAGTTTTTATACCCTGCATGTTATTTTAACTA
CGGTTAAAAATTTTAACTATAATTAATCATTTAACCATATATAAATGTTGTGGTATTAT

GTATCCATTAGCATTGTCAAAAGAGGGAGAGGAAGTTATAGTAAAGAAAATTGACGCTGG
TTGTGGAGCTATGCAGAGATTGGTAAGCATGGGGATTAATATAGGAAGTAAATTAAAAC
TATAAGAAATCAGAATGGACCTGTAATAATATCAACTAAAGGAAGCAATATAGCAATAGG
5 GAGAGGTTTAGCGATGAAAATAATGGTAGAGGATGCTGAGTATGGGGGAGAGAATGAAAA
GCTATGAAATAGCTTAAATCGGTAACCCAAACGTTGGTAAATCTACCATATTTAACGCTT
TAACTGGGGAAAATGTATATATTGGAAATTGGCCTGGAGTAACTGTAGAGAAAAAGAAAG
GAGAGTTTGAATATAATGGAGAAAAATTTAAAGTTGTTGATTTACCTGGAGTTTATAGTT
10 TAACAGCCAATTCTATTGATGAGATTATTGCAAGAGACTACATAATAAACGAAAAACCAG
ATTTAGTCGTTAATATTGTTGATGCTACTGCCTTAGAAAGAAATCTATATTTAACTTTAC
AGTTAATGGAAATGGGGGCTAATTTATTGTTGGCTTTAAATAAAATGGATTTAGCTAAAA
GTTTAGGAATAGAGATTGATGTAGATAAATTAGAGAAGATTTTAGGAGTTAAAGTTGTTT
CTTTATCTGCAGCTAAAAAGATGGGTATTGAAGATTTAAAAAAGCTATATCTATAGCTG
TAAAGATAAAAAACAGCTGAAATCAAGTATCCAACTTTGAGCCTTACATTAAAGAAA
15 TAACCTCTATTTTACAGAAGGATGAAGATTTAAAGAAGTATAATCTGAGATATTTGGCTA
TAAAGCTCCTTGAAAATGATAAGTATGTTGAAGAGATTGTAAAAAATAGCAAAGTTTGG
ATGAATTTAAACCAGTATTGGATAGTATTATAAATGAATTATCTAAAAAATATGGAGAGG
CAGAATTGGGGATAGTTGAGGAGAGGTATAAGGTTATTGATAAAATAGTTAAAGAAAGTAA
TGAAAAAACTTCTGGAAGCTAACAACTACTGAAATGCTTGATGATGTTTTAACAGATG
AAAAATAGGAACCTTTATTGATTATCCCATTTTTATGGATGTTGTTTAAATTTACATTCG
20 ATGTTTCAAGCCATTTTCAGCCATGATAGAATATTCTTTGGATTTTATCAGAAGTTG
TAAATCCTCCATATCCAATAAATTTATTGCCTCATTATTAGCTGATGGGATTATTTTCAG
GTGTTGGAGCTGTTTTAGTGTTCTTTCCAATCTGGCATTTTTTATTCTTTGCCATATCCT
TCTTAGAGGATAGTGGATACATGGCGAGGATTCCATTTATCACAGATAGAATAATGAACA
AATTCGGCTTGCTGGAAAGGCAGTTATCTCAATGGTTATGGGCTTTGGATGTAATGTTT
25 CGGCGATAATGGCAACAAGAACCATAGAGGATGAGAAGGATAGGATTTTAACTATATTAA
TAAATCCTCTATTGTCTTGTTCTGCACGACTGCCATATATGCATATTTCGCTGGAGCTT
TATTCTCAAAATATCAGGGAGTTGTAATTTTAAAGCATGTATGCCCTTGGAGTTGTTTTAG
CTTTAATTACAGCATTTTTATTTAGAAAGTTGATTTTTAAACTTCCCCCTCATACTGA
TTGTTGAACCTCCTCCCTATCATATCCCACATTTAAATGTAGTTCTAAAAAATACTTGG
30 AGAGAGTTTATGACTTTTTAAGAAAGGCGGGAACAATTATTGTATTGAGTTATCTTAG
TTTGGGTTTTATCACTTTATGGACCTTCAGGATATTTAGGAGAGGAAGTATTTGAAAAATC
CTCAATTAATAGCTAATTCATGGGTTGCAGTTATTGGAAAACTTTAGCTCCTTTATTTT
CTCCAATGGGATGGGATTGGAGGGCTTGCTCGCTTTGGTGTGTTGGGATAATAGTAAG
AGGTAGTTGTTGGAAGTTTGGCAATGTTATATGGGACTGGAGAGGAAAATCTCTCATCTG
35 TTATTGCTCATGCATTCTCTCCAGTATCTGCCTATGCATTTATGGCATTCTCTTAAATTT
ACCTCCCAGTATTGCAACATTAGCAGTTATAAAGCAAGAAATTGGGTGGAAATGGGCGT
TATTTGCAGTAACTTATGAGATGATATTAGCTTATGTTGTAGCTTTGGTAATCTCCGTTA
TTGGAAATCTATTATTTTAAAGGTGATTAATTATGGACATAAAGAATATGAGAAATGT
AATTGTTAGCTTGTCTTTGGTATTGGATTACTATTACAGTTTCTGGGATTATTGAAAT
40 AATAATTGGGCTTTACTCAATATTGGGCTTTAAATTTGAATTGCCATTATTTGTAGGAGA
TGTATTTGGTGGTTTAGCTTTATTAGCTGTTGGAATAGCATATTTTTTAGGTGTAAAAAA
AGCTGTGGATAGGGATATAAAGCAGTTTCTTATTTATTTACTGCTTCTATTATTGCTTT
GGGAATTGGGTTATTGCATTTTTGATTTTAAATCTGATGCTATTGGATTTTTATTGGG
GTTTGAGGATTGGGCAGATTGGGGATTTTTAACGATTTAACTGTATATTTAGTTTTAGG
45 AATGCTTGGCATAATTCATACAGAATAGCTAAATATCTCATCATCTACAACATAGAG
AAGAAAAATAATTTTTTTAGTTGCTATTTTTAGTTTAAAAATAGTTTTTGTAGCCT
CCAAGAGGTCTTATTTAATTTATGATAGTTACAATTTGAAAGTAGAAGTATTTGAAAAG
TTTCCATCCTCCAAGAGGTCTGATTTTAACTTTGGGTTAGCAATCTAAGATTTTTACGG
CATCAAGTTTCCATCCTCCAAGAGGTCTGATTTTAACTTGAAGCAGAGGATGCCAAGGA
50 AGCTATCGAAATAACTTTCCATCCTCCAAGAGGTCTGATTTTAACTTGCTTCCCCCAACA
CACGCACACACACCTTTCCATCCTCCAAGAGGTCTGATTTTAACTTGCTTCCCCCATC
GTTAGATTACCTCCTTTAACTTTCCATCCTCCAAGAGGTCTGATTTTAACTTCCCTCCATA
TTCCACAATCCCAATACCAGCCCCACTATCCTTTCCATCCTCCAAGAGGTCTGATTTTAA
ACTAAAAAGTATGTAAGAAATCATCAAAATATTTTCAACTTTCCATCCTCCAAGAGGTCT
55 GATTTTAAACAGGGCAATCATTACAAACATAATATACTTCATCACTCTTAATATTTAAGCT
TTTCTATACCATATTTTCTAAGGATAAATAACCATCTTACAATATAAACCTTTTAGTAT
TTAAATTTTCTCCCTTTAATAAAACTGAGCATTTTTATCTTTTTAAATCCAAAAATTTA
ACTTATTTGTTAGAGAAATTTTATTACTTACCTAATTAATCTTAATTTTAAAAATCTA
AATAATTTAATTAAGTTAAATATTTTAAACAATCAAATCAGCTAACCTTAGAAATTA
60 TAAATATTATTTAAATAAAGAAATAATTCCTAAATGCTCTTATTTTCAAATTTCTAACTT
ATCCAACAAGACAATCCATAAACCAACAACAAATCAGAAATTCCAAACCTACAATAGA
TTATAGGCAAAATCATATACAAACATTTTTGTCTTCTTCTTATGAAATTAATATTTAA
ATATACTTATAAAATATAGCTACTTACCTACCATGTATCTCACAATTAATAAAATTT
ATTTATGAACCACTTAAATGTTTTAAGAGGTCTTGAAAGATACTAAAACTGCAATCAT

TAAAGGTGATGGGATGAAACATAATTATAAAGTAAAATTATTTGATGAACTTGGATTGT
AAGAAAGAAGTGTAAAGAAATGTGGGCAATGGTTTTGGACTTTGGATGAAGAGAGAGAAAC
ATGTGGAGATGCACCTTGTGATATCTATTCATTTATTGGAAAGCCGATAACTAAAAAGCC
5 ATATACATACAAGGAAATGGTTAAAGAGTTTATAAACTTCTTTAAAGAGCATGGGCATGA
ACCAATAAAAAAGAGCTCCAGTAACTGCAAGAAGATGGAGAGATGATATTTTATTAACAA
CGCTTCAATAGCTGTGTTTTAGCCATGGATCACCAGGAATTGTAAAACCAAAGCCAAA
TCCTTTAGTTATAGCCCAGCCATGTATAAGGTTGAATGATATTGACAACGTTGGAAGAAC
TGGAAAGGCATTTAACATGCTTTACAATGGGAGGACATCATGCTTTTAAACAGAGAAGATGA
10 CTTCAAACTACTGGCAGGATGAGACAGTTGAACTCTGCTTTAACTTCTTTAAAAAATTGGG
CATAGATGAGAAATCAATAACCTTTATTGAGAGTTGGTGGGAAGGTGGGGGAAATGCTGG
GCCTTGCTATGAGGTAATAACTCATGGTTGAGTTAGCAACCTTGTTTTATGCAGTA
TGAGAAAGTTGGAGATAACTACAAAGAAATCCGTTAAAAATCGTTGATCTGTTTATGG
TATTGAAAGATTTGTCTGGGCTTCACTGGAGAACCAACAATATACGATGCCATATTTAA
15 AAATATCGTCAATAAATTAAAAAGAGATGCAGGAGTTAAAGATATAGATAAGGAGATATT
GGCTAAAATTACAGAAGTTGCTGGATTAATGGATGTTAAGGATGTTGGGGATTTGAGAAA
GTTGAGAGAGGAAGTAGCTAACAAAGTAAATATCCCAGTTGAGGAGTTAGATAAGTTAAT
CTCCCCCTTATGAAGACATCTATGCAATAGTAGATCATACGAGGGCTTTGGCATTATGTT
GGGAGATGGAATAGTTCCCTTCAAACGTTAAGGATGGTTATTTGGTTAGAATGCTTATAAG
20 AAAGACATTAAGACATATGGATCGGCTAAACCTTTCAACACCAATAACCGAAATGTTGC
AATGCAGTTGAATGAACTAAAGGACTTATATCCAGACTTATTGGATATGGAAGATTACAT
TATGGAGATTTTAGAAATTGAGACAAATAAGTATAGACAGACAATTGAAAGAGGAAAAGC
AATCGTTGAAAGATTATTAAGAGCAAAAAAGAGATTGATTTAGAGAATTTAATTGAGTT
ATATGACAGCCATGGCTTACCTCCAGAGATCGTTAAAGACGTTGCTAAATCGTTAGGAAA
25 AGATGTTAAATTTCCAGACAACCTTCTATACAATAGTTGCAGAGAGACACGAAAAATAAAA
AGAAGTTAAAGAGAAAATTAACTTCCAGAAGTTAATGTTGATAAGACAGAACTGTTATT
CTACGAATATCCAAAAATGAAAGAGTTTGAGGCTAAAATCTTAAGAATTGTTGATGATTA
TGTAATCTTAGATAGAATGCATTCTATCCAGAAGGTGGAGGACAGAAGGCAGATACTGG
ATATATAATAAAAGGAGATAAGAAGTTAGAGTTGTTGATGTGCAGAAAAGAAAATAATAT
30 AGTTTATCATAAAATAGAGAATTTAAATGATGAATTAAGAAGAGGAGATATTGTTAAAGG
AGTTATTGATTGGAAGAGAAGGTTAAGTTAATGAGAAACCACACTGCAACACACATAAT
AAATGCTGCAGCTCAGAAGGTTTAGGAAGGCATGTTTGGCAGGCAGGTTGAGATGTTGA
TGATAGATAAAGCGAGGTTGGATATAACTCACTATAAGAGAATAAGCAGAGAAGAACTGAA
AGATATTGAGAGAGTAGCTAATGAGATTGCTTAAATAATTATAACATAAAGAGTATATT
TATGGATAGAAATGAGGCAGAGGAGAAATTTGGATTTAGAATATATCAAGGAGGAGTTGT
35 TCCAGGAAATGTTTTAAGGATTTGTTATTATTGAAGATGAAATGGAATATCGTTGATGT
TCAAGCATGTGGTGGACGCACTGCCAAAACACTGGAGAGGTTGGATTTATAAAGATAAT
TAAGACAGAGAGAGTTCAAGATGGTGTGAAAGGCTGATTTATTCAAGTGGCTTAAGTGC
TTTAAAGCAGTGCAAGAGATGGAGGATATATTAGAGGAGAGTGCTGAGATTTTAAGATG
40 CCCAACTGAAGAACTGCCAAAGGTTATAAAGAGATTCTTTGAAGAGTGGAAGGAGCAGAG
AAAGAAGATAGAGGAGTTAGAGAAAAGATAGGAGAACTTAAGAAATTTGAATTAATAAA
TAAATTTGAGACAATTGGAAATTACAAAGTTTGTAGTGAAGAAAGTTGAGGCTAATCCAAA
AGAGATGTTGAACATAGCTGATACTTAGCTACTGAAAATGCCATAGTTGTGTTATTGAA
TGATAAGGGCAATATATTATGTAAGAGGAGGAGAAATGTAGATATAAAATGAATGAACT
45 TATAAGATATATTGCAAAAGGAGGAGGTTAGAGAGCATTTAGCTCAAGGAAAATATGAAGG
AGATGTAGAGGAGATTAAAAAGAAAGTTATTGAGTTCAATAAAAATAAATTTGCTT
TAACGATTAAATTTAATTTTTCTTTTTTGGTGAGAATATTGGATATGAAGCGTTAATAAA
ATCATATCGGATTTTTTCATTCATATTAATAATGGACATAATTGGGGCTGAAAGCCCCAA
CTTAATGGAACGAGTTTTTGATGAAACCGAAGCGTTAGCTTCGGGCTACAAAACCTCGAAG
50 AGTTTTTGTCAACTTTTACTAAAAGTTTCGGTGAGAATATGAATGTTATTGATTTATTC
TCTGGATGTGGAGGTTTTTCAAAGGTTTTTTAGATGAAAACCTCAGAATTTTGGGAGCT
ATAGAGAATTTAAGCCAGTTGTTAAAACCTTATTTATACAATATAAAAGCCCCCTGTCTGG
ATGGATGATATAAAGAGGATTCCTCCGAAAGCGTTTGATGAATTTATAAAAAATGAGAAA
GTTGATGTAATTATCGGCTCTCCTCCATGTGAGCCATTTACAAAGGCAAATAAATTAATT
AAAGACAATCCATTAGATAGATTATATAAAGACAAAGTTGGTAGGTTAGTTTTGTATTAT
55 ATAGATTATGTCAATTACTTTACACAAAGAAATGATGATTTAATATTTGTTATGGAAAT
GTTCCACAAATTAAGAAATTAAGGATGAATAAAGGTTGTTTGGAGATATAGGGCAT
AAGGTTTTATTTAATATATTAAAGAGCAGAGGATTATGGAATCCATCAAAAAGAGCGAGA
ATGTTTATTTCAAATATAAATTAAGGCCAAAGAAAGTTGATAAATTTGTTGTAGAA
60 GAAGCTTTAAAGACATTTCAAAGACGCAAAAAATCATGAAATTAAGAGTTATCTAAA
GAAAAAGTAGAGATGATTTCAAATTAAGTGGGGTGAGGCATTATATAGATATAGAGGA
AAGAAAAGTTAATGTTAATTGGTATAAGTGCATCCTAAAAAATTAGCTCCAACGTGTT
AAAGGAAGGAGCGGTTATCCACCCTTATGAAGATAGGTTATTAAGTGAAGAGAACAG
GCAAGATTGATGAGTTATCCTGATGTTTTGATTCTTTGGAGGAAGAGATGTTCAAGTAT
AATCAATTTGGAGAAAGTGTTCCTCCGATCTGGGTAGGGCTATAGCTAAAGAAATCAAA

-406-

AAACAGTTATAATTTTGATGAACCTTTTACTAAAAGGTTTGAATAAGCAGTCCATTAAAA
CAAGAAAGGAAATCCTATTGAAAAAATAAATAAGCTACAAATATGGTTTAAATCGG
TAGGCTATTAATATAATGATAAAAAACAAGTGATAGGGATGAATTTTAAGGACCCAATTGA
5 AGAATTACTAGACAATTACTTTAATGCAAAAAAAGAGTACGAAAAAAATCCAATAGAAAA
AAATTTAAATAGGTTAAAAAAGGCAGAAGCTAAGTTAATGATTAACTATCCAAATACTAA
TGCAACATACATTTACAAAAATAAAAAATACAAGATAATTATAAAAGATAGCGTTTCAGT
AATTCGATTTAGTTAGGCATGGTTTATATTAACCTTAAAAAAGATTATCTAATATAATA
TGAAATTTAGTTAAATTTTATAGCTCATTTCTTAAATCAATTGTTTGGTGCATTTCTGGA
10 CCTGTGGAGATTATAGTTACTGGAACCTCCAGTAACTTCTTCAATCTTGTTTATAAATTCT
TTAGCTTTTTTCACCTAGCTTATTATATTACAGTTACTCCATAACACTCTTTATCGTATTTA
TCTAATCCAGTTAAAGCAATCTGTGTTGCTCCATTCAACCTACAAGCTTTCTTGCTAAT
TCAAAGTCAAAATAGCCAACTCTTCTCCTTCTTCCAGTAACTGTCCATACTCAACAATT
CCCAAGCTCTCTGCTCTTCTAATGACATTTTCAGTTGGAAATGGCCAGCACCAACTCTT
GTAGGGAAGGTTTTAAAGACAACATAACCTCATCAACTTTGTAGGGCCGATTCCAACA
15 TCAGCGGCAATGATGAAGCTGTTGTATCCTTGGATGTTACATAAGGATAGGTTCCATAA
TATAAAGAGAGTAAAGTTCCCTGTGTTCTTCAATTAAACATTTTCTCCTCTATCCAAT
GCATTATTAACCTCTTCAAGAGACATCTCCTAAAAATTCTTAAAGCTCTTCAATATCCTTT
GCCTGCTTTAAATCCTCAACACTCTATCAACGTTTGCAGGGCCACAGCCGCTTCCAGTA
GTTCCAATCTCTTTAGCCAAGTCTCATCTTTTCTGTCCATAATTTTATGCTTCTCTTCA
20 ATAATTCACATCTATAATCTACAATCAATCTCTCTTTAACATTAAAGTCTTTAAGCATC
TCTACCTCTTTTAAACAAAATCTCTGGATCTACCAAAACACCAGCCCCCTATAGCCAATTT
GCCTCTTTGTATGGGAATCCTGTAGGTATCATTCTAATTCATAACTTTTTCCACCAATA
TTTACAGTATGCCAGCGTTTGGTCTACTCCTCCTCTTGAATAATTGATGGCTTGCTCT
TTATCACAATATAGCTTATTATCTTTCTTTCTCTCATCTCCCCATTGTCTCTCAACA
25 ATAATGGTGCAAGTCAATAAAACCACCTTTTCACTGTTCAAAACCTTATATTTTTTGT
AATTGTAATATTTAAAGTTAATTAATTAAGAATTTCCAATGTATGGCAAGTAAGTTAT
TATAAGTTTTTTATAGTTCTATATATTTTGGAAATATAAATAGTATAACATAGATAAACTC
CTTCCATTAGGAAGGAGTTCAAATTTACTCATAAATAGATTTTATTAGTTTGAAGAGAA
CCATATAATTTACAAAATGATAAATAATTTAAACCTTCAATAATAAACCATACAACC
30 CCCCAGTGAATAAGTGAAGTATGATAATGAATTTGTTAGATTAGAATTTATATCTTATGA
GGAGTCATATGATTTTGAATTTATGGCTCCGGATGACATCACTGAAGATAAGTTTATAGA
TGACTTGTCTAGATGCTATAGTGAAAAGCATAAATTGGGAGTATATAAGGGTACTTTCA
AGAAGAAGATGAATTAGGTATGGAAATTTCTCCCTAATTTAATAGACTGCATTGATTTAA
AAATGTGAATGTAGAAATGGAAGAAAGGGTATAAACCCATAAAATATGACATCATTGT
35 GTATGCAGGGGCATGGTCATATTTTAAATCCAAAAAGTTAAGTATTATCGACTTTTCATGA
AACAGGAGAATTGACAAAATTAGAAAAAGCAATTCAGAGAAATTAAAAAGATTAAAGAC
AGATATTTATTAATTTATGTTTCAAACTACATCTCACAAAGAATCTTCCCATATTTTCC
TTAAATCATCTAAATCTTGATAGTTGTATCTAAAGTTAGAGGAGTTATTGAGATATGT
CTCTTTTTCTTAGAACATAAACATCTGTATCTTCTCCTCTTCAAATATCGGATAGCCA
40 TCAATCCAGTAATAACTCCTCCCTCTTGGGTCTATTCTCTCTTCAACATGTGTGTATAC
ATCTTTCTTGCTAATCTTGTAATTTCTATAGGGGTTTCTAAAGTTGCGTTTTCTGGAATG
TTTATATTTAAACATCACAAAGGCATGTCATAATCTAAATATTTCTCAGCAATTTTGA
GTTATTTTTGCTGGGATTTCAAAGTTTATTGGTATATCCAACCTCTTAAATTTAAGTGG
TCTGAAGTTATTTGTAATGAAGAAGCTATAGATTTAGCTCCATGATGAGCAGCTTCAAAC
45 GCAGCCCCATATGTTCCAGAAGTCATTATCTCTGTCCCTAAATTTCTCTCAATATTTATC
CCAGAAATAACCAATCTGGAACCTTTTTTAAATATTGATATATCTCAAGATTACACAA
TCAGTAGGCGTTCCAGAACTGCATAACCGACAATGTCTTTGCTAACTTAACCTTTGTC
ATCCTCAGCGGTTCAAATAGGCTTATAGCCCTACCAATCCCACTCTGCTGATTTGTTGGA
GCAACTATGGTTATGTTTGCATCACTAAACTTCTCTTTTAAAGCATTGTATAATGCTATC
50 AATGAGGGTGAATAAATCCCATCATCTTAACCTATTAATATTTCCATAATATCACCATTT
AAAGTTATCTTTAACATTTAAATACTATAAAAAATAATTTACTCTTAAAGTAATTTAAAA
CTTTTGGGGGTAAAAATGAAAAAAGAAATATAACTGAATTTCAAGTTCTATCTGAAAT
TATAAGAAAACCACTCATATAAAACAGAAAGAAATAGCTGAGAATTTAGGAATAACAGT
TCAAGCAGTTTCAGAACACATAAGAAATTTAGTTAAAGAGGGTTATGTGAATCAAGGGG
55 TAGAGGGGAGTATGTAGTTACTGAAAAAGGTTTAAAGAAAGTTAAAAAAGTGGATATCAGA
GTTTAAAGATTATTTGGATGAAATAAACACTGCTGTTTATAGATACAAGGATATATGGCC
AGCTATAGCTGATGAAGATGTTAAAGATGGAGAAACAGTATATTTGTTTATGAAAAATGG
TCTGTTATATGCATCAAAACAGCCAAAAGGAGAGCAAAAGCAAAAGGCATTGTATGGTGG
AAAGAAAGGTGAAGATATAGCCATCTGTGAAATTAAGGAATTATTGATGTGCCATAAGG
60 GAAAGTTATTGTATTTAGAATTCCTCCTGAAGTCGTTGGTGGTTCAAGAGCTGTGGATTT
CAATTTGATAAAGGAGAATATCGATAACTTAGATGATTATGTCATTGCTACTATGGGAAC
CGTTGCCTATGTTGTGATGTAAGTTAGGACTTAAACCAGACATAAGATTGCGGTTCC
TGAAGCTATTGTAATGCATGTAATAGAGGTTGTAATGTTATCGCTTTAATACTGGAAA
AATGGCTGAAAAAGTCATTAAAAAGCTTGATAATGCGAAAATTAGCTATACTGTATTAGA

5 TGCCACAAAAAGAAAATAAATAATGAGGAAGGAAAATGACATATAATATAATTTTAGCTAA
ATCAGCTCTTGAACATAATCCCAGAAGAGATAAAAAATAAATAAGAAAAGTCCAGAGTTTA
TAAATATGATATTTTGGATTCTAACTATCACTATAAGGCAATGGAAAACTAAAAGATAA
AGAGATGAGAGGAAGACCAGATATCATCCACATATCACTTTTAAATATATTAGATAGTCC
AATAAATCATGAAAAAAGCTAAACATCTATATTCATACTTATGACGATAAGGTTTTAA
AATAAATCCTGAAACAAGATTGCCAAGGAATTACTTTAGGTTTTTGGGAGTTATGGAAAA
GGTTTTTAAAGGAGAAAGAAATCATTTAATAAAAAATGGAAGAAAAACGTTAGAAGATT
ATTAAACGAGATAAATGCTAAAAAATAGCTATAATGACCAAACTGGGAAATTAACCTCA
10 TCCAAAGCTTTTAAAGGAATATGATACTTTTATAATAGCGGATTCCCGTATGGAAAGTT
AAAAATTAATAAAGAAAAAGTTTTTGGAGATATTAAGGAAATCTCCATTTATAATAAAGG
TTTAAATGGCTTGGACTGTTTGTGGGATAATTTGCTATTTCATTAAGCTTTTAAATTTTAA
ATTATATTTTTATTAGATGGTAAGTTTAGAAATTTAAAGTGAATTAATAGTAACAATAAT
TTATTTAAACCATGACAACAAAATTCTTAATTATGGAGTGCTTTACATTTTAAATAGCTCA
15 ATACTGCGATTTTGGTAGATTTCTATGAAATAAGGGGAGATATTATGTCAAAATTCGTGA
AACTACACTTAGTAAGAACCCTTAATAAATAAAGAGCTACAAAAAATTAGGGTAAAG
ATGTAATGATATCTGGTGACGTAATCATAACAACCTCCTGAAAAACGATAAAGGAAATAT
TTGATGAAATGATTAAACACAACATTAGCGGAATGCCTGTAGTTGATGATAGGGGGGTAA
TGATTGGATTTATTACACTAAGAGAAATTAGAAAGTATATGACAAGTCATCCATATCTTA
20 ATGTGGGGGAGGTTATGCTAAAAAATCCTCCTTATACTACTGCTGATGAAGATATAATTA
CAGCCTTTGAAAAAATGATAGAATCCAATAAGAAATTAGACCAATTGCCAGTAATCAATA
CAAAATATCCTGAAAAAATCTTGGTAAATTTGAAGGCATTATTTTTATGGAGGATATTA
TAAATTTGCTCTATGAAAAATTTATAAAGAGTTAAAAACTCTGTAAAGTTTCTACAATC
ACAATACTGAGATTAAGATAAAATATTAAAGCTAAAAAAGAACTTAGAATAATTAATAA
25 TACTTTTAGAAGAAATTATTGACCTCTTTTATGCAATTATAAACCAATTCACAGTTTTT
TCTAAATCTCTCTTATCAATAACTTCAACTGGAGTATGTATATCTTGCTGGAACAGAG
ATAACACCAGTTGGAATTCCTCTCTTGTAAATGAATGGCTGTTGCATCTGTAGTTCTCT
CCCTCACCAACTTCCCACTGAACATCTATTTTATACTTTTCAGAAACAGCTTTAATCATA
TCTAAGACTTTTGGATGAGCTATCAACCCTCTACCAGATGCATCTACTATTCCAACCACT
30 GGCCCTTACCTAAATCTACCGGAGCATCTCTTTTTTAATTCCTGGATGGTCTCCTGCT
ATAGTAACATCTAACGCAATGGCAACATCTGGATTTATTTTAAAGGCAGAGACTCTTGCC
CCTTTTAAATCCAATCTCTCTTGGACAGTTCCCACTGCATAGACCTGACAGTCAATATCT
TCTTCAGATAACCTTTTCATAACTTCTAAGAGAACAGCACATCCCACCTATCATCAAT
GCCTTTCCAGTTAATCTATTTTTACCTAAATCATAAACCTCACTTAAAAAAGAAACCCAT
35 GTTCCATATTAACCCCCATTTCTATAGCCTCTTCCCTACTCTCAGCTCCAATGTCTATA
AACATATCTTCATATTTAATTATTTTGGTTTTTCTTCTTCTTCATTCTGTGTGGAGGT
TTTGAGCCTAAACACCAATTAATCCCCTTACTTCCATGAACAACAACCTTTTGGTTTT
AATATTGTTGGGTCTAAATGCCTCCAATCTTTGTGAATTTTAAAGAAACCATATCGTCA
ATATATTTAACCATCAAACCAATCTCATCCATGTGAGCTGCTATCATAATCTTCTTCCCT
40 TTATTCCTCTCTTTGCTATTAAATPCCCAAAGTTATCAATTTCAACGGAATCACAGTAT
TTTTCCAACCTTTTTTCTAAACTCTCTAACACTATCCTCCCTCCCAGATATTCATGT
AGTTTTGAGAGCTTTTTAAGTATTCAACAACCTGACATAATCTCTCACCTTTTTTAAATA
GTAGTTAATGTATTCTTAATCCAATTTTTAGATTTATGTTTTAATGGTAAGTGCCAA
45 TTTCTTTCTGCTCAATTTTCTCAATCTTTATAAGATTAAATTAACCTATTTTCTAAAAATCT
CGACATTCCTTTTTAAAAATCTCTTTAATTTCTTCAACATCAAAAAATTTACCAAAATCTTA
ACACTCCATCTTTGTAATTATATACGACTCCAGAAATGTCTAAAGCATACCATAAATTT
CTCAATCCTATCTCTAAACCAATGTGCTGAACCTTTGCCATAAATTTTTAATTCATAAGT
TTTAGACATGGGAATTACCATTTTCTAATGAGGAAACCTATAGTTTAAATACTAAATTT
50 AGAAAAATAGAAAAATAAAGCCCTATGGTGTCTTCATGGTTAATGAACATAAAGCACATG
CCTCATTTATGTTAAGATTATTAATGTATTGTAAAGTTTTGGTTTTAATTTGATTTTAG
GGATACTCATCTATGACATATTTTTTAAACATTGATGAAAAATTTAGTTGTAGCATGCATAT
TGATAGCCATGCCAATAATAGCCTTCCCTATTCTCATTTTTAACTGGAGGAGTTTATAAGG
AACTTACTTATCTACAAATTTATGACAAGTATAAACTTATGTGTGAGTTTATTAGAGAAA
TTACCATATCAACAATCACCAGTGAGTTGGCAACTATTGCAACAATGATACTCTACCAAC
55 TACAAAATCCAATAAAAAATAACATTTTTGTTATTACTCATAGCATTTTTTGGCATTTG
GACTAATATTCACAAAATTACTAATTGACGCTTACTTTATAACATTAAAAAAGCTAAAT
CCCTAAAGAATAATATTATGATGCCTCCTTATCTAATTTGTGCAAGTTATAATAAACAA
TAGCCACAACCTCCAGCCATAAAAAACAAGTATTGCTATAACTCCAATAATTAATGGATTAA
TCTCCATAAGCATCAACTCCCTTCTTATCTAATTTAGAGTATAAAGATATAATTAAGTAT
60 AAACTTTTTTCTACATAACTTATGTTTATCTCTCTTAGCTTATTAATCTTTTGAAGAT
TTAAAAATCTTGTTCAGATTCTCTAATTCCTCTTAAATTCAGATTTTACTGCACTC
TTAATAAATCTAATACTTAACCATAAAACGAATTTGTAAAAAGAAATCAATCCAATAACT
ATCATGGTGAGAAATATCCATAAAGTCCCTCACCATTATGTTGCTAATTTCAATTAATAATTA
GCATTAAAAATATAATAAAATCTTTCTAAAAATTATTCTGCATACAAAAAGCTTATA
TCCTAATAGTTACATAAATAAAAAATTATTGACGAGTATAATATTGGTGATTAATTATG

5

10

15

20

25

30

35

40

45

50

55

60

ATAACAACCTTATGAGCTGATAATATATGGTAGAGTCCAGCATGTTGGATTTAGAGATAGG
ATTGAACATATAGGTAGAGGCTTAGGCATCTCTGGAGTTGTGTATAATCATAAGGACGGA
ACTGTTAGAATCTTAGCAAACTTTGATGATGAGGAGATTAAAGAGCTATTTAAAAAGAGT
ATTAAGGCACTGGAAAAGAAGGATAAGCTTATAAAGATTGAGAAGATTGAGGAAAAAGAA
TTAAATGCTTATATTGAGTTTCCGGAAGGGATAAGTAGGTTGTCTTCTGATGATATTTTG
GAGCTGAATAAAAAAGCTGGATGAGGGAGTTAAGTATATTAAGTTGATATTTTCTGAATTA
GAAGAACATAAAAAATATTGTTAGATATTAAGGATACACAGATAAAAACTATTAAAGTG
CTAAATGAAATTAAGGAATTATTGGAGAAAAAACTCTAAGATTATTTTATAGAGTTAGA
GTAACATACTGAAATTTTAGAAAGAATTAATAAAAAATTAGATAAATTAGATGATATTTA
TGAAATTTCTAAAAGGGATTAAGGACAACTTTAAAGCTTTTTTATTGAGGCGAAATTTTT
TATTGTAAAATGTCAAAAGAATAAAAGATTACAATTAAGAGATTTTTTGACTTTTTTGAG
CATATACAAAAGTCTATTTATGGTGAAGTCATGAACCTACTGTTAATGGGAGGAACCTAAG
CATAGTGTGAAATTTGGTAAAAAGCTTAGGGATTGGGAGATTATTTATTTTATACACT
TCAACAACCTAGATTATGGTGGAAAAATTAGGGGAGGAATTTGCCAACAAAGTGATAAAAA
CCTTTAGATAAAAAATGAGTTGAAAGAGGTTATAAAGAAATATAATATAGATATTTTAGTC
GATGCCACTCATCCATTTGCAATAAATGCAAGCAAAAATGCCATTGAAGTTTGTAAGAG
CTTAATATAAAGTATGTAAGATTGAGAGAAAAGAGGAAAAGATAAATCATCCAAATATA
ATATATGTTAAAGATTTTTGAAGAAGCTGCAAGATTGGCTAAAAAAGCAAATAAAGCTCTT
CACATGGCAGGAATTAAGAATTTAAAGATGGTTGTTGATATTGTTGGGAAAGATAAGGTT
ATAGCAAGAGTTCTCCCTATATCTGTAAGTGAGGCATTAAAGATTTACCTCAAAAGCAG
ATTGTAGCTATGATGGGACTTTTTCTAAGGAGCTTAACAAATATTTAATAAGGGATTAT
AACTGTGATGTGATAATACTAAAGATAGTGGGGAGAGTGGGGGTTTTAAAGAGAAAGTT
TATGGGGCTTTAGAAGCTGAAGCCAAGGTTATAGTTGTTGAAAGACCTAAAATTGATTAT
CCAGTTTGTGTTTATGATATAGATGAGCTTATAAAATACATAGCTAATTTAAAAATTTAA
TTTTATAATTTTGGTGAAGGATGCACTGCAATATAAACTTAAAAATATGGCGTTATAAT
GAAAAAAGATTGTTATACATTAAAGATCTCATTAAACCCTGATTATAAATGCTGAGCA
GTTAAAGGCAATAGCCTATGTTATTGAAAATTTTGAGATAACAAAGCCCATATAACAAC
AAGGCAAGGTATAGAGTTTAAATATCTCCAGAACATTTGGAAGAGTAGAGAAAATTTCT
AAATAATGTGGGGTTAACTTAGGTTCTACTGGAAATAGAGTTAGGCAAGTAGTGTCTATG
TATTGGCTTAGAGTGCTACAATGCTATTGGTGACTCTGTCTCTTTGGCAAGGAGAATTCA
TGAGGAGTTTGAAGGAGTTTGGGTTCCAAGAAAGGTGAAGATAAATGTTAGTGGTTGCC
AAATTCATGCACATTTTCATAGGTTTGTGATATTGGGATATGTTATAGATACAAAATAAC
CATAAACAAGAGATTTGCACAAATTTGGGAAATGTAAAGATTTTGTGATTAAATGCT
TATAGATTTGGGACGAAAAATTAATAAAGATAATTGCACTGGAGAAAGGAAAATGCACTGG
CTTATGTAATGCCTTTAAAGCTGAGAGAGTTATTAGCATATTCGTTGGAGGAAAAGGAGG
AAGAATATATAAGGAGGGGAAAACACCTAATAGATTTAAAAAATGAGGATGATGCTTTATT
TGTTATTGATGAATTGATAAGCTTATATGCAAGTTTGGAAAGGGTAGGATGGCAGATTT
TGTTGAAAACCTATGGGATTGAAAACCTAAGAAATAACATAAAAGAGTTGATAAATGAAC
CAAATTTAATGATAATTATAGGGAATCTTAAAAAATTAAGAGAGAGACATTTAAAA
AAGAGAAAAGTTAAAGATAAAAAATAACCTATTGCTGTGTGGATGCAAGATGATATATAT
AGAGATTTTCAGTATAGGAAAGTCCCTTACAATAATTTTAAGGACAGAAGGCTGTTATTAT
GCAAAAGAAGGAGGCTGTTTAAATGTGTTCTTATTAAATGGACTCCTCTCTGAAAAATA
ACTGCTGAAAATATAATAAATCAGTTTAAATTATGCGATTGAGAAATATAAAGAAAAATA
AAAGATTTAAAGATTTTCAGCGTTAAATATTCACTTCTGGAAGTTTTTTGGATGATAGA
GAAGTTCTTAAGAGGCAAGAAATATATTTTCAAAAACTTAGCGAATTTGATAATTTA
AAAGAAGTGGCTATTGAATCAAGACCTGAATTTATTGATGAAGACAAATTAACGAAATT
AGAAAAATTTTGGATGTTAATGTTGAAATTGGGGTTGGAATAGAAAGTTTTAATGAAGAA
ATTAGAGAAAAAGCAATTAACAAAGGAATAACAAATGAACAAATAATTAGAGCTATAGAA
TTGGCTAAAAACTACAACATTGGGATAAAAGCTTATTTATTAATAAAACCTCTATTTCATA
ACTGAAAAAGAGGCAATTTATGACTCAATATCTTCAGCAAATAAGTGATAGAGTTGGGA
TGTTCAAGAATATCCTTTTGCCAGCTACTGTGCATAAAGGTAGTGTGATGGAATTCCTT
TTCAACAAAAATCAATACCGCCCTCCATTTCTATGGAGTATAATTGAGATACTAAAAGAG
GTTAAAAAAGCAATCCAAAGGCATTAATTATGTGTGATACATCAGGAGTAGGAAGTGAA
AGAGGGGCTCACAACCTTTATACTGCAAGTGCAACAAATTGATTAAAGAAAGGTTAGAG
AGATTCACCTTTGACACAGGATATAAATGTTTTAAATGTTGAATGTGAATGTAAAAATATA
TGGAATGCATATATCGAAGTTGAAAATAAAAAATATAGTTCCATTAGGGGATGAAAGAAAA
CTCCTATTATAAAAAATTTATTCTGGAATCTGTCTCTCTGGAACCATTAACACTTAACCTAA
CTTGTTAACTCCTTTTAAAGGCTGTTAATCTATCTGTTAATTCCTAATCCTCTTAGCGT
CTCCTCTAACCAATATTGTTTCTAAGCAGTGGTTCGTGGTCTAAGTGTAATGTAAGGTAG
CAACGATAATATCAGTATAATTGTGTTGAATTTTCAAGTAAATTTTTCCATAACATCTGAGG
CATGATGGTTGTAAATTACGCTTATACTTCCAGCTCTTTCCCTTCTAAGCTGTGAATCC
ATTTGTGTTTTATTATATAGTCTCTAATAGCATCTCTTATTGCTTCACTTCTACTTGCAT
ATCCTCTTTTCAGCAATAATTTTCATCAAACTCCCTAAGAAGCTTTGAAGGTAAAGATATAC
TTATCCTATCCATCTCTGTCTAATCTCCCCGTTTATTTTCAAACTAACAAATATTACT

ATTTAATACTAATATATAAGATTAACGATAATAATAACTAATAATTATTAGTCT
AAGGGGTGAGAGAGTGAGTTTAAATTATTTGCTACTATGGTAAAAATGGGGCTGTAATTGG
AGGAGATAGAAGGCAAATATTTTGTAGAGGTAGTGAGGAGAAATAGAAAGATTTTAGAAGA
5 AAAACTATACAGTGGGGAGATAAAATCTGAAGAGGAACCTTATAAATTGGCAGAAAAGCT
TAACATTAAAATTATAATTGAAGATGATAGGGAAAAAGTTAGAAAGATATCTGATTCAGT
AGTATGTGGAGAAGTTAGGAGCTTAGGAATTGATGCAAAGAGAAGGAGGGTTTATGCAAC
AAAAGGGAAATGTGCCATTGTTGATATATTAACGACACAGTTACAAATCAAACAATAAA
AGAAGSTTTTGGAAATTGTAGTTCTTGGAAACAGATTCTTAAAAAAGAAAGCTGAGGAGGA
10 ATTAAGAAGACAGCTAAATTATTCCTAATGATGCCTATACAACAGATAGAAGATGCAAT
AAAAGAAATTTTGGAGAAATTAAAGTGGCATCCTACAGTGAGTAAAGAGTATGACATTTA
CAGTGTGAATAAATATGAAAAGAACTTTGAGGAAGTTATTAAGGATATTGAGAGCCT
ATTTAAATATAGGGAACAGTTGAGGAAACAACTCATAGATTTTGGAAAGGTTATGAGTAT
AGTCAATAAAATTTGTAAGAAATGGAGAAATTTGGAGTTATTAAGATGGAAACTTCACCT
15 ATATGATGATTATATAGCTATCGATAAGATAGACCCAAATCCAAAGGTATTTAAAGTTGT
GGATGTGGAAGGCAACTTTAAAGATGGTGATATAGTAGTTATTGAAAATGGAGATATGAA
AATAAAAGGGACTAATGAGAAAGTAACAACCAATATATCATAATTCATAAATAACATAG
TCCTAAAGTTCAATAAGCAAATGTTGTTAGATAACCTTATTCAATTAATTAATGATGTAA
TGTTTTTGAAGATAAGCGTGTCTTAATATTAAACCGAAGAGTATATTTAACTTAACATA
20 TAACCTTAGTGTGTAATAGGTAATATAAGATTTTAGAATGGTGACATTAATGGCAAT
AGCTATCGCGATAGCATCTGGAAGGAGGTTACTGGAAGACAACGATATCTGCAATCT
TGCTGTGGCTCTTGCAAAATTTGGAAAAAAGTGGCTGTTTTGGACGCTGATATAGCAAT
GGCAAACTTAGAGCTTATCATGGGGTTAGAAGGAAAGCCAGTAACCTTAAACGATGTGTT
GGCTGGTAAAGCAGATATAAAGGACGCAATTTATGAAGTCTCGAAGGAGTTTTAGTTAT
25 TCCAGCAGGTGTTTCATTAGAAAAGTTTCAAGAGCTAAACCGAAAACTTGAGGAAGT
TTTAAAGGCAATACATGATTAGTTGAGATTTTAATTATTGACTGTCCAGCAGGTATTTGG
AAAAGAGACTTTAATAGCAATATCATCAGCAGATGGTTTAAATTGTCGTTGTAATCCAGA
GATATCCTCAATATCAGATGCATTAAAAATTATCGCTATAACAAAAAGATTGGGAAGTGA
CATCATTTGGGGCTATTGTTAATAGGGTTTCAAATGAGAGTACAGAGTTGGGGGTTAAAGC
30 TATAGAGACAATTTAGAAAGTCTCTGTTATAGGTGTTGTTCCAGAGGACCCTCATGTTAG
GAAGGCAGCTGCATTGGAACACCTCTCGTTATTATGTATCCAGATTCTCCAGCCGCTCA
AGCAATCATGGAGATAGCAGCTAAGTTAATTGGAGCTAAATATGAAGCACAACCTTAAGAA
GAAGAAAGAATCATTCATATCTAAGTTTATTAAAGGATTGTTCCGGAGGAGATAAGGATG
ATTTTGTATATAATTGTGGCTATTAGCATCTCTCAACATAATACTGGGGATTAAAGTA
35 ATAATGTTACAAAAAGAATTGGAGGAGGTTAAAAAGCTACAAGATTAACAAAGGAGGAG
GTCGAAAAATTAATGAAAGAATAAGAAAACCTAAACTTGGTGGGTAAGATGAAAAAGT
AATTATTCCTCTCTTAATATCCTTATTTATTTTTTAAATCCAAATTATGCTTTAAATCC
AGAAATTAAGTTACCCCCGAAAAATGTTAGTAAATAATTCCGTATATGTTATATTCA
ATGGAGAGCTCCTTATAATGTTGAAGATTTAATGTTACAGTCCCTTCAGATGCTGTAGT
40 GTTTAAAAATTCACCTTTATACTATGCAGGTGTTGCAGAGGATGCTAAGGTATTTACAT
ATTTGAAGGTGAGGCTGTAACCTCTGGAAATCATACAATTAATGTTCAAATGTCGTATAT
TATTGATGGAACGCTTATAAAGAAAAATTTTTATTAAACATCTCAATATTAACACTTCC
TGAAAAATTTATGTAAGTTATAATAATACATATAATAGAGATGAAGAAAACACATCTCT
CTTAGAAAAATATTACTAAAAATTTGAAAAATACCACAAATGTAACCTACACCAATTTCTAC
45 AAATGCAATTATTAATGAACAAATATCAACCAAAATAAACAAATATATCAAAAAATAT
TGATATAGGGAATATTACAAAGGCAACACTACATCTCAAGAAAAAATAACACAAAAAT
CAATAACACATCAACACAACTATTGAAAACGTCCAAAAAGATAAAGGTAATAATTGGCT
GATGTATGGGATTCTTGGGTTGATTATAGGTATAGTATTTGGGTTGTTGTAATGTATAT
CATCAAAATCTAAACTAAAAACACCAATTCCTATTTTTCTACTTTTCTTATTACCATA
50 AAATTTTAAATTTTGTAAAAATTTACTAGCATCCAATTTATATTGTGATTACCTATGA
TTGCAATAATTCAGCATTCAATGAGGAAAAAATATTTTAAAGGTGTTAAAGGACTTAG
AAAAGTTAAGAGTTGATGCTGTAGTAGTGATGAGTTCTAAAGACAATACCTCAAAAA
TCGTTGAAGAGTTTGCAAAAAAGCAAGATTAAATGTATATTTAATAAGAAATGAAAAA
ATGAAGGAAAGGCAAAAGCAATAGAGAAAGGAACAAATTTGCCTTATCTTTAAACAAAT
55 ATAAATATATCATATATATTGATGGAGATTATCAGCACAAACCAATGGACATTCCAAAAAC
TGTTAAAAAATTTGGAAGATACAAATGCTGATGCCGTTTTTGGTATTAGGAAATACAAAC
ATATTCATTGCTAGGCAATATCTAATTTTTTGGCTCAATACTTACGTCGTTGGCAG
TGTTAATATACTCAAAAAGATTTTATTTCTTTAGGGATGTTCAAGTGTGTTTTAGGATAA
TAAAGGCAGAGTTTTTAAAGATATGAAGTTTGGAGATGGTTATGCAGTTGAACATTTTA
60 TTGCTCTGCAGTTAGCGAAAAAGGGGCTAAGATTGTGGAGGAATATGTGAGTGTGAGT
ATCATGATGAAGCTGTTTCATATATAACCACAAAGAAATCTTAGAAGTTGCTAAGCAGG
TTATAAAGTTCAATTTTTTAGAGTAGCAAAATAACAGTAAGCTTTAAATATTAAGTTAAA
AATATTAGCATCAATAAATTTTATATATTGGGAATTGAAAACACACATAGTCTCTCTC
TTTATCTATAAAACGAAACAGCCAAATAGGTGATGATATGGCTTCTTTAAGACCAAAACA
GATGTTACAGAGATGTAGATAAACCCATACACAAGAAAGGAGTATGTTAAAGGGGTTT

-410-

CACAACCAAAAGTAGTTCATTTCATAATGGGTAACCTATCAGCAGAATTCACAGTTAAGG
TTAATTTAGTAGCTACAAGACCAATCCAAATAAGACATAACGCATTAGAAGCTGCAAGAG
TTGCCGCAAAACAAATATTTAACAAAGATGTGCGGTAGAATGGGTTACAAATTCCAAATTA
5 GAGTTTATCCACACCAAAATATTGAGAGAGCACAAGATGGCTACTGGAGCTGGGGCAGATA
GAATTTAGATGGAATGAGATTGGCATTGGAACCAATTTGGAACAGCTGCAAGAGTTA
AGGAAGGACAGGCAATCTTAACAGTATGGGTAACCCAGACAAATTCACAGCTGCAAGG
AAGCTTTAAGAAGAGCTGCAATGAAATTACCAGTTCCATGTAGAATAGTTATTGAGCAAG
GAAAAGAATTGCTTAAATTATAATTATGAACTTTTTTAAATTTTTTATAACATTTTCAC
10 TTGTAATAACTCTACTATTTTATTTATAATATTATCATTCAAATATTTAAATTTATTTTA
AAATAAAAGCTATATATAATCCCTATATATTGTTAATTATCCAAAATACAAAAGGGGAT
AGCATGAAATTTATTGCATGGTTAGACGAGTTATCAAATAAAGATGTAGACATTGCTGGA
GGTAAGGGAGCTTCATTAGGAGAGATGTGGAACGCTGGATTGCCAGTTCCACCAGCATT
GTTGTTACTGCTGCTTACAGGCATTTATAAAAGAACTGGATTAATGGATAAAATA
AGAGAAATTTAAGCGGTTTGGACGTTAATGACACAGATGCATTAACAAATGCATCAAAA
15 AAAATTAGAAAATTAATGAAGAAGCAGAGATGCCGGAAGATTGAGATTGGCTATTATT
GAGGCATATAACAAATTATGTGAATGTGCGGAGAGGATGAGGTAACAGTGGCAGTTAGA
AGTTCTGCAACCGCTGAAGATTTACCTGAGGCAAGTTTGCAGGACAGCAAGATACTTAC
TTGAATATAAAAGGAGCTGAAAATGTAGTTAAATATGTGCAAAAATGCTTCTCATCTTTA
20 TTTACTCCAAGAGCCATTTCTACAGAGAACAACAGGGGTTTGACCACTTTAAGGTTGCT
TTAGCTGCAGTTGTTCAAAAATGGTTAATGCTGAAAAGGCAGGAGTTATGTTTACAGTT
AATCCAATTAGCGAAAATTATGATGAGTTAGTTATCGAAGCAGCGTGGGGATTAGGAGAG
GGAGTTGTTAGTGGTTCTGTCTCTCCAGATACATACATTGTCAATAAAAAGACCTTAGAG
ATTGTTGATAAGCATATAGCAAGAAAAGAAACGATGTTTGTAAAGGATGAAAAGGAGAA
25 ACAAAGGTTGTTGAAGTCCCTGATGATATGAAGGAAAAGCAAGTTTATCAGATGATGAA
ATTAAAGAATTGGCTAAAATAGGGTTGAATATAGAAAAACACTATGGAAAACCGATGGAT
GTTGAATGGGCTTATGAGAAAGGCAAGTTTACATGCTTCAAGCAAGACCGATAACTACC
TTAAAGAAAGGTAAGAAAAGAGAAAAGGCAAAAGAGAGATTCGAGGCAAAAATATTA
TTAAAGGTTATTGGGGCATCTCCAGGCATTGCAACAGGTGTTGTTAAATAATCCACGAT
30 GTTAGTGAAATAGACAAGGTTAAGAAGGGGATATATTAGTAACAGAGATGACCACACCA
GATATGGTTCCAGCGATGAAAAGGCGAGCTGCTATTGTAACAGATGAGGGAGGATTAACC
TGTATAGAAGGAGATGCAAAAATTTAACAGATAGGGGCTTTTTTAAATGAAAGAGGTC
TATAAATTAGTTAAAAATGGAGAAAATTTGAAGGTTTGGGATTAAATGCTGAAACCTTA
AAAACAGAAATGGAAGAGATAATTGATGCACAAAAGAGAGGCAAGGAGATATGAAATT
35 GGCCTTTATAGAAAAGATAAAAATACAAAAGATACAATAAAAATCACTCCAGACCACAAA
TTCCAGTGTTGTAAATGGAGAAGCTCAGTAAGGTTCAATTATGTGATATTATAGATAAC
AACCTTTCTGATTGAGTATTGACTACATCCCAATGATTGAGGAGAAGTATGAAAGCTTA
GCAGAAGTTATGTATTTAGGAGGAGCAGTTCTTTAGATGGACACATTGTCAGAAGAAAT
GGAAAACCAATAAGGGTAAGATTTACCCAAAAGACACTGAGGAAAAGAGGACTTCATA
40 GAAAAGTTAAAGGAGATGTTAAGTTAATTGGAGGCAACTTTATAGAGATTAGCAATAGA
AACACGTTATTGAATATCAAAACAAGTAGAAAATACCTTCTGAAATATTGGGCTTTATT
GAGGTCAATATAAACACTATCCCATTTATATGCTACCAAGATGAAATAGCCGATTTAATT
GCTGGATTGTTGATGGAGATGGATGTTAAGTGGAAAGAGAAGGTTGAGATATATCAA
AACTCCTCCCATATCAAAAAGATTGAGGGCTTAATTGTTGGGCTATATAGATTGGGAATA
45 ATTCCAAGATTGAGATATAAAGGTCATCAACAGCAACAATATACTTTAATAACAACTTA
GAACTATACTGCAAGAACAAGAAGAAATCAAATTAGATAAGCTAAAAGAGTTCAAAAA
CCAGTTGAAGATAAAAAATTAATAGATATATCTCAATACTGCCGAACTTAAAGAATTT
GATTATAAGGGCTATTTATACAAGACATATAAAGAAAAACTATTCAATTGGAATAAATAA
TTAGAAGAATACCTTAGCAAAATAGATAAAGATGGCATTGAAAGAAATAAAACAAAAATC
50 AAACCTCTTAAAGAGAGTGATATTTACTCCATCAGGATTAAAAAGTTGGAGAAGATTAT
GGGGAAGTTTATAACATAACAGTTAAAGCAGAAAATGAGTTTAACCACAACATATGTTGTT
TGGACTAAGCATTACACTCCAATAGTTGTATTCAACTGCCACGCGCAATCGTTTCAAGG
GAGTTAGGAACACTTGCCTGTTGGAACAAAGAAAGCAACGAAGGTTTAAAGATGGA
ATGATCGTTACAGTTGATGGAGAGAAGGGAATTGTTTATGAAGGAGAGATTAAGAGGTT
55 GAAGAAAAGAGAAAAAACAGGAGGTTGTTGTTCAACAAGCTCCAATAATAACAGCTACT
GAGGTTAAAGTTAATGTCAGCATGCCAGAGGTTGCTGAAAGAGCAGCAGCAACAGGAGCA
GATGGGGTTGGCTTGTGAGAGCTGAGCATATGATATTAGGATTAGGTAAGCATCCAAGA
AAGATTTTAGAGGAAGAGGGAGAAGAAGCATTGATAGAGGCGTTAATGGAAGGAATTAGA
AAGGTAGCAGATGCATTCTACCCAAGACCTGTAACCTTATAGAACATTAGATGCTCCAACA
60 GATGAGTTTAGAGGTTTAGAAGGAGGAGAGAATGAGCCAATAGAACACAATCCAATGCTT
GGTTGGAGAGGAATTAGGAGAGATCTTGATGAAGTAGATATATTAAATGTGAATTAAG
GCAATTAAGAGATTGAGAGAAGAGGGCTATAAGAATATAGAGATCATGATCCCTCTCGTA
ACTCATCCAGATGAAGTTAGAAGAGTTAAAGAGATAATGAGAGAAGTTGGTTTAGAACCA
TGTAAGGATATTCCATTTGGAATTATGGTTGAAACACCAGCAGCAGCTTTAATTATTGAG
GACTTTATAAAGAAGGAATAAACTTTGTTAGCTTAGGAACTAACGATTTAACACAATAC

-411-

5 ACAAATAGCAATTGATAGAAATAACGAGTTAGTTTCAAAGTATTATAAAGAAGATCACCCA
GCTGTGTTAAACTTTGGTTGAGCACGTAATTAACCTTGCAAAAACATGGCATAAAAAACA
TCAATTTGTGGGCAGGCTGGAAGCAGACCTCACATAGTTGAGAAGTTAGTTGAGTGGGGA
ATTGATAGTGTTCAGCAAACATTGATGCTGTAGAGACAATAAGAAGAGTTGTAGCAAGA
ACTGAGCAGAAGGTTATATTAACTACATAAGAAAATCATATGTAGAGAGGGAGTAATTA
CCTTTAACTTTTAAGTTTTGTTTTATGACTATTTTATCATTATATATTTAACAATTC
AAATCTTCACTATTTTGGTGATACATTGAGAGGGTTTATAATTGGTAGGTTTCAGCCAT
TCCATAAGGGACATTTAGAAGTAATAAAAAAGATAGCTGAGGAGGTTGATGAAATAATTA
10 TTGGAATAGGTAGTGCCTCAAAAAGTCATACCTTAGAAAATCCATTCACAGCTGGTGAGA
GAATCTTAATGATAACACAATCGCTTAAAGATTATGATTTAACCTATTATCCAATCCCTA
TAAAAGATATTGAGTTCAACTCTATCTGGGTTTCTTATGTTGAATCTTTAACCCTCCAT
TTGATATTGTGTATAGTGGAAACCCATTAGTTAGAGTTTGTGTTGAGGAGAGGGATATG
AGGTAAAAAGGCCAGAGATGTTAATAGGAAAGAATATTCAGGAACTGAAATTAGGAGAA
GGATGTTAAATGGAGAGAAATGGGAGCATTGTTTCTTAAAGCAGTTGTTGATGTTATTA
15 AAGAAATAAAGGTGTTGAACGGCTTAGAAAATTAGCTCAGACAGACAAATAAAAAATAA
AAATAGTGATATTATGGAGGAAATCATTGATGTAAAAATCCAAAAGAAGTTATTGAATA
CCTTAACAATATAGATGTTGATGAGTATGTTGAGATATATTTTGAAGGGTTTCATGTTGA
AGGTAGGTTAATGCATTATAACGATGGACTTATAAGGTTGGTTTCATGAAAAATATGGAAT
20 TATAGAGGTTGAAATTGAGAAAAATATTGGATGATTGTTAGAGTTAGTTTCATAGTAAGT
AGAGAAAAGAGTTGTGTTGAGGTTTTATTAGTCAATCATCAAAAATAGATAACATTTCT
AAGGTTATTGGTATAGAAGCCCTTTTGGCTTCTATAAGTTTATTATATAACTATAAAAA
CTTTTGATGATTGACTATAATTCAGCTTTTTTGTCTAAAACCTAAGTTATTATATCATT
25 TGGTAGTTAATATTTTAAACAAATTATTATGTAACCTAAAGAAATTTGGATTTTTTGATTT
TTATATTTTAAATAATATAGACAATAAAATAGAAGAAACAAAAATTTTGACGGAAATTAT
GCATTGGGCTGATGTAATTGCTGAAAAATTGATTGAAGAGAGAAAGCAGATAAATATAT
CGTTGCGAGTGGAATAACACCTTCAGGACATATCCACGTAGGAAATGCAAGGGAAACAT
GACACCAGATGCAATCTATAAGGGATTAATAAATAAAGGAGTTGAAGCAGAGTTAATTTT
TATAGCAGATACCTACGACCCATTAAAGGAAGTTATATCCATTCTTACCAAAGAGTTTGA
30 GCAGTATATTGGGATGCCTTTAAGCGAGATACCATGTCCAGAGGGTTGCTGTGAAAGTTA
TGCTGAACACTTTTTAAGACCTTACTTAGAGAGTTTAGATGATTAGGAGTAGAGCTAAC
AACATATAGAGCTGATGAAAACCTACAAAAAAGGACTTTATGATGAAAAGATAAAGATTGC
CTTAGACAATAGAGAAAAAATTATGGAGATTTTGAATAAATTTAGAGCTAATCCTTTACC
AGATGACTGGTGGCCAAATAACATAGTTTGTGAAAACCTGTGAAAAGTTAAAGACAAAGGT
35 TATAAATATGATAGTGAGAAAGAGGAAATAACCTATAGATGTGAGATTTGTGGATTGGA
AAACACTGTAAACCATATAAAGGAAGAGCTAAGCTTCCATGGAGAGTAGATTGGCCGGC
GAGATGGAGTATATTAAATGTAACCTATTGAGCCATGGGTAAAGACCATGCAGCAGCAGG
GGGAAGTTACGATACAGGAGTTTAAATTGCAAAAGAGATTATAACTATATACCAACAAA
AAAGGTTGTTTATGAATGGATTCAATTAAGTTGGGGATAAAGCAATTCCTATGAGTTC
40 TTCAAAGGTGTTGTGTTTGTGTAAGGATTGGACTAATATAGCCACCCAGAGATTTT
AAGATCTTATGTTGAGAAGTAAGCCAAACAAAGCATATAGACTTTGATTGGAAGAAAT
TCCTGACTTAGTGATGAATATGATAGATTAGAGGATTTCTACTTTAACAACAAAGATAA
AGATGAGTTAAGTGAAGAAGAACAGAAAAAGATAAGAATTTATGAGTTATCAACACCAAA
AATCCCTGAAACTAAGCCGTTTGTATACCATATAGATTCTGTTCAATCATTGCTCAGCT
45 AACTTATGATGAAGAGAAGGAAGATTTAATATGGAGAGAGTATTTGAAATATTAAGAAG
AAATAACTATAGTATAGATGATATTGATGAGTTCAGCATGAAAAAATTGAAAGATAGATT
GTTAATGGCAAGAACTGGGCTTTGAAGTATGGAGAAAAGTTGGTTATAATTAGTGAGGA
TGAGGCAAAAGAGATATATGAAAAATTGAAGGATAAACAAAAAGAAATGGATTAAATACTT
CGCTGAAAAATTAAAAACAGCAGAGTTTGATGCTTTAACTTGCATGAGTTGATTTATCA
50 AACAGCAAAAGAACTTGGCTTAAATCCAAGAGATGCCTTCCAAGCATCGTATATGATACT
CTTAGGTAAAAAGTACGGGCCAAAGTTAGGAGCTTTCTTAGCAACTCTTGGAAAAGATTT
TGTTATAAGAAGATATTCATTATTTGAATAATTTTTTACTTTTTTTGGTGGTAAGATGAT
AAAAATACACGCATTAGAGGAAGTTAAAGGAAATTCATAAGAAATTTGTTGAAAAGAAAT
TGAAAATTTGGCTAATGAGCTGAAAGAAAAATATAATGCTAAACTTAAATATGTAGATGA
55 AGACATAGAAGAAGACGAAAAATTTAAAGTTTTATACAAAAATTTGGAGAATTTGAGATAAA
TTTTGATAACTTTAAGGATTATATAAACTTCTGTTTTAAATATGGGGCAGATATTGAAGT
TATAAAACCAGAGAAATTAACCTCACAGCTAATGAGATAAATGAAGTTTTAGCTTTGGT
TATAAGTGCCTTTAAATCATTATGGATACATATAAGATTGGATTTGATGTATATGTTAA
AGAGAAAAAAGATATAGATGTTGAGGGATATAAAAAAGGCAAGTATGATGAAGATGAAAT
AGCCGATTTTGAAGAAGAAGGGTTTATAAGAGTTAAGGCAGTGTGTTGAAGCTATTGGAAA
60 AAATGAAATGAAGTGGTAAAAACCTGCTTATTTCTTTGGATAGGGATGAGATTATAAT
CAACAAGATTATAACTAAAACTTCAATGAAATAATGAGAATTTAATGGACTAATGGC
TGTTGATTTGTTATGTAATCCCTTTGAGATGTTGAAATCGCCTATAAGTATTTACCAGT
TGCTATATCCATCCAAGAGATGAGATTGAATTAAGTTTAGCTGATATTCAAGATATTGG
TAACGAGCTATCTGGAGCTATGTTGCACTTAGCCATGCCGTAATTATGAGGAAATAGCT

ATGCTAAGAGGCATTACCGAGCGTAGCGaGGTAATGCATCTGTTTTGATCAACGCACcCaT
 AGcLTGCGCCCTATTGGGATACCTATTTAACTAAGTTTTGATCAACCTTTTCTAAAAGGTT
 GTTCGAGTAACCTTTTACTAAAAGGTTGGGAGCAATGTTTGAGCTTAGCCATGCGGTAGT
 5 TATGAGGAGATGAGTTCGTTTGATTAAAAAGGGCTTAACCTCTATCTCTATTTGGGGTAT
 CCATTATAAATTAATAATTTTGGAGGTGGTAAATTGCATCCAGCTTTAAAATACATGAG
 GCAAGATAGATTGCCACACATCTTCTGTTCTGGATGTGGAAATGGAATTGTTATGATAGT
 CTTTTTAAAGGCTATTGAAGAGCTAAATATAAAGCCAGAGGACTATATAGCTGTTTCAGG
 TATAGGTTGTTCTTCAAGAGTTCCTGGTTATTTATACTGTGATTCCCTACACACAACCCA
 10 CGGAAGACCTATAGCGTTTGCAACAGGAATTAATAATAGCAAGACCAGATAAACATGTTGT
 TGTATTTACTGGGGACGGAGATTGGCAGCTATAGGTGGAAATCACTTCATCCATGGATG
 CAGAAGAAACATAGATTAACTGTCTGTATATAACAATAATATCTATGGAATGACTGG
 GGGGCAAGTTTCACCAACAACACCTTATGGTAAAAAGGCAACAACAGCACCTTATGGTAG
 TATAGAAAATATGGATTGTGTAAATGGCGATTGCGGCAGGAGCTACTTATGATAGC
 AAGATGGACAACAGCTCATCCAATTCAGCTTGTAGGTCAATTAAGAAGGGTATTCAAAA
 15 GAAAGGATTTGCGTTTATTGAGGTTGTCTCTCAATGTCCAACATACTATGGAAGATTCAA
 CATCTCAAGAAAGCCAGCTGATATGATTAAATTCTTAAAGAGAACTCAATACACTTAAA
 TAAAGCTAAGGATATGAGTGAAGAGGAGTTGAATGGAAAAATTGTTGTTGGTGAGTTTTT
 AGATATAAGAGAAACCAGAGTTTGTGAGGAATTGCATAAGTTGATTGAGAAGTTAAAGAG
 TGAATAAAGAGGGTTAAGATGAGAAAAGAGATAAGACTCTCTGGATTGGTGGGCGAGG
 20 GAATTATTTTGGCTGGAGTTATTTAGGGAGGCGAGCAGCATTGTATGACAATAAAGAGG
 CAGTTCAAACACAGTCTTATGGGCCGAAGCAAGAGGGGGGGCAAGTAAGTCAGAGGTTG
 TTATCAGTGATGAGCCAATTGACTTCCCAAAGGTTATAAAGCCGGATATATTGGTTTGT
 TATCACAGCAGGCTTATGATAAGTATAAGGATGATATTAAAGAGGGAGGAGTTGTATTGG
 TTGATGAGGATTTAGTTTCAACAGATAAAATGCCAGAAGTTGATGTAACGATGTATAAAA
 25 TCCCATTACAAAGGATTGCATCAGAGGAGATAAAACTTCCAATTGTTGCAAATATAGTTA
 TGTTAGGAGCTTTAACAAGATTAACAAAATATTGTTTCAAAGGAAAGTATGGAAAAGGCCAA
 TTTTAGATAGTGTTCCAAAGGGAAGTGAAGAGAAAACTTATTGGCATTAGTAAGGGAT
 ATGAAGTTGCAAAGGAGTTATAAAGAAGAGGCATTGCTTCTGTAAAGAAGCAATGCATCC
 AGGTATCCCAATAGGGCGAAGCCCTATGGTTAGTAAGGGTTATGAAGTTGCTGGAAAATT
 30 GTAAGTATCTGAATATTTGATTTTATGGACTACAAATAGAAAATATTATTTTAAATAAAA
 AACTTTCTAATTTTGGAGTTTTTTAATTTAAAGGGATTTTATGAAAGATTTTATTATG
 GAGATAATTTTATAGAATCAAATAATCGGAGTTATAAAAATACTTTTAAATTTGAGTAA
 AACTAATAAAAATTTTGAATTTTATGATAAATTAATAAATAGATTTCATAGTTTTGGTT
 TTATATGTTTTTATTTGTATATGAAAAATTGATAAAAATTTATCCAATGATTACATTATCA
 35 GATTTTGATTTTAAAGATTTTAAATGAAAATTTTAAATTTTATTAGTTAAAAATTTCTCT
 ATTTGGTTGAAATAATCATTATCACTAAAAAAGTATTACTCAAATTTAGATTTGAATGA
 ATAGGGGAGATTTTTTAGATGTAAGATATGATTTTTAGGTTATTATTTGATTAGAGGTTT
 TTTGTTAATTTATTAGATAAAATAAAGGTTTTTATTGAATGTTAATATTGGTTATTAAAT
 40 AATTTTAAATAGTAAAGTATAAATATTAGTTATAATATATCTAAATATAAAGGGTTAAG
 AAGAACATTGTTGTATGGAACATAAACGTTTATCGATAATATCGGTTACATCTGATAGTC
 TGTTTAAAGAAGAACATTGTTGTATGGAACGGGAGGTGTGAGGGCGGCTCCCCCTAATC
 TCTAAAATTGTTTAAAGGAGAACAGTATTGTATGGAACCCATCATAGTCACCTCCTCTCT
 TTTTCCACGATTTTTGTCCAACCTATATTTTCGTGTTTAAAGAAGAACAATATTGTATCAA
 45 AAACCTCTTTTTATCCACTCTAAATATCCTAAATAATTTTTATATCCCAAAAGAGAAA
 TATTAATCAAAAACCTATTTTTGGTGTCCATTATGCCAAAAATTTATACAATCCAGA
 GGTTTAAAGGCTAAACCAAAATCCTACCATGTTGAAAATCCAGAGAGAGTTTTTAACCAT
 TTTAAACAGCTTAAATCTAATGGCTTTGATGATATAGTTTTAATTGAAGGAAAATCTAC
 AATTAATGAGATTTTAGAGATTCATAGTAGAGATTATGTATATTCAATTATAAATCTAAG
 CAAATCATTAACTATTATGATGGTGATACATATCTCTGTGATAGAACCTTAGACGCAGC
 50 ATTAAGTGCCTTTAAATTGGCAAAAGAAGCTGTAAATTAGCATTTAAAGATAGGGATTT
 ATACTTTGCATTAAACAGACCTCCAGGACATCATGCTGGAATTTCTGGAAGGGCTTTAGG
 AGCAATGTCAAACGGTTTTTGCATATTATAATAATATAGCAGGAGCTGCAAGATTAGCTAA
 AAATTATATGAAAAAGTCATAATAATTGATTTTGTATGTGCATCATGGAACGGCACTCA
 55 AGAAATCTTCTGGAATGATAATAGAGTTATTCATATAGATTTCCACCAAGAGGCATCTA
 TCCAGGAAGTGGAGATATATTAGATATTGGAGGAGAAGAGGCAAAAGGGACTAAAATAAA
 TCTTCTTTTCCAGCACATTCAACTGATGCTGATTATATATTGTCATGGAATGAGATTGT
 TGAGCCAATTTTAAATTAATTTAGTCCAGATACTGTTTTAGTTTCTGCAGGTTTTGATGC
 ATTTATAAATGATGGCTTGCAAGTATGGACTTAAGTGAACATTTTATAGATTTGTAGG
 60 AGCTAAGCTAAGCGGATATAGTGTACAGCAGTTTTAGAAGGAGGATACAGTATAGGTTT
 AAAGTATGCTCCACCAGCATTTTTAGATGGATATGTTGATGCTAAAGATGTGTTGGATAA
 TTTAGAGGATTATACAGTTATTAATCTAATGAAGTTAAATCAATGGTTAAAAATGTTAA
 AAAGATAATTGGGGAGTATTTGGATATTTTTTAAATAGGACTCCGCAGTTTATATATTATA
 ATAAGTAGTTAGACGTTAATTTTTGCTAACTTTCTACCAACTCTTTAATTTTTTAAATA
 TCATTTTCTTTGGAGCAATCTAAATGTCAATATCTTATCATCAACAATTTTAAACCTT

5

10

15

20

25

30

35

40

45

50

55

60

AACCTTTTAAAAGCCTCAATTATTTTTTAGTCGCACATTCTTTCCAACCATAGGAGCCA
AAssstACGCCAATCTTTTTATTACTTGGCTTTAATCCTTCTATATAAGTTAATAACATT
CCAACCTTTGGATGCACATTCATATTTATTGTTGGAGAACCAACCAATACGTATTTTGGC
TCTAAGATATCTCTCATTATAATGTTCATGGGAAGTATCTAATCTGTGGTATATTACA
TCAACTCCTTCTTCAGATAATCCCTCTCCAAGGGCTTTGGCTATTTTTCTGTGGAAGAG
TATATAGTTGCATATACAATGACTGCAGTATTTTTATATGAATCAGAACACCACATACGG
TATTTTGTAAATTTTCATCAATCATTATATGCCAAATAACACCATGTGATGGACATATA
TACTCTAANTCCAAATCCTTCAAGATATTTAGAATTTTTAAGATGCTTTTTCTATATGGT
AATAAAATATTGGCAAATACTCCTTAGCATCCAGCATAATTTATGACCAATATCACTG
TCTATTTTCTCTTTATAAACACATGTTGACTAAATAAATCATTGAAAACAGAAATTTTA
TCTTCTACACAGTATGTTAGCATATTTACACTTGTCTCAGTTATAAATTTTAATGTT
CTATTTCCAATATTTAATTCATCTCCATTTTTTACAATGACAAATCCCAATCTTTTGT
TTAAATTGAGCATCTAAATAATATTTCTAATTTTTGTAGTCACAATCTTCGCTTCTGTA
AGCTCAATAAGTTTTCTATGCATTGCTTATGGTCAGGACTAATATGGTTTGAGATAATA
TAATCTAATTTCAAATTAGCTACGTCTTTCAAATATGACAATAATTCATCAAAATACTTT
ATTCTTGTAGTATCGATTATAACATTGTTTTTATCTAAGATTAGATATGAGTTATATGTA
GTCCCTTTTTCTCAATGTCTAATCCCTATACTCTTAAATTTTCCATTCTATAAAACTCATG
CAGTAAATATTATCTTTTATTTTTAAGCACCATAATTTTACCACAAAAATATTAATTATA
AGAACCCAAAACCTCTAAAGATTACAACATTAAATATTCTGGCGATAGTAATATATAATA
ATGTCCAAATGTTAATTTAAGTAAAATAACAACCTAAGTAATCTTTATAAATGTTTGT
GATTAACAGCATAGATTGAGGGAAATTATGGTAAAAATAGACTACAAAAAGTGTGGTTAT
TGTGGAGCGTGGCTTGGAGTTTGTGAAAAGTTAGCTATCAATTTGATAGAACATATTATA
GTTATTGATGAAAAAAGTGAATAACTGTAAGTTATGCACAATAGTATGTCCATTAAAT
GCATTAGAGGGGGAATGATGAGAGAGTTAAATGATGTATATGATGTAGTGGTTGTTGGAG
CAGGTCCCGGAGGAAGTATGGCAAGTTATGCATCAGCAAAGAATGGAGCTAAAACACTAT
TAATTGAGAAATCTCAAGAGATTGGTGAGCCAGTTAGGTGTGCTGAGGCAATTCCTCAA
TAGAGGAATTTGGATTAAAACCAGAACAGAGTTTGTAGAAACATTATTAAGGGAGGAA
TTTTATTTTCTCCTTCTGGAAAAAAGTTACAGTAACTCAAGATAAGGCTCAAGGATATG
TAGTTGAGAGAAAAATTTTGATAAATATTTGGCTATAAGGGCAGCTAAAGCAGGAGCTA
AAGTAGCAGTAAAAACAACAGCTATTGGTTTAGAGAGGGACGGAGATTATTGGAATGTTA
TAGTTGAATTTTAGGAGAGGAGTATGTTATAAAAACTAAAGTGGTTATAGCTGCTGATG
GTGTTGAGAGCAATATAGCTGAATATGCTGGTTTAAAGGCCAAAGAAAAAGCCATTGGAGA
TTTGCTCCTGTGCTGAATATGAGATGACAAATGTTGAATTTGTTGATAAAAAATATGATGG
AATTTCTATTTTGGTAATGAAGTGGCTCCAGGAGGGTATGTTTGGATATTTCCCAAGGAG
AAACAGCTAATGTTGGTTTGGGAGTTAGAGATAAAAGAAGAAGGCAATAGAAATTTAG
AAGAGTTTCATAGAAAATGGTTTAGCTAAAGATAGGTTAAAGGATGCAACACCAATAGAAT
TCAAAGTTGGAGGAGCTCCTGTTTCTGGCCCTATAGAAAAACCTTACTGATGGTCTTT
TAGTTGTGGGGGATGCTGCTGGGCAGATAAGCCCATTAAGTGGTGGAGGAATTTATTTAG
CTATGGATTGTGATTAAATAGCTGGAGAAGTAGCAAGTAAAGCTATAAAATTAATGATT
GGAGTGAAGAAACCTAAAGAATATGAAAGAAGATGGAAGAAAAGCATTATGAATATT
TAATGAGCCATTTAAAGTATAGAAAAATCTTAGAGAAAATGAGTGATGATGAGTTAGATG
CTTAGCAGAAGCTTTAGGAGAAAGTTAGACGGCATTGACTTGAAAAATTTGTCAAGA
GAATAATAACTAAAAAACCATCCTTTAAATACTTTAAGGATTTATTATAATTTTATT
CTTTCTTTGGTTTTTTAACTACTAAACTGGACAGTGTGCATTTTAAATACTCTCTCAG
CTACACTTCCCAATAATATTCTTTCCAATCCTGTCTTTCCAGTAGTTCCCATAACTATCA
AATCTGCCTTTTTCTTTTCAGCAAATCAACAATCTCATTTGCTGGGACACCCCTCAACA
TCTCTGTATGAATCTTAACTCCCCACTCTTCAGCCATTTTTTAACTTTTTTAAATGCTT
CCTGCCCTCCTCTTTTAAAGCTCACTTATCAGTTCCCAACTTCCCTCTGCAGGAAGTC
CAACAAATGGAGAGACATCGACAACATATATTGCATAAACTTCTGCATCAAACTCCTTAG
CTATATTGATTGCATGCTTTGCAGCTTCAAGTGAACATCTGAACCATCAGTTGGGATGA
CTATTTTTTTATACAAGTTTTCAACATTTCTTATTATTGAATTTAGTATATAATATTTAA
GTGCCAATAAAATAAAACCTTTTTTCAATTAGTGATTATCAACATGATAATACACATATAA
ACCCTATTAACCTTAATAAAAAATCATTAATTTTGAAAATATATATAAATATGGCAATGA
TGAAAAGAGGGTTAGCTGAACGTGTGATGATACTTACCCGAAGTGGCCATTATTTTTTAT
TCTTTTTCTTTCTTTATCTTTATCTAAGTCCATAATTACAATGCCTTCTTTTAGTTTT
TCAACTTCTTCTCCTCACTTAATATCTTCTTCAACACCTTCTCCAATAATGGCACTATGT
CCTAATGGGTCTATCAGTATTAAGTTGCTTCTTCTTACCCTCTTTAATTTCTTTATT
CTTTCTCTAAGCTCTTCAGCTTTCTTTTTCTGTCTCTGTCTCAGCCCATCTAATTA
GTCTGTAAATGTTATCAACTCTGTTTAAACCCCTCAACATTGCTAACAACCCCTCA
GCTAATGGACAGGCTTAATTTCAACTCCAAGTTCTGGAATTTGTATATATGCTGAAGAA
CTTCTAACAACCTCTTTTATTTAAATCCCTCTCACTTTCAATTTTAAATATATATTTCTTC
GGCTCCCTTACTTCTAATGGAACACGTCACCTTCTTCTAAGTTGCATTTTTCACAAATC
ATCGTTGTTTCTAACAACAGGGCGAAGTATGGGATATCTATTTGGTGAGAGGTTATTACA
AAAGTGCTTTTACCTCCACATACTGGACAGTCTAACCTTTGCACATTTTCCATTTTATCA

5

10

15

20

25

30

35

40

45

50

55

60

CCTATGGGAACTTTTAATCAATCTAATATATAAACTTTTCGTCTTATTTTTTGTGGGTAA
CTTTTATATATTTCCCAGAGGATAATGTTATTCCATGGCGATAATATAATGATTGATTAT
GAAAAATGGCGGAATATGTTTTCTTAATTTATTTGGTAGATATCAAATATCAATTTTCGTG
AGAACATGTATAAAAAATTAGAGATTATTGAAAGGGCAATACTATTAAATCCTCAATATA
TCCAGGCTTTTAGAGAAAAATTAAAAATTACCCAATCAAATTAGCTAAAGAAAGTGGAA
TTAGTCAATCTCATCTCAGCATGTTAGAGAAAGGAAAAAGACCAGCAACTAAACTTATAG
CAACTGCTGTAACCTTTGGTTTTATTAATAATGTTTCTCCTCAAACAATGTTGAAAAATCCAA
TAATTGAACCTTTTAGATGCACTCTCCCTTTTAAAGTTTGAAGTACTTTTGCAGAATTTG
TATCTGAAATTATTGAAAAAGGTGATAAGGGGTATCTTAGGTTAATTGAAAACTACCCTG
TATTAATAATAAGTAAGGAGAACTTATTAATGAGATGAGAAGTAGGTTAGAAGTTATGG
ATATTGAGAGGATAGAATATCAAGAGGGAGAAATAAAGTCATAGGAAAAACATCTTGACA
ATAAATATGTTGAGATATTCTTAGATTGCTCAGATATTAGGAGATTAGAAAAAAATTC
TGAAAAAACTGGGAAGAAGGTTATCATCCAAGTATTTCCAAAAGATGAAGTCCACCAA
TTTATTCAATAAATAAAGATTGTGTTATAATTATTGCTGGTAAATCAGGGAAATTAAG
AAAGTGGGGCTGAACGTAGTGAAGCCCGCTCTGGGTATCCCAATAGGGCGAAGCCCTAT
GGTGATAATAATTCATTGCTGGTGAGAGTGATGGATATTATTATTTTATATCTAATAGC
TCTAATAACATCAGTAATTGTTGCTTTAGTCTTAAACTTCCAATAATCCCAAAAGAAAA
GCCATAAGGTTTAGCTTTGAGACATCTATTATATTTCCAACACCAATCTTAGCTTTAGG
CATTGAGGCAATTTTAGGAATTTATTTGGGGATTATATAAGCTTGGCATTCTTTGCTGG
GCTGTTTGGAGCTCTATTATCAAAATATGCTGATAAGTTATTTGGTGAGCCGTAATGGAG
ATTGTTGAAATTGTAAAAATAATTATGCTGGGATTATCTGCTGGCTTAACCTTTGTTCTT
ATCGATACTTATTTTGGACTCCAGAAAAGCCAGGAGTTTATAGGAGCTAAGACAATAGGA
GAGAAGATTAGAGATATCGGTGGAAATTTAAATGGAGGCTACTTTATGGGAAATATTGTG
TGCTCTCCAGATGCCTCAGCAGGAACATTATTGGCTTCAATAATGAATACCTAATGGGA
ATTGAAGGAGGGTTTATAGCGGCTTTATTGGTTTGGATTGGTAATCGTCTATGTGCAGAC
CCAGGTTATGCTGGAATATTGGAGCTTTAACAATAACTGCTATTATCTATCTCCTAAAT
CCAATAATTGAAGCAAAATATTTCATTGTGGGAATGGTCTTGGCAATATTTACAATTCAA
GGATTTGAGCACAGATATGCCTCTATATTACTTGGAAAAATAGCTAAAAAGATGAATAGA
GGGGAATGATGGATATTGTAGAGATAATTATTGGATTTATAGCATTGTTAATGACAGCAA
GGATATTCTTAGAAAGAAGTAGAGCAAGAAAAATTGCTTTACCTTTGTTGTTTAAAGCTTCT
GTATCTCTGCATTAATTGCTCTATATGTGGATTACCAATGGGAGGTATAGTGGCTATAA
CATACTTTATATGCTCAACTATCTCATCCAATGCAATTGCCTATACAATAGAGCAAAACAA
AACATATTGAATAGGTGAAAATTTGGAGGTTTTACCATTAGTATCTGGAATATGTTGCAT
ATTGGGAGGAATTGGAGTTATCTTACATACAAATCCAATAAACAAAAATTATTATGCTTGC
TTTGTTAGAAATAGGGATGATTGGTTTAAATTGTTTCATGTTATTACCTGGATATTGCTAT
AGTCTCATCACTCTGCGAACCATCTGCACAGTAATTTTATTACTTGGATATTTGAAATA
CCTAACACAGTAAAGAAAAAGAAAGATATGGTAGAAATTTGCCAATATTGTCTAAATA
AGAAAAAGTATGGTGAATATTATGGAACCTCGTTGAATATATTCTCTATATTGGATATGC
ACTATTAATTATTGGAACCTTGGAACTGTTATAGGGCCGAAGTGTATAATCCCCTAATT
AGGATGTTAAATGTTGAAGTACCAACAATAGGCGTTTTCTTTAATATTCTTAGCTTATGAT
GAAGCCCTTGCAATTGATGACATTTATTGCAGTTAATGCAGTTTTGAGTTTAAATTTTGATT
AGAGCAGTGATATTAGATGCCGAATATAAAGAAAAATAATCAATAAAGGGGGAAATAATGA
AAAAACTTGGAAACCATAGAGGGAAACCCTCTATTGGGATACACCTAACACCTCCTCGC
TTACGCTCGGAGGTGTAAATTAATTTTGATTAAATTTGTTTGGAAAAATTTGAGGTGGGTA
ATAATGAAAAAACTTGGTAAATATGGAACATTTTATCAAAGCCAGAAATTGTCCCAAGA
ATATTCTTGTCTTATTCTTAGCTTTAGTCTTTATATTATTGGGTTATTGATGCTCATTAA
AATCCCAATCAACTTTATCCAAAACCAATTCCTCACTCTCAAACACTAAAAACACCATTA
GCACCTTATGATAGAGGAGGGATTCCATTAAGAAGAACCTGCAGAGTTAAAGCTCAATAT
CCACAATATGAACCTAATCTTGGAAAGATAACTGCCTATCTAACTCCAATAGCTGAATGG
ATTAAAGATAAAACCTACTACTTTGGGACAACAATAGTCTCAACACCTGGAGGAATATTG
GATGAAATCCTATACTATACAAGAGGAATGGATACAGTGCTTGAAGTTCTATACTGCTA
ATATCGTTCAATAATTAGCTGGTTATTCTTCAACAAGGATTAGGTGGGAGAGATGGAG
AACATCATCTACAGTATATACCATCCAACGATATTGGTTGGATTGCTATTGGAATTTTG
TCATTATTGGCTATTGGATTTCAAAAGAATGATTTACATGCTTTAATATTGACTGATGTT
GTTGAGTGTGCCATGCTTATAATTATAGCAGGTGTTGGAACAGATTAGCTGAAGCGTTA
ATTTTGGCAGGTTTAGTTGTTAGTTTAGCTGAACCTTTTAGCAGTTTCAGAGGTTTAAATA
ACAAGAAAAATATCTAAATCAAAAAGACCTAAGCCAAAAAGCTACAAGTTGTTTGAAGAG
TTTAAACTTCCACTATATACAGGAGAATTGAAGTATGATATTCAATGGAATTTTAA
ACCTCACCAAAATTTTGGCAATAATTTTAAATTGTTTATGGAGCTATATTGAGTGGATT
ACTGGAGGGGGCGTTATAGCTACTGGATTGCTGTTTTATGCACTATCTCAGAGAGTTATT
GGCGTGGAGATTTTCAAGGAATTAACCAATGTGGGAGGGAATATCTGGATTATCTGGA
ATTGCATGGGCTTTGTGGATATTGGATTATAGGTTTCTTTGTGTTCCAGATAAATGG
TACTGTGTCTATTGATGGCTGGTTTAGGTTTAGTTATAAAGGTTGGCTCAAACTTGGGA
CTTATTGGATATATAGGTGAGGTAAGATGATTGACAAAGCATAGGAGGAGACCTCCTATT

GCTATACCACCCGICCATTAAGTTAGGGCTTTTCCAGCCCTAATTAATGTCCATTATTTAAT
AAAATTAGGTGAGATAAAATGATTGAATCAATAACTGGCTATCTATTTGGAATTGTTCCA
TTTGGAGACATTGTATTTGGCTTTTCAGAATTTTCAATTATTGGATTATCACTGCAGTA
5 ATATTTACCATCATAGTTTATTTAACAAGCCAGAAAAGCAGTTAGAAGCTCAAAAATTT
AAAATTGAAGATAAATTAGAGGTAGTAACACTAAATGAGTTAAAAATTAGGAGAATGATG
GCTATTGTCTGCGGAATAGCAACTGCTGGAGCTATGCTAACTTATGATTTGTTGATTAT
GCCTTATTCTTAACTTTAGTTGGGATTGCAATATAGGTATTGTCTCAGCAGTTAAAAAG
10 GAATGGGTGTTAAATGCAAGTTATCAGTATGGACTTATAGCGATGATTGCCACCCCTTCCA
TTATTTGGTTCTGCAGGGATGATATTGGCTAAAAACAGGGACATTATCAATCTTTGAACTG
CCAAAAATACAAACATCCCTATTATTTGAAAAATATATTTGCCGCTGGAATGGCTGGA
GAACTGGGATAGCTCCCTTCTATGCTGCAAGGCGGAGATGTTTAGAGCTCCTGGCTCA
CCATACATATTGATGATACACCTCTCCTCACTGTTGTTGATTGTAAGGACTGTTGAGATT
CTATTGACAATTTAAATACTTTAGGTGAAAAACATGGATGAAGAGAGAAAAATGGATT
15 ATATTCAATTGATTATTGGTTTGTGTGTGTATTGGGATTGTTATGCTTAATGGGTTGAT
TTGCTATGCTCTATATATTATTCAGTTCTTCTCTCTATATGGAATTGGAGCATTAT
AATTCAAAAACAAGAAGAAAGATGCTGGAAAATTGCCATTTAGAGGATATTGAAAATA
TTAAATAAAAAATCTGGGTGAGGATATGGATACTTCACTGATAGGGACTATAAACGAAAC
TTTATAGAAAAAGTTGAACGAAAACTCTTAGAGTTTTCATAGCTGGAAAGCATAGCTCTCC
20 ATTCATCAAAAACTAACACCTCTCGCTCGCTCGGAAGTGTAAATTTACAACGTATAA
AATCTGGGTGATGCTTATGGATACTTCACTTATCGGAGCTATAAACTTAACAATCCATGC
ATTTCTTGTGTGGTTCTCTGTACTTGGATTACATAGAAAAATATGGCAAGGATTCAGG
AAGACCAGGACCTCCAATAATCCAATATCTATTGCATACATTAATTTCTATGTAAAGGA
AATAACTTTCCCAATAACTGCTGGAAATCCTCTCTATATTTGTAGCTTTATGGATAT
25 TGCTATTTGGTTAGCTGCATTATATAGCTATTGATTTCAAGTCATCCCTCCTTATAAT
TATAGGAATCTATGTATTGCAAAAAATAGTGGAGCATGGTGTGGTTTGTCTCTGGGTC
TCCTTATGGAAAGATAGGAGGGGTAGAAGTGTCTTTTACGAGCTGCAGAGTGGCATT
ATTTGCAGTTGTTGCTGCCATATACTTAACAACACATTCACTTTTAATTTAGATATATT
GAGTTATCAAGAAATACACGGCAGTTTATTGTTTAAATGCCAATTTGTGCATTGCGATT
30 CTTTATATTGCTTGTTCAAAAGCTCCAAACAGTCCATTTGGGATAGTTAAGGGTAAAGA
TATTGTTAGCGGATATATGACAGAGCATTATGGTTTATTAGGGGCTATAATCTACATTGC
AGAGGCAATAGCATACTTTGTATTGCTCTGGCTCTTATAGCTGTATTTATTGGTCTCTT
AGTAATAAACAGCCCTGTATTAACATTGGCTGTAAATGGTTGTAATGACAGTGATTTAGC
ATTTGTTAATGGATTAAACACCATTATTAGCTCCTCATCATTCACTCATGCTTCAAATGAC
AATTGCTGGACTTGTATTGTGTGATGCTCTATATCGATTAAATAGTGGGTGGATAAAATGA
35 AAAGCTACATTGTATCCATAGGGGAAACCCCTATTGGGATGAACCTTTTAGTAAAAGCT
TCACCAAAACCTAAACCTCTCGCTTACGCTCGGAGGTGTAAATTAGTAAGATTTGGGG
AGTATCCCAATAGAGGGGCGAAGCCCTCTATGGGTCTTATACAGACTAACAGTGGGTGG
ATAAAATGAAAAGCTACATTTATTCTTTACAATTGCATGCATTATTGCCGTGATTATT
40 GTGTATTGGTTAATCTATTGCAATAAATGTCAATCCAGTAGTTTACGATTTAGCTTAA
TCTTGATATTAACAATCTCAACCATAAAACAAAAAATAGCCCATAAATGGAAGATATTG
AGGTTTTATTATGCTCTTAGTTTAGCTTTCTTGCATATGCAATTTATAAACTCTACA
TTCCTGTGTAATGGTGAATCATGGGATTATTTAGCTAAATTTGGCTATAATATTGTT
TATCATTGGAACTTTATTGGATTGGAATATAGCTATAGAAAATACTCCTCTCCTTATGT
45 AGAAAAAGGTATTGATAAGTTTGCCTTAGCTATTTCACTATTGGGGGGATTTTAATTTA
TTCTCCGTTGTATATGCTTGGATGTCTATTAATTGGATTTCCTTTAGGTATGAGACCTGG
ATATGGAAGAGTTGAATTTGTTGTTGGATTAGCAGTTGCCCTGTTTCTTTATTCTTGAG
GTGGTAATTATGACTGAGATTGTTGATATTGACAAAAATATGTTGAGAATTCATTAAAA
CAGAAGATGAATGTTCTTAAGGATAATAGATTTTAAATGGATGATGATTTATTCCAATA
50 CCTAAAGCTTTAAAGATAGAGGTTGAGGAAGTTATTGAAATATTTGCAAAAAATTTGGAT
TTTGCATCTTGTATGAACCTCATGCTTATGCAGAGCAGGCAAGATGGGCTGTTTAGGA
AGGAAGGTAGATATTGATTTAGGGCTGTGCTGGCTTAGTGATTCTTTGGACTTATAAAA
AAAGAAGAAGCAGATTTAATTAGAAAAAGGTAGTTGAAAGTTATTGTCTGTATAAAAA
CCATATAAAGAGGCGTTGGAGGAAGGTAGGCAGATGATTATCAATTGTTAAAGGAGGAA
TAGCCATGATGAAAGAATTATTAGAAACCATAGGGCTTCGCCCTATTGGGATACCCAGG
55 ATGCATTGCTTCTGCAAGAAGCAATGCCTCTTAAATTTATTGGGAGGAATAGCCATGA
TGAAAGAAATTATTAGAAAAAGGTCAATACATGTTTGTGTTGTCAATCTGGGGGTTGTA
ATGGATGCGATATTGAGATAGTTGCTGCTTAGCTCCAAGATACGATATTGAGCAGTATG
GGATTACGTCCATAATAACCCAGAGAAGCGGATGTTTTATTAGTTACAGGGCCAGTAA
CTTTACAATGGGCAGAGAGATTAAAGGAGATTATGAAAAACACCAGAACCAAGATAG
60 TTGTTGCTGTTGGAGCTTGTGCATTGAGTGGAGGGATTTTTAAGGAAGGACATGTTGTTG
GAGGAGTTGATAAAGTTATTCCTGTAGATGCAAAATCCCTGGATGTCTCCAAGACCTT
CTGAGATTATTGAACAATCTTAAAGGTAGCTCCTAAGGCAATAGCAATGAGAGAAAAGA
GATTAATAAATAAAGATGAGTGAAATATGGCAACAATTCCTATAGGACCAATTCATCCA
GTATTGAAAGAGCCGTTAAGGATTAACCTTGTTTTAGATGGAGAGAAACCTGTTGATGCT

-416-

5 GAAATTGAAATGGGTTATGTTTCATAGAGGAATAGAAAAAATTATGGAAGGAAAACATTGC
CATAAAGGAATTCACCTTAGCAGAAAAGAGTTTGTGGTATCTGTTCCCTATGTGCATACGATG
ACGTTTGCTGAATGCATTGAGCATATATCAAAGATAGAGATCCAGACAAGGCCAAAATAT
CTTAGGGTAGTTACTTGTGAATTAGAGAGAATACACAGCCATTTAATTGCTTCAGCAGTG
10 TATAATTTATCTATTGAACATGAAACACTTGCTATGTGGCTTTTGAATGTTAGGGGAAATA
ATTATGGATTTAATGGAGATGATTACTGGAAATAGGGTTAATATGGGTTATAATGTAATT
GGGGGAGTTAGAAGAGACATAAATAGAGAGATGATGGATGAGATATATAAAAACTCGAT
ATCTTTGAAGATGAACTAAAAATATTATTGAGGTTTTTGAACAGGGCCTTTAATAGCT
15 TTAAGAAGTAAAGAAATTGGTATTTGCCATATCATGAAGTTATGAGGACGAGGGCTGTT
GGGCCAATTTGTAGAGGTTCTGGATTGCCAGAAAGTGATTGGAGGTTAAGACATTCAACA
TATCAAGAGTTGAAATTTAAGCCAGTGTGGAGGGAGGAAGGAGATAACTTTGCAAGGATG
ATGGTTAGGCATGAAGAGATTATTGAGAGCGTTAGATTAATTAGAGAGGCTTTAGAGCAT
TATGAAGAGTGTTCTGGAGATATAAGGGTTAAGGCAGAGATTAAAGGAGGAAAAGGAGAG
20 TGGAGGAATGAAGCTCCAAGAGGAGGTAACCTTATAGGATGGAATAACTGATGGAGGG
ATAATAAGAGAGGATAATGATTAGAACTCTACAGTTATGAACCTGGAGGCGTATAAATAT
ATGCTAAAGACTTGTCCAAGTGTAGCTGATGCTGTATCTGCTTATACAAGTATCGACCCT
TGCGTTTCATGCACAGAGAGATGCATAGTTGCAGTAAAGGATGGCAAGGAGATTCCAATT
AGTATTAATTTAGGTGATTGTTATGGCATCTTCGCTATGGTATCTTTATGAATTTGCAA
25 GAAAAAGTGGATTAAAGATTATTGATGCAAAATCAGATAAAAGCTCCTATATCTCTC
CAGAAAGATATAGAAAAATTCCTCCAATTGTTAAATTTCTGAGAAATGTATATCTCTGTG
AAGGTTGTAGGAAAGTTGTCCAGCCTTTGCAATTGAAATGATATACAACGAAGAGTATA
ACAAAAAAGTCCAGTGATTGATGAAGGTTCTTGTGTAGCATGTGCCAAGTGTATTGAAG
TTTGTCCAACAGGAGTTTAGAGATGGATAAGCATAGGGTTGAGACAGAGGGCTTATTTT
TTGATAAACCTAAATATAGCAATCTTATAATTGACGAGGAAGTCTGTGTTAGATGTGGAA
30 ATTGCGAAAGAGCTTGCCCAATCAATGTAATTGAGCGTAAAGAAGGGGAAATATGTAATAA
ATATGGCTTTATGTATTTCTGTAAAGAATGTATCAAAGTTTGTCTATAGAGAATGCAA
TAGTTGTTGTTGATGAAAAAACATTGAAAGAGAAGATAGATAAAGCCTTTGAAATTAATA
ATAAAAAAATTACTGGGAAGTTGGAATTAAGGAGAACGTTATTGAAAAAATCCACATA
TTGTTAGTGGCTTGTGTGAAGTTGTGGAATATGTAAGATGTATGCGTAGGAGAGATTG
35 ATTTAAATGAAAAAAGGTTGTTGAGTGCGTAAAGTGTTGTTATGTATAGAAGTTTGT
CAACTACTGCAATAAGGATTTATAAACCAATTATACCAAAGAGGAAGGATATTTGCTACG
TTATTGATGAGGATTTGTGTATTGGCTGTAGAATTTGTGAGAAAGTGTGTGGGTCAGGG
CTATTAAAATTAGCAAAGAGACAAAGCTACCATATATTGTTCCAGAGTTGTGTGTTAGAG
GAGTAGCAATGCGCAAGAGAATGTCTGTTGGAGCTATAAAGTTGTTAAGCCAGAAGAGG
40 CAGAAGAGGCGGTTAAAGTTAGAATAATAGAGGATAAGATAATTGAGAGCATTGAGAAGG
ATTTAGTCTTATACACTGAGAAGTATGGAAAGGTTAAAGAAGAGATTGAAAGTTATCCC
TCAAAAAGTTGAAAGAAGAGCTAAAAAGGAGAGTTTATGAAGAAAAATAAAGAATAATGG
AAAAAAGAGGGAGCTGTATGATAAAGGAAATAATAGCTAAACATTTCAATTTAGCTGAT
45 AAAAAATATCCAATTACTCCCAAAATTAATATTATTTTAAATAAAGAGAGATTATCGTT
AAAGAGGATAAATGCATTAGCTGTGGAAAATGTATTGAAATCTGCCAGTGAATGCAATA
ACCTACAGTAGTGATGGGTTATATAAATTAATAAAGAAAAATGTGTGTTTTGTGGA
AAATGCAAAAAAGTTTGTCCAACAAATGCAATTGTAATAAAGATTGAGATGCGAAATT
AACGAAGATGCAAGGATTATTGAAGTAGATAAGTATGAATTTATTGATTATATAAGTGAG
50 AGATGTGCATCTTGCTTAGTTTGTAAAGCAATTGCCATTAAATGCTATTGAAGAATAT
GGAAGTAAAAAAGGATTGATATAAATAAGTGTGAGCTTTGTGGAAAGTGTGAAGAATT
TGCCCGTTAAATGCTATAAATACGATAAGAAATACTATTTCATAAAAAGTCATAATAG
TTTGCAATTGAAGGTGATTACATTGATTGAGATAAAAAAGTCATTGGATGAGATATTATC
AAAGATAGATGGGGATAAAAAAGTATATTAAATGAGGTAGCCAAAAAATAACTCCCAFAAC
55 TTATAAATTGTTATATATCAACGAACTAAATGTATTAGATGCAATCTTTGCTACAAAGA
ATGCCCAGTAGATGCAATTGAAAAGCGAAGGTTAAAAAATCTGCAAGATAATTGAAGA
TAAATGTGTTAAATGTGAAATTTGTGCCCAACATGCCCTGTTGGAGCAATATATGTTAT
AGAGGGAAGGGCAGAGATTGAAGATAGCGAAGTTCATTATACAATAAAGAAAAATCAAT
CCCTCACAGAAAGATTAGGTTAAAAAATATAGCTTGATGAAAATACTTGCATAAAATG
CGGAATTTGTGCAAGATTCTGTCCAACAAATGCTATAAAGGCAGTTAGAAGAAAGAGCAT
60 TGAGGTTAATTTAGATTTATGTATGGGTTGTGGTGCTTGTGCTGAGGTCTGCCAAAAAA
ATGTATAAAGGTTGAGAGAGAGCTTGGAGAGGTAATAAAAACAGAGACATTGAAGTTGA
TAAAAATCTATGTGTTGGATGTTTAGTTTGTATTGAAGAATGTCTATCAACGCAATTGA
TCAAGATGGAGATAAAGTTAAGATTAATAAGGATAAGTGCAATTTGTGTGGAAGATGTGT
AGATGTATGCCAATGCAATGCAATTAAGATGTGGGAAAAGAAATAATATAATACAAGAAT
AAATCTTTAAAGGAAATTAATGTCTTTTAGGCATCTAAATTCCAAAGTTGATATATAAAC
TGCAGAAGTCCCAATAATAAATTTATTTTTAAGCTATTTTTGATGAATCTATTGAGATT
CTGTTTTTATATTAAGTATTGATTTTTTTTAGCATCAAGTTGGTTAACCGAAAAGTAT
ATATATGGGCATATATAAAGATTTGTATAGTCATATAGTCACATAAATATTATTACCAA
TTATTACAGGTGATGATTATGGTAAATATGGGATAAAAAATTGAGGATGATAGAGTAGAG

5

10

15

20

25

30

35

40

45

50

55

60

ATTGTGAGATACTCAACCGTCTATACTGATGAAGGTGTTGAGGAGTTAGAGGAAATCTAT
TTGCAAATTAAGGCTGATGATTATGAAAGCATATTGGGTATATATGAACCATATCCAAAA
AAAGATGTAAGGTTTGTGGAAATTTAGATGATTGAAGGTTGTTAAAGGGCAAGAAATG
AGAAGTGCAGTTCCAATTCCATTGTCTCTGTGTAGAGCCAAGTATTTGAAAAGAAATTGAC
GAAGATGATGAAAGAATAACTTACTTGGATATTAATGGAGTCCCTATTCAGAGAGGGGATA
ATAGTTGGAATTGTTGTAGGTGTTCAACATAAAAGAACATCTACGGGTAAAGATTACACC
ATATTTAGAATATTTGATGGATACGGATGGGGAAGATTGAGACTGTTTGAATTAAGCA
AATCCAGAAATATTTACGGGGATGTTTATCAGAGGATTTGTGAGATTTGGAGCTGTTGAA
TTTAGAACTGAGGAAGGAGAAATTAAGGAAAGCAATATCTTTAACGCTAAATGATATACCT
GTAATTGTTCAACCTAAGGAATACATTTGTCCATAAAAAGTTTATAGATGAGGTTGTATTG
CCAAGAGTTGCTCCTGAATTGATAGAAGAGGATAAAGAAGAGGAAGAGACTGATGAAGAA
ACAATAAATAGTTAAATTATCAATAAATTGATTTTTTAGGTGATATTTATGGTATTTGGG
AAAAATAAAACCACCATAGGGGAAACCTCTATTGGGACACACCTAAACCTCCGCCT
TATGGCGGAGGTGTAAATTCATCCAATTAATAATCAGGTGATATTTATGGTATTAGGAA
AGATAAAATCACTACTACCAATTTCTCAAATTTTAACAAAAGTTAAAATTGTAGATATCA
GAAGGAAGGAGAGTGAAGAAGGTTCAATATTTTACATTGGAATCTATGGTTGATAAAGATG
GAGTAGCCAATTTTATAACAACAATTCCTTTAGAGAGAGGAAAAATGTTACGAGATATTTG
GTAGAATAACAGAAGAAAAGAGCGTTAGAATAGTTGAAAAAGTTATTAAGGTGTAAAT
ATCCAAGAGAAATTCAGAAATTCCTAAAGAACAATATACAATAGAGGAGAAGTTTTAG
ATGTGAAAGTTCACGCCATATTGGAGGTTTCACAATCAACAATATTTGTAAATTTACT
GTAAAATATGTAGAGGAATTGTTGATACTAAGATTAAACCAAGAGGTTTAGTTTATATTT
GCAGAAATTTGGGAGAAATAGACCCAGAAGATGTAGATGTAAAAATTAAGGTGTTTGAA
AGATACACTTTTGAACATCTTCAAAAAGATGCTACATCCCGCCAGCAACATTAGAGCAAT
TTATGCCAGGAATTTTAGATATGCTTGAAGAGTATGGAATTGACGATACAATTAGAGAAA
TCTGCTTAAAATTAATGGAAAAACATTTCTTAGTTAGAGGATTTGAAGGAAAGGAAGGAA
ATTATATAATAACTGAAATGGAAGACATTTAACTCCCATAGGAGGAAACCTTCTATTGGG
ATACTTCACGTCCATTTAACCAATTATCAAAGTTTTTAATTAATAAGGCATATAGAAG
CCCTTTGGGCTTCTAAATTCATAGTAATAATATTTTCTTTGATAATTGGTTATAAGTT
GGGGCTTTCAGCCCCAATTAATGTCCAAGCAAGATTTGGGGGAGTATCCCAATAGAGGGG
SCTACGCCCCCTCTATGGTTATATATAATTGAAATGGAAGATATTTAAATCTTTTTATA
TTTCATCAAATTTTATACTTGTGTATCTATTTTTTATCATAATTAATAACATAACAA
AGGAGAGATATGCTATGTATAAAAAAGCCTTCTGTAGCCTCAGCTTTTAATGAATTAAT
CCCAAAATATTGAAAGATGGCGAAGTAGTTGAGACAGAGTTTGAAGAGAGGACTAAAGAA
ATTAGAAATACGATTATAGAAATTACAAATCCAAATTAATAAAGTTCCAGAAAAATAT
CCGTTGGGAGAGAAAGCTGTGGAAGAATACACAAAAATCTTTTATATGGCTCTAAAAAT
GTTTTAGCTATGATTATCATCAGAGGTTGTTTGAATATCCTTATGCTGATGAAAAAT
AACCAATAGATTATATTTATGAAAAATTAATCAACAAAAAATAGTAGGAGAGCTGTA
GCAATTACTTGAATCCAAAAATGATATTGAGGTTAGTAGGGATGAAAGAGGAAGGTC
CCTTGTGTTGCACTTGTCAATTTCTTAATTAGAAATGGGAACTGTATCAAATCTTTATC
TTCAGAAGCAATGACGCACTACTGGCTTTTCGTAAGTAATGCGATAGGTCTGATAACGTTG
GGAGAGTATATAGCAAAAAAGGTTGGCGTTGGTTATGGTACTTATACTCATCATGCTATT
TCAATGCAATATTTATGTTGACCGGATTTTGAATATATTAATAAATCTTCCCTGAATGT
TTGAAATATTTGTGCTGATTGAAAAATGGGTGTTAGGAAAAAGGTAAGTGACAGAATGATT
AATGAATTTATCAGATTATATTTAGACGAGAAGTGATCTATTTTCGAAATAGCAAAATTAT
TTTGGATTACATCATGAGACAGTAAGATATCATTTGAAAAAAGAAATATAGTCTGAG
ACAGTATAACGAAAGTAGGGTTATTAGAAACGGACTAAAATCTTGAACCTTCTGA
AAGTTTAGCATATATCTTAGAGTAATAGAAGGAGATGGATGTGTTACTAAAAATAAAAC
AGTAGACATCACTATATTAATCTGAATGCAATAGATAAAGATTTTGTGATGAGTTGAA
CGTCATCTTAGAAATATAGGCCTTACAAAAATTCAAAGGTCTACTATTAAGTATGATAAT
GGAGGGAGAAAAAATAATATGTTGTTAGACATACTCAAAATCTTCTACGATTGGTAC
TGGAATTTGGACAAATATGAAGGTTACATAAAAAATGTTCAAAAGTAATCATGATTATATA
GCAATGTTTTTGAAGGGATGTTTCGACAGTGAAGGATGCGTCGAAATAATTATATAGTAA
ATAATAATAGTAAAGAGGAAATTCAAAAGTGCAATTTATCCATATTTCCAATCTAACG
AGAACTAATAGATTTGTGTTTTAAATTTTAGAAAGTTTAGATATACAATATAGATTAG
AATTCAGGAAACGAAAAACGAAATCAAAGGGATGTTTGGAAATATTTATAAAACCAC
ATAGTTTTAACGATTTTCAGAGAAAAATTGGAACCTCAATAAAAAGAAAAACGACAAAAT
GTATATTGTATGTAATATGAAAAAGAGTGAACCTTAAACAGACAAAGAAAGGAATGAA
TAATAAAATTTGATAACGAAGGTTATAACATTAATCAAAATGAAGGAAAGGATTGGCAGAG
ATTTTAATACAGTAAAAAGATGTTTACAAAAAGAAGGTATTATTAAGTACCACACTAAT
TAATTTAGGAGAATTGTGGCTGAAAGACAAATCTCAATTAAGAAGTTATGTGCATCAT
TCTGTTAGCATGCATATTTACATTGATAGGGTGATAAAATATGTATTATATTTATATTGT
GTCTGTTGATAATTTTGGGCAGTTGGGTTTTAATTTTTGTTATTATGGTTTGTGGTTTG
TCTCGTTGAATGATTAAAAATCAGACCCATTGCAAAATGAAATATCTTTTTTCTTTTGT
TATCCACTCAATATCTACTATATTAATCAGCGATTGGGATGAAACCTTATCAAG

-418-

5 CACACTTTTCAAGAAATCTTATTTAGATAGATACCAAAATCAGACTCTAAGGGAATGAAA
CTCAACTTCTGAAGCTTTTTTGTGTTATTTAGCATATAGAGATAAAATTAGCTTCATAGAA
AATAAACTATTTTAGCCAGTTGAATTTACTATATAAAGTCAGAATAGAATTATTTTCCT
10 CTCAACCGAAAAATTTTATATATGGTTTCTGATATCTTAGCAATATAAAATTTTTCAAAAT
TTCCTGAAATTTGCTATTAAAGATTTATAAAATAGCCTCATCTTTTTTAAGTAAATATT
TATATCAGATACCATATAATATGGATGCTTTTTGTGTTAAATATAAAAAAGAAAGGAGGATG
ACTATGGACAGAGAAGCACTGTTGCAAGCGGTGAAGGAGGCTCGCGAAGCTCGCGAAGCCG
15 AGAAACTTCACACAGTCATTTGAATTCATAGCAACCTCAAGAGATTGACATGAGGAAG
CCAGAGAACAGAATAAAAAACAGAAGTAGTGCTTCCTCATGGAAGAGGGAAAGAGCTAAA
ATAGCAGTTATTGGAAGCTGGAGATTTAGCTAAACAGGCAGAAGAATTAGGATTAACGTGT
ATTAGAAAAGAAAGAAATTAAGAATTAGGTAAAAACAAAAGAAATTAAGAAAAATAGCT
20 AAAGCCCATGACTTCTTTATAGCACAGGCAGATTTAATGCCATTAATTGGTAGATATATG
GGGGTTATATTAGGGCCAAGAGGAAAGATGCCAAAACAGTTCCAGCTAACGCAACATA
15 AAACCATTAGTTGAAAGATTAAAGAAAACAGTTGTTATAAACACAAGAGATAAGCCATAC
TTCCAAGTGTTAGTTGGAATGAAAAATGACAGATGAGCAGATAGTTGATAACATAGAG
GCAGTTTAAACGTTGTTGCTAAGAAGTATGAAAAAGGTCTCTACCACATAAAAGATGCT
TATGTCAAGCTAACCTAGGGTCTGCTGTAAAGGTTAAGAAAGAGAAGGCTAAGAAAAAA
25 TAAATAAATAAAGAGTGAAGGGGATAGAAATGGAACAAAAGTGAAGGCACACGTAGCCCC
ATGGAATAATGAAGAAGTTAAACACTCAAGGGGCTTATTAAGTAAGCCTGTAGTGGC
TATTGTAGATATGATGGACGTTTCTGCCCTCAATTGCAAGAGATTAGAGATAAAATCAG
GGACAAAGTTAAATTAAGAATGTCAAGAAACACCTTAATTATAAGAGCTTTAAAGAAAGC
TGCTGAAGAATTAACAATCCAAATTAGCTGAGTTAGCAAACTACGTTGAGAGAGGGGC
30 GGCTATATTAGTTACAGACATGAACCCATTCAAGTTATACAAATTATTAGAAGAGAACAA
AAGTCCCTGCTCCTGTAAGAGGAGGACAAATAGCTCCTGTGACATTAAAGTTGAGAAAGG
25 TTCAACTGGAATGCCTCCAGGACCTTTCTTAGGAGAGCTTAAAGTGTTGGTATTCCAGC
TGCGATAGAAAAAGGTAAAATTGCAATTAAAGAAGATAAAGTTGTTGTTAAAAAAGGAGA
AGTTGTTTACCAAAATTTGGCAGCTGTCTTAGACAGATTAGGAATCAAGCCAATAAAAGT
TGGTTTAAATATCTTAGCTGTTTATGAAGATGGAATTATCTACACACCAGATGTCTTAAA
35 GGTGATGAAGAGAAGTTATTAGCTGACATACAAGCTGCATACCAAAACGCATTTAACTT
GGCATTTAACACAGCATATCCAGCAAAAGAAGTATTGCCATTCTTAATACAGAAGGCATT
CATAAACGCAAGAGCTTTATCAGTAGAGACAGCATTGCTAACAAAAGAAACAGCTGGAGA
CATATTAGCGAAAGCTCAGGCTCAGGCATTAGCTTTAGCTTCAAAATTCGCTGACGAAGC
40 ATTGGATGAAGACATTAAAGCTAAGTTGCTCCTCAGTAGAAGTTTCAGCTGCTCCAGCAGC
TGAGGAAGAGAAAGAAGAAGAGAAAAAGAGGAAGAGAAGAAAGAAGATACAGGAGC
35 GGCTGGATTAGCCCTATTGTTCTAACCGAAAAATATAAATAACTAATTATAAATAGTGAA
TTGCAAACTCTACTTCAAAATTAATATTGTTTAGATATTACGGTTAAACAAATAAATAAA
ACACAAAGGAGAATTTGGAGGTGTAATTAATGGAATACATATATGCAGCTTTATTATT
45 GCACAGTGCAGGAAAAGAAATCACAGAAGATGCAATTAAGGCAGTTTTATCAGCTGCTGG
TGTAAGAGTTGATGATGCAAGAGTTAAAGCATTAGTTGCTGGATTGGAAGGAGTAGATAT
TGAAGAAGCTATTGCAAAAGCTGCAATGCCTGTTGCAGCTGCTCCAGCTGCTGCAGCTCC
AGCAGCTGCTGCTGAAGAGAAGAAAGAAAGAGAGAAAAAGAGAGAAGGAAGGAAGAAGA
TACAGCTGCAGTTGCTGGATTGGCAGCTTTATTCGGATAAATTTCTACTTTCTTTTTTT
50 ATTTTAAATATTACATTTTATTAAGTTAAATATACAAATTTTATGTAATATTAAAGATA
TTTTATATATAAAGTATTTATATATATGTTTATATATAATCTAAGTTAGTTGTTAAAT
45 AGGTGAAAATCATGGAACAGAAATTAAGATTGTTAATGTTGTAGTCTCAACAAAAATTG
GAGACAATATTGATTTAGAAGAGGTTGCTATGATTTAGAAAATGCTGAATATGAGCCAG
AACAATTTCCAGGGTTAGTTTGTAGATTATCAGTGCCAAAAGTTGCTTTATTAATATTTA
55 GAAGTGGAAAGGTAAATTTGACTGGAGCTAAGAGCAAAGAAGAGGCAGAAATAGCCATTA
AAAAGATTATAAAAGAGTTAAAGATGCCGGAATTGATGTTATTGAAAACCCCTGAAATTA
AAATCCAAAATATGGTCGCAACAGCTGATTTAGGAATTGAGCCAAATTTAGATGACATTG
CCTTAATAGGTTGAAGGAAGTGAATATGAGCCAGAACAATTTCCAGGGTTAGTTTATAGGT
TGGATGACCCGAAGGTTGTTGTTTAAATATTGTTAGTGGTAAGGTCGTTATTACTGGTT
50 TAAAGAGTGAGGAAGATGCCAAAAGAGCTCTAAAGAAGATTTTAGATACAATAAAAGAAG
55 TTCAAGAACTCTAAATTTTAGGGATGAAAATGATTGGAATAATTGATTACAACGCAGGGA
ATTTGAGAAGTATTCAAAGGCAGTTGAACTCTATGATAAGGTAATAATAACAAACAACA
GTGAGGAGTTATTGGCTTGTGATAAGATAATTCTACCAGGTGTAGGAAATTTTGGTAGTG
CAATGGAAAATTTAGCTCCATTAAAAGAGACAATATACAAAATTTGTTGATGATAGAGTTT
CATTTCTAGGAATATGTTTAGGAATGCAGATTTTATTTGAAGAGAGCGAAGAGAAAAGAG
60 GAATCAAAGGTTTAGGGATAATAAAAGGCAATGTAATCAAGTTTAAGGATGTTGAAAAC
TTCCACATATGGGCTGGAATAGTGTAATAATAGTTAAAGATTGCCCACTGTTTGAAGGAA
TAAAAACAATAGTTACTTTTACTTTGTTTCATTTCATATCATGTAAATCCAGATGAAGATT
GTATAGTTGGAAAACTGAATATGGAAGAGAGTTTCCAAGCGTTATAAACAAAGATAATG
TCTTTGCCACCAATTCCACCCAGAAAAAGTGGAAAAATTGGTTTAAAGATTATAGAAA

5

10

15

20

25

30

35

40

45

50

55

60

ATTTTGTGAGTTGTTATAATTAATTTTTTGACGTTTCATTTAAGAAATAATCTAAAAAC
TCTAATCCACTGCCATAATTAAGTGCCTTTGGATGAATTGAGAGAAAAAAGCTTTCTATTT
TCTTTTATACTTAATTTATAATCAGTTGTTGCTATTTTTTCAGCCACTTTTACTAATGGT
TTTGAAGATACCAAGTATATTCTCTGTTTGTAAATACTAATTTCAACTATTTTCCCATCT
TITTTCTGTTATCATTTTATTTTCAAGGATTATTGTAATATTTCTCCCTAAAAACAGTTT
TCAGCATCTTCTGACAATTTATATCTTGGTGGAAATAAAATATTTTATTTTTTAGGATTA
AAACCACATTCCTCTAAAATTTTAAATGATTTATTTAATTTTTCTCTGCCACAGTTTGT
TTACAGTTGAACATCATCTATATGATTATAGGCGTGGAACTCTATATGGTAACCTTCT
TTTTCTAATTTATGGAGATAATCTACAAATTCAGGATAATTTTTTAAATTATATTTATTT
GCATGATTGACAATTAATAAAGATAGCTCCTATTTTGATAATGATATTTATCTATAATT
TTTACTATTTTCTTTAGTTCTTTAAAATACACTGGTGGAGACATCATGAATTAATAATT
GGTTTTTGTTCATCATCTCTGATGACTTTTACTACTGTTGTCAAAAAAGCAAATGTT
AAGAAAAATACTGCAATACAACAAGAAATAACAAATATTTAAATTTATTCATCATCTTC
TTTCACTTTCTTTTAAATCTTGGCATGCATAAAATCTCTTGCCTCTATGTTGAAGAA
AGTATTCATATTAGCTGGCTTTATAACCATCGCTGTATCTGCCCCCTCTACCTGTTCTCTC
AATGGCTATAACCTCTTCTTAGCCTTTATCAAACAGCATCAGATGCCATAATTGTGAT
TTCATAGCAAACCTTAAGTCCCTGTCCAAATGTTCTTAATGTCTCAGCAATAACTTGAAC
AGGACCATAACCACTAATTTATTTGAAATTCCTCTCTCAACTCCACTTAATGCAATGACT
CCCTCTAATAACCTTAGCTCCTCTTTCTTTAGCTCTTCTCAACCTCTTTATCCATGGA
TATTGTATCCTCTCCATGGAATCCTTGATGATATGTAACATAACAACATTTAAATCTAA
TCCCTCTTTCTCCAACAAATCAAGCAATTTTATAGCAGTGTATCCAGTAGATGAAGCTAC
AACTATACCTTTTAAATATCTCCCTTCTTAGCCCTCTCAACAGCTATTTTAAATGTCTCATC
TGTATTTTGAATTCCTGGATAGTCAAGAGTTTCATTATTCCTTCCCTCCATGATAATTT
TATTTGTAAATTTTATTTCTCTTCTTAAAACTTCTTCAACAATCTCCTTAAAGACTTC
ATCAGTTATAAATTTACCTTCTCTCTAATCTCTTTAACCTTTTAAACAATCTCGCACAA
CATCTCTCTATCGTAATCAATTCCTATAAGTTTTAGCTTATAGGCAACGGCTCTGCATCC
AGAATGCTTCCCTAACAAATATTTCTCTTAAGCCCTATTTTCTCTGGAAGGAAGGGTTC
ATAGGTTAATGGATTCTCTATGACAGCATCAACGTGAATTCACCTTTCTAGGCAAAATAC
AAGCTCTCCAACATATTGGTTTGTCTTTGGCATCTTTATTCAGAGTATTCCTCAACCAT
TCTGCATAACTCTGGAAGAACCTCCAAGTTTAAATCCCAATCAACATCATACAAGACAGT
TAAAGCCATAATTAGCTCTTCTAAAGCTGCATTCCTGCCCCCTCTCTCCAATACCATTAA
TGTTGTTGAAACTGCCTTAGCTCCTCCAATTAACCATATATTGAATTTATAACTGCAAA
TCCAAAGTCGTTGTGACAATGCACCTCCAATATGTGCCTTTTTTAAGTTCTCCTTCAATGT
TTTACATATAAATCCATCTTTGGGGGGTAGCACAGCCAGTTGTGTCTGCTATATGAAC
CCTATCTGCTCCAGCCTCTTCAAGCGCTTTATGCACCTTAAATCAAGTCTCTATTGGTGT
TCTTGTGCGCATCCTCTGCAGAGAAAGCAACAATAAGCCATGTTCTTTGCATACTCAAC
TGCTTCACTCCCATCTCTAATATTTTCTATCTAAGCTTTTGTGTTGAATTTATATTAA
GTGGAGAGGAGATGTTGCTATGAAGGTAATAATCCCATCTACATCGCACTCTATTGCTTT
ATCTATATCTTTCTTTAAAGCCCTGCATAAAGCTAAGATATCAGCATTTAGCCCTTCATT
AGCAATTTGTTTAACTATATCTGCTTCTCTTTCAGATACTATTGGGAAGCCAGCTTCAAT
CTGCTTTAATCCAAGTTTCTCAACTTCCCTGCAATCTCCAATTTTTGTCTTTGGTAAA
GCAAACTCCTGGGGTTTGTCTCCATCTCTTAGGGTTGTGTCTATAAATAAATGTCCTT
TAAATCCAATTTGGATTGTAGGGACAACTGCTTTCCAGCTGTTCTCAAATAAGAAATC
CATAACATCACCAGCACTTTTGTCTATAGAGTTGTTATTACCTGTATAAATTTTTTATT
ATTTTAAATCAAAATATCAATATGAAGAGATTGATTTATTCACCTTACTTTTTTATTAC
CTCTATATTAGCCCTAAGCTCTTCAATCAACAAAGTTTGGGAAAGAGATTTTAAAC
GGCCTCCTCTCCTTCAATAATTGTTTCTCCTTCTGCCTTTAAACCAGCTATAGTAAATGC
CATAACCAATCTATGGTCGTGATAGGTGTTTAGCTTAGCCCCCTTTAGCTTTTTAACTCC
TCTTATAATTAACCATCTGTTTCTCTTCAATATCAGCACCCTCTTTTTTAAATCAAC
AGCACAAGCTCTTAAATCTATCGCACTCCTTTAATCTAACATGTTCTCCATTGTAATCTC
AGTCTTTCTTCTGCAAGCATCCAAGAACTGCAATTTGTTGGGACTAAATCTGGAATATC
TTTAACTCAACATCTATTCCTTTTAAAGCTGTATTCTCCTTCAATAATTACTTTATCTTT
TTTAACTTTAATATCTGCTCCCATCTCTTTGACAATATTGATTATAGCTTTTATCTCCTTG
CTTTGAGTTGGCAAAATAGGTTTTCAATAGTTATATTTGAGTTTATTTAAACTCCAGCAGC
TATTAAGTATGAAGCTGAAGAATAATCTCCCTCAACAATATAATCTATTGGTTTATACTT
CTGATTTCCATAGACTAAAAAGCCGTTATCAGTTTATCAATCTTTATCCAAATTTATT
TAATATATCCAATGTTATATCAATATATGGCTTTGATTTTAGTGGTGAGGTTAGAATTAT
CTCAGTATCTTCTTTATTAATGGAAGGAGCATCATCAAAGAGGTTATAAACTGAGAGCT
AATGTCCTCCTCTAATCTTTACCACATTTCCATAAATTTTCCACTTTTAACTATTATTGG
TGCAGTTCCATCTAATTTTGATGAAAATGCCTCTATATTTAGCTGTTTAAAGGCATCTAA
TAAAGGTTGCATCGGTCTCTTTCTATAGAATCATCTCCAGTTAAATTTGCATATCCTTT
TGGTATCTGTGAGGCTATAGAGGTTAAATCCTTAAGGTTGTTCCACTGTTCCCAATATC
TATGATATTATCTGGGGTTTTTAACTCTCCTCCTTAAACAATCCATTCTTTTTCTTT
ATCTAACTCAATATTAGCCCCAACATTCTACAACCATGAACAGATGATAAACAATCAGC

-420-

TCCCCAAGTGGGTTTATTATTCTGCTAACTCCATCAGCTAAAGATGCTCCAATAACTGC
TCTATGAGTGTAAGATTTGAAGGAGGAGCTTTAACATCCCTTCCAATCTATCTGTTTT
TTTAAACAATCAGCAAAATACATCACCCTAATTTTTTAATCAACAGAGTATAATTTAAATG
5 TGATATATTAAGGTTGTTATAATTACACAGTTAATACAAATGAAATTATGATAATTCTAT
ATACCCGATTCTTAATTCTGTCTCTAATGAGAAAAATTAACATTTATAAATTAAGTAAAG
TGTGAAAAATTATGGAAATCTTTGAATTTAAAGGTAATGGCGTAAAAAAGCTGTTTTATTGG
AGGTTTGCATGGAAATGAGGGAAAATTTACAGAAATTATTCTTAAAGATTTTGTCAATTC
ATTAAAAGAATGCAATTATATTGGTGATATAGTAGTTATCCCAAAACTTGTGAAAAATAG
10 CAAATACATCTCTACATTATCAGAAAAGTATTATGAAAGTGATGAAGGTAAACATTAAAT
CAACATCATCAAAAAGTATAAGCCAAAGGTCTATTTTGAACCTCCATGCATATAAAAAAGA
AAATTATAAAAAATTAACAAGCAACAATAGGAaaaaAGTTCCTCCACTCATAGATATCGG
AAACAATGTTCTAATTAGCCTCAATCTCCAATTTTAAAGAAAGAGATTTAGTAAAGAAGA
TTTTTGCATGACCATTTGAGATTTCAAGCTGGAAAGTATATGAAGTCAAAGATGAGATTCT
AAAGATTTTAAAAATTGGGGCTGAAAGTTTAAAGAGGGAGGAGATTATTGAAAACTAAA
15 GAAGATTTATCCAGAGCATATAGAGAAAGCAGAATATTTTCAAAGAAATATAATTTAAT
GCTGTTTTGATGATGTTAATCTTTTATAATGAATAAAATCTTAAATGTAATTAATAATTTT
AAAATTAATAATCGCCAAATATCTGAAGTGAGTTTTATGATAATAGAAGAGATAAAAGAG
AGAGCTTTAAATCTGCTAAGTGAGAAAGAAGAAGATTTTAAAGTTATTGATTTCTCCTTT
20 GCCTTGCCTTATGCTATGTATTAATTGAAGCAATGGCAAAAAAGCTTTGGGAGTGGCA
ATGACGTTATTGGGAGGAATATAGAGGGCATGGAAATAGGAAAGATTTAAATATAAATAAAA
AATTTGGAAGAGTTTATAAACATGGCAGATAGTTTTGATATTGTTGAAAGAACTTTGGGA
GTTGCAGCTATCAATGCAGTATCTCAATACTATTTTAACTTTGAAGCTAATGGAAAAGAT
GCCGCTGAGTTAGTTTAAATAGAGACGATATTAATAAAATAGCTTTTCGTTGGAAATATG
25 ATTCCAGTTGTTAATATGCTGAAAAAATCTGAAAAATTTGATATCTATGTGTTTGAGAGA
AGTCCTTCACATTGATGGATGGAGTTTTAAGCGATGCCTTTGAATATAGGTTATTGCCA
GAGATGGATGCCGATTTATCAGCGGAACCTACTCTGCTAAATGATACATTGGATTTTGTT
TTAGATAGGGCTAAAAATGCCAAGTTAAAGATTTTAGTAGGACCTACAGCTCAATCTTTG
CCAGAGCTATTTAAAGGATTTGGCATAACACATATAGCATCAACAAAGATTATAGATGTT
30 GATAAAGCTCTCCTATATTTAAATTTGCCTCTTCTCAATGCTATTCAAGGGAGCATCA
AAGAAATACACTATGCGAGGTAGAATAAAAAATATAGTTTTTGCAAAAAGTTATTAAATTG
ACTAAGGAAAGTTGAACACCTTCTTATAGAAGGCGTTCATTATATACCTTATTATTACAA
AATGTTTTTGCAAAAACATAAATCTCTCAGATACCCCGAAAGGtTCATCATATTAAAGTC
AGCTTTTTATTGCTCATCATCGAGGAATTAATAAATCTCTCAGCCCCCGTAAGGTTTCAT
CATCCTAAATTATTATTATCATGAAAGATTTTTTATAAACTTTTTTATATCACTTACACTCT
35 AAAAGTATAGTGCCTTTCAAACCTTATTGAGATAATAAAAGGTATTAATGAACGCCTCCT
AAAGGAAGGCGTTCAAAGTTTAAATAAAGTTTTATTAATTTTGAAAGGCACATATATCT
ACAGTTATTCTTATAAAGACTAATTAATGGTGAGATTATGGGAATGACAATTGTAGAGA
AGATATTAGCAAGGCGTCTGGAAAGAAGGAAGTTAGTCTGGAGATATAGTGATGGCAA
ACATGTTTGTAGCAATGGTTCAATGATATTACAGGGCCTTTAACAGTCAATACATTAAAGG
40 AGTATGGAATTGAAAAAGTTTGGAAATCCAGAAAAGATAGTTATTTTATTGACCACCAAG
TTCTGCTGATAGTATAAAAGCGGCTGAAAACCATATATTAATGAGAAAGTTCGTAAAAG
AACAGGGTATTAAATACTTCTACGATATTAGAGAGGGAGTTTGTACCAAGTTTACCAG
AGAAAGGACATGTACCTCCAGGAGAGGTAGTTGTTGGAGCTGATTACACACATGCACAC
ATGGAGCTTTTGGTGCTTTTGCTACCGGTATAGGTTCAACTGACATGGCTCAGGTATTTG
45 CAACAGGTAAATTGTGGTTTAAAGTTCCAGAAACAATATACTTCAACATTACTGGAGATT
TACAACCTTACGTTACTTCAAAGGATGTTATTCTAAGCATTATAGGAGAAGTTGGTGTTG
ATGGGGCTACATATAAAGCATGCCAGTTTGGTGGAGAAACCGTTAAAAAGATGCCATAG
CATCAAGAATGACAATGACAAACATGGCTATTGAGATGGGGGGAAAAACAGGAATTATAG
50 AGCCAGATGAGAAAACCATCCAATATGTAAGAGAGGCTATGAAGAAACATGGAACTGAGA
GACCATTGAGGTAATAAAGGAGATGAAGATGCTGAATTTGCAGAGGTTTATGAAATTG
AGGCAGATAAAATAGAGCCAGTATTTGCATGCCACACAATGTAGATAATGTTAAACAGG
CGAGAGAAGTGGCTGGAAAGCCTATAGACCAGGTGTTTATTGGTTCATGTACGAACGGAA
GATTGGAAGATTAAAGAATGGCTATTAAGATTATTGAGAAGCATGGTGGAAATTGCTGATG
ATGTTAGGGTTGTTGTAACCTCCAGCTTCAAGGGAAGAGTATCTAAAAGCATTAAAAGAGG
55 GAATAATTGAGAAATTCTTAAAGTATGGATGTGTTGTTACAAATCCTTCATGCTCTGCTT
GTATGGGTTTATTGATGTTGTTTATAGGTCCTGGAGAGGTCGTGTCTCAACCTCAAACA
GAACTTCAGAGGAAGGCAGGGTTTATTAGAAGCAGAGATTTATTTAGCATCACCATAA
CTGCTGCTGATGTGCTGTTAAAGGAGAACTTGTGACCCAAGGGATTATAATTTTCC
ATAATTTCTTTTAAACATTTTAAAAAGGCAGGCACTAATAGTATTCTATTTTAAAGCTT
60 TAAACATTTGGGGTTTGCATAAATAACAATCTTTATAAAGTATAGAAGGCAATTTAAAT
TAATATTAAATTTATGGTGAAATGATGAAAAAGACAAAGGTTATTGTTTTAGCTGAAAT
GCCCTAACAACTCCAGGTAAAGTTAGTGAGATATATAAATACATTAAATCAGCCAGTTATT
GTAAAGAGACATGTTTTGGAGCATACATTGAGGGAGAGGAAGAGTTAGTGGATAAATTA
GCTCAAGAAATTAGAAATTATGAGAGAAATAGAAATTTTTGTAAGGACAGAGGATATGCT

5 ATTTGGGATAAGAGGAGATGTAGGGCATTAGAGGAGGAGGACCAAGAGAGGGTTTCCAC
CAATTAGAGGCTGAGCAAGCGGTTTGTAGACAAAATTGGTTTAGCATTAGATAAAATTGAT
AAGGAAGGAATAAAACCAATGGAAGAAGTTTGTAGCTAAAGAAAATGAGTTGATAAAGAGA
10 GAACTAAAATACCTGTAGAGGAGTTTAAAAATATTATTGAGAAAAGTATTAGGGAGCAAA
AATGAGGCATAAATATAGAAAAGGAAGTTCATTTGAAAGAGAATTAAAAAGACTTTTGA
AAAGGAGGGATTGCTGTAATTAGGAGTGCAGGAAGTAAAGGAGTTGATTTAATAGCTGG
GAGAAAAGGAGAGGTTTAAATATTTGAGTGTAGACTTCTTCAAAAACCAATTCTATAT
AAATAAGGAGGACATTGAAAACTTATAAGCTTTTCTGAAATATTTGGAGGAAAACCTTA
15 TTTAGCTATAAAGTTAATGGAGAAATGCTATTTATAAATCCTTTTCTTTTATCAACTAA
TGGCAAAAACCTATGTTATCGATGAAAGGATAAAAGCTATAGCTATTGATTTTATGAAGT
TATAGGTAGAGGAAAACAGTTAAAAATAGATGATTTAATCTAAGTTTAGATTTTCTGCTTA
TGATTTTGTATAATAACACTCAACAATGCAATCTTTTGGTTTCACTACAACCTGATA
TATGTTTGTATCCTTATGAAAGCCAACAAGAAATTGAAGCTACCTATTTTCTATCTGCTG
20 GTAAACCCCCACTGAAACTCTCCATCAACACCAAAACTGTTCCAACATCATGTATAT
TATGCACCTTAAATTTATCCTTTTAAAGTCCTGTTTATTTTCTCAGCTATCACTGCAC
TCTGCTCCATCAAGATTTTAAATAAGCAGCTGATTCAAAATTCATTTTATCTATCTCT
CAACATCCTTAGATTTTCAATTTTAAATTTAGCTGTTTCCATCACATTCTACACCAACT
TTTTATATGGTAGATTTCACAACATACACAACCTCTCACCAGAGACAGCTAAAAATATTC
25 GGTAATTTTATTTTGTGTGTGAGTATATAAAGATGCGGTTTAAATACCTATGAAT
TTATCCCCATTTTCTACTCTTTTAAATACAACCTTTTCTCCTCCATTAACCTCTCATC
AACTCAGCAATTAAAGCCCCCTTAGGTTCCAAACGTCCTTAAATACTCCCCATATATT
CTTATCAGGGATATAAATTTCCCCCAATAAGTTTCTCCAGCTGTTTGAAGATGC
TAATCCCTCAATATAGATTTTATCTTTTAAACAACCTTTCCCTCTTTTACAACAAT
30 CTTTTAACTCTACTCTCCAAAATCAATAACCTCCCCAAATCCACAACCTTAAAGT
TGTTGGCGGCAATCCAACCTCATTATTAATCTTATCTCCTTCATCAACAACACTCT
TTCCTCTAAGTAAAGTACAGTAGCAAGAATCTCCCCCTTAAATTTCTTCCAGTATTAT
TGGTTCTCTTTGTCAATTAATCTTCTATTTTATATGGAATTATTGTGGCTGGGACTGT
TAAAGCCCAATGTTTATATGAACCTTCATCTTTGGAGCTAAGTTATATTTAAACAACCTC
35 AAGAATCTTTACTTTTGTCTATAAATCTACTACTACCTTAAATTTGTATCCTCTGAAGT
TAATATGAACCTCTAAATAAATCTCTGGTTCTACACCCATTAAAGCCATTTCCAAACCT
ATCTCCTGCATAAGCTATAGAGACATCTGTTTAAAGCACTGTATGCTTTTAACTTAACT
TTCATGATTTATTGGTAAATCTTAAGATTATCTCAACCTCCACCTTTCCCTTATGAAT
CGTTCCTGTTTACAACCTGTTCCAAACCCCTTTTAAATTAATGCATGGTCAATAGGCATTTT
40 TAGATAGCTATTTATATCTCTCTTAATATCTAAGCTGTCTAACAGATTTTAAAGCTCTTT
TTTTAATTTCCCTATTTCCCTCTCCAGTTTGTGCTGAGATTTTAAATCTTAGAGTTTTT
TAAATTTATTGTTGAGTTTAGTATTTGTTTATATAAACAATTTTCAAGTTCTTTAATCTCTT
ATCATTGCAATGTCTATCTTATTATAACAACAATCGTAGGGATGTTAATAAATCTAA
AACTAACAGATGCTCTCCTGTTTGTGCTTTGGCCCTTCTTTGGCATCTACAACATAA
45 AGCGGCATCAATTATATTTCTGCCCAATAGCTGTTCTTATCAACTCAGAATGTCCAGG
GGCATCGACTAAGGTAATCCTATATCTATCCAATGTGAAGGAAGAGAATCCCAATCAAT
GGTTATTCCTCTCTTTTGGGATTCTTTTGGTTTATCTAAGGAGAGGTTGAAGCTATTTT
AGTCAGTTGCTTTTGGCAGTTGTGTTTTTCCATGGTCAATATGCCCCAAACAAACCAACATT
TACATTTTCTATTTCCATAGAAATCACCATAATTTATTAATTTATTTTGTGTTTTT
45 TAGCTTTCAACCTTTCTCTTCTAATTACAAACCATCTCTTTGGTTTTTATTTCTTAAA
ATTTTATTTTGGCTTTCTTATTGTCCCGGAACTCCTAAGCAGATAATTTTACTGGCT
TTTCTTTAAATTTCCCTAATCAAAATTAAGAGGCTTTTACATAATCAACATTATCCCTTT
GACATCTCAAAATACCATAAGGAAAATCATAATAAACAAGCCATGGATTTGCCTTGGATG
50 TTCCCCAAGAGCCATAATATTCTAAACAGCTTTTCTAATTAATTAACAACCTCTCCCT
CTTTTAACTCCTCATCGTATAATTTTAAATGCAATATATCTCTTTTCTCCCTTAAAG
TTGGTGGTAGTGTTTTAAAGCATTCTATCTACTCAATAAATAGTGTGTTGTATTTAGAAAT
TTTTTACTACACATATTTTTTAAACAAAAGTTTATTATTATTTAAGTTTATTAATTTAA
AAATTAATAAATTAATAATGGGGATATTCTGCTCAAAGATTATGCTCTTAAATTAATA
55 AAAAAATCTTTGGAATACGATGTTGGATTGGAGATATAACAACAACCTCCATCATTCCA
GAAGGTGTAAAGGCTAAGGGTGTATTAAAGCTAAAGAAAATGTATAGTTTGTGGGATT
GATTTTATCGTTGCATTTTGAAGAATACGGTATAAAATGTAAAAATTTATTTAATGAT
GGAGAAGAAGCTTATGGAACATTTAGAGTTTGAAGGGATGCAAGAACCATTTTAATG
CTGAAAGAACCCTTAAATCTACTTATGCACCTCTCCGGAATAGCCACTATGACAAAC
AGAATAGTTAAAAAAGCTAAATCAGTAAATAAAAACGTCAGGGTGGCTGCACAAGAAAA
60 ACTCTCTCTTTATTATCTCCACTACAAAATATGCAGTATATATTGGTGGTGGAGACACA
CATAGATTTAGGTTAGATGACTGTGTTTTAATTAAAGATAATCATATAGCAATTGTTGGT
GTGAAAGAAGCTATAAGAAGGGCTAAGGAAAATGTTAGCTTTACAAAAAGATTGAAGTT
GAGGTTAGTAAGTTGAAGAGTTGAGAGAAGCTTTAGAGGAGAGGGCAGATATAAATATG
CTTGACAACCTTCAACCCAGAAGAGATAGAGGAAGCTTTAAAGATAATTGATGAATTTGAA
AGAAAAACCAATTTAAGCCAATAATTGAAGTTAGCGGTGGAATAAAGAAGATAATATT

-422-

TTAGAATATGCAAAATACAATGTTGATGTTATATCAATGGGAGCTTTAACTCATTCTGTGA
AAGAGTGTGATATGAGTTTGGATATAGTTAGGTATCAATAAAATTAAAATTTAATAGAA
AGAATAATAAAATAAAATACTAATATCACAAATAATAAACTTTATAATTCTGTGATTTA
5 TTTGGGGTATATCACAATTTTTTTCATTAAACAAAAATATTTTTAGGGTTATATTATGAA
TTTCGTAATAATAATAGCAATATTATTGTTAGGAATTAGTCTAATATTGGCGTTTACGGT
ATTAACAAAAGTAAATCTAAAACCATGGCTTATAAAAGAGCCAGGAAGAAAAAAT
TGATACTGAAATTAAAATGTTAAAAAATCTAAAAACAATGTGTGCTCTGGAGCTTCAGA
TGAAATTATAGATAATTTTTAAATAGTGAAAATAATATTCTAAAAGAAGCCCTTAAAAA
10 TAACCTAGACGATGCAGATGTTTGTAAAAAATTAAGAAGGTAATAAAACACCAACAACCTT
CAACAAATTTTGGATTCTTCATTTTTTTTATCAAAATACATACAAACTCCTACCATTATAT
TTCTTTTTTTAGCTATAACATAGTCGCACCTCACACCCAATCATCTCAAAACTCTCTTTCA
TCCTTTCAAAACCAATGTATCTGGATAAAGAGGATTTCTTTTTAAATCTCGTTTATTC
TACTAACAAAATCTATCTCTCTTTAATATCTTCTACAATCTCAAAACCCCTCCTTTTCCA
15 ATTTTTTAACTAAATAATCTTTAATACTACCATATTTCTCAACTTCTTCATCCCTACAAA
CTCCTTTAACCATTAACATCTCATCCGTCTCAAATAACGGCTTAGAACCCCTTAAAGCAT
TTAAAGCATGCATCAATCTACCAATATTAACTTTCCACATACTAACACCAAAATTATAAG
TTTTTAACTTCTTCACAGTATTTTTTAATGATTTCAGCAGATTTTCTAAATGCAATTATC
TCATCTTTATCCAATTCAATTGATACAAACCTCTTCTATCCCATCTCTTCCAATCTTACT
20 GGAATCTCAATACACACATCTCTAATTTCCATCAAACTCTCCATCTACGTAAGCGGATAAA
GTTAGCAATCTTTTCTCATTATTTTACAATACACCTAACAAACATTTAAATGGCTGCTGCT
GGACCAAACTCAGAACCTCCTTTCAATCTAATAATCTGCTCTCCTTTTGTTTTAACTCC
TCTATAATCTCATCTATTGGCAGTTTCTTAAATCTTTCAAATTTTGAATAGGAATTCCT
CCGATAGAGGTAGCACTTAACAATGGAACCATGCTGTCCCATGCTCTCCAATAATTCTC
25 GTCCTAACTTCATCAATATGAACACCGAAAACTTAGCAATAGCAACCTTAAACCTCAAA
GAATCTAAATGAGTCCCTAATCCAAAACTTGATTCTTTCAAATTTTGAATCTACCAGA
GCTTTATAAGTCATCACATCCACAGGTTTGTATAACAAATATTTTGTATCGCAGATT
TCAGCTATTTTTTTAGCATACTTCCCAACAATTTTTGCATTTGTTTTTGCCTAAATCCATC
CTACTCATCCCTCTTTCTTGGAACACCGCTTGTATTATAACAACATCACTTTTCATCA
30 ATTATCCTTAGATTTTCATCACTCTCAACGTATATATTTGCATCACTTCTTGTCCAGCT
AAGGCATCGTAGATGTCTTCTCTCAATCCTTCCAATTTATTTATTGAATGTTCTCTTCCA
ATTAACACCAATCCTTCATAAAAGGTTCTTTAGCTAATAATAAGGCTGTTGCACTCCCA
ACTCTACCAGAAGCTCCTATAATTGTAACCTTTTCAATTTTCCCTCACAAAAGAGATTTT
AAAATTAATTTAAAAAGAGGAATTAAGCTCCTCAACAAAAGAATAGATGAGATTAATGT
35 TATTTGAGAGTATCTCTTCAGCTTCATCTAATACATCGTTAATGTGCTTATTGTGATAG
CAGGTTGTGAAATCTCTGATAAAAATTTGTGAATATCATTTTCTGGAATAAAATTCCTT
CATAATATCTTAAGTTTGGAAATAGCATATAAACTCCGTCCAACTTGTTATCTCCCTTG
AAGCATCAACTATTGTGTCAATTGTTAATGTATAGTCCAGAGGTTTTTGAGACTCTTG
CCTTTCTATAGGTTTTTAAACCCCTACCTTTGCTTTTCAATGAATGGAGCTGTTCTCT
40 TATATGTATTGTCTGCCTCATAAATATCAACATCAAAACCCCTTAGGGTCTTCAACAA
TAAACCCCTTGGATTAAATTTAGCTAAAAATTCAGGCTCAATTCCTCCAGTCTCTGTTA
AATCAACAATTAATCAGGATTTACTTCTCCTCTTATAAATTTTAGTTTAACTCATTTA
AATTTAAGAATTTTATACTGTTGTTGTTTGGAACAAATCCTTTTATAAATTCATGTATAT
CAACTAAATAAACTTTATCAGCATATTTTGAAGCATTGGGCGAGTGAATTTCCCATATA
45 AATAGACCCCAATATTACAACCTCTTTAACTCCTCTCCCTCTAAGAAATCCCTAATTG
CTTGATATTTTTCTTGTATCTCATTTGTACATCAACAACCTTTGTTTTGTGTCAA
TTGTTTTTACCATCTCAGTTATTCCATCTTCAATTTCCACACCCCAAAATGAAAGATT
AAATTAATGGAAATTCGAATCTACTTAATGCTTCAATTAACCTCTTTCTTTATCTCTC
CTCTATATCTTCTTTATGAATACTGATGAAGGTGATAAAGAGGCAGTTAAACTCTCCC
50 TTTCTCATCCAATATTACAAGCATTGAACAGAACCTGGAGCTCCCAATCTTCCCTCGC
AATGTATAAATCAGCTTTTTCAATATCCAAAGCTATTAATCCTTTAGTTAATGTGGCAT
TCTTGTTAAATCAGCGAACCTTGTATCTATATCGAGCATTTTATCTCTGCATTACAAAC
CCTTAACATAAATATCTCTTATTACTTTAAATTTCTTTGATTGTTTGTAGCAACAATAAT
CTTTTTGGCATTGACTATCTTTTCTTGAATTTTTTTTAGTTCTTCTCTTTATCCCTCT
55 CCTAATATTATTAATTGATTCAATAAAAGCTTTTTTAATAATTTCTTCCATTACAATCAC
TTATTTTAGTTTATACTCTCTTCAACCAATCTAAATCATTTATGCAAATCTCTAATGT
CTGTCAATCCATATCTAAGCATTGCTAATCTACTAAACCAATACCCCAAGCTAAACTG
GCTTTTCAATACCAATTGGCTCTAAACTTCTGGTCTAAATATTCTGCTCCTAAGATTT
CTAACCAGCCTTTACCTCTAAATAAACCTCTGCTCTAAGGATGGCTCAGTGAATGGGA
60 AGTAAGCTGGCTTAAATCTAAACCTTTTCAAAGCCCAATCTATTTAAGAATCTTTTAA
CTCCAATTAGGTTGTTAAATTAACATTATCATCCATTATAATTCCTTCACTGATATAA
ACTCTGGCAATGTTTATAATCAATTGCTTCATTTCTAAATACTCTATCTATACAAATA
CCTTGTGAGGCTTGTTTTTTCTTCATCTGATAAAGATGCAAGGTATCTTATTGATGATG
CAGTGGTATGAGTTCTTAAATCAATCTTCTTGAGACATTTTCATCAATTTGTATTTC
AACATCTTTCATGAACCTCTTTAACCTTACTTAATAAATCTTCTGGAATATCTCCCTCAT

5 TTGGATATTTTAAAGAAGAAAGTGTCTTGCATTTCTCTTGGCTGGATGGTCTTGTGGTTCAA
ATAACATATCAAAGTTCAAAACCTCTGTTTCTACAATTGGGCTTTTCACTTCTTTAAATC
CCATAGCTAATAAAATCTCTTTAACCTCTCTAATAATTCTTGTCAATGGATGGACTTTAG
CTGGGTATATTGGCTTGGTAGGAACTTTTACGTCATAAGGTCTTATATATGCTTTTTC
ACTTTCCACTTATTATAATATCTCTTGTAAATTGGGTAATCTCTTCTTCAATCTCTATTG
GATTTTTTATGAACCTTTTCCTTTTTCAGTTAATTTTATCTTTATTTCTTTCTCTTCAT
CAAAATCTACATAACCTCTCTTTTTTAAATGTCTATAATCTTTTTTCTCTTCACTAA
AGTCGTCGAGGTATTTATTTCTTTGATTTTTTGTAAAGTTGTTCTTCAACATCCTTGT
AATCTAAATTATCAAAAATAATTTTACCTTTCTCAATCCTTGCTATTCTTTTTCTTTTAA
10 TAGCACCTAAGGCAGCATTAATTTTCTCTTTTGGTAAATATCTTTTAAAGTTTTAAATTT
CAATTTCTTTGATGTTGTGTTGTTTAAATAGTTTGTCTATTTTCTCTCTGGAACCTCTT
CTTCTTTAATGAGTTTATTATCTTCTTTACTTTTCTCTGTTTCTACCAAATTTTAC
CTTTTAAACCTAAAGAAACCTTAAATCTTTTCTTTGGCATGAACCTCTCTAATTCAT
TTAAATTAACTCATCTCTATTATTATCTCGAAAAATCTTTAACAATCTCTTTTCATCTA
15 TATGTAGTTCCATTAATCCCACCATACAGAACTGCTAAATTTTATTCTTTTATAGTATTA
TTTTCTTTAATAAATAGATACTATGTTTATCAACCCATGTTTAAATCTACAATTCATCA
GTTTCGTCCATATTCTTATTTTAAAAATTTTCGTCTTTCTTTTCTATTGTAACAACTTT
GATATTAGAAATTTTAAATGGCAATCTTTGAATAGGACTTCGCAGTTTGATATATCCAATA
20 ATGAACCTTAAATAATCTCAATTAATAAAAAATTTATTTAGTAGTTAATATTTAATTTGGT
GGTATTATGCTTAATTACGATGATTAATAAATTGATGAAATTTATAGTGAGGGTTA
TTTATTTGCTCAATATGGCATTATATAAAGAAAAATTTAAACAGAAAAATTTCAAAAT
TCTGTTGATATTGGACTTGGATGTCCTCACAAAAAAATGGTGGATGTATCTTCTGCCC
AGAGATGGGAAGACCAATATCCGTCAAATACTGCAGTGCAAAATTCATTAAAGAGCA
25 AATTAAAAACAGATGGAAATCAGAAAAAGAAAGGATTTAAAAAATCTATATATATTT
TTATCCTGGGACTAACACTTATGCTCCAGCAGAGAAATTTAAAGAAATTTGGGATTTTTC
CCTATCTTATAAAGAGGTAATTGGCTTATCAATAGGAACAAGACCTGATTGCTTAGAAAA
AGAGAAATTTGGATATTTAGCTGAATATGTTGAGAATGGCTATGACATTTGGATTGATTT
GGGACTTCAAAGTATGCATCAAAGACATTTGGAGATTTTAAATAGAGGGCATGATGTTTC
30 AGATATTATAAAGCAATAAAGGACTGCCATAAAGAGGAATAAAGGTCTGTGGGCATGT
GATTTTGGGTCTTCTGGAGAGAGTTGGAAAGAGATGATGGAGACAGCAAAATTTTATC
TCTGTTAGAGATTGAAGCAGTTAAGATATATCCCTTAGTTGTTGTTAAAGGGACAAAAT
AGAGGAGATGATTGGAAGGAGAATATAGGACATTAGATGAAAATCAGTATATAAGCCTT
AGTTTGTGATTTTTTGAACATCTCTCTCCTTATGTGTTAATTCAAAGATTGTCTAAGGA
35 TAAAGTTCTGAAAGTATTAAGGTGTCTCCAGAAATGATTTTAGGTAGATTGAAGATTAT
GAATAAAGTGAGTGAGATATTGAAAAAAGAGGAACTAAGCAAGGAGCAAGATTTTTTAG
ATAATCTTTTTTATTAATAACTATTTTGTACTAAAAAGAGCATAATTTATCTCTAAGAG
ATATGATTTTAATCAAGTGCTTATTATTTGTTAAAGGTGAAGCTTAGTTTCCATTCCGA
ATCGGTCTGATTTTAACTCAAAAAAGCTAAATGCTCTGAAACTCTCGTTAAAAAGTTTC
40 CATTCCGAATCGGTCTGATTTTAAACATTCTATCATAAATTTAACTTTTTTGATAACCGA
AGTTTCCATTCCGAATCGGTCTGATTTTAAACAAATAAAGATGCAATCATACAACAAAA
TCTGAGTATGTTTCCATTCCGAATCGGTCTGATTTTAAACAGAAACAAAAGAACACATA
AAAATCTTATGTTATAAGTTTCCATTCCGAATCGGTCTGATTTTAAACACCACAATAATC
AATCCAAAAATCTTCAACATATCCACACTCGTTTCCATTCCGAATCGGTCTGATTTTAAAC
45 TAACGTTAAAGAGAATAATGAAGCAATATGCAGATGAGAATCTGAGTTTCCATTCCGA
TCGGTCTGATTTTAAACAAAAAATCTACAGCCCTCAGTATCCTACCTAAAAAGTTTCCAT
TCCGAATCGGTCTGATTTTAAACAGAAATTTTAGTATTTAATCAAAATATTAGGTAAATAG
TTTCCATTCCGAATCGGTCTGATTTTAAACGGGAATTTGTAGGGGTAGTAAAGAGATAAT
TTAAAGAGTTTCAATGTTTCCATTCCGAATCGGTCTGATTTTAAACAGAAAGAAATACGCA
50 TTGAGCTATATAAATGGCAAAGTTTCCATTCCGAATCGGTCTGATTTTAAACATATCATC
AATATAATTTCTTAATATATCTGTTTCCGTTTCCATTCCGAATCGGTCTGATTTTAACTG
TTGACCATCCGAGAAATGATTGGCCAACCTATATTATTGTTTCCATTCCGAATCGGTCTG
ATTTTAAACATCAGAAATTGACAAAACCTGAAATAAAAAATAGAATTAAGTTTCCATTCCGA
55 ATCGGTCTGATTTTAAACCATATAAATGTAAACACTTGATGAATTTTGTATGTTAGT
TTCCATTCCGAATCGGTCTGATTTTAAACAGGAGGCTTATCCACAATATAATTTATACTAC
TCTCCTAATATTTAAGCTTTTCTACACCACATTTTCTAAGGATAAATACTATCTCATA
ATATAAATCTTTTAGTATTTAAAAATTTTCTCCCTTTAATAAAACAGAGCATTTCTTATCTC
CTTAAATTTAAAAATTTAACTTATTTGTTAGAGAAATTTTATTACTTATCTAATTAATC
TTAATTTTCAAAAACTAATAATTTCAATAAACTCAAAATATTCTAATAATCAAAACAGC
60 TAACCTTTAGAAATTAATAAAAAATTTCTTGAACCTAATTAATAAATCTAAATACTCTTA
TTTTCAAATTTCAACATATTCAACAAGACAATCCATAAATCAATTAACAAAAATGAAAA
TCCTATGCCATAATAAATTTAAGGTTATCCTCTCCGTAAGGATTTTACTATAGTACTCAAC
TGTTTTTAAACGAGAGCTAACAACCATCTCCTAATATTTGGAATCTCCTCCTCTAACTT
TTCTAAATCTCATGACATCTCCTTCTAACGCTGTCCCCCTATCCCTACTGTATGGACA

-424-

CATATCCTTATCTTTATAATACTCTATCCCACACTCTTCAAGAGCTTTTATTATATCCCT
CTCCAATATAGGAAGCATGGGTCTGATTATTATACACTCCTCCAATGGAATTTTAAAGCT
TTGATAATCAACCTCATTGTATTTAAACCTTGTCAATGGTCTCATAAACTTTAATCTCTC
5 TCCTTTAAAGATATTTGCCAAAATTGTGTCTGAATTATCATCTAAATTATGTCCATAAGC
TAATTTAACCTTTTCATAAGGGATATTTTCATTTTCAGCAATTTCTTTAGCTAATTTTCC
TAACAAATGCCTTTTAATTACAGAGCAGGAAAAGCATGGAGAAAACCTCCATTCCCTTTGGA
ATGTTTTGTCAATATTTTCAGATAGTTCAACAACATCCAAATCATTTTTTAATATAATGTG
TGGCACATTTAGCATTTTCACAGTGATGTTTTATCAGCTTAACTCCTTCTGTATCTTCTTT
10 CCATGGTCTAATTTCCCCCAATATTCACATCTACAGTAACAGCTATTAATTTTATTCCATA
TTTCCTTCTATAAACTTCCAATAAATGCAATAACAACAACTATCCTTTTCTCCACTCAA
TCCAACATAACAATATCCCTTGGAGCTATAATTTTATGTTTATTATATAAATCTCCCAAC
CTTCGTTGATACATATTCATAAGTTTTTGAATAAATAACAGGAATTCCAAACTCTTCTCT
AATTTTATCCATCTTTGTTCTTGATAACCTTGCCATTCTTTTATTATTAACATAAACTCT
15 ATCCTTTCTTATAGTTAAAAAGAATGGATTTGCATATTTTTTAAATCTCTTAAGTTAAT
CTCTACCATTTTTATCCAGTTTGTTTTTTATTTTATAATTATTCTAATTTTCATTTTCAT
TTAAATGCCCAATGGCTTTAAATTAACACTTCTCTCTACAACTTCAGCAAAGTAATTTAA
ACTTTTTTCTATGCTATCTTTGTATGAATCTCCATAAATCTCATCCAAACCTTTCTTTTT
TCTAATTAATTAATGATATAATTTCTAACTCATAATTTTCAAATATTCCATGGAAGTA
10 TGTTCCTATAGCCCAATCCATCTCCAAATTTTTTAATAGAACCATCAAACCATTTCCACA
GTTTCCAAACCTCTCTCAATTTTTATGAGAGGTTTTCTTTTGAATAGGTAAAGCCTTC
ATGTATCTCATAGCCTTTAACATTAAATGTTTTATTATCAATCTCTAAGAAACCACAAGA
GTTTTTAACTACTTTATCATTTCCAAAGTATGTTTTTGCATCAAAGATTTTAAAGCCCTC
AATATCTCCAACATCTGACTCTTTCTTCTCTTTATCAATCAACTCTTTTCTTAAACTTG
25 ATAACCTCCACAGATACCAATAACAATCCCCCATCTTTCAAAAACTCCAAAACCTTTTC
ATCAAAGTTATGTTGTTTTAAATAATAAGCTTCTTTGTTGAACCTCTTGTTCCTCGGAAA
TATTAAGATATCTCCAGTATGTCTATCATCAAAGTCGATAAACTTTATAAATGCATCGTA
TCTTAATGGGTCTAAGTCTGTAAAGTTTGATATCTTTGAAAACCTAACTACATTAATTTCT
CACTCCACTTTTTGCATTTCCAAAACCTTCTCATGCTCTGTAGGACTTGACTATCCTCCTC
30 TGGTAAACAAGGTTTTCATCATAGGGAACATATGCCTAAAACCTGGAATACCAGTTAGCTC
CTCTATTTTTTCAATCCCTTCCCTTTAAACCTCTACATTCCTCTAAATTTGTTTATTAT
AATTCCTTTAATTAGCTTCCCTCAATTTTCAGGCAATAGTTTTATTGTCCCATATATTGA
GGCAAATACCTCCACCCCTATCAATGTCTGCAACCAAAATAGCTTTGGCATTACAAAGCTC
AGCTATCCTTAAATTTGCTATATCATCCTTCAATAAATTTATTTCAACAACCTCCACGC
35 TCCCTCCATAATAACATAATCATACTCTCTGTCTAAAATTTCCAAACTCTCTTAATCTT
CTTTAAGAAAAAATCTTTATTTTTTCTATATTCAATTATAATTCATGTCTTTGTAGGGTCT
TCCATGGACTATAACTTGAGAGATAAAATTACCTTTTGGTTTTAATAAAATTTGGGTAAA
ATGAAGTATGGGCTTACCTTACAAGCTAACTTTGAGTGTATTGGGCTATAGCAATCTC
CCCATCTCTCTTTGCAACTCTTGAATTCAACTCATATTTGAGATTTGAATGGGGCTAC
40 TTTATAGCCTTTTATTTGCTAAAATTTGCTATAATCCAGCAGTTATTGTGTTTTTCCACT
ATTTGATGATGTTCCAACAACCATTATAAACTCTGCCATCTTCATCAACTCAGCATTTTT
TATAGTTTATTGAGATTTGATTATATTTAGTTTAGTTTATTGGATTTTAAATATTGATA
TTAGATTTTTTAAATTTGTTTAGAGTATTGTTTATATTTTATAGTTTTAAGATTTGGTT
TTAAGTTTTTATAGTAAATATTGGGGATTTTTGTTAATAGTTATGTATCGGATTTATATG
45 ACTATGCAAAACCTTTCTTAATCTTTTAAAGTTTTAATAATCATGCAGTAAAAATTTGG
ATACGGATATAGAAAAATAGTTATAGGAGTTTTAGTATAAAATAAGGACAGAAGTAAGGA
TTTGAACCTTTAGTTCATTAAAAACAAGGATTAAGCTAATGTCAAAAATCTTAAAAACTAT
TTTTATTTAAACCTTAAATCTATACATTCAAATTATTAGATTATATATATTTATAGTTG
CTCTTTAAACCTATATTTTATCAAAAACCTTCAAAAAAGGTGACTACTTTGTTCAACTTA
50 GAAACAGAAAGAGTTATAAGAGAAATTTGAAAAATTAATAAAAAACAATCCAAAGTTATT
TTTCAAGCTCCAGAAGGTTTAAAGCTGAAAGTTGAAAAAGAGATTGAAAAATTAAGCAA
TATTTTAAACAAAAAATATAAACATTGAGATTTACCTATGGGGAAATACTTGCTTCGGT
GCATGTGATTTAATAGACAACCATGTTAAAAACCTAAATGTTGATTTAATCATACACTAT
GGACACGAAAAACTTAGCTATGCAATCCAGAGATTAAAACCTCTTCAATTCCTCGCATAT
55 CACATATTCAATAAAGATGAAGAGGAAAAAATCTTAAATGATATAAAAACTTTATAGAA
AAACATAAAAGTGGAGGAAAAAAGTTGCTATAGCAACAACCATCCAATATAAAAACTTT
TAAAGATTTTAAACCAAGTATAATCTTAGGTTGTAGAGGAGAAGTTAAAGAAGGGATGT
TATATTATTTGTTGGAACCGGAAGATTTTCATCCTTTAATGATTGCTTATAAATATCAAAA
GGAGGTTTTTATATACAATCCTCTCTCTAAGTGCTTTGACAAGATATCTGAAGAAGAGAT
60 TAATAAGTTTTATAAAAAAGAGAATTTTAGCAATATCTAAACTATTATTAAACAACAAA
AAAGGTTGGTGTGTTTTATCAACAAAAAAGGACAGTGTAGGAAGAGGGTTTTTGATGA
GATTATAAACTGTTAGAAGAAAACGATGTTAATTACCTCCCAATATTAGTTGATAATAT
TTCTCCAGATATTTTATTCTATGATGTTGATGCTATATTATAGTTGCATGTCCAAGAAT
CGTTTTAGACGATTATATCTTATACAAAAACCAATTTACACTCCAGAAGAATTTAAACT
TTTCTTGAAAAATAGCTTTAAATATAAGTTTGATGAAATTAAGGAGGATGATTTCTAAAA

TTTTATTATCTATTAACAGAATGTCCTATTTGTTGCTGGTAAGCAGAGAGTTTCACCACA
ATTTGGACATGTTATAACACCTTGCTCTTTTCATAATAAGCTTTAAATGGTTTTTTTACA
GTAAGGGCAGAGATATATCCTTCTCTGCTCTTTTACACTCTCCAACCTCTCCAACCTGT
5 TGGATATTTTTTCAAAGTTATATCACTCCCTTTATTTTGATATTTAAAGAATTTTTCAAC
CATCTTTAAGTAAATATTAAGTGCAGCTTCATTTACACAATCTTTCCACAGTATGGACA
ATTATACATGAAATCACCTCATAAAGTTATTTATGTTATTTAATTATATTATATAAATT
ATCATCTTGCCACATATATTATAAATATATTCGTTTCGGTTAACAGTGTAGTTAATTA
TTTTTTATTTACTCAATGTTGGTGAAATTATGTGGAAGAAATTGGAAAGCTTAACAAGTAA
10 AATTTATGAAAAGGCGAGAAAAAGAAAGGGGAGCATAGAATTGCATTGTTAATTGATGG
ACCAAACATGCTTAGAAAAGAATTTAACATTGATTTAGATAAAATTAGAGAGTTTTAAG
TGAATTTGGCGATATTGTTATTGGCAGGGTTTATTTGAACCAATATGCATCAGATAAATT
AATAGAGGCCGTTATAAACCAAGGTTTTGAACCAAGATATCTGCTGGAGATGTGGATGT
TGAAATGGCTGTAGATGCCACTGAGCTCGTGTAAATCCAAATATTGACACCATTGCCATA
15 TGTAACAAGAGATGCTGACTTCTTCCAGCAATTAGAAAGGCAAAAGAAAGGGGAAAAAA
GGTTATAGTTATTGGAGCTGAGCCTGGTTTTTCAACGGCTTTACAGAATATTGCTGATTA
TGTAATTTAAATTTGGAGAGGAATTCCAATTAGATAGAGAAAAATTAGAGAAAAAGAAGAA
AAATAAATTTTTAAAGTTGAGGAAAAACAGAAAGATAAAGAAGAACTGAAATAGAGA
AGAACCTTAATCATTTATTTTATTTCCAAGTATCTTTCTCAATACAGTAGATGTTGCGAAT
20 GAACAGAGAATATACCAACCTAACCAACCTAAGGCAGTGTAGAACTATTTTAAATCCT
CCTTTATAAATATTGAACCAAGCCAGTGCCAGAAATCAATAAACAAAATCTTTGACAAT
ATTATAGGTAGATACACAACCACTCCATTCCAACCAGGATTTAACTCTTGATAAACTCCA
CCAAACCCATAAACATGCCCTCAAATAAATAAATATTAAATTTATTGGAACCCATGTATAT
ATCATCGGCCTAAAaCTCATCTTTCATTAAATTCAGCGTTGAGTTGCATAATTCTCTGTTGT
25 TCTTCTTGAAGTTTTTCCATCATTTTCAGGATTTTTTAGACATTTTTTAAATTTAACCTGA
AATTCCTGAATCTCCTTTTTTAGTTTCAGCAACTCTCTCTGGTCAACTAAAAGTTTTGTA
GCTATATTTATGATTAAAGAGACAATTATTGCAATAATTAAAATTGCTAAAGCGGGATGT
AGAATTTTTATTATAGGCATGAAAATTGCATCCAAGGTTTTATAATATATGTCAAATATA
30 GAACCAACATTAACTCACCTTAATGTGGTTATTTAAAAATTATTTTAAATATTATATA
AGGATTATTTGAGAACTTCAATAAGTTCTTGAAGTCTTTATCTAATAAAAAGTCTCTAT
TTTTAATAATTTAACTGTTGCTCCTGTTAAACAGCATAAGTCATAGCCGCACATCTAT
TCATAAAGATATGTTCTCCAATATCTTCTGTTGATTGAAATCTCTCTGCTCTGTTTCAT
CCTTTAATCTTCTCATCAATATCTCATCGTTCTCTGCTTCAACTAAAACATGATATCAG
GATTTAACTCCTCCAAAACCCATGCTGGAAGCCCTGGGAGATAACCTTTAGGTGTTTTTA
35 TTGTGCTATGTGTATCAACAATATATTGAATCTTTAGCCATTTTCAGCAATCTTTTTTC
CTGCTAATTTTTGTATCCTCTTCTGTTCTTCTGGAGGCAACTTCCTTAATTGGTCTCTAT
GCTCTACTAAACCTCTTCTTTAGCTATTTCAAACATCACAGTCCCAAAATTAATATTT
TATATTCAATTCCTTCTTTTTTAACTCCTCAATTGCCTTATTAGTTACTGTTGTTGAAC
CAACTCCTGGAACCTTACAATCACCACAACCTTGTTTTTCATCATCATCACCTCACAAA
40 ATTTTAGGGATTAGAATTTCAATAGAATTTTCGAGTTTATATATTTTTTAGAATATATT
GAGAAATATGGATGCTTAAAGGGCATCATTTGTTCAATGAAATATTACTTCTGCGAAAGT
TCTATTCAATGACTTTACTTATTTAATAATTTTGCTATTGCTGGGTGCAACTCACTCACC
TTCTCTCTTAAGAGTTGTTCAATACATTCTATATACAATAGAGACGGTTAATAAACCCCT
45 GTTCTCTCTCTTAAGCTCCAATGAAATTGGCTATTGTAGCCAAAAATCCAACGAATGCG
GAGCTCATAACTGTTAGTGGAGGAATATATCTTTTTAATCTATGCTCTATTGCTTTTTCA
CTCTTTCTAATCCTTTAATTGCCATACCTAATGAACCAATTCTTTTAGCCATACCTTTT
GGGTCTAATCCAGTCGTTTCTACCCAAAATATACCAACATAACACAAGTAATTATCATT
GCTATCATATATACTATTGCATGTATCGGGTCTGAAATCACACTTGATAAACCATAGGA
50 GTTGAAGGTAATAGGCAATTCCATCTACCGCCCTTCCACCTTCATAATGTCCAAGTATC
GGAATTCCTATCTATATAACGCCAACCCCAAGTTGTATATTGCAATAACGCAGCT
GCTAATATAACTGGGATATTTGAGACATAAACAACTTTATTGGGTATTTTCCAACAGCT
CCTTTAATCTCCCATGAGCTAATGGGATTTCCACCTCATACTTACGCATAAACTACC
ATTAAGAAGACGATTATTGTCCCAATTATTGGGGCTATATATTCAATATTGGAACCTCT
TGAATTAATGAATTTAAAACTTCCATAAATATCCTCTGGACCTAATGCTCCAACAAAT
55 ATTTGTTGTGAACTCCTGCAGCAATAAACAACCCCAATACCTGAACCAATACCATACTTT
GAAACAAATTCATCCAAATAAATTAATATTGAACCAAGGCTATTGGAATAATTACT
AAAAATGCTAACAATGGTGTAAATTTCCAAATGCACAGCCCAACGAATAGAAGTCT
TCAACAAAACACATTATTATAGATAAAAGCTTCTGACATCCTTGAAACAAAGCCCTATT
TCTGGAATTGATAAGTCCATTGGGATAATTCTGAACCAACCAATAACTGCATAAATAAT
60 CCAGCTGTAACATATGGGTCCAATCCCAAGGTTATAAGCGTTCCAATTCTTGATGCTGTA
ATTGCTCTGCCAAACTCAAATATCGCTGGAATTTGAGCTCCTGCTGTATAACATCAATA
CATCCCATAAATGAAATAAAGAACCAAACTATTCCCGTCCATTAAAGTTTCTCTTAAAT
GTTATCTCCTTAAGTGGCAATTCACCTCTGGAATTTTTCTAATATTGGAATTAACCTT
TTCATGATGTTTTCCAAGGTACCACCTTTTTTAAAGATTTAAGATTTATGTTTTATATT
ACTGATAATTTTTGTAATTAGGAGTATAAATTTTTAGTGAAATTTAATCCCATAAATGAAC

TAAAAATGAAATAAAATAGAAAAATGGAGAATATATTGAGTGCAAAAATCAGCCAACATT
TTGTAAATTCCTTTTAAGTTACTCTTTAAATTTTAAATATCTTTATTTTTTTGTAAAAAA
ATAGATACTCCATTCTCATCTAAAAATTTATTTACTTCAAAAATCAAAAATTAGAAATAAA
AAGAAGATTGTTAATAATTTAGAGTTCAACAACCTCTCCACCTACTGCCTCAATCTTCTC
5 TCTTGCTTTCTCTGAACTTCAACTGCTTTAACAATCATTTGGGATTGTAACTTTTCTCTT
ACCTAAACTTTCTCATAACCTAACTCAATTACATCAACAACAAATTTATCATCTTCTTT
TTCAAATTTATCTGGGTTTTTAAATACAATCTCTTCAAGCTCTCCAACATTTATTGTTTC
TAATCTTTTAACTAAGCTTGGGTGTCTCTTGAATCCATACTTTCCAAAGTAATCAGGGCA
10 GTATTTTATAATCCACGTCCATTTGTGCTTATGCCACCAGCCATTCTCTTCTCTCCCTT
GTTTCCAGCCCCCTCTTCTCTTCTTGTGGCTTCTCTCCACAGGTTCTTGAACCTCTAAT
TTTTTTAACTTTTTCTTTTTCTAATCATAAATCATCACCTTACATCATCTTTTTCTAAT
AACTCATTAATTTCTCTCTCTGTAACTAAAGCTCTCCAACACTGAATGGTTTTTTTA
ATACCTCTCTTTCAAATCCTTTTCTTGGAGGGTGAATCTGAATACAGGTTTTAATGGA
15 GTTTCTTTTTAATTTAATTTCTCCATTTATAATCTTTTCTGCCAATTCTTCAACATCCATT
CCTGTAAGCTCCTTTATGATTTCTGGATTAACTTTTTTATTTCTGGTAATCTTCTCTC
TTTAAATTAATTTAACCAATGTATCTTTATCAATTTCTCCCCATGTACGTAAGTCTTTA
ACTTTTGTAAACATCTCTTAAATGTTTCTGTTTCTGGAATTATTACACAGTGATTTACT
TTGTGCAATCTCAACATTTTCAGTGATCTGCTATATCTCTCTTACACCAACTCTCCCT
20 CTTATCCTAATGACAGCATAAGCCATATTATCACCTTATTAAATAAAAGTTTTTAAATA
GCCACTTGGTTTTAAATGAGAAAAATTTAATTTATAAGACTCTTCTTCAACAATCCCCA
ACTTCTCTTTGTGTTTTTCCATAGTTCTTGTAAAGTTCAAGCTCTTTAATGCTTCAAATG
TAGCCATTGCGAAGTTGTAAGTTGTTCTTGTCTCTCCAAATGTCTTTGTCCAAACATCTT
TAATTCCTGCTAAACCTAAACTGCCTTAGCAACATCCCCAGCAACTAAACCAACCCCTT
25 TTGGAGCTGGTAATATCTTATTGCAGTACTCCACACTTCCCATAAACCTTGTATGGGA
TTGAGTGAGGTGTTCCACAACCACACTCCCAAGAACCGCAACCTCTCTTAACCTAATAA
TGTTTTTCTTTGCCGTGAGCTATTGCCTTTCTAATTGCTGGCCCAACTTCTTTAGCTTTAC
CTTTTCCAACACCAACATAACCATTTCTGTTTCTTACAACAACCTGTAGCTCTAAATCTTG
CTCTTCTCCCTGACTTGTGCATTCTCTGGACTAACTTAACATCTAAACTTTCTCTTCTA
AATCTGGTAATAAAGCATCGACAATCTCAGGCTCTAAGATTGGCAGATTGTTATCTAAAA
30 TGTAATCAATATCAGTTATCTGCCCTTCTTAAACCATCTTCCAATAGTGGTTTTTGGTT
CCCACCTCATATTAATCTCAATATCTCACCTTTAGAACATACTGCTATTTTTTGCC
TTTTATTTCTTCAAAGTGTCTGGCAATTTTTCTGGTTCTAATCCCTTCTCCAAATTTTT
GAGAAGTGTCTTGTATCTTTCTTCACTCTGTTCTTTTAAACATTTCCGGCATAAGCCTTT
35 ATGTGTTCCCTCTTATCCTTTCTTCTGATGGTAATATTTCTTCTCCGTGTGGAATTTCC
ATACCCGCATCTAAAGCTCCTTTTAAATATTGCAATATTGCATTACCTTTTGTAGCTCTG
TGCAATCCAATATCTAAACTGCTTCAGTGAACCTTTGGCTAAAGCTTTCTTACCTAAT
AAGTAACCTGTTAAGTATGCTGATGGCAAGTTTCTGTATGCCCTTATAACCCAATTTA
ATCACTCTCTTGAATGAGCTGAAACAACCTGTTTTATCTCCCTTCTCATCATACATAACA
40 ATTTGAGCAATGCAGTGATTCAAAGTTCTTCTTGCTACTAATCTTGGTTTTCTTGATAAT
AATAATTTTAACTTTTTCTGTAGTCAGTTTTTGCTTCTCTTCTTCTTCTTAACTTAACC
CTATAAGTTGGACCTGTTGCCATAATTTCTCACCTTCTGATAAAAATTGTTTAAATATT
TTAAGAGTTCGTGTTCTCTCATGTAAAGGAAGAGGTGGCTTCTACTTCTAAATGCTCCTC
CTTTTGCCATTCTGTAAAGTTTTCTATAAACTTTCTATCAATTTTTCCAGAATCTCTCA
45 ACTGTTTAAAGATTTTTCTTAAAGCTCTAATTGTAGCCATCCATCTTTTTTGGTGGAG
TTCTTGACACAGCTCCTCTTCTTGAACCTGGACCTCTTCTTCTACCTTTTTTCTCTCT
GCTCTTTCAACTTTTTAACTCTCGCACTGCTAATTCCTTTCTTCTGCTTTTTCTTAATAA
CTCCTTCTTTAATTAGAGCTCTTATATCATCTTTGACATTGCCATTTTGACTCTATCTA
ATTGAGTTGGGTCAATCCAAACCTCTCTATTCCACATTTTAAATATCTCAGCCGCCATTC
50 TTCTTTGAACGGATACATCCATAATTATCACCTATAACAAAAGCAGATTTATCTTAAAGA
GTGAGGGATTGAAAATAATTTATTCGTTAGTTTCATTAACCTCTTGGAGCTTCTGTTTTT
CAGCTAATTTTAAACACTCTTCTGTTTCTCTCTGATATGTTTAAAGATTCTTATTCCTA
ACTCTCTTGTCTTATGATAATTTCAATTTTCTTTTACCAACTGTTGAAGCTATTCT
TTGCTCCCTGTGTTTCTGGATTTAATTTCTCTAAATCTTTTACATTATAAACCAAAACAT
55 CCTCCAATCCACTTGGGTGTAAGCCTCTTACTGCCTTAGGGCTTCTGTAACCAATCTCAA
CAACTGGAGGTTTTCTCTCCACTTTAATCTCATCTTACTGTGTCTTCTTTTGGTCTTC
TCCACTTCTCTCCCAACCTTTTGTGTCTGTGAGCTTCTTGCCTTATAAAGTCAGGCTTTT
TCATTTTAAATTTAAATCTTAACTTAAACAGCCTGTTTCAACTCTCCCTCAACTAAATT
60 TTTTAGATAGCTTTTCCAGCTTTCTCTACAATGTAAATTCCATCCTGGAAGACTTTTGGG
TCTCTTCTTTAATTTCTTGTGCTGCTCTATGTTAGCAGCAGTTTGTCCAACCTTTTTCC
TTGTCAATTCCTGTAACATGACATCTCTCCACTAATCTTAAACGGTAACCTCTTCCATA
ATTCTTGTCTTCTTGGGTGTTTTCTCCCTAAGAAGTTTTCAATGATAACTTCATTACCT
TTAACGCTAACTTTTCAATGGGAAGTGTGCATACCTAATCTTTAATTTGTATGTAAATCCT
TCAGTAACTCCTTTAATCATATTGTTTATATGIGCCCTTATAGTCCCAACCATGGCCTTG
TCTTTCTTCTTGATATTACAGAAGATAAATTTTATCTCTCTTTTTTAAATTACA

5

10

15

20

25

30

35

40

45

50

55

60

ATTTTTGGATGCTCAAATCTTCTCTTAACTCTTTTCTCCACTTTTACAACAACCTTCA
TTATTGTTTATCTCAACTTGAACATTTTCAGGGATTTTACCCTTTCTCAATATAGGCG
GCAACTGGCATAACTCACCTCAAAATTTAAATTTAATTTAGAACGTGTTAATAGACAT
AAGCTAACAACTTCTCTCTAAGCCTCTCTTTTAGCTTCTTCGTGGCTCATACTCCCT
GTGTTGTTGAAACAATCAATATACCAAAGTCTCTTGCTGGTAAAGTATCTCTTTCAAATT
TCTCATAGCCAAATTTTTTAACTGGGAATCTTGGTTTTATTGCTCCACACTTGTTTATCT
TCCCTATTAACCTCAACTTTAAATATTCAGCTCTACCATCTTCTATAAATTCAACTCTC
CTATGTAGCCGTATCTTGCTAACTTTTAAACCCCTTCCAATTAACCTAGAGGCTGGTT
TTATATACACTACCTTTTACCCTCTCTCACAGTTAGAGATATGGTTTAAATGCGTTTG
CTAGTGGGTCCATTAAACTCATGTTTTCCCTCCATTAGAATTTTAGTAAAGAGTGT
TGGTTTAAATCTAATTTTTTAAATCCTAAGTGTGAGCTATTTCCCTAAAGCACTGTCTGC
AGAGATTTAATCCATACTTCTGATTAAACCTGGACCTACATGCCACATCTTTGGCATG
GTCTAATTCATAACCATATTTCTTTTCCATGGTTTTTTTGGCATCTACATCACCTTTT
TATTGTGTTTCTTCTCTCTCTCTAACAAGACTCTTCAACTTTAACTCCAAATGTTTTT
TCTATAAATTCAAATGCCCTCTCTCTTGTAAATCTATGTCTCTTGGAACTTAGCTCTG
CATCTTTTCTTCTTAACTCTAAATCCAGGTCTCTCTAAGGTAACACAGACGTCCATC
CCAAAGATACCAATCATTGGGTCTGATTTTTGTCCAGGGAAGTCTATATGCTCATGAATA
CCAAATGAGAAGTTCCGTAATCGTCAATGAATAATCATATAATTTTTTACCCTCTTTT
TGGAAGGCTTCAAATGCATTCTTTAAAACTCTTCTGCCCTTCTTCTCTTAAATGTGACT
TTTAACCCAAATGGTAACCTCTTTCTAATTCCAAATGATGGGTTTGGTTGCTTAGCTCTT
GTTCTTATTGGTTTTTGTCTGTAGCTCTTCAATAACTTGAGCTCCTTTTGTAAATCTA
TCTCCACTCTCTCTACTCCGAAATGACAACAACCTTTTCAATCTTGGTTTTAGCATT
GGATTCTTCTGCCATAACTCTTCAAGCTCATGTTCTCCCTCATCTATCTAATTTATAA
TTAATTTATTGGCTCTTCTGCTCTCAACAACGAAGACATAGTCTTAACTGTTTGAACCT
CTCTCCATCCATGTTTTCTAATGTAACGATATCAGGATATATTCCCTCTCTCTCAATCTC
AACGATTTTAGCGAAATCACCGACGTGTTTTCTCTGTAATGTATGCTAATTTACCAAC
TTCAAATGGTATATGAGCTTTAATTTCTTGTTCAGGGATTGAGATTAATAATGTGTCTCC
TGTTTTATAGACATCTTCTCTGCCCTTTGTAGGGTCTGAACTTTTATAACGATATTTCT
TCCATCGTGTAATTTGAGCTGTATGTCTCTCTTAAATAACAGTCTTGTTTTTAATTTT
ACATAAATTTTACATCTGGATTTTCTGTTGGTTTTAATTTAATTTCTTCCCTTTCTATCAA
TAAACTCTGTAATTTTCAATTTGCATCTGGTAATGAGACAACATCCATTAAATCCAACTGG
AAGCTTTTCTTCTTCTTAACTCTTCCATCAACTAAAACCTTACCCATTTTAATGATTTT
CTTTGCTTCTCTTGGCTTATCGGCATACTTTAAATGTCTCTAACGATTAACAGTAATGG
TAATGACTCACTCATTTGGGTGTCTCTGGTAATGGTCTAAGTGTGAATTTGTGAATCTT
TCTTGGTAACCTCCATCTAAGTGGAGCTGCCAATCTTTTAAATGTCTTTTGGACCTTT
TTTTGCCATCCTTTACCTTATTCTTTTGTATGTTTGAATCTTTTTCATCCTTGTC
ATACAACCTTGATAATCATAACATTTGATGGATGGATTGGATATGGAACCTTCTCTCCATC
TTGTCTCTTGTGTTTGTCTCTTCAACATATATTCTGTATCTCTTAAATCAACTTTGAT
AACTTCTCCTTCTAATCCTTTGAAATCTCCTCTCATTATTCTAACAACATCTCCTTTCT
AACTGGGATAGCGTTTTTACCTAAGTCTCTCTTCAACTCCTTTGATAACATTGCAGACAT
AACTTTTCTTCTTAAAGTGGAGAGGAGCGTTAAATAATGCCTTTCTCTGTTTTCTTGGTTG
TTTTGACTTTGTAAGCCATGTTTTTCCCTTAAATAGTTTTTAAATTTAAATGATTAT
CTTAGCAATTTCTGCAATACCTGGCCATCTTTCAGCAGCTTCTTAGCAACAGGCCCTT
AATATCTGAACCCCTTTGGGTTTCCATCTGGTGTACTATAACAACCTGCATTATCTGCAAA
CTTAACCTTGTTCATCTGGTCTTCTAATCTCTTTCTCTGTCTAATAACAACCTGTGG
CAAAACCTGTTTTCTCATTTTCAAGAGTTCTTTTTTAACTGTAACCTATTACCATATCTCC
TACTCTTGTCTGTTGGCAATCTTCTTGCAACCCCTTTGTAGTTTCTTACTGCGATGATTTT
AACTTCTTAGCTCCGGTGTATCAGCACAGATACATCTCGCTCCAACAGGTAAAGCCCT
AACAGGTTTTGAACCAATTGCTTTTCAATGTTCTTTCACCTTTTAGATTTATGAGTCAAAT
TATTCTTCTCTTTTAACTTTCATCAATTTCTCTAATTTTCAACAACAACGAATGCCTTT
GTTTTACTTATTGGTCTGCATTCCATGACTCTTACAATATCTCCAACCTTTGCGTGTATG
CATGGTGGGTTGTGAGCTGCTAATTTGTTGTTCTTCTCTCATATCTCTCATATTTCTTG
ATGTATTTTACAACCTCTCTCTTTATAATGACTGTTTTGTGTGGTTTGTGCTAAGTACA
ACTCCAACAAGCTCTGCCCTCTTACTGGCAAATTTCCATGGAATGGACAGTTTTTATCA
TCACATTCTACTTCTGGAGCTTTAACTTGTATTCCAATATTTCTTGTGCTGCCATGTTTTTA
CCCCCTATAACTTTATTTTGGCATTATTTTGAAGACATTTAGATTAAATGTGGCATC
AATATTTACTAAAACCCATATTTATACTTTAAATCTCACAGACTGGAAGATACGATAAAG
AGTATATAATAATAGCCAGGGAATTTTTGGCTACTGTATCATTATTCTCAAACGGTTGGG
GCTAAATAGCCTAATATGGATATAGTATCTTTATTTTTTCTTTAATCTCTCTTCTGGT
CTCCCTATTAGCAATCTCCCATCGACCTTTACTTTGCACCCCTTTAGTTGAAAGAGAAAC
ACTGCAATGTCTTTGGGATTACTACTTCCCTACCATCTCTTTTTCTATCACTAATGTA
TTTTCTTGTTCATCCACTACTTTCCCTTTAATCCCTATCATCGCTTTGTTCTTCGCTTCA
ACAATCTCTACTTTAAGCCCTATAAGTTTCATGCCTTAATATATTGTGAGGAGTTATCATG
ATGCCCCAACCGTTTTACGGGGACGGGTGTGCCCTCCTGGGCATCCGCGTCCCTTTA

5 TTTTCAGAAAGTTAAATAAATTTAAAGTTAAAGTTTACCTGATTTC AATTGAATCTCTT
GAGAAACCCATTTTAAACAGTCCCTCAGCAACTTTCTTCTATGGTCTCCCTGAAGTTCT
ATTGTATTATCTTTAACAGTCCCTCCACAGGCACAAATATCTTTCAATTTTTTAGCAAGT
10 TCTTTTAAATCAATAACGCTTGATCAAAACCTTCAATTATAGTCATTAACTTACCAAT
CTTCTTTTGTAAACATATATTTTATTTTCTGTTCTTCTTTAGCTATTTCTTACAAACA
CAGAGTTCCTTTGGTAATCCACATCTTGACAGATTTCCGGCATCACTGCACCTCTGTAT
TTTATATGCCATCTGAGTAATTGAGTATAGTAAATAATATTAAGATAGGGTATTTAAATT
TTTTGTTATTTATGGGAGGTCATTCTTTCTTTTCATTATTATTGTTAATATTCTTGCT
15 ATTGTTCTTCTGATTTCTCTCATTCTACCTGGATTGGAAGGAGCTCCAGCAACTGCCTTA
CTTGCTCTCTCTTTTAAATAATTCCCTTTTTTAAATTCTACAAGTTTTCTTTTAAATTCTTCC
ATTGACATTCCCTCTTAACTCATCTGCTCTTAATATAGCCATGTTTCCCTCACCTTTACTGC
TCTTCTTCAACTACATGTTTAACTTCTGCATCTTCTTTAATTATAATTTTATCTGGTAAT
AAGAGTTCCTGGTCTCATGATTTTTACTGTAACTCCTATGACCCCTGGCTTTGTTTGTGA
20 ATTGCTCTTCCCTTATCAACAAGCTCTTCCAGAGGTTCTCCACAGTGTTCATATATCCA
GCCATGAATTTTTAGTCTTCTCTCTCCAGTTAATTTACCTGAGATAATGACTATA
ACCCCTTAGCCCCAGCATTCATAACTCTTCTCACTGCAGTGTGTCCAACCTCTTCTGAAG
TGTAACCCCTCTCTAATGACTGAGCAACTTTTTGAGCAACAACTTGAGCGTCTAAGTCT
GGGTTTTCTACTGGTTTAACTCAGATTTGTGGTTTTTCAACACCGAATTCTTTAGCTAAT
25 GTTTCTGTCAATTCTCTAATCTACTTCTCTTCTACCAATAACAAAACCTGGTTTTTCA
GCGTAGATGATGATTTTTGTTCCTATAGGTGTTTTTCTTATATCACAGTGGCTGTATCCT
GCTTTACTTAACTCTTTCTTGAAGTACTCATCAATTAACAATCTCTTAACATTTTCTTTA
ACAAATGTTCTTTCTATCATGGATTTCCACCTTTATATCTTATTTTTAGTGGTATTCTTC
TAATATAACTTGTATATGGACTGTTTCTTGGAACTTAGGTGTAGCTCTACCAATGCTCT
30 TGGCATGTATCTTTGATTGTTATTCCTTTGTTTGTGAGATGTGTTTTATTCTTAACTT
TTCAGTGTTTAAACCTTTGATTTCAGCATTTGCTTTAGCGTGTGCAATATCTTTAAGAT
TGCCCTTAGCTGCTTTAACTGGGTATCTACCAGCAGGCCATCCTAATTTTCTTTTCTGTG
CCCTACTTTCTTGCAGTGTCTTCTAAAGAGAAGTGGTCTTCTCATTGCAATAACATCTTC
TAAGAAGTTTATTGCCTCATCTAACTTCATTCCATTTATTGATTTACATATCTCTCTTGC
35 ATGTTTTCTTGAAATGGGATGTTTCTTCCCATAGCCCTTGACAGTTTTTTCAGGATTGAC
TTGTATCTTATATTTAATTTACCCATCATTATCACCCCTTAAGCTTAAATGATTTAACT
ATATAGTGTCTTTCAAACCTCTTAAATAACTAAGGCACTAATGAACGCCTTCCAAAGGAG
GGCGTTCAACACTCTTCAATAATTTTATTAATTTTGAAGGCACTATAATCTTACTGT
AAGAAGTTTATATATCTTTTATTGTTGTTTAACTCATAAACCCAGAATGCTATATTGTT
40 TCATAAATATAATTAGGCTATCAACATTTAAATTGTAGAGCATTCTGGGAGTTTCTATTT
TCCAATTATCCATTACAGTTCTGTTTATGATTATTTAACTATGAATTTATCATCAGCGA
CGGTTGAGATTTTAGAATGTAAGAATATAAAATTTTAAAGTGTTATATATAATTTACGA
ATAAATAGGAAACAACAAAACAAAACAATTTTCAGTCCAAATATTCAAAAAGTATTAA
AATTTATGCTAATGAGACCTCTACTGTTTCAACACTCTCAACCTCATCAATTTCTGCTAA
45 AGCATTTTCTATTGGCTCTGTTTCTCTCTCTTCTTCCATTTCATAACGGTGTATAT
AGCGTATAAACCAAAAGCTAATGGCTCATCAATAATCCTCTTATAGCAACATCTTGCTT
TTCTAAACCTCTTAACTCTTTTCTTTTAGCTTCTCTTATTAACCTCTGGACTTGTAGG
CATAATTTTTATTTTGTCTAATACTGTTGCCATCTTTCCCTCCAAACCTTTTATGGGCC
TTCAAACCCGCATTTTGGACATTTGTATGGGTATTTAACTTTCTGCATCTCTCACATCT
50 TACAATCTCTACTTCTCCACAGTTTGGACATGGGAATTTTGTGATTCTCTCTTGGAGC
AATCTCAGCATTACAGCTTATGACACATATTTATCTCTCTCCACCTAATAAATTTTTTA
TTTAATGATAACGCTCTCTTAAGTTTGTATCATGTTTATATTTTATCTATTCCACGATTT
TTGTATATATATTGTGTTTTCTTCTAAATATCCATAACTCTTTCTGGATGTCTGCCAT
TAACAACGTAAGCGTTCATTTTAAATTGTTTTAAAGAATTGGAAAGGTCTCATCTACAG
55 ATGTTTAAACCTTTAATGTCAATTTGCATTAATAATATTTAATAGTTTCCCTCCTGGGAATT
TGTCATATATGCCATCAACATCAGTTGCTATTATAACTTCCCTAACATCTAATAACTTTT
CTATATATAAACTTAATGAATCTGATGTTATAGCCCAAGAATGCTCGGCAATATCTGTTG
ATAGCAAAATTTTTGAAGGTAATAATATAGCTATCTTTTCTTCTATCTCTCTCTTTA
AATCAAATAATGTATCATAAGCTTTTATATATCCAATTTTCAAGCATAAACCTCTCCAATTA
AATCCATACATTTTATGGCAAGTTTGTGAGATAGTGAGTTTGTGATATTTAGAGCTTTAT
60 CTATCTTTCTAACAACATTTGCAATTTCTCCTCCTCCAGGAATAATAACTATCTTCTTAT
TATTTTCTTTTGATAATTTTTTAAATGCTTTTAAATAGGTTTTGCATCATAAGTTAGAG
AACCACCAATTTTACTATATGCATGTTCTCACTATTTCAAAATTTCAAAAACACTTCA
GCCATTTTAAACCAATCCTCTATTTTAAATAGCTCATTTGGTTGGTGGGAGTCTCTTCT
CCAATGCCCCAAAGCTGTACATTATAGCCCTTATATCTCAAAAATGCCGCAACAGTTCCC
CCACCCATTCCGCAAGCTTAGCATCTCTATTCAAAACATTCTTTATAGCTTTTTTCAAT
TCTTTGATAATTTCAAGCTTTTCTATCTGTGTAATTTGGATTTTCAAGTTTTAATATTTCA
TAAGTTATCTCTGCCCTTTATTGAGTTATCATAATGCTTAATATATTTTTTAACTCAAAG
TTTTTGATAAACTTATTTATAAACTCCAAACTTCTCTATTTTGTAAAGTTGGCAAAATT
CTACAATCAAAAACAACCTCTACATATCCAGGAATGGTGTGTTGATTTTCAACTTTATTT

5 TTTAATATCGTTGGTTCAAAGGTTGAATACTCTGGGAGGAATATTGAATTAATTTTCATCA
AATTTCTCATATAAACCATTTATATAACTCATTTGCAAAGTTAAAAGCCACTATATCAGCA
TTCAAACCCATTTTCTGGTGTGCTACCATGACATTGCTTTCCCTTTAATGTTAAATTTTATC
CACAGAATTCCCTTCTCTCCAATCTCTACAAATTCTCCAGTTGGTGTCCAAAGTCAGGA
10 ACTATGATTAAATCATCCTTTTAAATATCTCATCTTCAAAGTTATTCAATAGATATTTT
AAGCCATATTTCACTTCCATCTTCTTCATCAGAGACAAAAATTAATGATAAGTTGTATTTT
GGCTCAATATTATTTTCAAAAATCATTTTAAATAATAATAGAGAGGAAACAATCCCTTTA
TGGTTGTCTCACTTCCCTTCCATAAATTTTCCATCTTAAATAACTGGCTCATAAGGA
15 TTTGTGCCCATAACTAATATCCCCCTCTGGAACAGTATCTAAATGAGAAATAATATGT
AATGTCTTATCTCTTCCAAAATCTATTTTAAATACAATATTTGGCCTCTCAATACCATAT
TTATCTATGATGTTATATTCTTTTAAAGTGTAAATTTTCTATATTGTAGCTTTCAACGTAT
TCCATTAACTTTTCTTGACGTATTCTGCCTTTTCTTTTCTCCTTTTCCACCAATGAA
GGATTTACTGAATTTATTCTTATTAAATCACTCTCTAACTTTATAGCTTCTTCTATTAAA
20 TCCATAATCTCCCTCTAAACCCAAAATATTTTAGCATAAGCTACCAATACAATCAAGTGC
ATTATATAAATTATCTCCCAATTAATAAAAACCTTCCCACTCTCACATTTCCGTTGGAT
AATCTTAAAGTTATTAAATTGGCAAAGAAGCAATTAAAGTTCCGTTACCTCCGATATTT
ACACCATAAGCTATTGGTAGCCAGTTTGTATAAATGAGATAGCAACACTGTAGCGGGC
ACGTTTGAGATTATTTGAGATAGTAAGGAGGCATAAATCATTAAACATAACATTACCACAT
25 TTTATTGAAAATATATTAATAATCCCAATCTCTTTAGTCCCTCAATATCAACAAATAGG
AAGATGAAAGTTAGTAAAAACAGATAATCCACTTTAACCCTCTTATACATTAAAAATTGCC
AGTATTAAAGGAAGAATATATATAAAATTCAAATATCCAAAAACACATAACAAAACCAA
ATAAAAGATAATATATAAAAAATCCACTCTTTTTTAACTTAAATGTCAATATTTATCTTA
GTATCATACTTTTTTAAATCTAAGAATGGTAAATAGCCAAAATTCAAAAATTTCAAAG
30 GGAATCATATTAATTATAAACTCTAAAGTTCCAATATTATAGAAATGAAATAAAAATAGA
TTTTGAGGATTTCTATAGGGGTTAAGCCACTTCCAATATTGTCAGAGACACCTTCAAAG
ATAATGAGCTTTTCTAAATCTTAAAGGCATATTTGTGTATCTGTGAATTATTAGAGTT
AAAGGGATGATGACAAATAAAGAGACATCATTTGTTATTAAAGAAGATAAAAACAGAGTT
AAGAATATCAAAGCAATAAAAAATCCTCTTAGATTTCTTTAAGATTTTAAAGAAATATAG
35 TCTAAAACTTTGTATCTCTCATATGTTTATGATAACCATTAATAAAAACAAGGAAAAAT
ATTGTTTTCCATTCAACAATATGAATACCTCCATTGGATTTATTATATTCAATAGCAAA
AGCAAAATCCCAATGCTAATAAACATCAAAAATATAAATGTATCAATCTTCATCTTTCC
CTCTATGGTGGTTAATTATGAAATGCTCCCAATGCAATAAAAAACTTTGCTATACTGGAA
AGGACTGCAAAAAGGATATAACACAAAAAATAATAGAAGAATATAAAAAAGAAGAAAAAT
40 TAAAGATAGCTGAGGTCTCAGCCTACATTGAAGCAACCTATTATATGAAAAAACAGGT
TGGAAGAGATAATAGAGTTCTGCAAACCTTATGGAATATAAAAAAATTGGTATAGCATTCT
GTATTGGCTTAGAAAATGAGGCAAAAATATTAGCTAAAATTTTATCTAAGCATTTTGAAG
TATATTCACTTTGCTGTAAAGTTTGTGGGATTGATAAAGATGTTTTTAAATTTAAAAAA
TCAACAAAGGAGAAAAAGAGGCTATGTGCAATCCAATAGGACAAGCGGAAATTTTAAATG
45 AGATTGGAACCGATTTAAATATTATTGTTGGATTATGTATTGGGCATGATCTTTATCC
AAAAGTATTCAAAAGCTCCAACAACCTACGTTTATTGTTAAGGATAGAGTTTATCTCACA
ACACAGCTGGAGCAATTTATACCAATACTATCTTAAAAAACTATTAGAGGGAAAAATAAT
GACAAAAGATTTAAGACCGATAATATGGGATGATGATAAGAAAGAGCTAATTTTGATAGA
CCAAAGGAAGCTTCCAAACAAATTTGAGTATTTTATCTGCAAACTTATGAGGATGTTGC
50 CTATGCAATAAAAGACATGGTTGTTAGAGGAGCTCCAGCTATTGGAGTCTCTGCCGCTTA
CGGCTTAGCTTTAGCTGAAATTAATGGAGATGATATCTATAAAGCTTATGAAGTATTAAA
AAATACAAGGCCAACAGCTGTTAATTTATTTTGGGCATTGGATAGATGTTTAACTGCTTA
CAAAGAAGGAAAATCAATCTTAGATGAGGCTAAAAAATACATGAAGAGGATATAGAGAC
ATGTAAAAAATTTGGAATGATTGGAGAAAACTTATTGAGGATGGAGATACAATCTTAAC
55 TCACTGCAATGCTGGAGCTTTAGCAACATCTGCTTATGGAAGTCTTTAAGCGTTATTAG
ATTTGCCTTCTACAACCGCAAAAAGATTAGAGTTATAGCAGATGAGACAAGACCAAGATT
GCAAGGGGCTAAATTAAGTGCCTTTGAGTTAAATTTAGAGGAATTCAGTTAAGGTTAT
AACTGACAATACAGCAGGGTTTTTAAATGCAGAAGGGAGAGATTGATAAGATTATAGTTGG
AGCTGATAGAATTTTAGCAGATGGAACCTGTCTATAACAAAATTTGGAACCTACAGCTTGGC
60 AGTTTTAGCTAAATATCATAGAATTCCATTCTATGTTGCTGCACCATTTCAACGTTTGA
TTTAAGAAGTAGTGAGGAGGATGTTATTATAGAGGAGAGAGATGAGAAGGAAGTGGCATA
TATAGATGGGGTTAGAATAGTCCAGAAGGAGTTGGTTGTTATAATTATGCCCTTTGATAA
AACTCCTCCAGATTTGATAACTGCAATTATACTGAAAAGGGCATTGTAAAGCCAAATAG
GGATGAGATTTTAAAGCTCTTTAGGTAGAGACTATGGGATGTATTGATAAGCTAAACTAT
GAAATTTGTATAAAGGAGGCTTTAAGGAGTGTGCAGAATATATAAGGAAAAATTTCAA
AATATCAAAGAGATGGAAGCTGGATATGAGATATTTGAAGGAATTTTAAATTTGAATC
CCTCCAATTCAGTTGCCTACGAAGATAATTATGTGATATTCCTTACACAAAACCATGC
TATGGAACGTTTGTTTTAAATAAATCTTGATGAAATAAATAAGATAAGAAAGAGGAG
AAAAAGAGAAAGATAAAGGCCAAAAAGGTTTATTATCAAGATTAAAGTTCTGGTGAAT
GATGAGTGTCTTAGTTATAGTTGGATGTCCAGAACCTCCAGCTTTAATCCCTTCTGTTTT

-430-

ATATCTAACAAATCAGCTAAAGAAAAAGGATTAAATGTCATTATAGCTGCAAATCCAGC
AGCTTTAAAGCTTTTAGAGGTTGCAGATGATGACAAATACTATTTAAAGGTGTTGGAGC
TGTTGATATAGACGGAGGGCTTAGAGGCATTGAAGGTATTAATAAAATTATAAGTTTGT
5 CCATAACGACGGAGGAGTTAGTTATACTGTAACCTACAAAGCTAAATACAACAAACCTAC
CTATGCAATTGTCTTTGGAAGGCAGATAAAATAAGATTACGTTGAGACATTAAAAACAG
CAATAATAGGGGTTTATACTGCAAGAGCCTTCCATAACCCAATGCCAATTGTAAATAGAA
AAAGGAGATTTTAGCAAATCTTTAACTTTTAAATAACCTCTAAAACTCATCTACCTT
TTTTAAATCTTTCTTTCCACCGTAAGCTTCCAATGAAGAAGATACATCTATAGCGTAAGG
10 TTTAACTGTTTTATGGCCTCTAAGACATTATCTTTATTTAAACCACCAGCTAAGATTAG
TGGTTTTCTAAAGACTCTCTCAACTCTTAGATACTGCCCAATTGTGTGTTTTTCCCTC
AAGTTTTATGCTCTCTATCTTTGTATCTACCAAAATTGCCCTCTACATATTTTTCATACTC
TTTAGCAGTGTTTAGCAGAGTTTAAATCAATTTCTTCATCTTTAGGAATGTGGATAAC
TTTAATATATAGCGTTCAATTCGCCCTGTATTTTAAAGTTTATTTAACTCTTTAAACAA
ATCTAAGCTCTCAAATCCATGTAGTTGTATGGCATTAGGTTTAAAGGCATTGTAAATCTC
15 TAAACTCTCTCTATGCTATTTGGCATCAATACAGTAACCTAAGGATGTGAATGGAGCAAC
ATATTTTTTAACTCAATGGCTTTATCTAATGATATCTTTCTTGGTGTCTTTACTGGAAC
ATCTACTATAACTCCAACCTGCATGGACTTTTTTGGAGATATATGCTATATCCTCTTCATT
AGTAATTCACAAATCTTCACCTTAACCAATCATCAACCAACTATTTTATTAACATTA
TTTTCTTTTCTAATGTGAGATCTCGCTATCTTTTATTATCCTTACCTTGGTTAATGT
20 TTTGTATTTCTTTAGATTTATCACTAATATCTCCACTAGTAACCTCATCAATAATCTGCA
ATAGATAATTTACAAGTTCTTTTAAAGTAGAAATAATTTCTGGAGCAATTTTATCAAAT
CTTCTCTGTTATTACTCCTACGATTTTCCATCATCTACAATAAATAATTCATTGGTTT
TATATTGTTTCATGATTTCTAAAGCTTCATCAATGGTTGTATTTGGTGGAAATAGTAACTA
ACTTACCTGAAGAGATATCTTCCACCTTAACCTTATCTGGAGGTAATTTTCTAATCAATA
25 CCTTTTTTATTATGTCTTTATCTGTAGCTACCTCAATACTCTCATGATTTGGTCTTTCAC
ATACTACAAGAACACAGGGAACGCTCTTGTTCACCACTCAATTTTGCACATCATATACTG
ATACATCCCCACTAACTACTATTGGTTTTTTCATTATAAGCAGAACTGGAATCTCCCCCA
CCATTGTAACCTCCCCAATTTATCTTGAACTTTAAACATACTTTCCCTTTAAGATTTTGG
ATTTCTTAATTATTTTTTAACTCCAATTATATTATATCTTATAGTATTATAATAAATATT
30 TGCATATTTAAGTATTTTTTAAATTTTTGTACATATTTAAATTTGGTATAGTATCGATTA
TACCGAAAAGTTTATATATAAGTTACACATACTTTAATTTTCGCTTGTGGTTGAGGGCTCG
TGGTCTAGATGGCTATGATGCCGCCCTGACACGGCGGTGGTGGGAGTTTCAATCTCCCC
GAGCCCAACATAAATTTAAGCCTTTTCTAAGTTCTAATTCCTTTTGATGAACTTTTTTC
TAAAGTTTCGTTTGTATCTCCCCGAGCCACCATAATTTTATTTTAGAAAAATTAATTT
35 ATTTATTTAAATATTTCAATTTAATATTTTTTAAATATCTAAAACTTATTAAAAACTA
ACTAATCTACTATATCCACATGAACATAGGCCCTCTCGACATTTTCCAACTTTCTAATC
TATTTTTAACTGCAACTTCAATATCGTGCATCTCTTTTGCTGAAATATTTGATGGAACCT
CAACATGTAATCAACATGGATTCTTGGTCCAACATAGTGAGCTTTTATATCATGCATC
CAATAACCTTATCTACATTCAAGCTTCCTTTCAATGAGTTCAAGAATTTTATAGGTG
40 GAGCCCTTCCAGTTAAGTAATCTATATTGGTCAGACATATATCAAAGGCTACCTTTGCAA
TCATCAAAGCCACAATTATCCCAGCTATAGCATCCCCATAGTAGATACCAAACTTTTGTA
ACAACAACCAACTAAACTACAACACTGCTTAGAGCGTCACTTCTATGATGATAGGCAT
CTGCAATTAACAACTTGGCTATTTAATTTTTTCCGACAAATAAGGAATATCTCGTCATTA
ACTCTTTAACAACATATTGATAAGATAGCAACTCCAACCATATGGCATTACCTCAATTA
45 CTCCCCATAATAATCTCTCTACTGCAAACTTTCCAATCTCGTAGGCTGTGAAATA
AAGCTAAACCAATAAAAAAAGAAAAAGGCATTCAAATCTTGAGTGCCCATAGGGATGAG
ATTCATCCGGTGGTTTTGATGCAATTTTTACTCCAATAATCCCAATAATACTTGTATATA
CATCCGATAAAGAGTGTATTCCATCAGAAATTAAGATATACTTGAATAAACATATCCAA
TTATTATTTTATCAATCCCAACAATATATTTCCAACAATACTCAAAATCAATGGCTTTT
50 CTACCTCTCTCATAATCAGCCCCCTAAATCCCAATTATCTTCCCCACATGCCCATAAACAA
AGTTATTTAATTGAGATAATTTTGTAAAGCTTTGAATCCAGTGCAGTGCATAGGCATAA
TCCAAAAATCTTGAGATTTGAATAATCAACAACTCTATTTAAATAGTTATCTGAAACCC
CTACTAAATGAAAACCTCCCCAACTCCTTTAATTTCACTTAATTTTTTCCCATATTCAA
CTACATTTATAATTCACATATGAGAACAGCCAGTAATTAATTTCCCTTAGCTATTAAGA
55 ACATGTCACTATTTACCTCATCTTTTACTCTCTTCCATCTTTAATACACTGAACTCTT
CCATCTCATATTCTATTCTTGGAACATATCCAGAGACAATAATATCTTTATCTATTT
TATACGGCTCTTCAATAATCTCTAAATCAGCTTTTTTAAACAAATATCTTTTATTTCTT
CGTCAATCCCTATGTATCTATTGCCAGCGTATTTGTCTAAGAATGCATCTTTGTGAGCTA
TAACTTTCCCATGATTAATCGTTCTCTATAACATATTTTAAACCATCGCACTGGTCTG
60 AATGTCCATGAGATAAGACAATATAATCAAATCCTTCTTTTTTCAATTAATAATCTCAAAT
TCTCTCTCAAAGTTATTGAGTTTTGTCCAGCATCAAATAAAATCTCTTATTATTTATTT
CTATCAAAGCTGAAATCCATGTTGAGCAAAAAATTTTTTATAGGCAGTGTATCTAOC
ATATTTTAAATCATGATGTACCAAAATATTTTTTATAGCAGTTATGTTGTGTAGCATCAG
ATTTATATTTCCCGCATTTGAGGATAAATTAGTTAATCATCAAATAAATATTTGTTAT

5

10

15

20

25

30

35

40

45

50

55

60

AGATTAAAAATTGCTGAATATTTATGAATCTCAATATTAAGAAATTAACAAAAATCA
ATGAATGGAAAAATAGAGAATGGAGATGGAAAGGAAAGGAAAAATGAAATCAGATTG
TTTGTTTAATTGAAAGGGCTGAGAGCTTTAAGGAATTGGTAGATAACTTAGAAATAATCA
TCTGTGAATATGAAAAATAAACAGCTTTATGAAGATAAAGATATAAAGAAATAGCCA
AATTAAATCTATTCTGTGGAAATAACGTTTATGAAGAAATGTTAAAGGATATTTAAGTT
CAAATAAGTTCATATCTTTAACAATAAGTTTGTATGAGAACATAGCTTATGTTAAGTATA
TGGAAAGGGGAAAAGAGGAAGTTGTATTTAGATGGAAATCTGCCTATAAGGCCCTAC
AAATATTAATAAATAGATATGAGAATATCTTAAAAAGCAGATATCAATAATAGAGGACG
CTATTCCCTTTAACCATCCCATCTCAATAATCTTATTATAAACTTTTCACTTAACCACTC
TTCACCTATGTATTTATCATAACTGGCAATCTCATCTTTAACTTTAACCCTAACTCCTC
AGTCCATTCCCTCAACTCCTTTATTTCTGGCCACTCTGCCTCTGGATTAACTAGTCCCT
TGTTAGTGGAGAACTCCTCCCAATCATCAACCCCTGCCAATAAAAAACAACCTCCCGT
CTCTCTATTTAAATTTGGAGGAATTTGGATTGAAATATCATCTAAAATCAACTTTGTCTAA
AATAATAACCTTTAACAATCTTTATTGGTGATGGCTCTTTAAATTTCTCCATTGGAATGCC
TTTCTTAGCTCTAAAGTTTGGATTATAACTTCTCTGTATATGCCCATACTTTTCATGAAT
TTCTTTTATTTTAAATAGTGAATCAACAATTTCTCATTTGTCTCTCCAATACCAATTAA
TAAACCAGTTGTGAATGGAATCTTTAACTTTCCAGCATTTTCAATCATCTCTATCCTTAA
CTTTGGATGCTTTCCAGGGCTGTGTTTGTGGGCAATTGTATTCAATTAACCTCTCTGAAGC
ATTTTCCAACATCAAACCCATAGATGCATTGACATCTTTAAGCATCTTTAACTCATCATA
ATTTAAGATTCCACAATTTGTATGTGGAAGGAGAGAAGTGTTATTCAATGTCCATTCTC
TAAATCGTAGAGATATTCTAATATATTATCATAACCCATTGATTTTAAATGTCTCTTAAT
CTCTTTATTTTCACTACGTGTTCCCAATGTAAATAACGCCTCTCTACATCCTAATCT
ATCTCCCTTTAATAAAATCTCTTTAACTTCATTGCGCTTCATTAACTTGGCTTATCTTC
TCTAAAGATGCAGTATCCGCACTTATTCTGCACCCTTTGATAAAGGTATAAAGACGTT
TTTTGAGTAAGTTATATATTCTCTCTTAAATGTATTATTGATTGAGCTAATTTATCTAA
TATATCCTTAGAAGACGTTGAGTTAAGGAAATTAATTGCCTCCTCTCTACTTATCATCT
ATCCACCTTTAATATTGAAGAAATTTAAATAACACTAAATTTTATTGTCAATCAACACAT
ATATATAGTGAGAGTATATAAAGTAGATATTACAAACCCATAGACACAAAAATCTAAGGT
TTATTAATAGGACTTAAGCACTTTATATTGGACATTTGGAAATTTAGATACCAAAGGCAC
CAATATTCAATAGAAAAGATTATTACTGCGTAAGACCTATTAACCACTCAATTTTGAA
ATTTTGATAGGATAACAAAATTAATATCAACAAACACAAAAATAAAATATTAATAAT
AAAAAAAGGTGATAAATGGCTGAACAGCAACAAGAAGCAAGCAATTAGAGTAAGAATTC
CAAGAAAAGAAGAGAAATGAGATTTTGGGGATTATAGAGCAGATGTTGGGAGCAAGTAGGG
TTAGAGTTAGATGCTTAGACGGAACAAAGATTGGGAAGAATCCCTGGCAGATTAAAGA
ATAGAATTTGGTTAGAGAAGGAGATGTAGTTATTGTAACCATGGGAAGTTCAAGGAG
ACCAGAAGTGTGATATCATTGGAGATACACAAAAACAAAGTTGAATGGCTTAAAGAA
AAGGTTATTTAGATGAGTTACTATGAACTTTAAGAAAGTTACATGAAACTCTTAAAGA
GTTTTCATAGCCGAAGCTACGCTTCGGTTTCATCAAAGCTAACACCTCCTTGCTACGCT
CGGAGGTGTAAATTAATTTGGGGGTATATCCACAGAACTTTACAGCTTTTAAATTT
AGTTTGGAACTTTGACGCTTTTAGGCGTCCATATCAATAAGGATACCTTCTGTGAAAG
TTCTGTGCCAATAGGGGGCGAAGCCCCCTATGGAAAGAAAGGTTATTTAGGTGAGTTGT
TATAAGGTGATGCTATAGCTAAAAATATTGATGATGAATCTATGAGTTAAATAAATTG
CTTAGTGAAAAAGAAGAGTTTCAATTGGATAGAGAATATCAAAAAGAAATTTTAGAGAAA
GAGAGGAAGTTTGTAGAAGATTAAAGACCGCTAACGAAGTTTGTATAAAGAACCCTTA
ATGACTTTATTTAGTCTATTAGCTGGAAAGCATTTAACTGAATATATAGGGATAGTTAAT
TCTGGAAGAGGAGCAGTAGTATTTAAGCACGAAAGGGAAGTTTACAGAGCAGTTAAG
GTTTATAGGGTAGCCACTTGTGATTTTAAACTATGAGTAAATATATCCAAGGAGACCCA
AGATTTTCATTTAAGGAAGAGTAGTAGAAGGCAATTTATCATGATGGGTGAGAAGGAA
TTTAGAAATCTAAGAAAGGCTTCTGAAATTATAAATGCCCCAAAGGCAAGATTAGAAGA
GAAATGTCTTAGTTATGGATTTTGTGTTATAGAGGAATTCAGCTCCAAACTTAA
GATATGCAAGATTTAGATTGGGAGAAATATTTTAAATATATAAAGAGAGTATGAAAAAG
CTTTATGAAGAAGGAGAGTTAGTTCATGGAGATTGAGTGAATACAACATATTGGTTAAA
GATGATGAGCCAGTATTTATTGATTTTCTCAGAGCGTTATAACCCACATCCTTTAGCT
CATCCCTTACTTATTAGAGATTGCATAAATATATGCAATTTCTTTAGAAGGAAAAGGGTT
GATTGCAATTACAAAGATTATACAAATATATAACTGGAAAAGAGATAGACCAATTGAT
GAAGCGATGATTAAAGCAATTGTAAATTGAATCTTATTTCTAATTTTATTTATATGG
TTTTTATATGGTGATAATTATGGTTTTTGGAAATATTGGACAAGATAAGAGCATTGAGAT
TTTAAAGATTCCAAAGGATAGAGTAGGAGTTTAAATAGGAAAAAGGGAATGTTAAAA
AACCATTGAAAAAGAGCTTGGAGTTAAGTTGGAGATTGATGCCGATGGAACAGTAACCAT
CTATGGAACAGATAAGCAGAAAGACCCCTTAGCTGTTTGGAAAGGCAAGGGATAGTTAG
AGCTATTGGTAGGGGATTTAATCCAGAAATTGCTCTAAAATTGGTTAGTGATGAGTATGT
TTTGAAGTTATAGATATTGAGGACTATGCAAGTTCTGATAACAGCATAAGGAGATTGAA
AGGAAGAGTTATTGGTAAAGAAGGAAAGTCAAGAAGATACATAGAGAGCTTAACTGGAGC
TAACGTCTCTGTTTATGGAAACACTGTAGCAATAGTTGGAGAGCATGAGCCAGTTTCAAT

AGCTAAAGAGGCTGTTGAGATGCTCTTAAGAGGAGCATCCCATGCAAAGACATATAAATT
CTTAGAGAGGGGAAAGACAGAAGATTAAAAGGGCAAGATTGAGTTATGGAAGAAAAAGAG
TGATGTTGATGAGTTATATGAGAAGATGAATCCCAATTATGAAGAGATAGAGATTGAAGA
AGATGAAGATGAAATAGAGGATGAAGAATAAATTGGTGATGAAATATGCACTTAGTAGGA
5 CTTTTAGACATTGCCAAAGATATATTAAGCAAAATAAAGATTGGCTGATAAAAAACAGA
AAGCTCTTAAATAAACATGGTGTGTTGCATTTGACTTCATGGGAGCTATTGGTAGTGGA
AAAACCCCTACTAATTGAAAAGTTGATTGATAATTTAAAAGATAAGTATAAAATAGCCTGC
ATTGCTGGAGATGTTATAGCAAAGTTGATGCTGAGAGAATGGAGAAGCATGGGGCTAAG
GTAGTGCCTTTAAATACGGGTAAAGAATGCCATTTAGATGCTCACTTAGTAGGGCATGCC
10 TTGGAGGATTTAACTTAGATGAAATGATTTACTGTTTATAGAGAACGTTGGAATTTA
ATCTGCCAGCTGATTTTGATTAGGGACTCATAAAAGGATTGTTGTGATTTCAACAAC
GAAGGGGATGATACGATAGAAAAACCCCTGGCATTATGAAAACAGCGGATTTAATAGTT
ATCAATAAGATTGATTTAGCAGATGCCGTGGAGCTGACATAAAAAAGATGGAGAATGAT
GCTAAAAGAATAAATCCAGATGCGAAGCTGTTTTATTAAGTTTAAAAACAATGGAAGGG
15 TTTGATAAGGTTTATAGATTTATGAAAAGACTGTTAAAGAGGTTAAATAGGACTTTGCG
AGGGATTAATGTTTTTAAATGAAGATGCCCTTTGGGCATCAAATTACCTTAATAAAAT
ATATAAACTGCGAAAGTCTTATTAAGAAGCATAAATAATCCCATCACTCCCAATATAGA
ACTGAGCATAATCCTTAAATGCTTTGGAGAAATCTTTTGATTTATTTTATCCCCAATTT
TGATGAGTAGATTATTGGAATAGCCATAATTAAAGCTATTGGAATTGAAACATACCCGAT
20 ATTGTAGATATAGCCCTCTGTATTAGCTGTTAAATATGATATGAGCCCAATTTGAAGT
TAATGGGATAACACCTACTGAAATTGCGACAGCTCTTTTACGGGATATTTGCCATTGC
TAAGATTGGAATTATACTATTCTCCCAATGCCAAATAATCCAGATAGAAACCCGAT
AATAACTCCACAGAGAATAAAAGGTTCCAATTTATCTCTCTATCTGAGATTTTATCAAT
ATGATGAGATTTAGCCATATAAATTGCATTTGCTATTAAAAAAATTCCAAATAACTTTTT
25 CAATATAGCTGAATCAATAAAATTAACAACATAAAACCCACTAAATAAGAAAAAACCA
GCTAATAATCCCAATTGTTATTGATGCCCTCCAATTTATATTTTTAATTTTGCATGCC
AAAGATTGAAATTATCGAATTTATAAAAACTACAAACAAAGATGTTCTACAGCAAATTT
TACTCCATCTGGAATGCCAAATAATCAAAAAATAATGTTAAATTTGGAGCTACTAAAAA
30 TCCCCACCAATAACCAACAACTGCCATAAATCCCCACTATAAATCCAACAATAATTAG
TAAAGGTAACAATAACAAAAATTCAAATTTCAATTTAATCACCATAAAAAATAAATACTA
ACTTCAAATACTGAATCTTTTATTGCTTCTCTATATATAAGTTGTGGTTGTGTCAATATA
CACCACAGACAGTATTTTTTAATATAAACATTAGCACAGTATTTAAGGAAATTTGAATA
ATACGTTATACACCCATAACTGCTCTAAACAAGTCTCTAAGTCTGGAGCCAATCCAAGA
GCCATTATGCAGAGTTTTATAATATCTTTATATTTTATCTCTCACTTCTTTATTTAA
35 ATATATAAGCTAATAAAATTTAAGAGCTTAAAGGAATAAAGGCATAAACTCCAAAA
GTTTCCATCAAAAATCTTGGAATTGGATGTTGTTCCCAATAACCATAAACTCCTATTCCA
ATAGTTGTTGCAGAAGCATCAATCAACTGCCCAATCACACATAATCATCAATCTTTGAC
TGTATGATATTTAATTTTAAAGGTTTATCTAAAAATTTAACTAAATAATAAATATTCCA
40 ACTAAGATTCCAACGTATAAATTTGCTTCCAAATGAGTTATATGCTGTAAAAACACGAAT
AAAAAATACAACAATAGAATTAACCCAAATACTGCAGATGCTTTATAATACTTCTCTTAA
AATACCAATCCAGTAGTTAAATCGTTAGTATAAAAAATCCACCAATCAAAAAACACTATG
CCTGGAGTTATAGTTAAAAAATCTCTCTATGTAGCCACAATCAACCAAGCCCTCATT
AGAGCAATTAAGACAGTAAAAACAATCCCTGGGATTGCAAATTTCTCATCAATGTTTATA
45 TTTAACTTTCTCAAAGCTTTATAAAATAAATACAAAGCTAAAGCTAAATAATCCATAA
GTTATTTCTGAAGTATATTATAGCCAGTTCTTTCTCAGCTGGTTCAATATAAATACTTG
TAGATAAAATTTTTTATTTCTTGAATCATCCTTTCCCTCAAAATATTTATAAGATGTTTT
ATTAATGTGATATTTATTAAGTTGAAGTTTTGAATAATGAGACAGAACTAATTTATAA
TACAAAAATTTTAAAAATTTTGAAGAGAAGTTTTTATAAGAAATCGATTGAAGCTGAAA
50 TTTTAGTAGAGGTTTTACTTTACCTTGAATTATATTTATAGTTTTTATTAATGCTGATTT
ATGAGATTTTTAATAGAGAAAAGGAATAACTGAAATTTTGCAATTTTAGAGGGAAAT
CCGGATTAGTTTATTTTGTGTTATGGTCCATTAAATTCAGGTAAACTGCCTAATTAGC
GAAATAATTAACAATAGGATAGATAAGAATAAGTATGTTGTATTTTATATAACCTTAGA
GGTATTTTTATCTCTAAATATAAAGATTTTATTGAAGTATTATTTGAAGAGTATGAAGAA
55 GATAGAAAGCCAGTAGAAATTATAAAGAGTTTGATAAAGGACGTTCTTCTTTATGTGGT
ATTCCAACCAAAAAATACATTAGAAGAAATCTTGAAGAAAAAGACAATAAATAATGTC
TTTAAATACATAACTAACGTATTAATGGATATTAAAAAAGAAGGAAGCAACCAATAATT
ATTATTGATGAGTTACAAAAGATTGGTGATATGAAGATTAATGGATTCTTAATTTATGAG
CTTTTTAATTATTTGTTGATTTAACTAAAGAAATGCATTTATGTATGTTTTTGCCTA
60 AGTTCGGATAGCTTATTTATTGAACAAGTTTATAGTGAAGCAATGTTAAAGGATAGAGTA
GATTACATCTTAGTGATGATTTTGATAAAGAGACAGCTTTAAAGTTTATGGATTCTTA
GCTGAGGAATTTCTAAATAAAAACTATCTGATGATGAGAAAGAGCTTATCTATAGCTAT
GTAGGGGGAAGCCAATTTTGATAATAAAGTAATTAAAAAATTGAAATTAAGGTTTA
AAAGAACTTTAGATGAAATGCTTAGGGATGAAATGCAAAAACTAAATACTTCTTAGAG
GACATTAAGGAGAAGGACGAAGAGTCTTATAACAAAATAGCTGATGCATTAGAGATATTT

5

10

15

20

25

30

35

40

45

50

55

60

AAAGATAGTTATGAAATTGAAGATATAAAAAATACCTAAGAATATTAGAGAATTTTTAGT
AAGAAAAATATTTATTCTTAAATCCACAAAAAGGAACATTGAAACCCCAAAGTTATTTG
GTTTGGAAATGCTATAAAGAGATTATTATAAAGTTAAATAAAACACCCTTGTCATCAAACC
ACCAACATGACATTGAACTCCTCCTTAACCTCAAAGTTATTTTTTGGCTATAGCATCTTT
AAACATCTTATCTTCAGCAGTTATAACTATCAGCCTTGAAGAGCCGTGCATAATTTCCCT
TGCAGAGGATAAAAAATTCATCGTATAGCTTTTTAACTGATCTTTTGCTACCTATCCTTAT
GCCATAAGGTGGATTTGCTATAATAACATCACTTTCATTAAATTTTTTCATGCAATTTTGT
AGCATCAACACAGATAAATTCTATAGTATCCAAAACCTCAGCATTTTTGGCATTATCTTT
AGCTCCATCCAAGTATTTTTGATTTTTATCTAAACCAATTATTTGTAGATGTTTTTATT
TTCAACAATCTCTTTTTTATTTTATCTAATAACTCATAGCCAAAAATATCAATAAACTT
AAAACCATATTTTATCTCTCAAACCTTCTGGTGGGATATTCCTCTTCATCAAAGCTCC
CTCTATTGGAATAGTCCCACTTCCACACATTGGGTCTAATAACATCTCATCTTTCCA
ATCACTTAAATAAACTAATGACGAGGCAATAGTGGCATTAAATGTGCTGGGTGATTAA
AACTCTATATCCTCTCTTATCTAATGCAATATCCCCTGTGGTATCAATTCCAATTTAG
CTCATCAAATATAACTTCAACCCTAACAATTACATCTGGTTCATCTAAATTAACCTTAA
CCTAATGTTTTTATCTCTCTGATATGATTTTATTACTGCTTACCAGCAACTCTTCCAAT
GTCTATTGATGTAAAATTATGTTCTCCAGCCCTTAATGGGCGAATAGCAAAAGATTGATT
TTCTTTTATCCATTCACTCAATCAATATTATAAACTCTCTATAAATATCATCTAAGGC
TATGTTTGGAACTCTTCCCTATGTAGTAAGATATTCATCTTCTATAGTTCTTGAGAG
GTAGTTAATCTTAGGAATTAGTTTTAAATCACCCTAAAAAATATCTCTTTATTTTC
TCTAATCTCTTTAATTTTTCCACCAAAAGATTCAATCTCATTTTTGGAGATTTTTCAAG
CCCCGGGGATAGTGTAAACATAGTAATCCATAAAAAATCCCTCTTCTTTATTATGGACTTT
CGCAGAGATAAATTTATTTATTGAATATTGATGCCTTTAGGCATCCAAATACCTTATTTA
ATATATAATGCGAAAGTTCCATTTAAGTGTAGAATTTTTTATATTGGTTGTGAGATAAAA
TTATTAGTTATAAAACAAAATTATGTAAGGTGAGTTAAATGGAATTTATACACTACATAGT
TATAAATATGACGTTGTTATCAAGTTTAGCCTCCCTCTTACAAAGAGATTAAATTAAGTG
CATTATATTATCTGGTTTTGCTGGGTTGTGTATGGCTTATTTATACTATGCATTGTTAGC
TCCAGACGTTGCTTTAACAGAGGCAATCTTAGGAGGGGCTATTTTACCAGCATTGTTTGC
CTTCACAGTTAGAAGAACTCAAAGAATAGATGAATAAAAAATTATTTCTTTGTAAGCA
TATTACTTTTTTAATTAATAATTTAAAAATTCGTTAGGAGGATAACATGATGACTTTTGA
ATAAAACACAGAGATGCAATGGGAAGAATAGGGATCTTAAACATAAATGGAAAGAAGATT
GAGACACCAACAATAATGCCTGTTATCCACCCAAATCCAAAAAACAGATTGTATCGATG
GATTTAATAAATAAATTTGGCAGATGTTATCATCACAACTCATACATAACCTATAAAACAA
AACATTTAAGAGAAATTTGCTGAAGAAAAAGGGATTACAAATTAATTTGGCTTTGATAAAG
TAATTTGTACAGATAGTGGTTCTTTTCAGTTAGGAGTTTATGGAGATGTTGAAGTTGAAC
CATTGGAAATTATAGAATTTCCAGAAAGAATCGGAGTGGATGTTGGAACAATATTAGACA
TCCCAACACCACCAGATGTTGATAGAGAAAGAGCTGAGAAAGAATTAGAAGAACTTTAA
AGAGAGCTAAAGCATCTATAGAATTAAGGAAGAGAGAGGATTTAAATTATTACTAAATG
GAAGTTCAAGGATCTACTTATTTAGATTTGAGGCAAAAAATCTGCCAAAGAGATGGCCA
ACTTAGGATTTGATATCTATCCAATAGGAGCTGTTGTTCCATTGATGGAGCAATACAGAT
ACAGAGATGTTGCTGAAATTATAATAAACTCAAAGATGTATCTACCAACAAACAAGCCAG
TGCATTTATTTGGTTGTGGGCATCCAATGTTCTTTGCTTTAGCTGTTGCTTTGGGCTGTG
ATTTGTTTGATTCTGCTGCTTATGCATTATATGCTAAGGATGACAGATATTTAACTGAAA
GAGGGACTTTACACTTGGGAAGAGATTAAAGATTTAAAGGCATTTCCATGTTCTGCTG
TTTGTTCAGCTATACACCAAAAGAAATTTGGCAAGTTTAAATAAAAAAGAGAGAGAAAGAT
TGTTAGCTGAACACAACCTATATGTAACCTTTTGAAGAGATAAATAGAATAAAGCAGGCAA
TAAGAGATGGTAGTTTATGGGAATTTGGTTGAGGAGAGAGTTAGATGTCTATCCAAAGCTTT
TGGAAGCTTATAGGGTTGTTAGGAATACATAGACTATATTGAAAAATTCGACCCAGTAA
CTAAAAATCTGCCTTCTCTATCTGGAATTGAATCGATGTTTAGACCAGAGGTTTTTGA
GACATAAGAAGAGATTGAAGAGGCTTAGATATGAAAAAGTTTATATTACAACCTGTATCAA
GCTCTATAGAAAAGCCATATCATGAGCATTTAAATGTAGTTGAGACAGATGTCGATATCT
TAATTAAGACCCAGTCTTTGGGTTTATTCCTACTACATAGATACCGTTTATCCACTAT
CTCAACATGAAATTCCTGAGCTTTTTGATTATGAAAAAGAAATAAACAAGAGTTTGTG
ATGAATTTATTGATTGGTTAAAGAAAAAAATCGGAGAAGACAATATATTAGATATAATGA
CCTACAATTATTATATAAATTAATCTCTGCAATAAAAAATTAATGCCGATGCTTTAA
GGATTAGGAAAAATGTTACAGTATCAGTATGGTTTTGATATAATTGACGATGAACATAATGA
ATAAAATAAAAGTTGTTAGAAGCAAACTACTGGTAGATTAAGGCAGGTTTTGGATGAAA
ATGGAGAAATTTTATCTCAGTTAGGAGTAATGACAACCTCTTAATACCTTCTGAAAAAG
GAGCCAAATTTGTTGGAAAAAAATTCCTTTCCCAAAATATAGGGTTGTTGTTAATAAAG
AGGCGGAGGAATTTGCAAGAGAGGGGAGAAATGTATTTGCCAAATTTGTTATTGATTCTG
ATGAGGAGTTAAGACCTTACGAAGAAGTTTTGGTTGTTAATGAAGATGATGAACCTTAG
CTTATGGAACAACGATTTTAAATGGTATTGAGTTAAGAGAATTTAATTATGGATTGGCTG
TTAAAGTAAGAGGAGGATTAAAAATAAATAAGTGATAATTATGAATATCAACGAAATTA
AAGAAAAATTATCCCAATTCATTAAAAACATGGTGTAAAGAGCATCAATATTTGGTAG

-434-

5 TTATGCAAGAAATGAACAGAAAGAAACATCCGATATAGATATCTTAGTTGAATTTGGGGA
GGGGAAGAGTTTATTAGATTTGGTTAGATTAAAGTATGAACCTTGAGGAAGTTTATAGGAAA
AGAGGTTGATGTATTAACCTACAACCTCCATACATCCACTTTTAAAGATAGAATTTTAAA
10 TGAAGCGGTGGATGTGCTATGAGAAAAGATGTAAAAATTTATCTTAACCATATATTAGAA
AGCATTGAACTTATTGAGGAATACACTAAAGATAAACTGAAGATGATTTCTTTACATCT
AAATTTTACAGGATGCAGTTATTAGGAGAATTGAAATTATAGGAGAGGCCAATTAAGAAC
CTACCTATGGAATTTAGAGAAAAATATAACCATATTTCCATGGAAGAATTTGCTGAGATG
15 AGGGATATCCTAATCCGTAAATATTTTGGGGTAGATTTAGGTTTAACTTGGGAAGTTGTT
AAAAAAGATATTCCTAAGCTAAAAGAAGAGATTTTAAAGATAATGGAAGAGTTAGATAAA
AATAAAACAACAAATATAATGTATTTGCCTATGGAGAGTTGATGAAAAAGAGAGACTA
TTGGAGTTAATAAATAGAGTGCCAAAGATGATTGAAGGTAGAGTTTATGGTTATGAGAAG
TTTTTTGATGAAACAATTGGATATTATGGAGCAAGGAAAAAGAGGGAAGTTATATTGAT
20 GGCATTATATTGTTAGATATTACTGATAAAGAATTAGGGATTTTGTGACTATGAGGAT
TTAGACGTTTATTATATTAGAGAGAAAACTACTGCTGTAAGCGAAGATGGGAGAAAAAT
GATGTATATATTTATTTGAGAAAAATAAGGGGATTTTATGGATGCAAAAGAAATCTTAGA
15 GTTAGTTGAAGAAAGTTATAAATCAGAAGATGGGGACTATAAAAAATAAGGTTATTTTAT
TTCATATTTTAAAGTTCTTTGATTTTGTTTTAAATTCATATATCTATAAAATACTGGAA
TTTTAATTTTATTTCATAGTTTCATTGTTATTAATTATTGGAAGCATATTAATTGTTAG
ACAACAAAAGCTTTATAAAAAAACAGATCCTATTTTGATAAAATTTTCGAAAAAATTTGT
25 TAAATATGGAATGATTGCAGTTGTTCTTTTCATCTGTCATTACTTTATACACATATCCAAG
AATTTTCAGGGGTTGCTATTGTCAGGTATTTTCGGTTTTTTATTGGTTATTGATGGAATTTT
ATTTAAATCAAGAAGAGAAAAATTTTGGGACTATTGATGATGTTCTCTTCAATTCCAAT
GTTTATATTTTCATGAATATCAGTTTTTAAATTTTGTCTTTGTTTCAGTTTTAGTTGCTTT
30 ATGTTTTTAAATATGTAAAGAATAAGTGAAATTATGAAAATATTTAACTCTGTTGTTAGG
GTTAAATATTGGCCTTATTGTATGGTTAGAAATATTGCGAATTTAATTATTTAAAGAA
AAGTTAAATTTAACTGATGGTAATTTAGAACATCATTTAAAGAAATTTGGAAGAATGTGGA
TTTGTAGAGACTAAGAAATCAGTAATAAGGGTAGGGTTAAACAATAATTAAATTAACC
35 AATAAAGGCAGGGTTGCATTCAAAAATATATATATGAAATTTTACAATTTATCAAAAAAT
ATAGAGTGTTAATTTTCAATGTTTCGTTAATTATTAGACATTTTAAAGTTGTTATTAGG
TTTATAAATAAGCCTTTATTCTGTATAAAAAATTTAGTGTTTCATATTATTTTGTGTTGA
GTTATTTAATAATATCCGGAGTTGTCAATATGAAACTAATAAAAAAGAACTACTATCTA
40 AGAGAGGGCAATCATCAATGGAATCATCATATTAGCGAGCTCCGCATCATTAGTAGCCA
TAACATATAGCATATTTTATATACTATCTGCAAAAAATTTAGGGCTGTGAAATGGGGCAA
AGTTGGGGGAAAAAGCCAAATAAATTTATAnACCATTACCATAAATCCTCACATATACA
35 GGATTATTAATGATTCAATATAATCAAAATTAATTATTCTCTGTAATGCAAAGTAAT
CAAAAAGTATATATAACAAATATGGAAAATAAATAAAATGTGACCTAAACATATGATTA
AAACATAGGGAAAAATAAAAGGTGGGTAAAGATGAAATCTTAAAGAAATTTATTATCAAAG
AAAGGGCAGTTATCAATGGAAGTTGGAGTTTTAGTTGCAGCAGCTGTATTAGTTGCTATA
45 ATTGCAGCATACTTCTACGTAAAAATGCTAAAAAGTGCAGTAGCAAGTGTGGAATAAA
TCAGCAGCTTTTATAAATGTTACTGCTAATAAATCACAGGAATACATTAGTAACCTTAAGT
AATATTTAAATTTGAATTTGAATAATTTTATTTTCTTTTTTTATTTTTATTATTTTATA
50 TCTATATATCTAAATATATAATTATAATTTTCAAAGAAATTTAAAAATTAATGCTAAAAA
TGTTTTTAATACCAATGTAGATATAAACCCACAAAATACTTTTTGGTGATAGGTTATG
ATTCTTAGTGATAAAGATATTATTGACTATGTTACATCAAAAAGAAATTTATATAAGCCA
45 TTTAACAAAGATTTTCGTAGGGCCATGTAGTTACGATGTGACATTAGGAGATGAATTTATA
ATCTACGATGATGAGGTTTATGATTTATCAAAAGAGCTAAATTACAAAAGAATAAAGATA
AAAAACTCTATTTTAGTTTGTCTCTAACTACAATTTAACTGAAGAAAAATCAAACTAT
55 TTTAAAGAAAAATATAATGTTGATTATGTTGTTGAAGGTGGTGTTTTAGGAACAACAAAT
GAGTATATAGAGCTTCCAAATGATATATCTGCCCAATATCAAGGTAGAAGTAGTTTAGGA
AGGGTTTTTTTAACTTCTCACCAAACTGCTGGATGGATTGACGCTGGATTTAAAGGAAAA
50 ATAACCTTGGAGATTGTTGCTTTTCGATAAACCAGTTATTCTATATAAAAAATCAAGAATT
GGACAATTAATATTTAGCAAGCTACTATCTCCAGCAGATGTTGGTTATTCAGAAAGAAAA
ACATCAAAATATGCCTATCAAAAAAGTGTATGCCTTCTTTAATACATTTAGACAATCAT
55 AAAAAAGATTAAAGAGAAATTTTCTCTTTTCTCTCATCTCATATAACATTGGCCTGTA
ATCCATGATACTTAACCATTCAGCCAAATCTTTCTGGTCAATCTCCTTCTCATCAATG
AACTAATTCCTTACTGTATAAAGCGTAAGGACTATCTCTACCAACAACCTCTGCAGTTC
CTCCAAATAACTTAACCTTTCACAGTTCCAGTAACCTCTCTCTTGAGTTTGTCTATAAAAG
60 CATCTAATCCTCCCTTAATGGATCAAAACCAAGTCCCTTTATAAATTAACCTCCTCGTATA
AACTATCAACGATCTCTTTAAATCTAAGCTCATCCCTTGTTAAACCTAAGTCTCTAAG
CTTTATGAGCAGTTTAAATAACAAACAGCTCCAGGACATTCATAGTTTCTCTCTGATTTA
ATCCTATGATCTTATCCTCAATAATATCTATTCTTCCAACACCATGCTTTCCAGCAATCT
CATTAGCTTTCTTTATTAACCTCAACTGGTTCTAATTTTTCTCCATTTATAGCTACTGGAA
CGCCCTCCTTAACTCAATCTCAACAATCTCTTCTCTTTATCTTCAACTGGGTTTTTAG
TCCATGCATATATCTCTTCTGGTGGAAACAAAGTCAGGGTTTTCTAACTCACTACCTTCAA

TACTTCTTCCCCATAAGTTTTTCATCTATACTGTATTTTTTACTTTCCGTTGGGATTGGGA
TTCTTTTTTCTTTAGCATACTCAATTTCTTCAGCCCTTGTAGGTTTAAGTCCCTAATTG
GTGCAATAATTTTCAAATGTGGAGCTTTAATTTCTTATAGTTGTTTCAAATCTGAACTGGT
CGTTACCCCTTTCCAGTGCATCCATGAGCAACTGCCTCAGCTCCAACTTCTCAGCTATTT
5 CAACAACCTTTATGAGCAATTAAGGCTCTCGCTAATGCTGTGATAGGGGATAGCCTTCAT
ACATTGCATTTGCCCTTTATAGCTCTAAATATGTAATCTTTAACGAATTTCTTCTTTGCAT
CTATTGTGTAGTGTCTTAAACTCCTAATTTTTTAGCTTTCTCTTCAACTTCTTTATCT
CTTCTTCTGGCTGTCCAACATCCACACAGACAGAACTACCTTATAACCATACTTATCTT
CCAATAATTTTAAGCAACAGCTTGTATCCAATCCTCCAGAATACGCTAAGACAGCTATTC
10 TCTCCATGACAATCCCTCACAATAATTTTTTATATCTTACATAAAATTTATAAATCCTTAA
ACTTTTTGTATTTTATTGCTTATAGTTTGGAGTATATATAACTCACCTATTATATATAA
ACTGCTAATAATAACTGTCAATAATCAATCTAAATAGAAATTTTTGGGGATAAAATGACA
AAAGTAGAGAAAAATGCCATTGGAAAAAGGATATGTGTAATTGGTTTGGGTACATTGGT
15 TTGCCAACGGCTTCAATGTTAGCAATACAGGGATTGATGTTATTGGTGTGGATATAAAT
GAAAAAGAGTGAAAGAAATTAAGAACTGAGCTTTAAACTACAGAAAAAGATTTAATG
ACTTTAGTTAAAGGGCTATAAATCTGGAATCTAAAAGTGCAACAAAACCTGAAAAA
GCAGATGTTTTTATTATATGTGTGCCAACACCTTGCATAGAGTGTGATGGAGAAAAA
TGTGATTTAACCTATTTAAATAAAGCTATTGAAAGCATAAAACCATATCTTGAAAAATGGG
AATTAATAATAATAGAAAGCAGATTCCTCCAGGAACACTGATGATTTTATAAAAAA
20 TTATCAAAGGATAAGAAAAATTTATGTTGCTCACTGCCAGAGAGAGTTTGGCAGGAGT
ATATTGAAGGAAGCTTGTGAAAATGATAGAGTTATTGGAGGAGTTGATGAAAAATCTGCT
GAAATGCCAAAAGAGATTTATGAACTTTTGTACTGGAAAGATATTTAACTGATGCT
AAAAACAGCAGAGATGGTTAAGTTAATGGAAAATACTTATAGAGATGTTAATATTGCCTTA
25 GCCAACGAATTTGCAAAAATGTCAGAGGAAATGGCATTATGTTTGGGAAGCAATAGAA
TTAGCCAATAAACATCCAAAGAGTAAATATTTTAAAGCCAGGGCCAGGAGTAGGTGGGCAT
TGTATAAGCATAGACCCGTGGTTTATTGTTGAGAAATCAAAGAAGCTAAATTAATAAGA
ACTGCAAGAGAGTTAAACGACTCTATGCCATTATTGTTGTTGAAAAGATAAAGAAGATT
ATTAAGAAAGATATTGGAAGAGTGGCAATATTTGGAGTAACATATAAGGAAATGTAGAT
30 GACACAAGGGAAAGTCCAGCTGAAAAAGTGGTTAGTAAATTGATAGATGAGGGCTTTGAA
GTTAAATGCTATGATAAATATGCGAGAGATTTTATTATCCTTTAAATAGTTTAGATGAA
GCTGTTGAAGGAGCTGATATTATCGTTATATTAGCTGAGCATGATGAATATAAAAAATTTT
GATAAAGAAGATATAAAAAATATCGCTCAAAGGTAAAAAATAAATAATCCTTGATACT
AAAAATATATTAAATAGAGAGTTGTGGGAAAAGGAGGGCTTTAAAGTTTATGTCTAGGT
35 GATGGAAAGAAATGCATAACCTAAACAATGTCTATCTAAAAGAGTGCATTCACTTCTTAGA
TAGCTGTATTAACGCCTAAAAGAGTTTGACTTAAGAACCCTTTATATCGAGATTTTACTA
TGGGATGTTATATTGCTAAATGCATTGAAATCTATATTAGAGAAAACATAGAAGATTG
GCACAATAAAGATAGGTATGCAACTTTAGCAAAAAGATTAGAACTTCTTAATGGATTT
AAAGCTCTATAGGCATGCATCTGACTATATATTCTCCAAGATTGGAGCATGGGAAGCA
40 CTATGAGGAGCATTGGGAGGAGTTTAAAGAGAGTTATTAAAGCTAAAGTTTTTCCATTA
TTTGCATATATTGAGACAGGAACCTTTATAGTTATAGACACAATCAGCTAATTGCAATCAT
CATTGAAAAGCTTGAGATTATTGAAAACTCTTAAAGCTCTATATAATGTTAGAGGAATG
ATTATGAAAGAAGCTGATAAAGATATTAAACAATTTGGCATTATAGTGAATATTTAAAA
ATTTTAGATGTGGAAGCTTGATGGAGATAGATATATCACCATCTTAATCCCCACAACCTTA
45 AACTGGATTGAAGAGGAGGAGATTGAGGAGATATTAGAGGAGATGTTAAAAAATGTAAGG
GTTAAAAATTTCAAGATTGCCATTAAACAATTCATTAAAGATTATTTAGAGAAGAATGTT
AAAAATAAAGCTTATGGAGAAAAATATTGAAAATGTTAAAAATAGAAGGAGAAAACTATGCA
TTATATATTGATTGGAAGAACAAAAAATAGTTATCCACAAATTTAATGGAAAAAATCCT
ATAAAGAGAGATTGTAAGCTATCATCAAATTGGGAAACGATGTGGGGCATTGGGTTTTA
50 GGGTTTTGAAAGTAAAGAGAAAGCTAAAGAATTTGCTGAAAACCTTGAGATGAAATCTAT
AAATATTACGAAATAGATTTCGATATTGAAGAGCATAAAGATGTCTAGAAGATAATTAA
TTTCTCCAAATCCATTAAATCAAGTGCCTTTAGTTTTCTTTTCTTCTCAATACTCTTTGC
TATGATGTAGCACTCTTTTCTCCATCAAATCAACTTTATCAAGTTTTCTTTCCAAATC
CCTTAAATCCCTTTTGCTTCTTAAAGCTCAAATCCTTCCATTTTACTTCAAAGGCAAT
55 CATCTTATTATTGTTATAAGCTAAAACATCAATCTCTCTCCCTTATGCCACCCTTAGC
CACACTTTTTTGACCAAAATCAATAATTTAAGTTTAAAGCATCTCAAATACAAGGTTTTT
AAACATTTTACCATAGTATTCAATTTAGAGATGCTAAGATTTTGTATAAACCTCCTTCAC
ATTACCAATCTCTAAATCTGCCATGTTGGATACACAACCTTGAACCACAGATTATTA
AAACCTTCGTATCTGCCAAAATCCCATCCCAATCTTTGAAATATGCTTAAACTCCTC
60 TATTTAATTGCATTAGGTATTGAAATTCATCAAGTGTATAACAACCTTCTCATCTTAA
TCTCATCTCTCAAATATCTAAAAGATCTACCAATCCAACATCCAAGTTTTTAAATATT
CCTTTCCAGTTAAGCTTGAATACTCTCTTAACTCATTTAGATTCTCATTCATGGAAT
CGTTGGTTAGCAAAATATAGATGCCCTTTTTATTTTTTTTATTTTCAAGAAATTTTTTAT
AAGCATCGTTTTTCCAACCTCTCTCTCCCATATAGGATTATTAAGTTGGCTTTATTCTC
ATTCCACTTTCTTTCAAGAAATCAAGCTCCTCTTTCTATTACGAACATAACTATCCC

ATACATAATGCTGTTGATAAAGTATAATACTTAGCCTACATCATTATATTGCATCAACT
ATTTATAAATAATGCGAGTAATAATTCTAAAAATTAAGAAAATCTTTATGGTGATGATTA
TGATTAAAGTGGCAGTTACAGGAGCTTTAGGAAGGATGGGAAGCAATATAATTAACCA
5 TAACCTCAGCAAGAAGATATGAAAGTTGTTTGTGCATTTGAAGTTCCAAATCATCCAAAA
AAGGAGAGGATGTTGGAGAGTTAATAGGCATTGGTAAAATTGGAGTTCCATTATCAACTG
CAGATGAGTTAGATAAGGTTTTAAAGAAACAAAGCCAGATGTATTGGTTGATTTTACCA
TAGCCCATGCGATGTGTGAAATGTTAAATAGCTGCTAAAAATGGGGTTAATTTAGTTA
10 TTGGGACTACTGGATTTACTGAAGAGCAAAAGGCAGAGATTGAAAAAGCAATAAAGAAA
ATAATGTTGCTGCTGTAATATCTCAAAATTTTGCAATTGGAGTTAATATATTTTTCAAAA
CTTTAGAGTTTTTTAGCAAAGAAATTAGGGGATTATGATATTGAAATTATAGAGATGCATC
ATAGATATAAAAAGGACGCTCCTTCAGGAACCTGCTTTGAGAGCAGCTGAGATTATAAAG
CTAATAGAGGAATTGAAAGTGTATTTGTTTATGGGAGATATGGAATGACTGGAGAGAGAA
AGAAGGAAGAGATTGGGATTCATGCTTTAAGGGGCGGGGATGTTGTAGGAGACCACACAG
15 TTATATTGCTGGAGATGGAGAGGATTGAGCTAACTCACAGAGCAAGTAGTAGGCAAG
CGTTTGTTAATGGAGTTATATTGGCTATAAGATACATTGCTGATAAAAAAGAGGCATTT
ATAATACATTTGACGTTTTGGGATTGAATGAGATTAAGTTTTAAAAATCTAAATCGTTT
ATTAATAATTTTTATTTCTCCCAACCAAAAATTTTAAATAACAAAAAATCTGTAATGATA
AATAAGATATAATTGAGGTTATTTTAAACCCTACCTCAGAGTAGGTAGGGTGTATATTT
20 TTAGTGACCCCATAGTGGGTGCAGTGCAACCTATTAATAAAAAATTTAAAGATTAAGTT
ATTACCAATTTGAGTTAGATTCTGTTTTTCTTCTTTAGAGCTATTTCCAAATCCTCTC
CACTATAAATCCCATAAAGCTATTAAAGCAGCAGGAATAGCATGTTGAGTAGCAATG
TCATATGTGGAGCTAAATCTACTATATAGTCAGCAATCTAAATAATCCTCTTGAATCC
CCTCCCTTGAACCAACAAAATACAATAATTTCTCTCTTTTTCTTAAATCATAAGCTAAT
25 TATCCTTAATTTTTGATAACTCATCTCTTTTGGGTGAGTAATTATTAACAATCTATTAT
CTCTCCTCTTATCCCTAACCAACCTGATATAAATCTTGAACAGTCAGTGAACCTAACTTAA
TTTCAAATGGATAAGCTCTCTTTGAATCTCATATCTTGAGTGCTGCCAATCTTAACTC
CTTTAATAAATCCCATCAATTCATAGGCATCAACTTTTTCTTTGGTGCTATAATTAATC
CCTTAACCTTCAAATCCTTGAGCTGCTCTCCCAATAGCTTCCCAACCTTTTACAAACAA
30 TTTTTCTCCCAATATGGCATTTGCACAATAACAACCTTTTTTAAATAACTCTCTCGCAT
TTCTTTCTCCTTGGTATATTTTTGAACCTTTCTCCAGGGGTTATTGATACATAAGTTT
TATTTTTAAATACTTCAACATGAACAACCTTATCTGGATTATTTAAATCAACTGAAGCAT
TTGTTAAATCTTTAATCTTAGCTCCCAAAACAATGTTTATATCTGTTGAGCTGAAATCAT
GTTTCTCTTTTTTAGTTTCTACAGCAAAAGTTTCATCCTCTTTATGTAATCTTTAA
35 TCTTTTCAGCTAAAAATTAATCTTTTATCAAAATCTGTTTCTGTTTCAAAATAAACTTTA
AAACTCTCTCAACCTCTGGGATTTGTAGTATTTTGTCTTCAATATCTTCATCACTCTCAA
CTATAACAATACCTTGATAACCATCAGGAGAAACGATATAATTAAATCATCAACAATTT
CTTTTAGATTATTCACAACGATATTTTCAAAACCTTTTTGAGTTTTATTATAAACTTCA
TGATTATCCCTCTTTAAGTGTTTTATAGTTCTTTGTAAAATATTTTAGGTAAAATATTTT
40 AGAATATATTATGATTTAATGAACGCCTTCAATAGGAAGGCGTTCAAAGTTCAATTTATA
AGCTTTAAGCTTTTGCAAAGACTAGTTTGTGCTTTATATACAATAGTAGAGATAAACT
ACTAAAAATCCATAGTTAATGCCTATCTCACAGTAAGCCAATAATAGAGAGGCATATAT
GCATAGAGCTTTTTATCTCCCTCATATATATATTTTGATATAACTCCCAACAGCATAGCA
AATAAACCCCCAAAAATTCAAAATCAAGATATATAGTTCCAAATAATGTTGTTGTAATG
45 TTATGAGGATATTTAAAGAGTAACCTACCTATAAAGTGCTCCCCATTAGGGGTTAAAGTA
ATTTTCCCAAGAGTTAATATATTGCTTTCAACAATCTTACTAAGAACATACAAATCAAAA
TAAGCTCTATAGCATAAAAGTTCTATTGGATTAAATCCCAGTTTTGATTAGAAGAGAGT
AGGATAATTTTTCCCAATATTCTTAAAGATTAAATAAAGCAAATGCCAATAAAACCAAT
TATTTAAATAAAATGTTTCTATATCTATATATAATATAGGCAATAAAAGCATTAAACT
50 CCTGCTTTATATCCCAATAAAACCAAAATCATAAACGCAATTATAAAATAAACTTTATTT
TCAATACCTGCATAAATAAAGCCCCCATGGATATTAATCTTAACGGTTCTGAATTAATA
GTCATCCTTACCTCATAATTAATAGAGGAATAGCCCCGTAATCAAAACTATTAAAAAGA
AAAGCAATAATTCCAATAGAAAATAAGATATCAACAAATATCTTTTTTTTTATAAAATTTT
ACGAAAAGTTCTGCAATTATAAGAATAAATAGCAATAAGCTATAGATAAAACAGCGAA
55 TGCGTAATTTTTAAAGCCCCCAATATTGATAAAAAAGATAGTAGAAGAAATGAAGATAC
AAAATATGCCATTTAAATTTAATTTGCATAGGAAAAATAAATGGTAAAAAAACCCCTACA
ATAAAATTTGATAAACTCCTAAAATTTTAAACAAAGAAATATAATCCAATATCATCCAAA
TATGGAAAAGCTAATATAAAATCATTAAATGCCCAATTATAACAATAGATACCGGATGA
AACAAATCTATCTTTTAATTTTCTCAATAATATTGCATATATGCATAGTATCAACCCAA
AGAAATAATAGAGGATTACATCTATATCCAAATCCCACCTTTCAATTCTTATAAGCGTAT
60 AGGCAACAATATCCATAAATCCCTAAATAAATCCCTTTAACATCTTTTGCCAATTTAT
AAAAGAACCCTAAAAATATCCCTAATATCCCAAGTATGGGATTATAGCCAAAGTCCCAT
AATCTCCAATAACTGCCCAACTATTGTTGGTGTATACTCACATTATAAATCCCTAATG
TTTTAGCTATAACGGTTCTGCTCCATTGCATAGTCCAAGATATGAAAACACTGCCGAAT
AATGAATATAACCATTAAAAACACCATTAAGTTGTTGAATATTATGTCATAGATACTCA

5

10

15

20

25

30

35

40

45

50

55

60

TAGTTAAAGATATTCTTGATGTGATTGGATTTCCTTCAACCCCCAAAGCATACAATCTTA
ATATTGACAACCCCAATAAAATAACAAAGCAAGAATTCCGTATTTTAAATCTCTCTGT
TAGATATTTTATTTTATAATACAGAATTGCTCCAACAGAAATTAACAAAACTAATACAT
TTGTCTTATATCCAAGGAGCATGATTAGTATTGAAAATATAATTGTATATAACAAGATTT
TTTTCTTATCAATATTGGAAGAAGCTACTACAATTGCCAACCTACCAAAAAGAGATGAG
ATAATGTTGTAATAAACATTTAAAAATTTCTTGACAATGGATTAAATAAAGGAACAT
CTTTAACCCAAATTAAGTCAGAGGTTACTGCTATCAATCCACTATCATTAAAAAAATTC
CAAAATTATAATGCTTCTTTAAGTTATTTTAAATTCTCTTTATCTATGCCAATTAAAT
AATATAACCTTTTACCAGCAGTAAAAGATATATAAAAGAATATTGATGAAAATAAAAAA
CTACTGCTGAATTTATTGAAATGTCTGAAAATATTAAATAAATGCAAGATAACATAACAA
ATACATGATGAAGCTCAATCTTCCCATATTATCCCAATGTAATAATACCATAGTTTTC
TTTATTTTATTGGGTATCTCATCTATTGAATTATTTACAACAACATAGATAGTTAATTT
GATGTTGAGATATTTGAAGAGTTTATATAGTTATCAAGATTTTAAATGATTCAATGA
ATTTTTCCATTAAATTATAATCCATAATCAACAAAATATAGGCCTAAACCTTTTTTAATA
TCAACATCAAGATTATTCATAATCTTTTGTCTTTCAACTGGCGTATATGTTTTGAATCA
ACTCCCATACTACCTCAACTATAACATCAACAATATTCAACCCATTAAAGTTTTTGT
CTGTTTTCTATTTTCATTGCAATATCTGAAATGACTTTCCTTCTATTGGGTTTTAATCA
TAAATATTATTGACTTTCCAATAGGATGCAATATTATTTTTTGCAGCTATATCTTCC
TGATAAGCCAAATCTCCCAATAGTTATTGGTGTTCATTATATATTGCATATAACGTT
CCCCCTTTTGCATCGTATATCTTAACCTCTCCATTGAAAGGTTTTTTAGATAGCCTCCAT
TTTCCAATAATAGTGGCATTAAAGGAAATTTTTATTCAAAATTTTCTCACATACCCAT
GCACATTTATACATCTGGTTTCCATCAAACCTATAATCATTTCCATTATTACTATAAAAT
TTATATGCCAAGGATACAGAAGTTATTAATATAGACAATATAACAACTATTTGAGTATG
CCAATTTTTTTCATAATTATCACCAGATCATAAACTGTTAATAATTTATGTTAGTAAAA
CTTAAATTAATGATTGTCTTAATGAATCTTAAATTTCTAAAAATTTTATAAATAGTATC
GGGACATCAATGAAAGTGGATTTACACGTTCTATTCTATAGTAAGCAAAATGTTCTTAA
TCCAAAAGGTCTTTTAGAAAAATTTGTATAAAGAAAAATATTGTCCCAGCGATTGTGA
CCATAATAAACTAACTAACTAAATTTTGCAATACCTGGGGAGGAGATAGCAACAAATAG
TGGAGAATTTATTGGTCTATTCCCTAACTGAAGAAATACCAGCAAATTTGGATTTATATGA
AGCATTAGATAGAGTTAGAGAGCAGGGAGCTTTAATCTACCTTCCACATCCCTTTGATTT
AAATAGAAGAAGAAGTTTAGCAAAATTCACGTATTAGAAGAGAGGGAGTTTTTAAAGTA
TGTTCTATGTTGTTGAAGTATTCAACAGTAGATGTAGGAGTATAGAACCAAACTTAAAGC
TCTTGAATATGCTGAAAAATATGATTTTGCAATGGCTTTTGGGAGTGACGCCATTTTAT
ATGGGAAGTTGGAAACGCTTATATAAAGTTTAGCGAGCTAAATATAGAAAAACCAGATGA
TTTGTCAACCAAGGAGTTCTTAAATTTATTGAAAATAAAAACTGACGAGCTGTTAAAGC
AAAATCCAACCTTACTAAAAATCCATGGAAACAAGATGGCACTATGGGAAGTTAGGAAG
CAAGTATAATATAGCGTTATATAGCAAGTTGTGAAAAATGTTAGAAGAAAAATAACAT
CTAATTTTATGGTTTTCTTTAAGTCTATAGCCACAGTATGGACAGACGATCCACTCGGG
TTGTACAGGTCTTTACAGTTTGGACATCTTAAACCTCTTCTCTCTCTTTTACGTT
TGCACCACAGTGAGCACAGTATTTCCAAGAATCTGAAATATAATTATTACAGTTTGGACA
TCTTTCTACTTCTTCTTCAATGTCTATTTTAAATCTCAGCCCCACAGTTAGTACAGTA
AGTCCATCCCAATCAATTGGAGATTTACATGAATTACAGAGAGGACAAATGTTGAAAA
CTTAGTTCCCAAGCTTTCTTAACTTTTCAAGAGTTATCATTGCTTCTCTCTTAGAAT
CTCATCAGGGTCGTATTCAATTCTGATTTAGTAATGTGATAATTTCAATCAACGTTAC
TTTATCGTAAGTATCCAAGTATAAAATTTGCCCTCTGGTCTAACTCAGCAATCTCTGTAA
CTTCTCAATGTCAACCAATTTTGTAGCAGGAAGTGAATCTCTCAATCTGAAACAATACT
CATTTTTTCTTCTCATCAGTTAAAGGAAGTACACGAACCATTTTCCCTCCCCATTAATAGT
TTATCCATTTACTGGCAATCTGTCAATTAATCCAAAGGTCTCCCAAGATATCAGCTTATC
TATATAATATAATGTTGCAGAAGGTAGTTCTTTTTCTGAAACATTTAGAAGTCCAGATAA
CTCAGCATCTCTTCTCTTATCTTAAATTTGTAGTATGGCTGAAGCCCTCCCCCTCCTGC
ATAGTAGCATATAATCTGTACTTCTCATCAACGTCTGTATTCTTAAAGACATAATATGTTAT
TGCTCCAATATCTTTTTTACTATCGGCATCTAAGCTGTATGGGCTACTCTCGCACCAAT
TTCTGTCTTTACTTGATATACTATAGCTGTTTTTACACCATTTATTGTCTTATTTCAAT
CTTTATCACATCATTTCTTTGTATAGAAGTCAAGGATATTTCTTTGGAAACACTACCAT
ACAACCACACACCATCAAGCTCACTATGGCAATAACATAACCCCTCCAGTAGTTAAG
TCGTTTTCAATTTTATCCCACTTCTTTACTACATAATTTATTAGAAATAATAATATCATGT
TTATAGTTAAAGTTATTTATAAGTTATACATGAAGCCATAAAAACTTAGGTTCTGCAATG
AGGTTGATAATGATGAAGTTTTCAGCATACGATTTAAATAAAATAGCAGAAAACTCAAT
TTATCCATAAAAGATTTAAATAAAGCATTTAGTAGGAAAAATTTAAGAGAGGATGAATAT
AAAGAAATAAAAAACATTACTATTTAAAAAAGAATTTAAAGGGATAGAGAAGGGGAGATT
ATATTTTAAACGACAACCTTGATGTTGTTAGAGGGTATCCAAAAACATACAGGGCTATA
ACTCTCTATCCTACAATAAAAAACATTTTATTGATAAGGTTGTTATTGAAGAGAAATTG
AACGGATATAATATAAGAATCGTTAAATAGATGGAGAGGTTTATGCCTTAACAAGAAGT
GGCTACATCTGCCCATTTACAACAAAAAAGTTAAAAATTTCTTAACTTAGAGATTTTA

5

10

15

20

25

30

35

40

45

50

55

60

GATGACTATAGCGAGTATATGTTATGTGGAGAAATGATTGGCATAAACCAACCCCTTACACA
CCTTACTATTACAAAGAGGTTGATAGGGGCTTTGAAAATCCTGGATTTTATATATTTGAC
ATAAAGGAGAGGGGAGACAAATAAATCCTTACCAATAAAGAGAGAATAAACCTATGTGAA
AAATATAATTTGCCTTATGTTAAGCCACTGGCTGTAGTTGATAAAGATGAAGCTCATATA
CATGTAAGGGAAATCATTGAAAAGCTAAACAAAGAAGGAAGAGAAGGGGTTGTTTTAAAA
GACCCAGATATGGCTGTTTACCAATAAAATACACAACCTCACTATACTCAGTGTGAAGAT
TTAAAATCAGCCTTTACCTTTTCTTTGATTTAGGAAATGGACTTTTTATTTCAGTAGGGTT
GTGAGAGAGGGATTTATGAGTTATGAGTTTAAAGAACTCTTGAAGAGAGAAAGAATAGG
CCTAAAGATTTAGGAGAGGCAATTTTATTGCCAATGGTTGAAACAATTAATAAAGTAGCC
AGTGGGGAGAGGGTTTCTGAAGACTTTGAGCTTATATTTGATAGTGAAGAGGATTTTGAT
GAGTTTTTAGATTTTATGAGAAAGATGAAAATGGTTATAACAATAAAAAATATTGAAAAG
ATTGATACTGAGGAAGGTGTTAAAATTAAGGCAGTAATTGGGAAAATATACAATAAACT
AACGATAAAATTTTAGCTATTTAAATGGAACACTTTGGGAATAACAAAATTTAAATACC
TCATAAGCTGTTTAAAGTTTAAATTTTAAAGATAACAAATTATATTGATATTAAAT
AAAAGGTGATGAACCATAAAAAGGGGATTAGTGTGAAAATAAATACAAAAGAATTAGTGT
TGAAAATATCCCTTCCAGCTTTGGCTGTAGTTATTGGGAATTGTTGGCAATATATATAA
ATAACCTGTCTACTCCCAAGGGTTGAAGCAGTTATTAATGTTTTAATTCATCCATTTT
AAGGAATTTTAGGAACTGGGAGTTTGATAGATAATACAATAATTAGTATAAAGAGAGTCA
TAAGTGGTTTTTTATTAGCTTCAGCTGTAGCAATACCCCTTAGGAATATTGATGGGCTACT
ATAGAACAGTAAATAGCTTATGTGACACATTAATAGAACTGTTAAGACCAATTCACCAT
TAGCTTGGGTTCCCTCTATCATTGGCATGGTTTGGATTAGGAGAGATGTCAATGATATTTA
TCATATTCATTGGAGCATTCTTCCCAATATTAATAAACACAATATCGGGAGTTAAAGGAG
TCCCTACTCCATTAATTGAGGCAGCTTTAACATTAGGAGCTAAAGGAAGAGATATCTTAA
TAAAGGTTGTTATCCCGCATCATCCCAAGTATTTTAACTGGGCTGAGAGTTGGAGCAG
GTATAGCATGGATGTGTGTTGTGCTGCTGAGATGCTACCATCAAGTAATGCTGGTTTTAG
GATACCTAATTTATGTATGCCATTATCATTAAAGTAGAATGGACGTTGTTATTGCCCTGTATGA
TAATTATCGGATTGATTGGGCTTGTGTTAGATAGAGGACTGAGATATATTGAAGATAAAT
ACTTTGTTTGGAGAAAGATGATGAAGTAAAAAAGGGATAGGATGAAGGTAAAGCTAAA
AGTGGAAAATCTAACAAAATTTTGAATTTAATGGGAATAGAGTTAAAGCATTAGATRA
TATTAATTTAGAGGTTTATGAGAATGAATTTTAAACAGTTATGGGGCCAAGTGGTTGTGG
AAAAACAACATTATTAAGAATTATAGCTGGTTTAGATTATCCAAGTGAAGGAAAAGTTTT
ATTAGATGGGAAAGAAGTTAAAGGCCCTGGAGCTGATAGAGGAGTTGTATTTCAACAATA
TAGCGTAAATGCCATGGAGAACTGTTTTAAAAAATGTTACATTTGGCTTAGAGTTAAAGG
TATCCCAAAAAATGAAAGAATAGAGATTGCTAAAAAATTTATTAAATGGTTGGATTGGA
AGGATTTGAAGATGCCATATCCTTATCAATTAAGTGGAGGGATGCAACAGAGGGTGGCTAT
AGCAAGAATTTTAGCAACGACCCAGAGATTGTTTTAATGGATGAGCCGTTTGTCTGCATT
AGATGCCCAACAAGGAATATTTTACAGAATGAATTATTAATAATATGGCAAAAGGAGAA
AAAAACAGTGTTTTTCGTCAACCATAGCGTTGATGAGGCAGTTTATCTTTCAGATAGAGT
TGTTGTTTTAATGCAAGACCTGGAAGAATAAAGAGATTGTAAAAATTGATTTGGAAAG
ACCAAGAGATAGAACAAGTATAGAATTCTTGAATATAGAAAGAAAATACTAAACATATT
GAAAGATGAGGCTTAAATCTCTAAATAAAAAATAAAAAAGGTTTATAAGTTTATAATA
ATCTCATAGGTATTCCTCTATCAGCACAGTATTTTTTTATCTCTTCTATTGTATATTCTC
TATAGTGCAATATCCCTGCCATTAATGCGGCATCTGCCTTCCATAAACAAATGCCTCAT
AAACATGTTCTGGTTTCCACAACCTCCACTTGCAATAACAGGGAGTTTAAACACTTTTAG
AAATCTCCTTTGTCAATATCAAATCATAGCCACTTTTTGTCCCATCTTTATCAATACTTG
TCAATAAAATCTCTCCAGCTCCCAATCTTCAACTTTTTTAGCCCAGTTTATGGCATCTA
TACCTGTTTTCTTTTCCCTCCGTATATATAAACTTCAAACCAGCAATAACCATCCTCTA
CTTTAACGACATTTTTATTATCTTATCTATCTCATCTTCATTAACATAGTGTCTTTTAG
CATCAATTGCAACAACACACATTGAGAGCCAAATATCTCACTTGCCCTCTTTAATTAAAT
TTGGATTTTTTACTGCGGCAGTGTATTCGAAACTTTATCAGCCCCGGCTCTCAGTATTC
TCCTAAAATCTTCAATTGACTTAATTCCTCCACCAACAGTTAATGGGATAAATACTTTTT
CAGCTGTTCTCTCTACAACATCAATAATTATGTCCCTCTTTTCACTGAGGCGGTTATAT
CTAAAAATACAAGCTCATCAGCTCCTTCATCATAGTATTGGGCTAACTCACTGAGG
CTCCAGCATCCCTCAAATTCAAAAACTTAGTTCCCTTTAAACAACCTTCCGCTCTTTAAT
CTAAGCATGGAATAATTCTCTTTGTTAGCATCCTATCCCTATTTTTATTATACTTACTTT
TTATTATATTTCTTATTCTAAATAATCTTCAAAGTCTTTTCAAGATTTTTCTACTTCAGT
TAGTTCTGAAATAGCTTTTGCTAATCTTAAGGCTCTTAATGATGCTAAATCCTTCTCTAA
ATAGATACTCGGATTTCAATTAGCTAATGCAGTCATCTCCTTTGTGAATTTGTTTTAAT
TTTTACTAATTGGTGTGCTTTCTACCACTGCCTTTCTACATTTGGTCTGAGGGTAGAAC
TCCAATAACATCATCTATATCTCACTAATATCGGTAAAGCCCTCTATATTTATTTCACAA
TATCCCTGTAAGTCTATACCCAAATCTGTTATAAGTTCTATAGTTTTTCAAGGAATTTAC
AATTGATGGGATACTATCCTCACCACACTACAACCTACCTTATTGACGAGTTCAAACCTCACC
AACATAACCTATCAATGGGTTGTCTTCAGTAATGTTTGGTGGAAAATCATAAATTATGAC
ATCGTATTCTTCTTCTAATTTCTTTGACTAAGGTTTCAAATCTATTTAAGTCAGATTTATA

5

10

15

20

25

30

35

40

45

50

55

60

TCCAAAAACCTTAGAAGAGACGTCAGTATGGATAATAGCCAAATCATCATAATGATATAT
TATATCCTCAATTGCAGAATCCCCTGCAAGGTAAGTATTTAGGTTATGTTCCCTTATCTTC
AAGACCAAATAACACTGCAGTCGTTCCCTCCATATATATCACAATCAATCAATATGTTTT
TACTGACTGACTAAGTATGTATGCAAAATTTGCAGCAACAGTAGTTTTTCCAGTACCTCC
CTGAATATTGTAAAAATCCTATTTTTCATAATATCACCAAAAATTTTATTTAAGTGGAATTA
TTTTAGGTGGATTACTATCACATATTTACAATGTTCTTTATCAAACCTCTCAAAGGTAT
AGTTACCCATACCAAAGTTCCTTTTAAAGATGGTGATTTTTATCCCTCTGTTGTCCCAT
PCTTTATAGCAGTTCATTATAGAAGATATTGTTTCTATAATACTTTATTAAGCCAATCAG
CTAAGTCTTTGAATGACACTATATCAGTTCATTCTCTTTTAATTCAACAACCAAGTTTG
TATTATAGTTTCTAATATCTGAAATATAGATTCCGAAGTCTTCATCTTTTGGTGGAATAT
AGAGAGTATTAATAACATTTGCTCCATAAACTTCTTTTAAAGGAGATGGAATTCTGTATGA
CAGGGATTCCATTAATAACTTCAAATCCTTTGTTTCTGGAATTACCACATAATCAACTT
TATTTTTTATATCTAATTTCCAACCTAGGTTTTTCAATTATCATTTCCAAAAATTGCATCTA
TTAAGTTTTTGTCTGAACCTTTCTAAGAATAAGCCATCACAGCCATTTGCTAATGCTAAG
CATAATTTTTAACAAACCAAGTGAATTGAAATATTATATCTATTCCACATTTCACTATCAT
TTTCCATTGAAACTGGCTGCCCTTCATAATACCAATTTGATGGCTCATTAGCTTTTCCAT
CCCAATATGGCTCGCCTTCATCTAAATGATAATAAACATTTTCACTTTTAGCCCCCTTCTT
CCCAATATCCATAATTTTTTGTCTCTTTATAACTTATAACCTTTGGATAATAACCGCCAA
TAGGGTCATTTCTAAATGTTTCTGGTGCTTTATCCACATAAATTAGAGGATAATAGCTTA
AAGCCAATATGTCTCAAACCAATTAATCAATATTTTTAATTGTGAAGGATTGAAGT
AGAGATGAGTATAATTCTGCCACCATTTTTTAAACCAATAATAATTGTATAAATCCTCAA
GTTCACTCTGTATCTACATTAGATTTTTCAACAAATCAATACCTTCACTACCAGTCACTA
TGTAACCTACATTTATTCCTAAAGCTTTTAAATGCTTTTATACATTTTAAATTTATGTTTA
TTATCTCATCATCCAACACATCAACTTTAATCTTCTTCCCTGCAACATCTATAGCATAAC
TTCCACTTTCATCTGGAATTACTTTATCTATAGCTACCCCGTAGCAAGCATATGCTTAT
AATACGGTGAACCTTTGTTTATGTATGCAAAAACCCCTCCATTTTGGCTATATATTCTC
CAATAATATCAAGAGTTGATTGTTGTTTATAGAGTTGTAGGATACAGAAAGAGAAGCTTAT
TCTTTTAAATTTATAGACACCCTCATCTATTTTCTTATAATCAATTTTATAAATTGGGG
CTTCTTTAGCATCCACTGGAGGGCTAAATACTAAAACCCCATCATTACTCCTAACAACAT
ACTTTTTTGGATATATTATGAAATGCCGTTATTATCAATAAACACATAATCGTAATAAT
CGGGGATGCATTTTTTCTGGAAGGTTGTAAGAGTATTATAATAATAGTTATCAGAAGTGT
TTTTTGGAGGAATATAGTATATTCCCCCTTCATCTCCTCTAATGATGATTTTTTTGGAT
AGAGAATAAAGGTTGAGTTTCTATTAATACATATCCACCATAGTCAGGAATTTTTGAAA
CATTTGGAACCTTAATTTATATGGTCTTACAACTCATATTTACTATAGTTTTCTTCCCT
TTGGTGGGTATATATTAAGCTCCATTTTCTCATAAACACTATACTTTGGATAAACTA
CAATAACCCGTTTATACTAACATAAGAATAATTTCCATAATCAGGGATTTCTGATGGGT
TATATCTTTTTTATTCCAAGATGGTATAAGATATCTTTATTTATGTTATTACTATCAAGAC
AGAAGATAACTAAAGCATTTGGAGTTTAAACATCTATTGAGTTCATCAACATTTCTAATTT
CAGATAGTTTAAACAAATCTATTGGAATTGAGCTTGATATTTATAATCTAAATTTGAGG
GGTAAGTATAGCTAATTACTGCAAGTAACAAACTACGAAAATAAGTTTTTTCAATTTACT
CCACCTCAATATCCTTTATCTAATATAAGATAATTATTAAGTCTTTAAATATAATTTA
TTCCTCAAACCTTTTGACATACATTAGAGGATAGTCAATTTCTGGGATATATTCAAGTTT
TAAATGAGCAACTGTTTTATTTATTTAATTTTTAAATCGACATCTAACATCTTTCCATC
TAAAGAGACATATTTTTTCCCCAACATTTCTAATTTTTACCTTTATATCATATACACATGG
CTGATTTTTTCATAGCTTCTCTCTATAGCTCTTTCTAAAGATTCTTATTGTATTTACTTAC
TGGAGTGCCACAAATTTGGTGAATAAAGCTCCTAAGGTAATCCCCCTTCAAACACTGC
CCTCTCTCTATCCGTTAGATTTTTTAAATATTTTTTAAAAACTTCTGTTTCTTACTCT
CATAATATCACTATTTATTAGTGTCTTTCAAACCTTCTTGGATAACCATTTGCACTAACG
AACCTCTTCCCTTTGGAAGGCGTTCAAAGGTTTCAATTAATAAATTTTTATTTTTTGAAGAC
ACTAAATTTCTAAGCATTTCTTCAATAGCTTTTTGAGCTTTTTCAATAATCTCTTTCTCTA
ATTTAATTTCTATCTCTCTCTAATAAACATTTTCTATCTTCTCCAATGTTATTCTTT
TCATCTCGTGGCAAATAGCATCTTTCTCAATGGAATTAAGGTTTTCTTTTACCCAATT
TTTCAAGCTCTATCTCCAATCTATTTATCATTTCCAACCTCAGTGCCAATTATAAACTCTT
CATCATCTGACTCTAAACAATCCTCAATATTTCCACTTGTGCTTGCTATGTAATCAGCAT
TATCTTGCAATTTCTGGACTACATTCTGGATGAATTAACCTTTAGCATTTGGATATTGCT
TTTTAACTCTCTTTAAATCATCTATTGTGAATTTTTTATGCACATAACAACCTCCCCCTT
CAGGAATAGCTATAACTTTTTTATCAGTTCTTTTTTGCACATAATAAGCTAAGTTGTTAT
CCGGACCAAATAAACTGTATCAGCATCCAAGGAATTAACCTACTCTATCTGCATTTGCTG
ATGTGCATGTAATATCAGCTAATGCTTTTGTCTCTGCTGTTGTATTACATAAACAACCA
ATGGAGCCTCTGGATAAAGCTCTCTATACTTCTTTATAATCTCTGGGGGTAGTTGGTGAG
CCATTGGGCATTGGGTTCTTCAATCTCTGGCATCAAACCTTTTTCTCTGGATTCAAAA
TTTTTGTGACTCTCCATAAAATCTACTCCACAAAATACTATTATGTCAGCATCTGTTT
CTTTTGCCTTTATACACAACCTTAATGAATCTCCAAGAAAATCAGCTATTTTCTGTATCT
CCTTTGGTTGATAATTGTGAGCCAATTAATGCAATTTTTTCTTCTTTAATTTGTTTA

-440-

5 TTCTTTCTACTATATCCATAGACATCCCTCAAAAAATTATATTTTATATTTCGGTGTTTTT
CTAATCTCTCAACAACCTTATCCCATGTTGGTAAATTAGTTTGGCATCCCTTTGCCCTCAA
CAACAAATGAGGCAGTTGCAGCACCAATTAAACCACATTTCTCTAAATCATACCCTTTGA
10 CATAGGCAGATAAAAAATCCAGCTCTATAGCTGTCTCCAGCACCTGTTGGGTCTATAACTT
TCCCTGCTTTAATACAAGGAATTTCTATTTTTTTATCTTTAGTGTATATTACACTACCCT
TAGAACCTTTTGTACTATAAGGGCATCAACCCTCTCTAAATAATCATCAATTTCAAAAT
TTAATAAATTAGATGCTCTCTCAAATTCATGTTTATTCATAAATAAAAAGTTTGTATGCT
CAATAAATTTCCAACAACATTTCTTTTGAGTATTGAGGTAAGTCCTGTCCGGGGTCGAAAG
15 AGACCAAAATGTTTCCATAAGCTTTTTTTCACATTTTAAGTTGAAGTCTGGGTCTCCAG
TGGCTATATGGACAATTTCTGTATTGAAGTTTGGTGGGTTTAGTTCCTTATAATGCTTAG
CAGCTCCCCATAAAAAGAAAGTTATCTGATTGTTATCCTTGTCTGTAAATATCCATGCCT
TTGGTGTCTCTCTCTTCAGAAATAGTAAAGTTTAGAAATATTTATATCCAAATTTCTTA
AATACCTCTCATATCCACTATTTTTAAATCATAGCCAACACATGATAAAAGCTCTGAAT
20 TAACACCAAGTTTTTTTATTTCCACTGCTGTATTGGCGCTGCTCCACCATAATACTTTT
TCGCCGAAGGAATTTGAATTGAAGTATTGCGTTCTGGAAATTTTTCTACATTGAAGATAT
AATCAAGGGCAGTATGCCCTACACATGTAATCTCTCCATTTTACCACCCAAAATTTTTTA
AGAATAACTTAATGATTTGAATAAATTGAACATTAAGTATTAGAACAATAACTGTTTGAA
CCCTTTATATAGTAGATTAGCAAAAATTTGTTTATATAGAGTAACTTTAAAGTTAAATTA
25 TTGAAGTACTACTTAAAGATTTTTTAGGTGAAAATTTATGATAACCATATCTGAAAATCTG
AAGCAAAGGAATTAATGCCTATTGCTCAGGCTGTCCATATATTGGTTAATAAACTCCCTG
TTGCTATGAGAAGCAAAAACAAGCCTGGAGTTAGGTTGGAAAAAGGGGAGGTTGTAGATA
CGAATTACGAAGGTTATGTTTTAAAGTAGCTATTGAAAAAGGTGAAGTTGTTAGAGCTA
CACCTATTATAGGCCCTTATGCAGGACTTCTGTTATAGTGGCTCCAATAAAGATGGAG
30 ATAATGTTTTAGGAGCTATTGGTGTAGTTGATATAACAGCTGGAATATTTGAAGATATTG
TGGCTATTTCAAGAAGACCTGAATTATACAAATTTTTACCAGAAGATGCATTTCCAAAAT
AAAAAATGTTAATTATTAATCTTCGCAAAAATATTGGACATTAATTGGGGCTGAAAAGC
CCCAACTTGATGGACGTGTGGTATAGCAATAGGAGGTATCCTCCTATGCTTGTATAAGTT
35 TTTACCAGAAGATGCATTTCCAAAATAATTAATTATATCTCCTTTTATGCTTGTAAAAATAA
CTTTTAAGGTGATAGAATGAAAAAATATTCATATACCCACCAATAGCTTAATTCTAAC
AGATTTGGTTGAGAGATTTGGACACAAGCCTTTAACTTGAATATAGTTATAGGAAAATF
AGTCAGAAATCCTGAAATAGACAGCCACCAATGAATATAACAGACGAAGAGCCTAAGAA
AGGTTTGAAGTATGCGGCTGTGGAAGTTCTTCTGGTGTAGAGGAAGGATGGCTTTAAT
40 TGGGCCATTAATTGAAGAGGCAGAGGCAGCGATAATAATGGATGATGCACCAATAGCCTT
TGGATGATTGGCTGCCAAGAAACAAATGAACCTAATCTATATTTAGTTAGAGGAAAAA
TATCCCAATATTAAGAGTTAAATATCCAACAAATGAAGAAGAGGCGGAAATTTTAGTTAA
TAAGATAGCAAACTTCTTAAAGAGCTTAGAAGAAAATCAAGAAAATTAATAATTTGGTGA
45 TAAGATGGAATGTCCAAATAAAGAAATCAACTTAAAAAGATGCAACTGTAGTTACCCAGC
TTGTTCTAAAAAAGGAATGTGTTGTGAATGCTTACATTACCATTTAAAAATAGACAGTT
GCCAGCATGCTGTTTTCCAGATGATGTAGAAAAAATTTATGACAGGAGTTTGAACATT
40 TGCAAGCTTGTTTTGAAGGGAAGATTTAAAAATAATAAATAAATTTATTTTATTTT
TTTTATAGAAATTTACTCAACAATTTGCTGATGCGTAACCAACAACTGCTGAATAATCTCC
AGTTATATCTCCAGATGTGCGATAAGCCAATAATTTAGCTTTTTTACGCTCCTAAGGTCTT
CATGGCTTTTAAACATAGCTATTACTGGCCCATATCCGCACATTGAGATGTTGTAATTTAC
AACATCCTCATACAATTTCTTTTTCATTCATCTCTAAAATATCTTTAATAACAATTCATC
45 CTTTTTTGAAGCAATTTCTGTGGTTCATAGTGAGTTAAATCGGAGGAAGCAATTACAAC
AATTCCTCTGTTCAATTCCTTAGCAATTTTAGCTATGAAATAACCAACTTCTACAGCTGT
CTCATAATCTTGAACATCATACATATTGGGACTATTTTAAATTTAGCAATATTTAACAG
CTCTAAATGCTTTAAGAATGGTAATTGGACCTCAATAGAATGTTTATTTAGATGGGCAGT
50 TTCATCTAAATCAACTATCTCACATTTCTCCAAAGCTCCTCAACAAATTTCTCATCACA
CTTCACATCTCCCAAAGGAGTTCTCCAAATTCGGTCCATTACACTAACTCCTGAACCTAA
CCCAGTATGATTGGGCCCTAAAATAACAACAGTTGTTTCTTCAAGGGCATCAACTCTCTT
TGATAACTCATAATAAGAGTGGGCTTGTATAGGTCCTGAATAAACATAGCCAGCATGAGG
ACAGAGCAAACTATAGGTTTTTCAATAGTTCCATGAAGTGGCATTGACTTTGGTCCAAA
55 TTTGTGTAAATTCAGCTGCTCATCATATCTATGAGTTTCATCAGGATGTGAAGGATAAAA
TAATCCTGCAACTGCTGGATACCTAATTTTATTCATAATACCCCTCTAATAAATTTGTTTA
AAACATTAAACCTAATTTAAATTTGTCAATTTATCTTTATATAGTTATTTGTGTATGTAT
ATGACACTATAATGCACAAAACCGAAAAGTTTTTATATTTTACACATATGTGTATTATT
AGAAAAAATGATTAGAAAAATATGAGGTGATAATATGTTTGGATGGGGAAGAGGATGGTT
60 TGGCAGAGGTAGAGGATTTTGGAGATACTTCCAGTTAGCACAGTTGGAGGCAGATACAG
ATACGTAGGGCCATGCAGATGTGGTTTTAGGGCCACATGCATTCTATGTTGATGAGAAAA
TGGGGCTTTAGTTTCATGCATGGGATTTATACAGAGGCTATGTTCCAGGATACGCAGAGGT
AGATGAAAGAAGATACTTAGAAGAACTATAAAGAAATTAGAAGAAGAGAAAAGAAATGTT
AGAAGAAGAAATTAGCAAGAATTAAGAAGAGATTAGACGAATTAAGAAGAGATTAAAGTGAT
ATAATGGAATGAAAAGATTTTTTATGTGCAAAATGTCAGAAAGTTATAGAAGTTCCCTTAT

5 GGAGTTCCAAAACCAGACGTTTGTCCATACTGTGGAGCTCCTGCAACATTTATTTCACAGA
ATAGATGCTGGGGGAAGAGGATTAGGCCCTGGGAGAGGTAGAAGATGCGGAATGAGAATG
ATGGGAAGATTTAGAAGAGAATAAATCAAAATTTTAAATTTCTTTTTATTTTTTATAT
10 AGGAATTTATTTCTTCTAATCTCTTTAACGCCCTCCTCAACGTCTGCATTTTCATGGAC
TATCTTACAAACAGCTCTTGTATGCCAACACATCATGCTGGAAGATATTTCTACC
CACTGCAACACCAGCAGCTCCAGCCTCCATAGCATCTTAAATCATTGCAAGAACTCTTC
ATCTGTGTTTGTCTTTGGCCCTCCAGCAACCACAACCTGGAGCTGGACAACCCCTTAACAAC
ATCTCTAAATGAATCAATATCTCCAGTATAACTTGTTTAACTATGTCAGCTCCTAACTC
15 AGCTCCCAATCTTGCTGCATGAGCAACTAATTCAGGGTCTCTCTCATTTTGAATGTGTTT
TCCTCTTGGATACATCATAGCAATTAACGGCATTCCCCAGTATTCACATGTTTCAGCTAT
CATCCCCAAATCTCTGTATGCTTCCCAATCTTCATCTGAACCAACATTTACGTGAATTGA
GACAGCATCAGCACCCATTCTGTAGCTTCTCAACAGTTGTAACAATAACCTTCTTCAA
TGGATTTGGTGATATTGCAGTTCACCAGAGAGATGGATGATTAAACCAACATCTTTGCC
20 ATATCTCTGTGTCCATGTCTTACAATTCCTTATGTAAGAGGACAGCATTAGCTCTCTC
TTCGGCAACATCATTTACGGTTTTTCTTATATCTATAAGCCCCCTTAATTGGACCGTTTGA
TACCCCATGGTCCATTGGAACAATTACAGTTTTTTCATTTCTCTGTAAATATTCTCTC
CAACCTTACAAGTTTTCCAAGATTCTTTATGTCTTTAAATAATTCATATTCTCACATTT
25 ACAAATTTTTATTGTTTTATTGTATTAATGTTAAAGTTTTAATATAGAAATATCAGAT
ATCAATATTTAAATTTGTGTTTGGTGATTGATGGTATTTAAAGCCTATGATATTAGAG
GAATCTATGGTAGAGAGTTAGATGAGAACTTTGCCTATTCTTAGGAAAGTGCAATTGGTA
AAAAATTTGAAATAAAAAGATATTAGTTGGAATGACGTTAGAATTGGTTCCAAAGAGC
TTTJACCCTATTTTATAGTTGGTTGAAAGAATATGCGGATGTATTTATGCCGGAACCTA
30 TTTCAACCCCTTTAATGTATTTCCGGAACATAAGGAAATATGATTTAGGAGTTATATTAA
CAGCATCTCATAACCCCTCCAGAATACACTGGATTTAAGATGTCTGATAAAGAAGCTATTC
CTCTGTACCAATAGAAGAGATAAAACCAATATTCAAAAAATATGAATTAACAGAAAGTA
TAAAGAAGAAGCTAAAAACCTAAATTTAGATGATTTAAAGGTTAATATTATAGAGGAGT
ATAAAAAATTTCTTTTAAAGAGATGTAAAGCCTCAGATAAAAAAATAGCTGTAGATTTG
35 CAAATGGAGCTACTACATAGCTGAAAAAGAAATTTGAATGAATTGTTTGATAACGCAG
TTTTTATAAATGATTATCCCCGATGGCAATTTCCCTGCTCATCAACCAGACACACTAAAAA
TGGAATGCTTAAAGATATTATAAGAGCAGTTAAAAAAAATAACTGTGAATTAGGTTTAA
TATTTGACGGAGATGGAGATAGGTTGGGAATAGTTGATGAAAACGGAAATGTTTTGAGGG
40 GAGATATATTACAGCCATAATAGCAAAAGAAATTTAAAGAAAAGTCAATGCCAAAA
TTGTTTTATGATTTAAGATGTTCTAAAATAGTTCCAGAAATTATTGAGAAGTATGGTGGA
TAGCAATAAAAAAGTAGAGTGGGGCATTACTTTATAAAAAAATTAATGCATGAAATAGATG
CTGAATTTGCTGGAGAGTTGAGTAATCACTTTTACTTTAAAGAGATTGGCTACTTTGAAA
GTCCATTACTGGCGTTAAATTATATCTTAAAGCTATGGATGAAGAAAATAAATCATTAT
45 CTGAACTAAATAAGGAATTTAGCAATATCCTCATAGTGGAGAGATAAACTTTAGAGTTA
AAGACCAAAAAATATATTATGGAAAAATAAAGGAACATTTTAAAGATTGCAAGTTAGAGG
AGTTGGATGGAATATCTATTTATTGTAAAAACTTCTGGTTTAAATTTAAGACCTTCAATA
CTGAACCATTTAAGATTAACTTAGAAGCAGATGATGAGAAAACAAATGAAAGAGAAGG
TTGAAGAGATTAAAAATCTAATTGCAAGCTTGATGCATCCTTATAATTCATTTTTATGG
50 TTGTGTCTTTAATATACACACAACCAAAACCTTTATATATTAGTTTGTAGTTATAGTAAT
TTCGCTTGTTTTGGATTAAAAGTTGAGTGAAGCGGGGTAGGGTAGCCAGGTCCATCCCGC
CGGGCTCATAACCCGGAGATCGGAGGTTCAAATCCTCCCCCGCTACTATTTCTATATTT
TGATATATTATATTTGTATATTTAAATGTAAGAATTAATGTTTATCCATAGATTCCAAGA
GTTTTTGGAGTCTTTCTCGTTTTCTTTTATAGAGAACTGACTTTTATAGCAAAGTTCC
55 TAACAGATTCTTTTCTATGGATTGACAATCTATAAAAAATCGTCTTTATAATGGTAAATTT
CACCTCTAATATTTGATTGAGTTCTTTTCTTTTCTTTGCTATGTGGATTGTTGAATGTACAT
CCAATTTTTTAAACAGCTCTTTTGAATAATCCAAAAGTTCTAAATCATAATTTTCTAATG
CTATTTTATTTGAAGTAACATATCCTTCGCTATCAAAAAATCCTCTTAAAAAATCTTCAG
60 GATACTTTTCAGCAACTTTAAAAAGTTCTTCTTTGTTTTGACTTAAAAATTTATACAAAC
TTTTACTGCTCGCTTCAACATGCCACCTATTACTTCTTGTTTTCTCTCCACATAGCTAA
TTGTTGGATTTAATCCAATTTTATCAAACTATTTTAAACACATCTACAAAGCTTTAT
CAACAACCTTAATCCTAAAATAGTAACCTTCTGTCTTTTTTCTGTAATAAATGTTAGCAT
CTCCAAAATAAACCCCTATTATATAAGAAAGCTCAGGAGAAGGTGATAAATCTATAAAT
TTGTTTTATTGAATGGATTATTGCTATTTTACACCATCTAATAATCGTAGATTGGAAA
TTTAAATATTCCTTTCAATTTCAATCTTTTATAGATTTTGAAGATAGCTAAAAATTTGCT
TCCTTAATGATTTAACAATAAATAAGATAAGTATTTAAGAAAGTATCCATCATATC
GATTAACCATATTATCAACAAAATAAAGATAAGTATTTAAGAAAGTATCCATCATATC
ATTCTGTTTCCAATTTTCATGTCTTACTGTAGCATTATTTATAAAATAACATTTATGGTT
ATTAGTTATTTATTAATTTAAATAAATAGATATATACTTTTATGATATAATGATGCTCC
GGCCGGGATTTGAACCCGGGTGCGGGGCTCGAAAGGCCCGCATGATTGGCCGGACTACAC
CACCGGAGCAATCGGATAAAAAATAGAAAAATTGCGGACCCGAGGGGATTTGAACCCCC

-442-

5 GACCCCGGCTTAGAAGGCCGGTGCCCTATCCAGGCTAGGCTACGGGTCTCTTTATCTC
AGGTTGTAAGCACTCTTTAAATGAATTTTCTCATATATATACTTTTCGTTTCATACTT
ATAACAATTTTGTATGGTTAATTATAAATATAGGTTTGTGGCAAAATTAATAATTACAT
TAATTATTTATTGTTTTTATAATCTCACTAATATGACGATTAGTTACTCTTTTTTTATT
AAATTTAACTGATTGAGAGGTGAATATCTTATGTATAAAATTTAGAGATTGCAGATGTT
GTAAAGTTCCACCAGAAGAGTTTGGTAAGGATTAAAAGAGACAGTAAAAAAATTTCTC
10 ATGGAAAAATATGAAGGAAGATTAGATAAAGATGTTGGATTGTTTTATCCATTGTAGAT
GTAAAGACATTGGAGAAGGTAAAGTAGTGCATGGTGATGGTTCAGCATATCATCCAGTT
GTATTTGAGACTCTCGTTTATATCCAGAGATGTATGAACCTATTGAGGGAGAGGTCGTT
GATGTTGTTGAGTTTGGTAGCTTTGTAAGGTTGGGACCTTTAGATGGATTAATTCATGTT
TCACAGATTATGGATGACTATGTATCTTACGACCCTAAGAGGGAGGCAATTATTGGAAAA
GAGACTGGAAAGGTTTTGGAGATTGGAGATTATGTTAGGGCAAGGATTGTTGCTATAAGT
15 TTGAAGGCAGAAAGAAAGAGAGGTAGTAAGATAGCATTAAACCATGAGACAGCCATCTTG
GGAAATTAGAGTGGATTGAGGAGGAAAAAGCTAAAAAGCAAAATCAAGAATAAGGTGAG
CTTATGAGAGCATGTTTTAAATGTAAATACTTAACAAATGATGAAATATGTCCAATATGC
CACTCTCCAACAAGTAAAACTGGATAGGGCTTTTAATAGTTATAAATCCAGAGAAATCA
GAGATTGCTAAAAAGGCAGGAATAGATATTAAAGGAAAGTATGCATTAAAGTGTGAAAGAG
TAGAGGAATTGATATGCTGGTCTCTCCAGAGGAGTTGAGGGAAAAATTAAAAAAGCCCTT
20 TGGAAAGTATATAAAACACTACCAGATATAGATGGAGATATCGTAACCTGTTGGAGATAT
TGTAAACAAAACCTGCAATTGAAACAACATAATCCCAAACTATCCATTTTTGACTTAAA
AACCAGAAGAAATATTCTCTTAAAAATAAACCATGTATTTAAAAAAGTTATTAAAGTAAA
AAATCCTCCTGGATGCATATCTGATGAAGCAATAGAAAGTATTAAATATCTATCTACAAT
AAATGATAGAAACATCGCCCTACTGGTTGATGGTGAAGAAGATTTACTTGCTTTAATTGT
25 TATCAAATACTTTCCCTATCGGAACCTTATGTTCTATATGGACAGCCAGATGAAGGAATCGT
TGTTCTAAAAATAAATAAAAACTAAAAACAAGAAATGAAGAAATATTAACAATTCAA
AAAAATTTGAGAGAGGGGATAATATGGAATAAAAAATATTATCAGAAAGATACAATCCAT
TGTTAAAGAGAAAAAGAAATACAGATTTCATTGTAGACCAGATGGACCTACACCAACCTTCA
AAGATGTCAAGTTAAAGCTTGACGCAATATTAACGCAATAAGGATTTATTAATAGTTG
30 AAAAAATTTGTTGAAGAAGCTGGAATGCAGAGAGCAAGAGGTTATGCTAAATTGTATGATA
ATGAGGAAATGTTAAATTAGTTGAGAGAGAACACATTTTAAGAAAAAATAAATAGAAAG
AAGAAACAGCAGCTGAGGAGGGAGAATAATGACAAAAGGGAAAAAACAGCAAAATACAA
ATACTACAAGATTGAAGGAGATAAAGTTATTAGATTGAAGAAGACCTGTCCAAGATGTGG
TCTGGAGTTTGGCGTCATAATGTCTTTGCCTTAATATTTTAAATATTGTCTCAACTCT
35 GGAATGGAAGCAACCACAAAAGAAGGAGTAAGTTAATCTTTAGCTCTTCTTTAACTCC
AATATACTCATAGCCCTCAAGATATCTGTTTTGATATGATTCCTTTTAATTTTCCACCT
TCTACAACAAATACTCTATCTGTATTAGCCATTTTCTTAGAATCTCTTTTATATCAGTA
TCTTCACTAACTACAACAGGCTTTTCCATATAATCCCTTACAGTTCTTCTTTTTATGT
ATATTACCTATTCCAATACAGCCAACTAACTTCCCATTTCAACTACAGGATATCCAAAA
40 TACTTATGTTTAAAGCATAAAATCCAAGAACTCCTCTATACTCATATCTGGAGTTACATAT
ACTGGATTGGCGTCATAATGTCTTTGCCTTAATATTTTAAATATTGTCTCAACTCT
ACCACTCTACTTTCTTGCTCAGCTCCAAAATAAACAACAACTAACCAGATTAAATATA
ATGTTCAATTGATAAGAGACCAATAAGAGCATTATTAAAGCCAAGCTCTTCCAATATTT
GCTGCTATCTTCGTTGATTCAAATAACCATATTTTTTGACAATATAGCTCTCAATATT
45 CTTCGCCATCCATAGGAAATGCTGGAATTAAATTAATCCTCCAAGCATTAAAGTTCACT
AGGCTTAAAGTATATAATAGAGGATATCCATTTATGTTTATATCAAAAAATTGAGATACA
ATTAACAAAACCTATTCCAATAATAAAGCTAACTAAGGCCAGCTATCCCTATCCTTAAC
TCCCCCTCTTTTGGGATTTTATCCATCATCGCCACTCCACCAATCGGCAATAGCAAAAT
TTTTCTATCTTTACCCCATACTTCTTAGCTACATAACTATGACCTAACTCATGTAAACA
50 ACAGACACAAATAAAGATAAAGAGAAGTCCCCAAATATGCTATTATTCATTATAGAC
AGTCCAATTATGACCCTAAAAATAAATAAAGGTTATATGAAGCTCTATTGGAATCCCC
ATAATTTTGAATAATCTTATTGAGTAATTCATACCCCTCCCCCTATTTTTATTTAATTA
CATTTTTAATCCTATTGCTATATATTACTATTTTCATAACATATTTATGATTGGTGAAAT
ATATGATTCCAGATGAAGAATTTATAAGAAGAGAAGGAGTTCCAATAACAAAAGAAGAAA
55 TTAGGGCTGTGAGTATTGGGAAATTAACTTAAATAAAGATGACGTTGTTGTTGATGTTG
GTTGTGGAAGTGGAGGAATGACAGTTGAGATAGCAAAGAGATGCAAGTTTGTATTATGCTA
TAGATTATTTAGATGGCGCTATTGAAGTAACATAACAAAATTTAGCCAAATTTAATATTA
AAAATTGCCAAATAATAAAGGGAAGGGCAGAAGATGTTTAGATAAATTAGAAATTAATA
AAGCTTTTATAGGTGGGACAAAAATATTGAAAAGATAATTGAAATTTTGGATAAAAAAGA
60 AAATAAATCACATTGTTGCTAACACAATTGTTTAGAAAATGCTGCTAAAATAATAAATG
AATTTGAGAGTAGAGTTACAATGTTGATGCCGTTAATGTTTTATTCTTATGCTAAAA
AAATCCCTTCTGGACACATGTTTTTGGCAAGAATCCAATAACTATAATAAAGCAGTTA
GGTAGATAATCATGGAAGAGAAAAATAATCCTATCAATCCAAAACCCAGAAGATGTTTTAA
TTTCTTATGTTGATATTTACTTAGGAGATAAAAAATGTTTCATTGGAGGTTTTATCTAAGG
ATACTGCAAGATAAATCTACCATTTGATAAAGATGAAGGAGAGGGGAGATTGTAGTTA

5

10

15

20

25

30

35

40

45

50

55

60

AAATTAAATATAAACTCTTCCACACTACAAAAATAATAATAATAAAAGGAAGTTAAAA
AACAAGATTATAAAAAATTTAACACAACTCTTAATGAAATCACTAAAAAACTACTAATA
GAAAAGATAATGATATTATTATAGCTGACTCTAAACCAGTTTCATTAGATGGGCTTAAAA
AAGAAGAGAAAAAGAAAAAGTTAAATGATATAATAATTGTCTAATTTTATAATTATAATC
TCTTTCTAATTGGCTCTAAATCTTTTAAAGTTCTTCAGCTACAGCATTTTTAAATCCA
TTGGATGCAATTCCTTATTTTTAAATAAACTCTCTAACTCCTCATAGCTATTAAGTGTCA
AATCTCCACCAATTTTTCTGGCCTTTTATGGTTAAAGGATATTCAAGGAAGTATTTAG
CTATCTCCATTATTGGATTTCTTCAACAACCTCCAGCTGGGCAGTATGCTTTCTTTATCT
TAGCCCTAATCTCTTCTGGAGAGTCATCAACAGCTATAAAATTCCTTTTGAAGAAGTCA
TCTTTCCTTCTCCATCCAAACCGTTAAGACAGGGTTGTGAATACAAACAACCTTTTTTG
GTAAGCTCCCTTGCTAACATGTGTATTTTTCTCTGCTCCATCCCTCCAAGTCAACAT
CAACGCCTAAATAATGAATATCATTAACTGCATTATTGGATAGATAACTTCAGCAACCT
TTGGATTTTCATCCTCTCTTGTCTATAAGTTCCATACTCCTTCTTGCTCTTTTAAAGTAG
TTTTTAAAGCCAATCTATAGACATTCACTGTATAATCCTTATCAAGCTGGAATTCACCTC
CATAAACATATTTTGGCTTTAACCCCATTTGCTTCAAAAACCTTTTTGTTATAATCTCCTA
TTTTTCTAATCTCATCCAACCTCTCCTTTCTGGTTTAAATAGGCGTGTAAATCAGCCAACA
ATATAATATATCAAAATCCAGCATTTTGTAAATCAATCATCTTTTTTATTGGAGATAAT
GCCCTAAATGTATTTTACCCTTGGTTCAAAACCTATGTAAGCAGATTTTTCATCTTTTT
TTAAACCTCTCTTAACCTCTCCTCGCTGATAATTTAGATGTGTTTCTCTTTATCATTT
CAAATTCGTCATGATATATCACCACAACATTTTTGTTTATGCAAACTTTATATATAA
GCTATCGTAATTTATAAATTTACTTTATTATTTTGGTGATACTATGAGAAAGATTATTTT
ATCAAAAGTGAGTTGTGATGAAGAGCTTTTGGAGCTTTGTGAGAGATTATCAAGGATGGA
CATTGATTGCACAATAGAATCAAAAGGAAATAGAGTTAGAGTTTATGTATTTGGTTATGA
TAAGGACTCTTTGAAAGTGAATTATAGAACAATTAGGGAAGTTATGGAAGGCAAGAG
AAAATATCAAAAGATGATGAAGGTTGTATAAATATCCATTATTTGAATTAATATCC
AGTTAATAAACTTAATAATAGATGCCTAAAAACTTTAGGATATAAGTTATATACTT
GGAAGATGAAACGCTATAAAACAAATGTAGATATTAACAAATTCATGAAATATTGGG
AGAATCCACGAATTATCTCAAGAGTTAAGATTTTCAATCTTGGGTCAAAGCCCGTTAA
AAATTTAGTAGTTTATGTTTCATACATTACTAAAAAGCCAGTTGATGATGTTATTGAGGA
AGCTTTAGAAAAAGGATTCTTTAGAGAGGAAGAAGGTAGAATAGTTTAAATAAGGATAT
AACTTGGCTAAAAAGCTTTATTTGAGGGAGAAGATGGAGATAAAGATATTGGAGAGGA
AAGATAATTTGGTAGAGATTGA_aCTAATTAATGAAGACCATTCAATACCAATCTATTAA
AAGACATTTTATTAACAAAAGAAGGAGTTAAGATGGCATCCTACTCTATAGACCTCAT
TATTACATCCAGAACTGGAAGGTATATATCAAAACCAAGATAACTATAATTACTGAAG
AGGGAACAGACCCTTTAGAAGTTTAAAGGAAGGGTTGAGAGATATTATAAATGTGCG
ATACTTTACTGGACGAATAAGGAAAAGAAGTAATTTGAATAGTATCACGTTAAAGAT
TTTATATTTGGAATTAATTTCTTTAACTCTTTCTTAACCTATTATAAGAAAGTTAAAT
TTGATTTCTAAGGGTGGCTTATTTTAAACATTTTATTAATTTGGATGTATTAATTTATTT
AGGTTTTTGGGAGTAAGGGCTAAATACATTTAGGAGTAAGATTTCCCAATAAATAACAA
ACACTTTCAAATTTAAAGTGATAAAATGATTATTTTATTAAGAAATAAGAAATTTAAC
TACCATAAGGTTTATATTGCAAAACGGTTATTTATCCTTAAGAAATTTATGGTATAGAAA
GCTTAAATATCAGGAGAGTTAAGGTATAATATATTGAAAAGTCCCTGTAAATCAGA
TCCCTCGGGGAATGGAAATGCTCCTCAAAATGTACAAATACTCAGATTAAATCGTAAA
ATCAGATCCCTCGGGGAATGGAAATCAAAATATTACCCTATAACCTCTTTTACCTCTATTG
TGTAATATCAGATCCCTCGGGGAATGGAAATACAAATCAACATAAAATAACTTCAATAA
AAGTTGAGTTAAGTAAATCAGATCCCTCGGGGAATGGAAATTTATTCATTTTGGGAAGT
GTATTATCTCTATTATTATGTAAATCAGATCCCTCGGGGAATGGAAATTTCTACAACCT
TAACACTTACATAAATAACTCTCTCATCGTAAATCAGATCCCTCGGGGAATGGAAATAA
TCCACTCCATATCCCATATCAGCTGGTAATCCACGTAAATCAGATCCCTCGGGGAATG
GAAATGAAGGGAGGACTTTCCCTGAACAATTGGAATAATAGTAAATCAGATCCCTCGG
GGAATGGAAATAATGCTTACACTGATGAACCAGATGGGGAAGAGCAATATGGTAAATCA
GATCCCTCGGGGAATGGAAATACCGTATTAAATACATACAACAATAAGATGACGTA
AAATCAGATCCCTCAGGGAATGGAAATCTTAAATAAGATTTTTTATCTTTATTTTTTTA
TTGAATGTAAATCAGATCCCTCGGGGAATGGAAATAATCGACATCTTGGACAATTTTA
TGAGCTTCAACTCCGTAAATCAGATCCCTCAGGGAATGGAAACAACAGATGAATAGGGA
GAAGGGAATGGAACTCATTAGAAGATAATCAATGTAAAAAAGAATGGGACTATGTAA
ATAAATCTTGAAGAAAATTAATAATAAGAAACCTTCTTCAAGATGAGAGTATGTATG
TTATTATTGTCTATGATGTGAATGTTTCAAGAGTAAATAAGATAAAAGCTTTTGGAGAA
AGCACTTAAATTTGGCTTCAAGATAGTGTTTTGGAGGAGAAGTTACAAAGCAGAGTTTG
AAAGAATAAAGATGGAATTTTGAAGATTATTGATGAAGATGAAGATTCAGTAATTATCT
ACCAATTTCCATTAAATTTTATGCCAAAAGAGAGATTTTAGGTTTGAAGAAATCCAA
TTGATGATATTATTAAATAAAATTTCCAAACCATTTCCAAATACTCTGAATAATTAGAG
GAGATATCTTACACTTTTTAACTTTCTATAGCTGAATATACTGCATCTAAGTCATCAT
AAAGAATACCATCTATGAAGGTTAGGGAACCTCTAAATCACCTCTAAGTATGTTATCTA

-444-

CAAAC TGGATTGTATTATAGAAATCAGTAGCTTTTAAATACCATAAAAAGTCCATAAGTT
TTGATAAATCATACTCTCCAAAAGATCGTATTGCTTGATTGTTATCAACATTCTCGAGAG
TGTAAC TAACAACTGAAAAATTCCTTTTTGTAACTATTTCCAAGGCATTATTGATTGAG
5 TATGGGTTAAATGATATAGCAGTGCCAAATTTTTATTACAAAAAATTTATATTTTCCAA
GTTGATAGTTGTTAATTTCTTTTTTAAATCTTTTAAAGCAAGGATTTCATAAGTCCTA
ATTCTTCAAGAGGTTTTATGGCATAAATATGAATATATGTTGCTCTATTGCTGATATAT
TTATGTATGGAGCATAATATGGAACCAATCCAGGCAAGGGCATAGTTGGAATCATCTA
10 TTTTTATTGGATTTCCACCTTTTACACCATAAATTTTTGGCATATATTTACCAGCAGCTG
GCATTAAAGTAAGTGGCACTGTATTTTACTCTTTGTAGATAATTTTCCTTTTTTAATAT
TTTTCTTTATCTTTTCAAGAGTTTTTGGAAATCCATCCCAATAAACGTTATTAATATTTG
CACCTGCACTAAAATCAACATCACTTATAATTTTGATATCCTCCTTTGTGGAAATATACT
TACCAATAGCTTTATGCAGGGAAAGCATATCCTCCAATGCATTTAACATTCCTTTTCAA
15 TTCTATTTTAAATATTTACATTAGTAGGTTCTTCAACTACAATACAATATTTATCCCAA
TTGGGAAAAAATCTGAGATTTTCAACGCCTTCTCTAACTAAACACTCAACTACTCCAAAG
CTATATATAAATCAAGTATCTCATTATATCCTGGTGTCTCAAATAACATAACTCTCAACC
TCCAAAAC TCTGCAAAC TTTGGAGCTTTTCCTTCTCTACTCTCAGCCCCCTTTATAATCA
CACATGACTAAAGGTAAAAGCAGAGTTCCAACAATAAATCTAAGCTTCTCTGAATTTGGT
GTATGTCTTGCTCTAACACTCATTTGATAACAAATCTGATAATATCGTCCCTATTAGAA
20 TCATTTTAAATTATATCCCTATTGAATATCCAATTAAC TTTTAAATAAGATCTTCAAAA
TCTTCAATCATTCCATCAAAC TTTTAGCTTATCAAGCAGCACTTCAAGTGTCAATTTCT
TTCTTTTAAAGATTTCTTATTTGACCCATAATAATCGGCTCATGGTGGAGCATTACAGTT
AAAGCTCCAATGAAGGCAAGGTTTTTATCACCATAATTTTAAAGGAGAATGTGATAAGTA
TAGTAAGCACTAACAAGCTCATGTCTAAAGCCCATGAGTTTTTCTTGATCGTTAATGATA
25 GCTCTTTGATATATCTTTGAAGCTTTACCAATATCGTGAAGTTTTATCAAATCTTCATA
AATTCATCAACTTTTTCGATATCTAATCTTATGTTTAAAGCCTCTAAAGCTCTCTTTATA
GTTTTAAAGTATCTATATTTTATCTCTCCCAATATTTGACCATATCGTTAACATGATCA
ATAAGGGATTGATTTTTTAAAGGCTAAACTTCCATAATCTCACCCAAAAATCAAAGTTTGT
TAAATTATTATCCAGTTTCTTTAGAGTAATATTTGTATCAATTTATGTAGATTTTGTA
30 GGTGTAGTTTTCCAGCTTTTTTAAAGACTACATATCCAACCTTTCTCATCGTATTCTTTA
ATTAAC TCAAATTTTTTATCAAAC TTTCTCCACTTGTTTTTAAAGCCAGTTATAGCTCACA
CGAATAACATATTTTGGATTAAACTCAATTTATTTCTTTATTTTTTACTTTTTCTTCAGCA
TTTTCTAATGGATACAATATTGCAACATTTCTGGTCTTGCCCTGAGTTTCATATTCTGGA
GGTGTAGAAAGAGTTTTTAACTCTCTGAAATATATGTAGGCAGAGTAATAGCTCTTTAGGG
35 ACTATGTTGTTTTTATATAATTTCTTATAAAACCTATCTAAAGCCTCACGAGCTTTAATT
ATGTCGTATAAATATTCATAACACTTTCAACTTCATCAAAGCTTTTTATCATAATTAAT
GGATCATAGGGCTGTGTTGAATATGGAATAAAGTATAGATCTTTTTTCTTCAGAATTTTG
TTATTTTCAATAAGCTTTCTTATTGTCTGTTTCCCAAATCACCGATGTAAGCTTTTTTA
GGGACGATTTTGCTCTTTCTCTTTTCTCTTCAATTGTTTCAATAGTTAATTCATAACT
40 CTCCCAATATCTTTGTTATTTACCAGTGTTACATAGGCATTTTCAAATGGGATATTTTTA
AATCCTAAAAATTACTTTTTCCCTATGGTCTTCAATTTATTTCTCATTAAATTTGGCAAT
ACAAC TATTACTTTGCCTCTTTCTCCTTTTCTTCTTGACATCTTCTTATTCTTTGTATT
AATGCATCTAATGGAGCTAAATCAGTTATTACAAGCCCTACATTTGTCAAATCCAAACCT
GCTTCAACCACCTGTGTAGCAACAATTATCTCGGCTTTATCAATGTCTTCTCTTTTTCT
45 GCTCTATCTTCTACTGTAAATCTTGAGTGTAGGAGTAATGAATTTCCAAGTTGCTTTACT
TTTTCATAAACCTCTATGGCACTGTTTACAGTGTTTTTTATTATCAACACCTTTTTTCCT
TCATTTATTGCTTTTTTTGATTTCACTAAGTTCTTCGTCACTTAATTTTTCTTTAAAT
TCAACAAC TACTTCTCCTCTCTCTGGTTTTTTTCTGATCTTCTGGATTAAAGGTTATTGGT
TCTTCATCGTGTATGCCAAGTATTTTTTAAAGCTCTGTTGGAAGTGTGCTGTCTATAAAG
50 ACTAATGGAACGTTAGCTTCTACCAATCTTTTAACTACCAATCCAATCAATCTCGGCATG
TAAAGGCTTTTCATCCTGATACATCTGTATTTTCATCAAAAAC TACTAACTTTGAGCAATT
GCCCCACATGGGAAGGTAAATCTATCTCCAACAGTCTATGGGCTGCTAACCCATAAAGA
AATGTATCCCAAGTAGTTAAACAACAAACCTAAGAAAGCATGGGTTTCCTCTAATCCA
TACTCAACTTGAAC TATTTTTTAGCTAATTTCTCAACTTTATCCTTTGAATATCCTTTT
55 ATTTCAAGAATTTTTTAAATATAATCTCTGATTCTTTCTACCTGTTTTTCAACAAGTGAA
CGTGTGCGGAAGACATAGATTAACTCTGGAAC TTTCCAATCGTTGGAGATGAATTGATAT
AAGTAGGGAATAATTGCTGCTCTGTTTTTCCACCAGCAGTTGGTATCTCTATTACTACC
CTCCCCCAAGTTCCATAATTTTATTAATCTTTTCCCATGCCCTAATTTGATAATCATAA
GGCTCATGATCTGTAATTTGTTTAAAAAAATTAATTATATCCATAACCCAATCACCTCAT
60 CAAAGGCAATAATTTGTAATTTCCGTCAAAAATCTATCTGATTCAACGTAATATGAGC
TCTTTCTATAACGTTTTTCAATAAGTGGTAGTAATAACGGCTCTTCTTTTACTTTTCTC
CAAAATTTGGAGTTTCAAGCATATTTTCAATAATACCTCCATTTATGCTCATTTTTTGATA
CTTTTTTAAACTTCACATAGGTTTTTAGAGGAGCTTTTTCTTCTTTTACTTCAACCCATT
CAGTTTTAATCACATTTCCACACACTCAGTATCTCCGAGCTGGTCAATTAAATAAAGCTG
CCTTAAGCATTAGATCTTTTTCTTCTTCACTCAACTTTCTCCTAAAAACATAAATAGCTA

5

10

15

20

25

30

35

40

45

50

55

60

AAATCTCCCTTGCAAATACATATTCTCTCTCATTGGGTCACTTTTTCTGGATTTTTT
GATCTTCTAAGTTTCTAAGTCTCTTTAGTAGAATTGGGGTTTTTATGATACTACTTTTGT
ATGGCTTGTCTCCGACATAGATGAGCTTATTTTCCAATTCTTCAACAGTTTTTTAGCAA
TTTCATCTAAACTCTTTCTTTTTTCCACCAAGCAATATAATCCCTTAGCTAATGCCC
CTTTAATGCTGATGGAGATGGTAATAGCAAAGATTGTCTAACTTGATAAGACTGTTTTT
CAAAAGAATAGAATGGAAATCGGAGGAGAGCTACTAAAGCCTCCATAATCAACCCCTCAA
TTTATAATTTCTCTATTATTTTGGAGATTAGCTCTTCAACTGATGAAACGCTCTCACCAA
AATCTACATTGTATCCGAAATCCTCAATCTCAAATCCAAGTTTCTTTGCATTTTCTACAA
CGTTTTTGTCTTACTTCTACATAATCCTCATAGAATCCATGAACCTAAGGCAGGTATTGGTT
TTTCACTAACAACCGCTATCATTCTTCAAGTTTAAATACTGGGAATGACCTGGCTAAAT
TTGCTCCAATATAACCACTTAGCAATTGGAATCAAAGCTTTTAAATGCCGATACTATTCTTG
CTTTTCTTTTCATCATCTTCAATAACTGGATTGGATGGAGATGATTGAGGAACCTCAACAA
ATCCCAAATCTAATATGATTCAAATCCATACAGCCAGTTGCATACTCTCTATTAAATA
ACATTTGGGCAGTTTGTCTCTCCAGATTTTATTGCTCCTTTTTTCATCAATATCAACTC
TATTATGCTTTACAGCATAAACGAGCCTTTTCATCTACTTCTTTATGAAATCTCTGTG
GGAGTATAAATGAGGTTTTTACAAGAGAACTCTTCTAACTCCAGTTTTTGGAGCTAGAA
ATCCATGAACATCTGCATCAGCAAAGTTTTAATGATTTCACTTTTCATCCTTCAATTCAA
CTTCAGAACCATCAGCTTTTTTGGCTTTAGTTTCTGTCCAAACCTTGCCCCATTATATC
TCAAAGCCCTTTCTGTAAATTATCTTTGTAATCTGTCTCTCTAAAGAAATCAACAAAGC
TTACAAAATGCCAATGCTTAACCATATTTCCAGAAATTGCTGGCACTTCAAGGATTTCCC
ATCTATCATCATTTCTTTATGCTAACCTTAGCTTTTGTATCTCCACATAATTTGTTCCCTC
CCCCACCTTGGGCATTTAAAGAATGGGAATCAACCTAACTCTTCTGAGATTCTCAAGA
ACATTACTGATCACCTCTTTTTCTGTGGTCTTTTTCCAGTCTGCAAAAGCCAGAGTGC
CATGCTTAATCCAATTTTTCTAACTTCCTTTTCATTATCTCCGATTTCTCTCAAAGTTTC
TTCCAACCTTTTTTACGTCTCTGGAGATGGGACTTCAATATTTCCCTTTCTTTTTTAGTTT
TGGGGACAATCTTAATCCTTTATATAACGCTTCTAAAGTTTCATTGCAATTTCTGCTTT
AGCTACTCCATCAATGATGTCATAAGCATATTCCTCAAACCTATCGCTTATAAGGTAGCT
AAGATATCTTCCAATATTTTTTCATCCAATTCTCCAACCTTATCACCTCATCTATTGACAC
TACATAATATTAATATGGGAAAATATAAACTTTACTAAGGAATTCGTAGAAGTATACAA
AGTATTTATATATTACTTCGAAGTAAAATATATACATAAGAAGTATTTTTGGTGAGGTAT
ATGAGATATATAGCCACCTTTGGATACCATACAAACCATATTTTTGATAAAAATGGGAAA
ATAATTGGAATAGATGACGAAAAAATAGTAACATGATTTTAAATATACAGTTTAGATGTA
GATGCAGATGAAAATACAGTAAATTCGATTAAAAACACAAAAAATTATATTGAGTCAAAA
CTAAAAGAATATAACATCCCTTATCTATTTGTTGAAGTTAATCCTTACGAATTTAATACG
AATGTTAAAAATTTTAGAAAATACATTGTTCCCTAAACTATCATCAATTTAACAGGTGGA
AAAAGAATAGTAGGATATGCATTATTTTATGCCGCAGTACTTGAAAAAGAAAATGTAGAG
AAAGTGTTTTTATGTATCAAACTTGGAGATATCATTGAATTTCCATTAATTCCTCCAGAC
ATAAAATTAACGAACTTGAAATGAAAATTCCTTAATTTATTAGATAAAGAAGGAGAAATG
TCCGTAAGTAATATTGCACATAAATTAGAAAGATCCCTATCTACTATAAGTGAATATGTT
TCACAACCTTGAAAAAAGGGTTTAGTTAAAAAACTAAGCAAAGGTAGAAGAAAATGTT
AAAAAGGTTATCTAAAACCATGCAACTAACGGCTCATATCTCTTCTGCCCAACCAAGTGT
TTAACCAACTTATAAGCCTCTAATCTTATCAATCTCCTCTTTGAGACATTCTTTTTTAGT
TTTTTATGATTAACTGTTTTATCCATCTCCTTGTGAGGTGTTCTAAAACCTACTTTTCATC
CCTTCTTTGTTTAGTAGAACTCCATTTAAATCATCTCTAAAATGCTTTTTCTGGATAATT
CCTTGTTTAACTAATCTATTAGCCAATCTATCAGCAATCATTGGTTTAAATATCTCACTC
AAATCTAATGCCAAGGAAAACCTCCTCTCATGAGGTTTCATGTAAATACTAACAGTTGGA
GTCAGTTGAGTATTATAAAGCTCGGTGATTATAGCTGGGTAGAGACGAGAGTTTAAAAAG
CTTATTAACGCATTCTATCTCATTCTTTGGAGGTCTTCTTGTCTTTTAACTATTTTAAAG
TCATCTGGTAGGGTCTCATCCCAATCTATAATATTAGTCCCTAACTCTCCCTCTACG
TTCATAACTCTGTTATCTTGTGCGAGTTGTTTAGTTCTTCAATATAACTGCTAAATTTA
GTCTTGTTTTTTAAATTTTAAATAATTCCTCCATATTTTTTATCTCCCAATGATAAAC
AGCTTTGCCAACTCTAATCTCTTATCCTTATCTAAATAATGCTCAACTTGATTAACTACT
AAATAACAGAGGTAGAGATTCTTGGATAAAATGAGCCGTCATAATAACCATAGTGG
TTAAAGAAGTGCAAGCAATGCCCTTCTGAGCTAAATAATGTAGAGCTTGGGAGCTTATG
CTAACCTTTCCATATATGTAGATGTCATAAATTCCTTCAATAGCTAAGGGCTTTTTGCCT
CTTGCAATCTCAAAGTAGATTGATTTTCTTTCTAAATAAATAGCCATCTGATAATAAA
GTTAGGGACTTTTTCTCATAGTATCACCAAATTAATAAAACATAAATCATTAATAGCA
CAATTTTGCAGATTTTCTGATACCAATAggGCTTCGCCCTATTGGGATACCCAGGATGCAT
TGCTTCTTTGCAGAAGCAATGCCTCTTAGCTCACTTTTGACGTATCTTCGAAGTAACATA
AAATTTCTAAATAAAACATAATTCATAATAAGCACAATTTCTGCAATCTTCTGATAAATA
GGCTCTGGTGGTTCTTTTAAATGATTTTATGTATCAATCTCTTTTATTGCTCTTTTTATT
TCCTCTTTGTTATTTTCTTTTAACTCAATCTCTTAAATCTCCTTAAAGTTTGGATAATGA
AGGATTGCCCTTAGATTTTATTCCCTAACTGTTTAAATAATAGATGTAATACAATACCTGC
ATTATATGGGCTTTCTCCATCTGTTTGCCCTCTTTACCTCATGAATCTCAATGACATCA

-446-

CGCTTTTAAATAAAATCAATTTTATACTACCTATCTGAACCTCCTTCTCCTCTCCAAAA
TAACTTTTTTCATGTAAAAATTTTCCCTAAATCAACAAAATCACTTTCTTGCTCCATAGTT
ATGCCTCTAACAAAATACCAAAGCTTTGTCTTACATACATAGAGATAGTTTATCTCAATA
5 CCTCCAATTATAAGCTCTTCTTCCAAATAATTTTCCATAATCCACCTATAAGATGTCTT
CAAACCTCTCTCCTCTTTGTAGTCAAATCCTATTTTATAAGTATATTTAAATGAACAAA
TTAAATATCTTCTGGTTTTTCTACCAACTCTTTTTTTCATAAGGGTAAAAGTGAATTAATC
CCTCCTCATTTTTTCATTTTCATTTTAAATTAAGGCTGGGATTTTGGCATATACTCTG
CTCTTAAGGAATTTTCTCCCAATTCATCAAAATAAACTTGAGGAACCTACTTCAATCTTCA
10 TAACTTATCATCTCTAACTTTAAAGAATCTTCTTCTTTCATCTATTGTTGATATATCTG
TCCAATGCCTTCCAAATAATATTGCCTCATCAAAAAATAACTTTAAATCACTTGGAAATGC
TTAAATTATAATCTTTATAAACATTATCAACGAAATCTTTAATATCTCTATAATCCAAAG
GTTTTTCATAGAATTTTATATGATTAATGTTTTTTCTATTAGTTCCCTTGCTATATGGCA
AGTGTTTTACGGCAAAAATATTTTAGCTTGATTCTTTTCCATTTTCTCCTCAATCTT
15 TTCTTTTCTGTGCAATCTTCCAGCCCTCTGCCCAAGTGCATCTGGTGGAGATAGTTCTAG
AATACATAACATCGACGGACATATCAAGAGAAATTTCAATCACTTGAGTGGCAACAATAA
CATAAGGTTTATTTTGACTTTTTCTCATCTCTTCCAAAGTAAAAATCTCATCTCTTTTT
TAACTCTATCTTTATAGGCAAATGAGAATGATAGAGAATCGCTGGGACTTTGTCTCCTTA
CTGCTTTATAAAATTCCTTGCTCTTTCACAGTATTTAAGATAATCGCTTGAGATAATC
CTTTTTATAATTTCTTATTATTTTCGTTAATTATATTTTCATTAACCTTCCATTCATCAT
20 CCTCTTTCCAAATTAATGATTTTCTGAACATTTAAGTTTAAAAGGTTTGTAATTTAAC
CTTCTCATCAACTACAAGTTTCATAACCTTCAAGGTTGTTTCATTAAAAAGTTTGGCAGTG
TTCCACTCATAAGTAAATGAGGAATAATCCATCTCTTAAATATCAAAAAGAGTTAATA
AATGCTCTAATGTGTATTTTTCATAGTAATGAACCTTCATCAAGATTATAACTGAATTTT
GAATATTTCCCAAAGCAAAATCCGCCCTGAGAAAATCCATGAACAAAAGAGTATATAACAT
25 GGTCAATGGTTGTTATTGTTATTGGTTTAAAAAATACATTTCCCTTGAAATTTTCATCCC
TAATTTCTCTAAATCGTCTTCATCCTCTATTCTTTTGAGTCCCTCAATTTTATAAAGC
TCTTTCCATGGAATAAACCGACGTTCTCCTCTCCAAAGATCTTACCAATCTATCATACA
TTGCATTGCTTGTACTTGGCTAGGCATTGCTAAGATGATTTTGTCTTTTGAAGTTT
TTAATGCATTCAATGCCCAAAGTAACGCTCCTTCAGTTTTACCTCTCCCAAGGAGCAA
30 ACAACATCACAACTTATTTTTTGAGTTGTAAAGTTCTTTTTGGAATTTGTATGGTTTCAT
AATCTTTTAGAATAAACGATATTGGATTATCAATATTTAAGTAGGAACATAAATTTCTG
GATTCTCTAAAACATCATCAAAAATTCCTTCCCTGTCTTTTGCATATTCATAAAGTTTA
AACTTGCAAAATCATCACACAATTGAAGAATAGAAAACATAAATGAAAATATTGACTTTA
nTTTTATTTTATCATCAAAGCTTAGTGATTGTATGTAATTTTGCCTCTATCCAATATT
35 TCCTTCTTAATCTGTGTAGTTCTAAAGGTTTTGCATCTTTTGGAAATATCCTCTATCTTTA
AGTCTCAAACTCAAAAAACTTTGAAAATCCAAAGATTCATAAGCTTCTTTAGAATTTT
TTATAAATTTCTTTGATTTCTTCTATTAATAAAGTCCCTTTTTTGATTGTTGATAATCAG
CATATAAGTTGTTGTAAAGTTGTGTATGATGAGATAAAATAGCAAAAACCTTCAATTGGAA
TATCGAAAAGATAATCAAACTCAATATTTTATAATGGGAAGTGCATAAAGTGGATGGG
40 GATGTTTATTGCTTCTTTTTCTTTTATGTTATTTTGGAAACCCCTCTGTTATCTTTC
CAATATCATGCATAAATAGGTAATAAAGTATTCTTTGTTTTATAAAATATCAAGAGG
TATAGTGAGCATATCTTACCAGTTTAGATATGACTTTTTAACAAATTTAATTTTAAATA
ATAGATATTTTGAATAACCTATATATAAACGTATCGATATAATCTAGATTTAATAAAT
AAACTAACATTTATATGTAAAGCTTATATATAAAGTATATGAAAATAAAGTAAAGATTGA
45 AAAGTTGTTAAAGATAGAAGTGTAATAATAGGTTGTTATGAGTTATGTAGTATGATTAA
TAAATGATTTTGTTTAACAGTTTTTATGCAATAATGAAAAGTAAATAGGAGATATTAA
CAATTATAGCCACAATTAAATTTTGTTTTGAAGTTTTTATTTTTTTGATTTTTATCTT
CAACATTTACAACCATTTCCAAAACCCATACTATTCTTCTCTCCAAAACCACTCATAAC
CAAATTTTATTAAATCGTAGTCCCCCAGACCTTAAACACCATTTCAGAACACCTACAAT
50 AAATATCATTTTTTATTCTCATCCTTTTAGGTCTAAATTTTAAAGACTTCAAATTCAAAGT
TCATGTCACATTTTTTCATTATAGAATGCTTCATATTTCTTTTTTAGATTATTCTTTAAGT
TTTCATAAAATTTAGAATTGTTTGGTAATAAATCATAAGTTTTTAAACCATCTTCTGTCT
CAATCATCGTCTTTAAGTAAATTGAGATATGGTTTTTAATATATTGAATTTCTTTGGAA
TTGGTAGAATTTTAGCCTTTCTTACAAAGAATTCAACATTTCCCTACTCTCACTTTCCAT
55 CCTCTAAGAGTCCAGCAACAAAATCTCAATAAACTCATTGTTTGGTGAGGATATATAGA
GATATGCCTTCCCATCTATAGTTCAATCCCTTCTTCTAATAACCTCTTTCTAATCT
GCAATAAAGAAAAAGTAAAGAACTTAAACTTCTGATAATTATGTAATCTTTTAGCATAGG
CAGGATTTGCAGAGTGAATTTTATTGTATATGGCTGATGCCAAATAAATACTGATGATTAT
AAGGAATTACTGTGAAGTTGTCTGTCTGTAACCTCAACTCAATCTCATACTCTCCCTCA
60 TAAAAATTTTAAATAAACAATAACACTTTATTAACCTTAGGAAATTAATGATATCTGGTG
GTTATATGGATTTTATACGCTATGGCTGAATATCTTGTAAATAATTATGGTTACATTGGGA
TATTTATAATTTCAATTTACAGAGGCATTTATACAACCAATCCCCCAGATGTTTTTATAA
TTGGGGCATCTTTTTTTGGTTTAAATCCAATAATCTCTGCTATAGTAGCAACAATTGGCA
CAACTTTAGGAGGTTTGTTTGGCTACTTCTTAGGGGATAAATTAGGGCATCCAATATTTA

TAAACTTTTTGGAGAGAAATATCTGCATAAAGGAGAAGAATTTTTTAACAAATATGGAG
TTTATGGAGTTGTAATTGCGGGTTTTCTCCCCCTTACCATATAAAGTTATTGCATGGCTAT
CTGGAATTTTTGAAATGCATAAATTATTATTTACAGTTGGAACAATAATTGGAAGATTAC
5 CAAGATTTTTGGCAGTTGCATATTTTGGAGATGTTTGGGAAATATAAATAGATTAACTG
ATATAAATATTTATTTATTTCTATTTAATAAATCTCACTATAATTATATATTTGATGCAA
TTATGCCAATCATCTCTAAACAGCATATCCTTTAATTGCAATCACATCCTTAAATATAT
TTATAAAAAATAGAAAATTCGGGATGAAATTAATCTTCGCCTTATTTTTAGCTTTTATGA
10 TTGCATTTTCATTAAATATTTAGTAAATGAGCCAAGGCCTTATTTAGTTTATAGATAATG
TGCATTTGTATGCAATGAAGGAAATGAGCCAAGCTTTCCAAGTGGTCATACAACCTTAG
CATTTACATTAGCAACATCCTTATTATTTTACTCAAAAAAATTTGGAATATTGTTTTTAA
GTTGGGCTATATAATTGTAGCTTATAGTAGAGTTTATGTTGGAGTTCATTATCCTTTGGATG
TCCTTGCTGGAATGATTATTGGAATTTCTGTGGATGTTTAAACAAGAATAGATATATACA
AATTAATAGATAATATCTAAAAATACATAAAAAACCAGAATATTATCAAAAGAAAAATAA
15 AAAAGGAAAAATCAATTTATTCTTCTTTAAAGTATTCATCATAAACTCCAGCATCAATCT
CTTTTTGGACTTCTTTAGGGTCTTTTCCTTCAACGTCTACTCCCATTGAACCACAGGTTT
CTAAAACCTCTTTTACAGCGTTCTTTAATGTATATGAGAGCATAGCATCTTTTTTCATCT
TAGCTATTTTAATAACCTGTTCCAATGTTAAGTTTCCAACAACCTTCATGTCTTGGTTCGT
GAGCAGCGGTTTCAATTCTTAACCTCTTTTAAATTAGAGCAGTTGTTGGAGGAATTCCAA
20 CTTCAATTTCAAACCTTCTGTGTTTCGGTATCAACTATAACTTTAACTGGAACCTTGCATTC
CTTCATAGTCTTTTGTGTTTTTTCATTAATCTCTTTAACAACCTTGCATGACATTGACTCCTA
AAGGCCCAATTGCAGGCCCTAATGGTGGCCCTGCTGTTGCTCTACCTCCAGTAACATAA
CTTCAACAACCTCCTTAGCCATAAATATTACCTCATGTTTGGAGTGTTCATAAGAAA
ATTAATGTTAGATAAAATTAATATATTTGGTATATAAAGTTATGCCTCTAATATAAAT
25 TAATCTTTATGCTTTGAACTATTTTAAACCCCTCAACTGGAAGGGTTATCGGTATAGGG
ACAGCGGCATTTTCAAGTTCCAAGGTAACCTTCTCTTTATGCTTATCAACTCTAATAACC
TTTGCTCTCTCTCTTTAAATGGCCCAGCAATGATTTCAACAACATCTCCTTTCTCAATA
TTTTCAATGATTTCTTTGGAGTTAATAAAGGTTCTATCTCTTCAATAGCTATTGTTCTCT
GGTACTATTTCCCTAACCCTTGGCATTCCTTTTATTAATTCTTCAACATCTCCTTTGTC
30 TCTGCCCTCACTAAAACATATCCTTTCAATGACTCTGAAGCCAATATTGAATAAACATCC
AACTGCTCTTTTTCAGCCCTACTTGGCATTAATCCAGCTATATTCTTTTCTGGCCGACC
ATAGTTCTAACTGCAAAAATCATAATCTCACCTTAAATAAATTTTAAAAATAAAATAGA
GGTTTAGTGAAACGTGATATAAAAAAGTTTATATTTTAGGGATTAAATATAGATTCA
AATATGTTGTATAAATATCTTATCTATGTTGAACCTTTTAAACAACGTGAAGTCTTTT
35 ATACTCTTGGAGTTGTTGGAGGTTTAAATATTCCTTAATGTATGTTGCTGGAACGTGAA
TTATGTATCCAATAATTCCCAATAAAGATATTCCCAAAGCTGTAACCTTAGCAACAGCCA
AATATTCATCTTTTGTAGGTTTTTCAAAAACTAACCAACTCTCCTACATTCTTCAATAA
ATTCTTTAAGTTGTTCAATTTTTTGATTAAATCTGTTTTTCAATAATATCCCTTAAATTT
TTGGAATTCCTGTGAGTTCTAATTTTTTCTTTTCAATCCTGTATCGGTAAATTCATTC
40 TTGACTGAACTCCTGTAATAACCAATAAAACCCTCACGGTATTCTCTAAGTTCTCATCTA
TTGTAGCTCCCATATAATTGTAGCATTTGGGTCTAATCTTGAGGATACAGTGGCTACAA
CCTCTCTTGCCCTCTTCTAATGTTAAGTCTCAGGACCCATTACATGTATTAATGCTCCAG
TAGCTCCATCTATATCAACATCTAATAATGGGGAGTTTAAAGCCATACTAACAGCTTCTT
TAGCCCTTTTCTCACTATCACTCTCCCCGATACCAATCATCGCTAAGCCTCCATTGTTCA
45 TAACAGCTTTTAAAGTCAGCAAACTCAACATTAATCAATCCATCCTTGGTTATTAATCAA
CTAATCCCTTTACAGCGTTGATTAATACCTCATCAGCTACCTTAAATGCCAATTTTAAACG
GCATATTTGGAACATCTCAAACAATTTTTCGTTTGGGAATAACAACCTAACGTATCAGTAT
GTTGTTTTAAACCTTTCTAAACCTTCCATCGCATTTTTTCTCCTAATTTTCCCTTCCATTA
CAAAAGGTAGTGTAACTACAGCAACAGTTAAAGCCCTATCTTTTGGATATCTCAGCCA
50 CGACTGGAGCTGAACCAGTTCCAGTCCCTCCTCTAAACCACAAGTAATAAATACCATAT
CTGAATCTTGTATGCTGCTTTAATCTCTTCAAGCACTTTCTTTTGTGCTGCTCTCTCCAA
TTTTTGGATTACCTCCAGCTCCAAGACCTCTGTTAATTTTTTACCAATTAATATTTTT
TATCAGCTTTTGTCTAATTAATTGCTGAGCATCAGTATTAATAGCAACGGTTTATGCTC
CTTCTATACCTCCATCTTTAACCCTTGTGATAGTGTATTTCTGCTCCACCACAACCAA
55 CTACTGTAATTTTTGCTTTAGTTTGTGCAAAATATTCCAATAATTCCTTATCCTCTGGAG
ACAATTTCAATTCATTAAACTCCTCTAATTTACTCCCTTCTTAAACGTTTTTTAGAA
ATTTACGTTTATGACCTCCGTATTATTATTCTGAATTTGAATCTATAAATACAATAATAG
ATTTTAAACGCTAATACTATTAAACCAATAATTATATATGAATTTTTATATAGTATTTCCC
TTACATGGTTGCCCATAGTTATCATGGTGTGATATTATTATTCAATTTTAAATATG
60 AGGTATAAAATCTATTGGTTATGGGTTTGATATAAATAAATTTAGGTTGAATTTAT
GAACATTAATAAATATATAAATAATTTACTTGGTGAGGGTGAATGGTTAAACTTCTGCTAT
CTCAAAAAAACCAAGAGAGATTGCAAAACAAAAAATTATTGAATTGGCTAAAAAGATGTA
TGAGGATTTAATGAAAGGGAAAAAGACCAAGATAACAATGCCAATTAGAAGCTTATCTAA
TGCAATGTTTGTATAAAGAAAGGGTTCAATTTACTTTAGTTGGTAAAGAAAGGCAAGAAC
ATTAACGTGAATCAAGCAAGATTTTTGCACAAACAACAAAGATGTTAGAGTTTGCTAA

-448-

ACAGTTGTTAGAGACAGACGATTTTTCAACATTAAGGGAAGCATACTATGTTTCAAAAAA
CTGGGGAGAGGCAAGATTTGATGACCAACAAGCATCAAACAACGTTATTGAGGATTTAGA
GGCAGCTTTAGGAGTGTGAGGGAACATCTTGGATTTATCCAGAGGAAGATGGTTCTTC
5 AGTAGTAGGACCGTTAAAAATTATTGAAGAAACACCAGAAGGAGAAGCTTGTCTGTGATTG
TACAAAATTGGGGACTGGAGCATACAACATCCCAAACGATGTAACAAAATTAAACCTTGA
GACAGATGCTGACTTTATATTGGCAATAGAAACATCAGGTATGTTTGAAGATTAATGC
AGAGAGATTCGGGATAAGCATAACTGCATACTGGTTTCATTAAAGGGGTTCCAGCAAG
GGCTACAAGAAGGTTTATAAAAAAGATTACATGAAGAACACGACTTGCTGTTTTAGTATT
10 TACAGACGGAGACCCTTATGGGTATTTAAACATTTACAGGACCTTAAAGGTTGGGAGTGG
TAAAGCCATACACTTAGCTGATAAATTATCAATTCCTGCAGCAAGGTTGATTGGAGTTAC
CCCACAGGATATCATTGATTACGATTTACCAACTCATCCATTAAAGAGCAGGATATTAA
AAGGATAAAAGATGGTTTAAAGAATGACGATTTTGTGAGAAGTTTCCAGAAATGGCAGAA
AGCTTTAAACAGATGCTCGATATGGGAGTCAGGGCAGAACAACAGTCTTTAGCTAAGTA
CGGTTTAAAGTATGTTGTAAATACATATTTACCTGAAAAAATTAAAGATGAGAGCACATG
15 GTTACCATAAAAAATTATTATTTAAAAAATTAAAAATTTATAAAAAATTATTAATAAAA
TTCAGGGTGTAGTAATTTCTTATTTCTGTTAATCTTCTCCCATATCTTTTTAATTTCTTT
TTTATATACTTCATCTCTATAAGGTTGTAGATTCTTCAAGAGAAGATAGGATTACATC
CATCAATAAATACTCTTCTTCTCTTTTCAATATCCTTCGAAAAATATAATCTTTATGTC
TTCTATTTTATAAAGTTATTTCCCACTTCAATGTTTTTGGATTAAAAACTCTCTTTTC
20 TTCTTTTATTGATTCCTTAGGAGGATAATTTTTAAACTTTCGAACCTCATCAAAAGTCAT
GTCACCAACCAAAATATTAATCTATATATTTAAATTATCAATTTAATAATTAAAAACA
AAATAAAAAATAGAAATAGAATTTTAAATCATTTGGCGCAGGGGCTGGGATTTGAACCCAGG
CGGGGCAAGCCCCACTGGATCTCAAGGAATATATAACCACACTTAACTCTTCTAAACTC
CCCTGTGTCCCAACACCTCAAAATTTACCACTTACATCCTAAAAATGTTCCAACAACACC
25 GCATTACTATACTGCACCAATCCAGTTAAACAACTACTCCACAACAACCATAACTTAC
TGGATTTCTCAACACTTTTTAATAAACTCCAACTCTCAGCCCTCTCCTTAGAATGAGCA
TAAATCAAAGTAGTGTTCATCGACTTATGTCTAAGTATTCCTTTACGATGTCGATGGGC
ACTCCCTTATTCAATAAATCTACCGCCCTTCCGTGTCTTATACTATGAATAACAATACGC
CTATTTTTAGGGATTTTACCCTCTCTTTCAATTCATTCACTGCCTTTCTAAACACTTCA
30 CTAATCCACTCTTTTCAACCCCTCCACCCCTGAGAATTCTGGAACAAATAGTCATCTGAA
CCTTGCCTTACATTAAACTGAACATAATTCTTAAGCAACTCTAAAGTATCCGATGAACAA
ACAACAGTCCCTCTCTCATGAGTTTTGGTATTTTGAATCTTAAATATGCCATTGTCTAAA
TCACAATCCTTGTATTTCAAATTAAGAACCTCAGAAACCTTCAACCAAGTGTCCCAAAGT
AACCTGATTATTAAACGCATCCCTTATCCTGGTCTTACTCCCACTTTCAATTATCTCTTT
35 AAAATCATATTCAACATTTTCAAGCATCAACAGCATCATAATGTTGGATTTCATTTCTCGG
AACCTCTTCTTATCCTTACTCTCTTCAACGAACCTCTGAATAACATTATACATTCTTAAA
ACTCTATAAAACACTTTTAAATAATAAAAAATCTTCTCTGCGAACTTTTAGATACTTTT
CTAACCGTATCTAAATAATTAAAAAATTTAAGCAATCACTTGTTTTTAACTCTCTGGA
TTTTTTCCAAGGTAATTAATGCAATAATCTAAAAACACTCTCAACCTGTCTAAATCACTC
40 TTTATAGTGTCTCTTTTATCCCATCAATCTCCTTTCATCTTCAAACTTTTAAATAT
TCTTTAATTTTATCTGTCTCTTCAATTTTCTCTTCTTAAACCTTCAAAAGTAAAGATTT
TCAATATGTTTAAAGCTCTTCTCCCTCATCCAACCTTCAACCACTCGCAGTTCAACAACAA
ATTAGCACTTTTACCTAACCTCTGTATTATAACCTCCTCTTCTCTGTGAGAGTTATAGA
45 CCTCTTATATTCTTTTCAAGCTTCAATTGCTCTCTTAGAGTATCTATATCCACATTTTC
AACATTTTCCAACCTTATGCAAAAGATACCTAAGTTTCTTACCGTCAATGTTTTTATAAAG
ATAAAATGTTGCCCTCTTTTCTCTTTTATAAAGCCCAACCAAGGCATTATTCCTCAATC
AAACCACAATCAACTAATATTTTATACAACCTCCCAAGTTCTCTCTTAAATCCCTCTTAAA
TGCTCACAGATTTTGGCTTTAGCTTCTTCTATCCCTTCTCTTCAACTTCTCCCAAGC
50 TCTGGAATTTCACTACCATTAGCGTCATCTTCTGGAACGTCAATTCCCAAAAACCTACAG
TAATCCACTAAGTTTGTTCCTTCTTACTGCCCACCACTCCCATTCATATCTGCCTT
AAATCTACTCTACCTTGGTATTTTCTGAAATGCTTTATTTTCAACCTATGATATAAGCTT
CTCAATTTTAGGAAGTGCCTAATCAAGTCAATATTAAGCCGATTATTTTCTCAATACCT
TCTTTTTCCACCGTATCCCAAAATTAACCAACAAATAACTCTGACTCATCCATCAGAT
55 ATAATATCCCTATCCCAAGTTTTTACACCAATGGCAACTATACGGTGCTCCATAGGGTTG
AGTCCAGTAGTTTCTATGTCAATGATTGCCCTTAGCCATGCTATCACACTCTTCTAAGTA
AATAATGGCTTTTCAAGTGTCAATTTATTAGACTTGTAAGGGATAAACTATTAAGCAA
ATCTACAAAATCTTGATGTGTTTTTATGTTAAACCTTCGAATTCGTCATCTTCTTTAA
TATTTCTAAAGGAATATCAAAATCTTTTAACTTCAACTCCAACGATTTTAGCAGGAAA
60 CTCTCCACTTGGATGTTTAAATTTTACAACATCTCCAACCTCTCAACCCCTATTTTTCAG
ATAATGCTTGTCTAATTTGTTAAATCTCTGTTCTTAAATTTGAAATAATCGTGAGA
GAAATTAATTTCAATCATACTCCCACTCTGATTATCAAGACATAAGTTGCCAATAACC
CGACTTTGGAGAATAAATGTCTCCAACCCGTTTCAGATAATTAATAGCATCCTCAACTTC
CTTCTCAGATAAACCCGCCCTTTCAGCCCTTTCATATATCTTCTTTCAGGAGCTAAGCC
GTCATCTCTTGAGTTAGAAATTTCTTAAATAATTCAGAACCTTCTCAACCTTATCCCT

CTTAGATTTCCGAGTTCCAGCTATTTTGTCAATGTCTATTGAACCACTCTCAGGGTCGTA
GGCGATTTGTTTTAAGCAGGTATCAACTAACCTTATAGCCTCTTCTGCATCAACCGCTTT
AACAACTTCCGACAATCTTAACCTTTGCATGAGCAACTGCTAATCTGATTATAGACCCTAA
5 CTGTCTTGCAGATATTTCCAAAAGTTCCCTTTTGCTTCGCTCATTTTTCTTACAGAAACATA
ATACTCTTTTATAATCTTACGAGCTTCATCTGATATTCTGGCTCTATTTGTCTTGCTGATA
AAGAACATACTTCAGCAACAACCTCATCATTCAACTCAACACCATTATTACAAACTTTTT
ACCCGAAGATTTCCCTTTTCTCTCTCTAATCTTTGAATTATAATTATCAATAGAGAAATC
10 TGCTATATCCTCATCTTTCTTTTTATCAATCTTATCTTTAATCACAAAAATCAAATCAAA
CCTATCCAATAACTCCTTAGGCAAGTTTATCTGCTCCCATACGGTTAAATCAGGATTAAA
CCTTCCAAACCTTGATTACATGCTGCTAAAATAGCAACCCCTTGCTGGCAATACTGCATC
AATAACTCCAGCCTTCTCAATCTTCTGCTGTTCCATAACTCCCAAGAGATAATC
ATATACCTCTTTATTCCTTGAAAATTCGTCAAATACAAACAACCTCCCCATCAGCCTCAGT
15 TAAACCCCGAGCTTTTAAATACCCAACCTATCTCCAACTCTGCCTTCTCCCTGACTACAGA
CCCGACCAATCCAGGACCTGATGAAGTAACAGCATAAACTTTCTTAACAATGGAACTT
CTGAATTAATGACTCCATCAATGTTGATTTTCCAACCCAGGGTCGGAAATCATCAAAAT
ATGGATGGACGTTCTCATGTCAATATTAGTCCCACTACTAACCACCTGTAATAAAACAGC
TCTTTTATCATATCATATCCAGTAACCTCCCTAAAAGCATAGTCAGAAAGCTTTTGAAT
AACGTTCTTATCCTTAGCAATTCTATTAATAAGCTCTAAATCTTTTCATTGAGGTTTTT
20 AGCTATTTCTTCAATATCTTCATCATCTTTTCAATGTAAAAGCATGAATGTATAATTC
TCCAACACTCCCGTTTTTATTTCTTTAACAATTGGAACCTCAACAATCTTCACATACCC
AGAATATACCGCTTTCTTGGTTTGTAAATTCATAGAAGACAGTTGTAGAATGTTTTATT
TGCATATATTGACTCCTGTAATGGTGTGTTGAACCTTAACTCTCTGAAAATCAACTTTGCC
AGATAAATCTTCATCAAAATATTAGTCCTTTACAATCACAGCCATCAGCAGGACATGTTAA
25 TGACTTTCCAACTTCTTTAGGTTTATCCCAAAATCCTAAATCCAATGTCTTTGTAGCTCC
GCCTTTGGACAGTAATAGAATCCCTTAGCATACCTTAGTTTAAAGTTTCGTTGCTTGGAG
AATCATTGCTCTAACTCTACTAATTTTCTTTTATGGGCAGATGATAATTCAGATAAGGA
AATTCTACAAATCAATAGGATTTCTAATGTGGATAAATCTACGTTAGGTGTTTCGTTGAA
TAATCTTTCATAAGCTTCAATATATACATTTGTTATCGATTTTCTAATTCATAAGGGTG
30 TTTATTAATCTATCATTCAATCTCCAGATTCAGGGAAGTGCATTATAAATCTTTTCAC
GTCAAAATATCCCACTCTGGTCTTCAGTTGATAACTTGTGTTTAAATACTCCTTTAA
TTTATCAGTATAGTATGCCAAGAACAATTTCTCTCGTCAAATACGTTGGGAGCTTGAAGCTC
ATAAGGGTCTTAATGAGAGTTATAATTTTCTTTCCATCAACAATTTCTTGAGATATAAC
ACCTTCAGAGATTAATTGGGATTTAGCGTTTGAACTGATTTTGGGTAAACATTGCTT
35 TAAAGTAGGTAATAAATCATTATCCCAATCTGCTTGTGTTGTTAGGCATTCTTTTTAACAT
GCCTATAATTTCTCTTTTTATGTTATCATAAACCATGTTTATCCCTAATTTATGATTTT
TCAGTTTCTACAATCTCAATTTCTTATTTCCGAGTTTCATCAAGTATTGTAACATAAACT
TTGCATCCAACGTAATCTTTAGGTATTAAGATCATTCCAGAGTTTCCCTATTGGTTTAAAC
ACTCCTTTGAATGATATTGTTGCATCTTTTGGCAATCTCCATGTTTTCTTTCTGATTTTC
40 ATATTATCACTATGTAGTAATTTATCACTATTTGGTGAGTAATATAAATTAACCTGATATA
TATATTTTTTGGTGATTCATCAGCTTTGGTGAATAATCACATAAATAAAGTAGTTGCTA
AAAAATTACAATAAAACAAAAGAGGCAGGTCTATTTATGATACTCAAAATACTGGCAA
AAAAACAGCTAAAGGATGTTTTAAATTTACTAAATAGTAAGATATGTATTTTAGTGAAT
TACAGAAGACTTTAAATTTACATCCAAAATTTTGGACTCAATATTATCTGATTAGTTA
45 ATGAAGGTTTCGTTGAAAAAGAGAAGGAGAACTCCTTATAAATTTGGAAAAGTATATT
ATTCAATAACCCCAAGAGGTAAAAGAGCTTTAGAAATATTAGATCTTATTGAACTTTTCG
ATACTCTTAGAGAAGGCCAAGACATCGTTTATTAATTATAAAATTTGTAATTCAACTGCAT
AAATTAATCTATAGGATACTATGGCTCTAATATCGTATTTAGAGATGGACACATATTTG
CCTTATTTGGCTCAAACTCATAGGATTACGTTTATTTTTTGGTTTAGAGGCATATTTAT
50 AAAAGAGCTTAAATGTCTCTCTGGAATTTAAAGGATAATTTATTAAGTTTATGCG
GTTTAGAGACATTTAAACCGATATTTAGATAACGTTTATATTCCTAAACCAAGAAA
ATAAGAAAAATTAAGTTTGAATACCTTAGGGATAATCCCAATTTATTCGATTTCAATAAT
AAACGTCTAAACCGAAAATAGGACATAAATTTAGGATTTTCGTAATCTCAAGAAT
TATCCTTATCTCTAAATCCGACACATCTCGGACACTACCTTAAAAATATCAACAATCGT
55 TAATATACTAACCTCTTCACACATTGATAAAGCTTATATTTTATAGTTGATATATTATAG
AATTAGAAAAAGGAGTTGGTGAGTATGGATAATCAAACTATAGTTACACTTATGGGTTT
GGCTTCTTTGGGATTTGATTGTTTGTATCTTTAGCTTTATATTTGTGGTATTTTAAAT
GGGTGGTAAAAAGCTTTAGAACTAATTAAAGTTTTTGTAGATGTCATATAAAACAGC
ACATAATAGCCAGATTGTTATTAGTATTGCAAGGGCATCTCCTATAAATAGCACAATACC
60 TGTGTTGTAATGTTATCATTCCAGATGCAGTATTTAGGATGACATACAACATAAATAAA
TTTCATCCATAATTACCACAACCTTAGGGCTTTTATTTTCTATTTTTCTAAGTAGGTATTT
AAATAATATAACATTAAACATCATCGATATTCTAACTCGTATAGTAATCATTATATAA
TATTATAGAAACATTTGAATAATTGTAAATTCGAAGAGGGGAGTATGAAAAGGCTGGG
TGTGTTTTTGATACTTGCCAGTATAGTATGTGGTGTGCTTATATGTGGTTGCACTGG

-450-

5 TGGAGGAGGAAGTACTGACTATTCTTCAAGCACCGCATCTGCAGAACTGAGACTTGCCCAGT
TCAGATATTAGAGCATCATTTAGTTAGGAAAGATTATGGGACTGTGTATGTTGAAGGGGT
TGCTCAGAATGTAGGTAATAAAAGGTTAAATTTGTAGAAATAAAGGCAAGATTTTATGA
10 TGCTGATGGTGTGTTTAAATTGATGAGTTCATGGACGTCCATAGGGACGTTGACCTGGACA
AAAGTTTAGATTTAAATTTATTGGACCTATAGGGGAGGAAGGTAAGGTTGCTAAGTA
TGATATTGCTGTTGGAAGTGGTGGACTGAATAAGTGGCTGTTTAAATGCTACGATTT
GACTGTAAAATAACTTTTCAACTTCTCTTTTCTGGTCCTATTGTGAGCATATCAACAAT
CATTAAATATAATTATCTGCTGGTCCATGGATACTCAGCAGTATCTGTTATTACTACCTAT
15 GTAGGTTCCCTGTTGATATTAATCGAAAAGTAAATATAGGTGTCGGCAGGAAAGTATCAG
ATAGAGTATATAATAGTATATATACAGGTATATACTCCTGTATATATACTATAAAATATA
CTGGAAAGTTCGGAAGTATACACTATTAGGGTAATTAGTAATATTGGTGGATGATGTCG
TATGTTAGAATGACACTGTATCATGGGACCGACAGAAAGAGTGCAGAAAAATAATGGAA
AGTAAGGAGATACTACCCAGCCAAGGAGATAACCACTGGCTTGGGGATGGTATTTATTTT
20 TATGAAGAGGAGTTCCATGCGTTTAACTGGATATGGTATAGGAGAAGAACCCGCAATAGA
TTACTAAAAAATTTTGCAATAATAAAGCAGAAGTTATATGTGAGGAATCGAGGATTTT
GATTTAACGAAGATTGAACATAAACTCCTATTGACATGATGTATAAGTTAATTAACACT
ACGAAATTGAGGTTAGATAAACTCAGAGGAGACATGTGTGCGGAAGGGGTTGTATAAAT
TATATGTTCAAGAACAAGGAGCTGGGTATAATAAAGATTGATATTGTTAGAGCTTTG
TTCCAATACCCGTAAGGAAATATCAAAAAATAGAAATCGTGAGAAAAATAAAAAATAT
25 AAAGAAAGAACACATAGATTAACTTTATGCTGAGATTCAAGTGTGTGTAAGGATCCCA
AGTGTATAAAAAAGTTGGAGTGGTATGATTTGGAGAAGACAATAGATAAATCTTAATT
TATACTGAAATTTATAAAGAAGTTTAGGAATATAGGTGAGATTATGACATTTGATTTAT
TAAAGAATTAAAAAGAATTTACAAACATTTTGAATATTTGATTTAGAACAAATTTGAGA
GGGATTTAATTGAGTGTGGGTTTGGGAAGATAAAGCCAGGTCCATTAGCTACAGATGAGG
30 TCTTAAGTGAAGAGGATATTGCTAAATATCGAGAGATAATAATGAAGTCCCAAACTTGTA
ATGTTAACACCCACAACCAGATTGTTATTAAGATTAAATTTAAAGGAAATAAATGCTGATA
ATAAAATGATTGTGTAATTTAGGAAGGATATAAAATTTAAAGAGGATATAAAAGTTGGTG
AAGAAATCAAGTTATATTATTACCCTCAGCAGGATAGTTTACATATTTGTAATAATTATG
AGGTGGCATAAAATGGAAGCTCCACCAAGTGTGCTTTAAAGTTTCCAATTATATTGT
35 TAAGCATATTGAATTTATACTAAATGAAGTCCCTGAAAAAGATGAAAAGATAAGGTTGAA
TGTAATATTGATACAGAGATAAGATACAATAAAAAATGAGCCAAATAAATTTATAACGAT
AATTAATAAACAGCTGGGGAGAAAAAGGATTTTGCTAAAGTCCAGTTTATTTGTCTGT
TGAAGTATGGGGTTTCTTTGAAGTTATTGAGGAAGCGATTGATAAGGTTAGACAATTTGC
AGAGATTAAATCTGTTGCAATATTATTCCTTATGTTAGGGCTTTGATTCAACTATTAC
40 GGCGAACCGCTAATATTCTCCGGTTATACTCCACCTATAAATGTTGCTGGGATGATGGC
AAACATTGAAGAAGTAAAGAAGAAAAACCGAAAAACAGGAACAGAGCTTATGAGTA
AATCTATTTTAAATTTAGCTATTTTGTATGACATTGTATTTTAGTGATTTCTATTGT
GTATTACTTTGTATTCTTTTGTATTCTTTTGTATGCCATTGTAATCAATGTATTCTC
TTTTTGAATACACTGTCTGCTGGTGTAGTCTTTCTTTTTTATCCTCTGCTATTAAATTT
45 TTCTAATATCTACCATTAACAACTTAGAGAGTAAGGTTTAGCCAAAATATATAAAACCA
ATAACCAAGATAAAATATAGCAACGGTAAAGGGGTTGGTGTATTGAATATTGGTGTGG
ATACATTTTATTGTTGCGTTATTTCCATATTCTTACTTGTATTATTGGGATAGGGC
TTTGGATTGGTATTTTAAATTAGGAGGTAGGGAGAAGATTTGGCTCTGATTAATCTT
CAATTTTAGGTAGGCATCATAAAGCACAGTCCAAAAGTTAGGAGTGTAGTATAATAA
50 ATACAATATCTCCAATAATAAATAGAGCCTGTTTTATAGGGATAGCTCCTGAAGATG
TCTGCAAAATGTTGCTCCAGCAATACAACTCATACCCAAATATTATTTAAAAATAT
CAAAAATCCGATCAAAAAATATCTTCTGTTTTCTTTTCAATTTAAACACCATATATTACCG
TTTTATGAGAAGTATGTATTTTACGGTTTTTATTATTGCTGTTATTAACTTTTTAAAT
ATCCACCATTAACTTTTTTAGAGAGAAAGGTTTTTATATTAGTTTAATTATACTTACTCA
55 CCAAGAAGTGATATATCACCATAAGTGGGTAAATGACCACCAAGGATAACCAGCTTTA
ACGGCTGGGACCCCTTGGGTGTGATGTAAGCCCTGAAACACGGCCCCCACCATTAAACCC
TCCCCACCAATATAATTTTTTAGACGGGGCGAGATGAAGCCCACTATTTATTGGCTT
TAAAGAGTTTGGAGGGTTGATTATGAAGTCTTAGTCGTCAAAAAGGTAGTGAACTA
AGAGAATCAATGTTGAGGAGATTAAAGAAATCTCAAATGTTGGGAGTTTGTATCATCA
60 GATACAGTGGTGGAGAGGTTAAATAAAGGCTAAAGGAGATGCTGAAGAAGCTGCGGATT
GGATTACTAAGATGATTACTGATTTTCTTAATAAGATTATTGATTTGAGAGCTGGCTTTG
AAAGCGGAGATAAAGCCAAAACCAACTTGAGGCTGGAAGCGTGTGAGGTTAAGAAGAC
ACCAGATGAAGTTAAAGAGATGATAAACTTGCGATTAAAGAAGGTTACAGGCAGATTAA
AATTAGTAGTGCAATCCTAATGAGTTCTTATTAAGGTTGATGGCAGAAATGTGGATTAT
GGGTTTGGATTGTTTTAAGCGATAAGGAAATTAATACTCATGTTTTGAGAATTATTCTTT
TAAGTGCATTTTAGAAACGGATGCTAAGAAAGTTAGAGAGTTTTTGAAGAGATTATTC
AAAATCTAAGATAGTTAATGGTAGAGTTAAAGAGATTCTACAGATGTTTTCAAGTAGT
TGTTGCATAGAGGCATTTTTCTTTTTCGAGTTTCTATTTAAATATTTTGGTATTTAG
GAGCAATAATTGTAGGTGAGAATATGCAATAAATAAAGCTATAGAATTATTGGAAAGA

5

10

15

20

25

30

35

40

45

50

55

60

GCATGGAGTGATTATAATAATGGAGACACTGTTGGAGCGATTTTGAAGTTGGAGGAAGCT
GAGGATTTGATTAGGAACTGAGGGTAGGTTATGTTCTGAGATTAGGAGGGAGGGCTAT
GATGCGATATTCATCAAATAAAATCTATTTATCGTTTATTTAGGTGGAAAGCCTGTTTC
TTTTGGTGTGGCTAAGGATGTTGATGAGTTTGAGAGGAGGAGGGAGAATATTGAGTGTTC
GAGTGATAAGATTAGGGTTGTGAAGTTTGGGAAAAAGTTGTTTAAAAGGTTGAGGAGGCA
GATTTTGGAGGGAGAGAAAAAGGATTTTGGCATGTTGAAAGTTAATCGGAGGGATTTGAA
TGTGCAAGTATGAGTTAGCTGCAAAGGCTCATAAGAATGTGTATGGTGTAGAGATTGAAG
TTGAGGAGATTAAAAAGCAAGTTGAAGAAATCAGAAAGGAGCATAATAATTGGATTGATG
AAAGTGCGGCATTTGTCAAATGGTTAGAAACCTTGGAGCTTAAGCATGAATTTAAAAAGC
TTAGGGAGGAGGAGGATGAATAAGAATGGGAATAGTATTGAGGTTAAGGCATCAAACA
ATGCAATGGTGGTCTTAGAGAAAACCTGCTGAAAAGGTTGATTCTGTTGGATGATGTTATTG
AAAAGATGGATTCTGTTGGATGAGGATTTAATGTTACTGGATGAAGCTAATGAGCATCTAC
CTTTGGCATATACTTATCCTGATAAAAAACAGGAAAGGAGAAGATAATTCTCTCATGGG
CAGGAATTGTTAAAGCAATGAGGATGCAGGGAAATATTGAGGTAGAGCCCCCAACTTTCC
AAGAGGTTAATGGAAAAATATAGCAACGTGTAGGGTCAGGGATTTGAAGAGAAACATCG
TTATGGTAGGTACTGCTGAAAGGGTAAGTCCTGGTAGAATGGGAGAGGAGTTTAAATATA
CTGTCTTAGCTTCAAAGGCGATAAGGAACGCACTAAAGCACATTATTGAGCCAAAGTATT
TGCAGATGGTAATAGCTGAAGCTAAAAAGAGAAAGTCGTATGTGATTATCACTTATTAAT
TTTTTTAAAAATTTTTTGGTGTATGATATGGTGGAAAAAATGAGTCCCAAACTTTTGGAG
GTGAAATCATGGAGAATTCTGATATAAGGGCTAAGTTGTTGGAAGTTTAGAGCTGGTC
TTGTAATGGGAAATGGACAATTGGAATAGTGAGGTTGAACTCTGAATTAAGAAGGTTGC
TGTTAATAGGTGCCAATGTTATATTAATGATTGAGAGACTACGAAATCTAAGACAAAGA
TTATTGCTGAGTTTGCATGGATGCGGCTGAAAATGGAGTTAGGTATTTCTCTGATTTGG
TAAATGCGGCTTTGACAATATTAATCAATGGGATATAATATTAAAGATGTGCAGTGTT
ATTATGATGTAGATTTTCTGCTGTGATTACTGTGGATGGGAGGTTGGTGTGTCTATCA
AGCCAGAACACATGGAAGATTTAAGGGTTGTTGGTGTAAAAAATGACAGAGTTTTAAA
CTCTTTTTTGGTGATTCTATGGCAAAAGTTAGGCATGGTTGTAGAACTGAGAGAATAGA
GTTGATTATTAAAAATAAATCATTTGAAAGAGAAAAATCTAAAGCTTAGAAATAAATAGC
TGATTATAAGAGAATTTATATTTAATTAGAGGTAAGGGCTGTAATTAACAGAAGAGTT
ATTAAGATTGAGATTGAGAATTGTATTAAGATGATAAAGTTAATGAAGAGACGATTAG
GCACTTAAAGAGAAAGGTTGAAATGATACCAATGAACAACTTTAATATACTTTGAGCTT
AAAAATAGAGATTAATGATTACGTGGTGGTGTATGGCAGTTGCCTATGCTAAGTTATAT
GAGTTGATACTTAAAAAGGTTAAGGATGAAAAAGAGGCAGAGGAGTTGTATAATGCAATT
ATAGAGATTGTTAAAGAGGAAAAACTTGCAGTTAAAACTGAATTAAGGATGAGTTGAGG
GGTGAATTGGCTACAAAGGAAGACATTAATATTTAGACGGGAAAAATGAAATGGTTAAG
AAAGAATTAGAATATAAGCTTATTATACACACTTTGATAATCTTATTTGCTATAATTATA
ACTAATCCTAATGCCATAGAGTTGATAAAATATTATTTGGATTTAAGTGATTTTTATT
GATTTTTATTTTTTATTTCAATTTTACATTTATTAATTTAAATTTACTTAATTAATGATAA
GTAATCTTTCAACAATTTTAACTGGTCTTTCTTATTTGAATTTGAATGTTGAGTTTCyC
TAACTGAATCTTACAGAATATACAGGCATTGAAATTAGTTGTCCATTATAATCTACAGT
AATTGAaCTGTTTATTTTTTGAAGTTCTTACTTAGGATTGTAAAGGTTCTATTTTCT
TGGTTGTCCCATTTCTCTAACTATTGCCTTAGCGAGTTCTTTTAACTCATCATCAGTATA
AGTGGTAAATTTAACGTCATTGGGCTGCCATAAATCCTATAACAATAACTATATTGTTT
TAAGTCCCTGTCTTCAATTCAGTTGTTCTACTACACTAAATTCGCATATTGGATTTACAAA
TGTTCCAGATACAGTTTCTATAAAGCTGATTTAGTAAAGTGGTCCATTTTCATAGCCAGT
TATTCCTTCAAAGTTCCACAAACCAATTCTTTCTATTTTGTGCTATTTATTATTACATT
TTCCGGCTTCAATGTTGTATTGTTGTAATAGCCGTTTTTCATCGCACCAATCTTTGTCTAT
ATAGATTGCAATTCATAATCTTGAATATTCAGTGCATTATCGGCAGTGTGTTGGTATTCT
TACTTCATAAATCCAGTGTTTATTTTATTTCAGAGGATATTGCCAATTAATAAATATGTT
TTCAATTGGAACATCAATATAATTGCCTTGCTCATCTTTTATTTTTATTTTAAACATTAI
TTCAGAGTGTTTATTTTCATCATAATCTGCACTCGTTGGATGTGGGAATTTATCAGTTTC
ATTTCTTCTTTGTCATAAGTTTTTGGCTTCAATTGATAAACTATGACAGTATTTTGTCT
TTCAACTATTATTTGTTCTTTTCGCAACCTCAACTCCTCCAATAAAAAGTTTCAPTTCATA
AGTTTCAATGGTATTTTGTGGCATTCTAAATGTGAAGTGAATTTGCTTACATCTCCAGT
TTTTGAATCTACTAAAACACCGCCATAATATAATCTAAGTTGAGGTTGGAACCAACCCAA
GTATTTAGTATCCACATTTATCTCATATTCTATGTGCAATGTGATTGTTTTTTCATTTGG
GTCCGAATTCCTATAACATATACACTGGGTCTTACGATGAACTTTTACAGTATGGTTT
GACGTTGTAAGTGTCAAAGTAGTAAATGTATGGTTGCCAGCCCCATTGTTAATATCTCC
CAATGGAACCTCACAAGGTCTAAAATACACAATAAGAGGAACGCAAGTTAATAAGTTGCC
CGTATATTTCTTTTTGAATGCGATAATGTCAAAATCACATCTTTCTGACACCCAGATT
TTCATTACGTTCAAAGGTTCCAAATGCTTGGTTGAGCTTCAAGATATGACTCTTTATGAAC
AGTCCAGAGATATATTGCTTTGGGAAGTAGCCATCTTTTATCATTTCTCTATAATAAAT
ACTAACATATCCATCACTGATTGTGGCATATTTTGAATCTACAGAGTTACCTTTATC
GTCATAAACTGCCAATTTCTAAATCAGGAAGAAGAGTTACAGACCCCAAGGTATTC

-452-

TATTGTGGTTGGGTTACTCGCATCACCAGTGTAAAGTATTCTTTCTCCAAATATGTTCCG
GTTTTGAATTGGATTGATGTAACCTCTTGGGAAGTGTGGTAGGAAGTTACCAAAGAC
AATGTTGATGTTCCGCCCTATCAATTGCCAATAATCCTCCGTATCTGGGTCAAAGAAGTC
5 GTTTATATTGTTATTCTCAATAATCCACATTAGAGTTACAGTGAGAGAAGTTCCAGAGAT
ACCAAATGATATATTCAATTTTCCATACTTAATTGGAAACTCAAGGATTTTAGTCCCACT
TTCAGGTATATGAAACTCGGCCCCCATGTTCCATTTCATCCAAATTTTGTAATCTTGATT
ATTAACATATCATCAGCAGATGTTTGTATGGTAAGAGTGTATTTGTATGGAATTGGAAA
ATTGTTGTCAAATATGCATTATATGTAGCAGTGACGCCATCAGGTGGTAGATTGTA
10 AATATGACATTCATACATACATTCTGGAACATCGATGGGATATTGAAAACAAAGGATGA
ACTTGGAGCTGTTGGAAGTATGATCTGTAGATACCCAGTGAAGTGGAACTCCTAATTTT
AACTCCATCCATCTCAATTAGACCCATTTTCGCATATTTTGGATGATAAACTGTTTATATT
GGCTGGCCAGGGGTAATTACTGTTAATGTATTGTGTCTCACCAGAATCATAAGGATTCAC
ATAATCACTGTTCAAACCAAGTGTCATTCTTTAATTTATCATCGAAATTTCTTCATC
15 AATGTAATGAACAAAGGGCATTATTACCACCTTACTTGGTTTATAATCTCAGTATCCCAT
TCAAATTCATAACCGACAACCTTTCTCTCTTTTGGATGTTGTCTGAAATTTTATCTGTA
AAAATTAATGAATTGTATTATAATCAACGTAAAATCTGTATTGTAGTTTTTGTATAAA
AGTATGCATTTTTTAATGCATCAAAATAACTACTTTCTCAATGTAAATCAGTGGATTT
GAATCTAATTGATAATCCAGTTCCAAATTACATAAATTGCAACACTCTTTAAGAAAATC
20 TGTAAAAATGTAGTTTTTGGCGTAGTTTTTGTCTGGCTTAGAATCCAGAGGGGGCTGTTA
ATAGTATATCATACTGTTGCTGTCCAAAACCTCTGTGATAATCTTGCATCAATGCAATAT
CCTCTGAAATTTATTTTATCATTCCAAAGTATAATACATTGGTCAAAGGTTGGATTGT
AAATCTTTCAATGAAGTTATATTACACTGGTCAATGGCATTAAATGAATCTCTATATCT
ACGGACATTGATTTATCTATGACAATTGTTTTCATACTTTACACCATATACTTTAATATC
25 CTATTGCAAACCGAAAAATCCTACATCTCCACTTGCAACCTGATATCTGTAATACAAA
CAACACACCCCTTAGTTGTAATGTTTGCAATTTCTGTTATACATTTGATATAGTCATTAT
CAACTCCAGAACCCCTCATATATTGATGCAATACGTTTAGACATTTGTTCCGGAAATCAA
TGGTAAAAATTTACAGGAATTTCTTGATATGATGTGGTATTATTGACATAAACCTTCCCC
ACTGCATAATAAGCCCCGTGGAAATTTTATGTATCCATTATCTTTTAAATCTTTAA
30 ATGAATCAATTGATAAAAAATCTGATGCATCTTTCCGTCTAACTTATCAGCATTTCCCTG
CCTGATTTGCGTAGTCGATGTATCCATCTGCATTGAAATCTATTGAAATTTCTTTATTT
TTGCAAAAGTTACTGGGTCAAATCCCATAGTATCACCTTTATTTTATATATGACCCAC
CCTGAAACAGCAGAAATCAAATGATATTTTCATATATGGGTGCTTAATGGGTATTAATCT
GTTTTTGTGCTTGGTAATCGTATTTAACAACCTCAGAAGTTACAGTGCATAATTTCT
35 CCATCAGGAGCATATAACACTTTAGCATATACATCCGTATCGTAAGGATTCCTAACAGTT
AAAATAAACCTTTGGCTTCATCATGAACCTAACATAAAATTTCTGGAAGATTTTCAAAT
TTGACTGTCTTTCTTCTGCTGTAAGAGTAATCATGTCTTCCATTTTATCACCTTATTCT
AAAATTATAAGTTCAATATCAGCATAATAATGTCCAGTAGTTATCCTTGACAAGGAAATA
CTCTGAATTAAGCCTGTTTCCAATCACCAATCTCATCAAAATAAACTTCTATCAGGGGA
TTACTTGCTAACTGTTGTAAGAATTGCATTTTGGAAATGAATCAACATAAAGAGTGAAA
40 CTCGAAGTTTTTGTTCCTGTCTAACACTTCATAAACTGGCGTTCCATCTACGGCTGGT
TGATATGCTAAGTTTGGTTGTGGTTGATATTGCCTACTTTCAACTAAAAAGCTGATTCT
GTTTCATTCTGTCTAATTTGGAACAGCTACTTTTATTAGCCATTATTTGGTTATATAAA
CTAACAATAAGTTTTTCATCAAGAGTAATGTTATATTCTTGTGATTTTCCATTAGTTAGT
45 GTAGTTGTTACTTTGATAATTCATTTTCAATTATGTAACCTGTTTTACTAAAATCAACT
GAATTCACACCTGCAGAAATATCCTTCATTGTAAGCACTATTGTAGAAATCGGTTAAATCC
AACTCTTTCACATCTTCTGTTCCATCTGAATAAACTATTTTGTAGATGACTTTTTCTCT
TCGGTGATTAATTCAACTGTATGTGAACAACAGTAGGAGTTGTAGTATCAGAACTGAA
TTTGGATTAGTTGGTGTATTCAATTAGAATTGGAGTATTGTTGGACAGTATTGGAGTTTCA
50 TTAGAAAATGTCGGTGTTTGTGAGTCTGAAGTTAAATTTGTTGTTGTGTTAGTTATCAGT
GAGTTTTGATTGGATAAAAGTGGATAATCGTAACCTAACACTGCCACCATTGCCATCGTTT
GTAGTATTCATCAAAAAAAGTATTGTTTGTAGATTAGAGGAGGCATAACAATCACCACT
ATGCTACCCCTTCTGCATCTGGTAGTTGCATTGGTAACACAGTCCATAAGTTACTTTTAT
CAACTGTTATTTTCACTGGTTCCATCATCATAATTTATTGTTAGTGTGTCAGTTCCCT
55 CAGTGTCAATTGTAATGACTTTTAAATATTCCAAATCCTGGAGCAATCTCAGTGACAGTTC
CAGATTGACTTTGAATGGATGTTATTATTTTCAATTGAGTCTCCAATCAAAAAATGCAATTA
TTTTATAAGTTTTTGTAGAGTCCAATGTTGCTGCTACTTTTACAGTTAACTGCCAGGTG
CTGAAGTAAATTTTGCATTGGTATTCCATTACCTGCATCATCTAATACCATAACATAAA
ACGGATAATAATTAATGGAATCCCTATTCCATCGTTTGTAGAGTCTATAATTTCTCGCAT
60 CTACCCAGTAGTGAATTTCTTATAAATATAGCTCCTTTGCCAATAATTAATAATTCAT
TAGTTGTTGTAGTAATGACTCTGTAGGTTCTGTTCTGTGGATGATGCAAGTACGGCCA
TAATATCACCTCATCTAAACCTTTGTTTTTCAAATCAAAGCAATTTTGTAGCTAATT
GATGCTCATTAAGCTATTTCCAACCTACATTTATGTGTATATCTCCATAAGAGTAAGATG
TGCTGTGTATTCTTACTTGTGAAATTTTCAAATTTTAGGATTCCGGGAGCTCATCA
GTTTAGCAGTATAATCAATAGTTTTCTTTAAGTTAGGAATTTCTTTCTAATTCACCAA

5

10

15

20

25

30

35

40

45

50

55

60

TAATGTTTTCCATAAAATGGATTCCCCATTTATCGTCGTCTTTTAAATGGCCCTACATCTG
GAGTGGTGTGATGTAAGTAACTGGAGATAATACCCGCAGCTTGACTTACAGCATTCTCCA
ACTCTGAAAATTTCTCTTTTATTCCATCAATTATATTTTGAATCAAATCACTACCCCACT
TCTTAGCTTCTTCTATTTTTTGAGACCACCATTCAATCCATTCCACCATTCAATCAA
ATGTTTTGTTTAAATGTTATCAACAAAACCATTAATATGCATCTAATATTTGCTGAGGTAATT
GTTGCCATTGCTGAGCTAAGTTTTTTCAGCTGCTTGTCTGGCTTCATCTTCTTTCATCCCTA
ACTCTTCAAATGCCTCTTGTATGTATTTTGAACAACGCTCCAATCACCAGTAATAAAAC
TATATATTGATTCAAATGCTGCCAAGAGTGTTAGAATCCAGCTCTTGCAGCGGATAATG
GTGAGTCCCCATCTAAATCAAACAATCCTAAGAAATCACCACCTGCTAATGTAACAGCTG
CTAATGCTTCACCCAATGCAACAGGCCAAGCCGCTAATTCAATAAGCCCAACTTTTAAAT
GCTCTATAGCTCCTTGTATATCTCCTTCCAATAGTTGTTTTACTGGCTCTACAACAACCTG
ACAAAATCCGAAAGCTCTTCCGGCAAAACCTAACAGCTTCACCTAAGCCCTTAAATGCAT
TAGATAATCCAGAGACGTTTGGTAGGTTAATTTTTGGTATGTTGATTTTTGGGATTTTGG
GAAGTTTTAAATCAACTGGAAGTTAATTTTAGGCATGCTAATTTTGAATTTTTGGGA
TTTCTAAATCAACAGGTAATTTGATTTTTGAGAGTTCTGGAAGTTTAAATTATCCAAAC
TAATTTTACCAATAATGTGGATTAAATTTACCAAAAAGCATCTTTTAAATGCAGAACCAA
TTGCTGCACCAATTGCTATTTCAAGTATTTTTCCAAGACCTCCAAGACCTACTCCAAGCT
CTGCCCCATATTGCAAAATATCCATGACCTGCTAACCAGCCCTCAATATCCTGCTTAATTG
TTTCTAAATACCCCTTTTGGTCTTTATTTATGCTTATTAACCTATCCAATTCGTTGGTAT
TGTCTGGCAAGCCCTTATCTAAATCCACTCTCTGTAAATAATCATGAATTTTAACTATTT
GTTCTAAGTTAAGCCATACTTTTTTGCTAACTCAGCTAATGTTTTATCATCTTTTGT
TTTGAATTTCCCTCAATGCTTTTTCAACATCAAATCCCATCTGTCTTGAGTTTAAATGCCA
AATCATTTATTGCTCTGCCAAGTGTCCAACATCTTGAGCTCCAGCTGCCTGTGCTTGAA
TTAATATAGATGCAAAATTTCTCAGGGTCTAAGGTATCTCCCATAGTTATGCTGAATTTCC
TAATTGCTTCTGCAACTTCTGTATGCCCTTGCTTCAATTTCTAAAACCTCAGCATTACCA
TTTTCATTTATTTCTTCATTTGATTTTTCCCATTTGCTGTAGTGCTGAAATCATCTTGCTA
TATCATCAGCTCCAGGTTCTCCTCCTCTTTCAGCCATTGCCATTGCTGCTAATATTTGAG
CTGCATATTTATCGTTTGATGCTGCCAAGTTTAAAACCGCTCATTGGAATATACAATCC
CGTCTCTAATTTTCTATCTAAAGAATAGCCGTTATATAAGCCGATTTGTATTAATCTCTCTG
CTTGGTCTTTAGTTAAGCCCTTTCTCTTAAATTTGTCATTAGTTCTGTGATTTTTTCTAG
CGTCGGAAATCCCCATGTATGCAGTCCCTACACTTGCCACATCTGCAATTGCGTTTATGT
GATATTTTTCAGACCATCTCTTTAGTTTATCCCATCTGTCTTATCCACTTCAACCT
TTGCCCTAATTTGTTTGTTCGGATAATTCACCTTTTATTTTATTGATTTTGAATA
TCTGGTCTGTATTTGTTTTAATATCTATTTTGTGTTTTTCAATTGTTCCAATTCACCTT
TTAGTTTGTGATAAGTCATAATCAAAGTTTATGTTTCAATTTTGGAGCATCTGCCTCTATCT
CTTCCAACCTCTAATTATCATATTTTATATTGCTCTTAAATTCACCTCTGATTTGACAT
TTTTTAACTCATCCAACCTGCTTAATTACTGCGTTGATATTGCTCTCTATCTCTAATTTTG
ATTTTATTTTCTAATGATTTTAGATTTTCTTACATCCTTATCATCCAAGTTCAATT
CTAACGTTCTTCAACTTTTAAATTTTTCATACAATCCACGCATTAATTGCTTTCTTAAG
AATACAATGATGACTGGGACAATTAACCTAACACAATGAATCTGTATATGTCCTCAATC
ACTGCTGAAAGGCACGTGCTTGCAACAATCCATAGCAGTCAGGGAAGTACCATCCCAG
TCCAAAGCTATATAATCCCCCTCTTTAACAATCTTAAACCATATATTAGGGATAAAACC
AAATCCCATGCGAATACTACAAAAAATGCTAAGACTAAGCTAATCAATGCATTATGAATA
ACCTCCATAATTAAACCAAAAAATATTAGTCCATAGTATGTTCCACTTATGAACAACATA
CCGAATGGTGTGAGCCATCTCATAGAATCCCCCATATTTAACTTATCTTTTCTTCTC
TAATTGCAATCTTAATATTATATTGTAATCCATCTTATTTAGCTTTATCGTTCACTCG
GGGGGATTCTTAAAAATTTACAAACAAAATAAAGCTCTGTTGCATCATCACTTAGTGCCC
ACTCTATTGCGAAAGGATTTATCCTTGTTTAACTGCTTATAAGCTTCAAAGTACTTTTTG
ATGAGTTCTGCAATAACAATCGAAGGTAATTCCTCAACTTTCTCTTTTGAATACCATAT
AAAATTGGAATGTATTTAATGCAAAATCTAAAGGCTCCAGGTTCTTTGCATCTTCAATC
ATTTCTTTTCAACTGATAATGGTGAATTATAGCTGTGAGTTTCTCTCCAAATATCTCA
ATTTCTAATTGAGGGAGATTAGACCTTATTTTTTCTAATGCTTCAAGATTCTTTGTCTCT
GATTCCTTAAACTCTCATCTAATTTTTTAAAAAATTCATTTTATCCATTTAATCACCT
TATTTAAGCTCGATAATCTCATAACTTTGGGCCGTCAAATCAAATGACTTACTCCACCA
CTCCAGTCAAACCTCCAGATTGTTAGGCATCGCTCCCCCTATTATAACAATCCTCTTTGGA
GGTTCAACTCCATAAGCCATCGTAGCTTCTTTAGAAAATGCAAGAACAACAATGTTTGCA
CTTTTTGAAGCTCCATTTTTGTATTTTGAATGTTGCTTCAAGAAATCTCCCCTGAG
AAATAAGCAGTAAGCTTAATGTCTCCAACGGTGATGATATCTTTGAATGATAATGTTATG
CTTGAACCTTTTTCGATTTGAATCTTCCATAACTGCAATCCACAGTCAGCTCTTCTTTA
TCCTTATCCTCTTTTACGGATAATCTGAAGCTCCTCCGAGAGGTAAGTCCAAATAGAGA
TATTCAACTGTAATTGATGCACCATTTGCTGGTGGCTGTGTGAATTTAATTTTCTTCAAA
ATTCCATTTTCATGGATTGCTGTATAATCTTGCCCTTCGAAGTCAAAAACACCATTTACT
TTAACAATCTCCGAACCGAGAACCGCATCATCTTTTGTAAATTCAAACGTATCATTTTGC
TCATCTCCTGTAAAAGTATCAACCTGTGATTTTGACCAAAATATGCCAAGTTTCCACTT

GCCAAATATTTTCTTGGCTTGGTGGAGTAAGTGATAGCACCATTATCTCACGCTCCTAA
ACTCTAAGTCTAGTATAATCGCTTTCAAAGTCAATTCTTTCCAAATAAGAGTTATATGTGG
TCATAACTGCTTCAATTTTCTCTACTAAATCCTCATTTGGTAATTTATCAAAAGTAAATG
5 TTGCATCTACATAAGCAACTCTATTTTCAATCTCTACTGAGAAATCCGCCTCACAATGGA
AGTCCTGAATTTTGGATAAAGGAGATTTAACTTTGATGCCATTGTTTTTAAATCTTCAA
GTATTTTTCACCTAACGCTTTGCATTAGCATAGTTAGTCAAAGAACACCGCCCCCTCT
TCTTCATTTAATTCCTTCTGTTTTGCTTCCTCAATAGCAATTTGATACATTCTATAAAAG
10 TGATTAGCCATAACTGAAACGTTTTGCTCAGTTTTTCATATCCCTTGATTGAGTGATGAA
TAGCAAGCCAATATGGCAATAATATCAACGCTTCAACCTGGGATGTTTTATTGCTAAG
TTTGCAGATGCCTCTGCTTGTTCAGGATTGGCAAATTCCTTCATCAGCACTCATTCCTAAG
AGGGGCTTCATCTTCGCTAAAATTTCCGAAACATCAACCATAAAAAATCAGCATTATCCC
AATACTTTTGAATCTTAATAATCCATTCTTTTCTTAACCATAGGGCTTATTGCTCT
GTAAATATAAATCAACCTGAGTCGCTTCTTTTCAATAAATGGTCTGCCTCCACAGCT
15 ACTCCCATTTGAAGAATTGCAATATCAATTGGGACTAAATATGCAGATTATCAGTGATT
AAGTTTGTGGGATGATTTCTTAATGAAATCCTTTGTTTCATCATAAGCACTAAAACCT
TGAGTTCTATTTTCTAAACATGCAATTGCATCAACTGGAGCTACTAACGCACATTTT
GCATTTGAATACTGCTCAATCTTTGTTTTGCATCTATGATGTCATTGCTATTTTATCT
GGAGTGGTATCTGCACCATTCATGATGCTGATGCACCCACTGCTGATTGTTTTACTC
20 AATGCATCAATTGAGTATTGATTTTCAGCCCTTGCCACAACCTTTGCGAGACCTTCAAAA
ATTTGTGCTTTTATTATAGTCAGCATAGGTCTTCAACAAACCTCTCGCTTTTGTAAC
TTCAGATTAATGTCAAATACTGTGAATGGTGAGGTTGTTGCTTAATTGGAACCTTCTGTC
AATCCATTGAACCTTTTAAACGCATTTTCATCAACACAACCTGAACTAAATTATAA
ACCTCCACATCTTCAGGAATTTCTTTTTTGGAAAATTTTCTTGAAAATAAGTTTGAA
25 TCAAGTATTGGTTTTCAATTGCCTGCTCTACAATTTGAGCATCATCTCATTAGTGCCATC
ATCTCACCTCTATCTCAAAATAATAGTGCAAGTAATCCCTCAACAGATGCCACTTTGAA
CCCTGCCCTTAATCGGGCTTTAACTGCCTTGCCACTGCCATCAGTGCTTGGAATAACATA
ATCCCTCGGGCTATTGATTCTCCTTCCTTAATTTCAACTTCTGAACACCATTAACCTTT
TAAATCAACATACATTCAGCTGTGTAATCGCCCTGCTGTTAATAATGACTCCATCCGC
30 ATCTATTGATATGCTATCATCACTCACTGTTGAAGTTCCAAATCCAATTCCAGTTGAAGT
TATTTTTCCAAATCTGTATGGTGCGAGGTCTGCAATTGCTATGCCAGAGATGATGTTTT
AGTAGTCATATTCTCACCTTATAATCCAGATTGCTCTCTATGACCCGAATTTCCAGA
ACCAGAAGGAGGCACTGGTGCGGATGCGAGAATTTCTTTTGGGCTTTCTAATTTCTTC
AAGCTGTTTTTAATACTGACTTATTCAGTCAACCAATTCATCCATTTTAGAAGCGAGTAT
35 TTCAACAACCTTATCATCTTCATTGCTGCTTTTATCCTTGCTTTCATTTCTTTTTATG
GGAAGCCAATATTGCTCAATTTTCTCATGTAAGAATCTCTCAAATTTCTTCTGTGCTAT
GTCTTTAATTTTTTTAGGTTGAGTTTTTCTGTGCTTAGTGCTCATACTATCCCTCTT
AATTGATGCCAAACTTCGAGAACATAATTCCTTCAACCAACCTCGCAAAATCTACTTT
CGGGTCCGACTCTAAGCAGAGAGCTAAGCCCTTCATAATACCTTCTTCGCCAACACCATC
40 ATCGTTAAATTCAAAAGAACTCCCTTGATTTTTATTCCATTATCTACCAACGCCAATA
AATCTCATCGAAGATTCTTATATGGGCATAGAGGTTGCCCTCGGGATTAAATAAACATC
AACCACGTCGCCAAGTTCGAGATTTCATTAGATAATAATATGGTCAATATTGACGGG
CTTACCCCTCAACGTAGGACCGTATTTTTTAATCCACTCTTCAGTTATTTCTTGCCCATC
AATCGTTGTTGGATTAAAAGTGAAGGAATATTGACTGCATATCTCTCCCTCAAAAAGA
45 AAAAATTAGATTTTTTTAAGATTATTTTTTCCAGAACTTCAACCTTACCTTGTAACCTG
GCTACCTCCGATTCCAAGACCTCCTGCTTTCCCTTTAAGCCCCAATCTCCTCTTTAAG
TTCTTCGATTTCTTTTCTTTCTAGCTAATTCTGCTTTTAATTCTGCAATTTCTCATT
TTGAGAACTTCGTGATAGAAGTCTCCATCTCATGTTTTCTAATAATGCATCAACTTT
GTCTTTTCTTATAGCTTCTTGAGCAATCTTCTCAACATAATCACTTTTTTTAGGAATAA
50 GTCATCAATTACACCATTTGCTTTTCTTTTTTGAATAACCCCATTTTGCTCACCTAACA
ATTTTGAACAAAATAGCAGAGTGGGGTAGCCCCAAAAGATTTTTATCATTCTATTATT
TAAATATTGTTTCATTTAAGTGAAATAAAGTATAAATATAAGTTTGAACAAAGAGAAATA
CGGGGATAACATGATGACAGACTCCGATTCAAAACAGGCAATTTTTATCATTGGCGTTCA
AGGGAAAGAAATAAAGAACGTTGAACAATTGATGCAAGAGCTTAGCAAAATGTTAATGA
55 AGGTTCAATATACAGGTATTCTAAGAAACAGGTCTTGGAAGAGGCACACTTCAAAAT
CAAAAATAATGAGTTGCAGGACCCAAGAACTCTCAACAGTTTTTAAATTTGCTAAAGGCTTC
GGGAAAACGATTGGTAATAATTGATGAATGGTGAATAATGGACAAACAAACAGTTATCG
GATTTGTAGTATTGTTTTGTGTTTTGGAATTAGTTTTCTATCTAAAAAACTATACCAAT
CAATGGCATTGACTTTAGCTGTTTTTGGAAATTTCTCATTATTGTTTTTCTCCTCTATA
60 TACCTGTCTTAGCAAAAAGCTTGCCGTATGTTATTAATTTTCAACCTCCTCATC
AAAGAGTTAGGGAAATTAAGTGGGCACTGATGAAACTACAGACAACCTCAATCATTAGAC
TTAAGAAAAAGCTAAAACGTTACATCCTGATGAGGGCAATAGAATCTCTGGCAGGAGTA
GTAATAGCTTCAAAGATTCTGCCTCCTGCATTATCACAATTGTTGATGATTCTAATTGAA
TTCATAAACTTATTGGGGTTAGCATGCTTTATGAAAAAATTAGATGAGAAAGAAAA
CCAACGCACACATAATTTAAGCAACTCTGATGCAATGATAGGATTCGAGAGTTATAAA

5

10

15

20

25

30

35

40

45

50

55

60

TTCTGCTTTTGGAGTTCCAGACGATATTAAAGAAGAAGTTATTGCAGCAATAGACAAGGC
AATTAAACACGGGCTTGAAAATGGAACCTTTAACTATCTAAAAGTCATAGAAATTGGCTTG
TGAAGGATATACAAAAGAGGATATTGCAGAGGCGTATGGGCATCAAATATTGGGGGCTTA
CGTTGCAGTTTAAATCCTAACTGGAAAACCACTTAAATTGAAGTGATTTTATGGACTACA
AACAATGGGTGCGGGAATTTAAAAAAGAGTTGGCTCATGAGATTGAGAAAGAGTTGGTTG
CTGAAGTTGATGACAATATACAAAGGGGTTTTCAGAAGAAAGAATTGAAATGGAAACCAT
TAAGCAAAGATTATCAAAAAAGGAAAGAAAAGGAAGGTAGGAACACCAAAGGATTAATTT
ATCATGGAGCATTATTAAGGCAACAGATAGTAAGGTGAAATCACTTCAAAGGTTTGC
AAGTGAAAGTTTCAATAACATGGTGTATGCTGGAGTTCATGAATTTGGGAGTAAGAAAA
AGAACATTCCAGCAAGACCATTTATACAGCCCGCATGAAAAAGTCCAAAAAGATTTAC
CGAAAATCGTGGAAAAAGTCATTAAAGGATGAGATGATGTATATCGTCGAATTAGTGAG
AGAATCTCTCAAAAAGAAAACCTTTCAATAAAAAAATATTTTGAAGTCTGCAAAAAGTT
AGATATTTCCCATACCTCAAAAAGTGAATAAACATAACTTCCCTCCGCTATTCTATGAGTT
AATTGACAAATTAATAATCATTAAATATTATAGAATTCTGTGAAATAACAATGGATTGCA
CACAATAACGAAAAACAGAAAGAAATATTACTCAATATGGTTGAACATCCCATTAATAT
ATTGATTATTGGAAAAGGTGGCGGTAGGACTTCATGGTTTCATTATTGTTCAATTATAT
GATGTTCCGAGCTTGTGTAGAAGATTATTATGAAAAATTCACAAGAATTGATTTTGTTAA
TGTTGCCCCCAATGACCATTTAGCAAAGAATGTTTTTTTCAAAGAGTTTAAAGCATGGTT
TCTTAAATGCAAAGTATGGCAAATGATAGGGATAGATAAGAAAAAAGACAAAAGCCCC
TATATCTGTATTGGAAACAAAAGCAGAGATAGGAGATAAAATAACAATGCACTCAGGTCA
CTCAAGAGCAACATCATTTGAAGGGATGAATGCCCTATGCGTTGTAGCTGATGAGATAAG
CGACCCAGATTTTAAAAATGCAGAGCAATTATTTGAACAAGGGTTAAGTCTGCAAAGTC
AAGATTCAAAGATAAAGCAAGAGTCGTAGCAATCACATGGACAAGATTTCCAACTCCAAA
TCCGAGAGATGACGTAGGATATAGATTATATCTTGATTATAAGGCAGTCGATGAGGCATA
TACATTCAAAGGGAAAAACATGGGAAGTGAATACAAGGGTTTCAAAGAAGACTTTAAAGC
ACAATACCAAAAGAACCCAACTCCTTGCAAGATGTATGTATGAATGCGAACCTCCTGAATT
GAACGCTTATTTTCATCAGTTTAGAAGCTCTGGAAGCAAGGCATAAAGTGGAAATGGGATT
ATTCACATGGAGGGCAATTTATGAAAACAATTTGATAAGATTGGAGTTTAAACAACCTTCA
AAGCACAGATAAAACCATTTACTGCCATACTGACCTTGGGATTAACAGAGATAAGGGCGT
AATTGCGATAAGTTATTTTCGATAAAGGGAAGGTATAATTTTCAAGACATTATTGTTCTTAC
TCCAACGCTTGGACATAAGATTGATTATTTAAGTTTAGAGAAGTTTACAATCATTTACA
AAACCATTTTTTCAAGTTAAATTCACATTTGACAGATTCCAAAGTGAATATTTTATACAAA
ATTCAAAGGTGAAAGGCTATCTAAACACGTCAAACATATGGACAACATTCCAAGAACTCGT
AGAAGGGACAAAAGAATACTATGATGCAACTGGTGTAACCGGAAAAAAGCAAAAATCGA
AATTCGATGCAATGAAGATATTTGGCAAAAACTAAGAACTCAAATCCTCCAACACCAAT
AGATGGGGATAAAGTAATCTATTTGGTGAAGGTAGTCTGACTTAGCAGATGCTGTTGT
CTCAAGTGCCATATAATTGCATTACCCCAATGTGAATGCAATTGATGAAGAGGATTACTC
ATACCGCAAGTGTTTGACGATGAAGAAGAATTTGAGGAATTTGAGTTTGAAGTTTCTT
TTAAGGTGATACTATGGAAGATGATAAAATTCAAATGGAGACTGTTAGTATTGACTTAGC
AAAAGATACTGCTGTAATATGGCATGAGAATCTTATTCCTCAAACTCTTACACCATA
CTCAATAGTATCAATTGATGGGAAGCAACTATCCAAAGATGTAATTGATGAGATTTTCAAG
ACTGATTGATAGACATAAGGGACTTACAATTAGCATTCTTCTGATTTTTTACTGAAAGG
AAAATGCTACCTCTACAAATGCAATTACATCAATCCGAATTCATGAACCTTTAAGGAAAG
GAAACATTGGAATCCACAAAAGGAAGATATGAGTATTGCATCACATACACAATTAAGG
GAATAATGCCGAAAGATGGTGGGAAGTTGATACAGAAGAGGATGTTAGGGTTGTAATTGC
ACCAATGGAGCTAAGACAACACTTTCTGCGGATGTTGAATTTTATGATGAAAAGTATTT
GGGAGTATATTACAATCCAATACCAATACATGAACAATCCAAGAGATTGCAGACCAAAA
AAACACACTTGCTTTAAAAGTATTGCCACTCATGGTTTCAAAAAACCTAATCCCAACAAT
TATAGGGATTACTCAAAACACTAAAGCAGGAGAGATAATAAAAAAGGCATCTCAATCA
CCAAAATAGAACCAGAGTATATATTTCTGCAACTCCTGATGAAGTAAATTTGAAACAAT
AAGCATAGGAAAAGACATCCCAACTGATTTGATAGAAACAATGCTGTATTACTATGACAG
TGCCATATTCTATGGGATTGGGGACTTCAATTAGTATTGTAAAAGCATCTGGGCAGGAGCT
CACAACATCAAGGACTGTAGATAGGAACATATTAAGAATTGTTCAAGGGTATCAGCAGGA
AATTGAAAGATGGATTGCAGACCAGTTAGAAAAATGGGATACAAAGGCATCTGGGTAA
ATTTGCGAATCCAGACCCTGACTGGGAAATTAATATGTTGCAAAAAGCAAAAATGGTTGC
AGAATTAAAGGCACAAGAAGAGGTAGCCAAATATGACTTCAGTGCATTGATTGAAAGAAT
CTTCCCAAGCAATGAATTTGGAGAAATACTTGGCGCATATCCTGATTTAACTGAAAAAGA
AGTTGAGAAGCTATTGAAAATGGCAAAAAGAGGTAAAGGAGGTTTGAATAACGCAGATGA
AGAAAAACAAAATTTATTAGAAAAAAGCGTAAAGTTTGGAAAAAATAATCAGCAAAAT
AGAAAAAGTGGGAGATAAGTTCCGCAAAAAATCAATGGAAAATTTGTAAATTGGATACT
TGAAACGTATGAAAGGCTTGGATATAACGAACCTTATGCAAGATTGGGATGAATTATTAAG
GGAATTCACCTCGAGAAGAGTGGATATGTTCTTCTTCTGACTACGTAGCCCCCTACACTCAA
TTCATTGAAGATATATGATGACTTAGACCAGCAAACTATTGATATACTAAACAACATTG
GGAACAGGCATTCTACAACATATATTTCATCATATAGCCAACAGTTCCTTGATGTTCTTAC

-456-

AGAGGGAATTCAAAAAGGACTTGGTGAAGAAGAAATTGCAAAGAATCTTAAAAAGTTGC
AAAAGATGTTAAGGGTTCAAGATTGCAGATGAGGGCTCGTGAGGAGATGAACAAAACCTA
TAATCTGACAAGAGCGAGAAGGTTCTGGAATGACAAGGTAATATATGTCACAATGAAAGA
5 TGAAAGAGTTAGACCAAGCCATAGAAAACCTGCATGGGCTCATCTTTGTACCTGCTGAAAG
ACCTGAATTAGTGCCACCATTAGGATACGGTTGTAGATGCACAATAACACCTGTGAGGGA
TTAAAATGCCAAATAATACAAATAATAAATTATGTAAGTCTGCAACTCTCCACACAGGG
10 CTGAGATAGAAGCATTATATTTCCAGGGCTGGGGAGCTAAAAAATATCAAAATATTTAA
AAGAAAAGTATAACGAAGACATCTCATACAGTGGGATTTAAGGCACATGCAAAACCATG
TAAAGCCTCAGCTACTTGAAGCAATAGAAGAAGAACTACCGAAATTTACTCAAAATGT
ATAAGGAGATTGCGAATAATTTTGGATTGGCTTTGGAAGGTTTATTTACAATGATTAATA
CCGCAAAAAAGATTGGAATAATCCAAAGGCAACAGCGAGGGAAAAAGAGTTGCTGGTA
GGAATTTAGTTATGGCCATAAGAGAGATGAAGGAGCTATTGCAACTTACTGAAGATAAAG
15 AGGGGGCTGATGACATTGACCTTTAAAATTGACAATGGTTTCGGAGGGTTGCGGGGGTT
TCCTTTTCATATTTTTTATAAGCAATTATATTTTATCTTCAAATTCATCAATATCTTAC
CGTATCAAATTTTAGTCCAGTTATGCACAACCTAAAAAATCATAGTCCTCTAAAAATTTG
TTAGAGTATAAGTTTAAAATAACATTAGTTTAACTGGACTATATCAAAAAAGCTCTGT
TAGGCTGTTAAATCATTGGCGCAGGGGCTGGGATTTGAACCCAGGCGGGGCAAGCCCCA
CTGGATCTCAAGTCCAGCGCGTAGTCCTGGCTGGCTACCCCTGCTCAAAATAGGCATA
20 TGAAAAATATAATGATTTAGTATATAAATTTACGGTGTCTCTTAAAAAATTATGGATTA
CTTATTTTACTTAATTCCTTCAATTAATAAAGAGATGTTTTATCAACATCATCTCCT
TCAGCATGATAAATTTCTATTTTTTGTCTAAATTTTTGTAAATTTCTTTCATTATGTTT
TTACATATAATTGCATTAACGTTTTCTTTTACAATAGACTTTTTTCCACTTTCATCATTG
AATATAACTTTTGTACTCTTAACCTCGTTATCATCTATTCTAACAATTAAAGAAACTTA
CAATCTTCAAACTATTACTAATTTTTATCAACATCCATTGAAATGGCTACTTTCATATTT
25 ATCAACTCACAAAATATGATTTGGAATAAGGAGATATAAGATAATTTAAGGTTATTTAA
ATACTTTACCCGAAAGATATACAAATCTTAAAGCGAATATTACGGCTAAAACATATACA
AGCCAAATGTACTTCTTCCATCTTCCAGTAAATACCTTTAAGATTGGATATGTTATAAAT
CCTAAGGCGAGACCTGTAGCTATACTAAATGTCAAAGGAATAGTTAGCAAAGTTATAAAT
GCAGGAATTGCCCTGTGTAGTCATCAAAGTCGATGTATTTACTGACCTCATCATTAAA
30 GCTCCTACAAAGCAAGTGTGTGTGTGTCATAGGGGGGAATTGCCTTAACCTACTGGA
TAGAAAAATAAGATAATAAAAAACAATAGCCACAACCTACTGAAACAAAACCTGTCTT
CCTCCAAGTGCTATACCACTTGCAGATTCATATAGGTTGTTACAGTTGAAGTTCCCAAG
AGAGAACCAACCACTGTTCCAGTAGCATCAGCCATTAAAGCCTTTTCAACCTTGGCAGT
TTTCCATCTTTATCTAAATATCCAGCCTGAGAGCCTAAAGCACTTAAAGTTCCCAAGTG
35 TCAACATATCAACAAAGAAGAAATGCCAAGACTATTGTCAATAAACCTAAGTTTAAAGCC
CCCATTATATCAAGCTGTAAGAATGTTGGTGAATTTGATGGAGGCATTGAGAAATTTCT
TCTGGGAATGGTGAAATTCCTAAATCATTCCTATTAGCGAAGTTACTATAATTTCAATT
AATATAGCTCCAATAACATTCCTACTAATAAGATTGATGTCAAAATATCCCAACAAAC
40 CCAACAGTGTAGATGGCTCCATTAATTCCTAATGTAACATAATGTAGCTTACTACTA
ACTATGATACCAAGCACTTTTTAACCATAAAGCAATAAATAACCAATACCAACAGCA
GTTCCATACTTTATAGCATTGGAATAACATTAATAATCCATGTTCTTATCTTTGTTAAT
GTTAATATTATAAAGAGCACTCCAGAGATGAAAACAGCACCTAAGGCACTCTCCAATCA
ATTCCCATTCCTAAGCAAAACCCATAGGTAAATAAGCGTTTAAATCCCATTCCTGGAGCT
45 AAGGCAATGGATATCTTGCATATAATCCCAATACTAAAGTTGCAATTGCTGAAGCAATA
CAAGTAGCAACCATAACTGCTCCAAATCCATACCTGCAGTACTCAAAATCTGTGGATTG
ACAAATATTATATATGCCATGGTCATAAATGTAGTTATTCCTGCAAGGTTTCTGACCTT
AGATTAGTCCCATACTTCTCAAATTCAAAGTATTTTTCAACAAATTTCTAATACCCCCCT
CCATTTGTTATAATGGTTTATTTATGTAATCTAATGTTTTATAAAATCTTCAATTAATAT
50 AAAATAATAAGGTTATAGTTAGCTCTTAAATAGTTAATCTTTAGAGAGAATAATTGGGC
TACTAAAAATATTATGGTGATTAAATGGAAGGTTTGACAGTAGGGTTATTTGGACATGT
TGAAGGTGTTGGAAAAGAATTAGGGAAGAAAGGAACCTCAACAGACATAACTTTATATAA
TTACAAACAGGGAGATAAGGCAGTTTGTATGTAGAGCCAACAAGATATCCAGATAGAAT
AAACCCCTTTAATATATGAAATAAACATGATGGACTATGCCTTAGTTTTTATGATGAGAT
55 TACAGGAGAGTTAGGAGAGACACTTTTAGCATTTGGATATGTTTGAATAAATAATGGAGC
TTTTGTTGTTGGTGAATATGTTGATTTAGACATGTTGAAAAATATAATATCCCAACATC
AATGAAGGACTTTGAAATCTTAGAGAGAGATTTTATAAACATTAGGGAAAAGATGATTAA
TTTAAATATTGAGAGAGATTATAACGGCTTTGTTAAAAATCCAATAGACCACTACTTTAC
TGTTAGAAGTGTGGAAGTGTATATTAGGAAAGGTTGAGAGTGGAAGTGTAAAGAGTTCA
60 TGACAATTTGAGGGTCTATCCCAACAGATAAAATGGCAATGGTTAGGAGCATTCAAATCCA
TGATAATGATTTTAAAGAGGCAAAAGCTGGGAATAGAGTAGGTTTAGCTTTAAAGGAAT
AACTACAGATGAGTTAGATAGAGGAATGATACTATCAAATGGAGAGTTAAAGTTGCTAA
AGAGATTGAAATCAACATTAAGTGAACCCATTGATGCAAAAACTGTAAAGGAAGGGGA
GAACCTACCAATAATTTGTTGGTTTGCAGAGTGTTCATGTGTTGTTGAGGAAGTGAATAA
AAACAAATAAAGCTTTCCTGCAAAAAGAAATAGCTTACGATGTTGGAGATAAGCTATG

TTTAATTGATGGCAGTGCAAAAATTAGGATATTGGGTGTCGGAAAATTATAGTTCTTTTC
AAAAATTTTTTGCAATAACTAAGCACTGATGAACTCCTTCCTTTAGGAAGGAGTTCAAAT
TTCCTTAATAACTTTTATTAACTTTTAAAAAGAACAGAACTATAAAAAATAGCACAACTACT
5 AAAATATTATATAGTATCATTATCACAAATTATATTTATGAAATGTTGAGTTAATCATAAG
ATTCTTGCATAACCAAAAGATATATATACCCCTATTTAATACTTATATCACCACAAATT
CTGTATTCTTATATTCTACCTGTTAAGTTTAACTTAACACCATTTTAGAATAAATAT
AATAAAAAATAAAAAAGATAAAAAAGAGGTAAATTGGTGATGAAATATGGCAAAGCAAAA
10 ACCAGTATTAAACGTAGCATTCAATTGGACACGTCGATGCAGGTAAGTCAACAACAGTCGG
TAGATTATTATACGACAGTGGAGCTATCGACCCACAGTTATTAGAGAAGTTAAAAAGAGA
AGCTCAAGAGAGAGGTTAAAGCAGGATTTCGAGTTTGCTTACGTCATGGACAACCTGAAAGA
AGAGAGAGAAAAGAGGGGTTACAATTGACGTAGCTCACAAGAAGTTCGAAACCCAAAAATA
TGAAGTTACAATCGTCGATTGTCCAGGACACAGGGACTTCATTAAAAACATGATTACAGG
AGCTTCACAGGCAGACGCTGCTGTCTTAGTTGTTGATGTTAATGATGCCAAGACAGGAAT
15 TCAGCCACAAACAAGAGAGCACATGTTCTTAGCAAGAACATTGGGTATTAAAGCAAATTGC
AGTTGCAATTAAACAAGATGGATACAGTTAACTACAGCCAGAAGAATACGAAAAAATGAA
AAAGATGTTATCAGAGCAGTTATTAAAGTCTTAGGTTACAACCCAGACCAAAATTGACTT
CATCCCAACAGCTTCATTGAAAGGAGACAACGTCGTTAAAAGATCAGAAAAATGCCATG
GTACAAAGGTCCAACATTAGTTGAAGCATTAGACAAATTCCAACCACAGAAAAACCAAC
20 AACTTACCATTAAAGAATCCCAATCCAAGATGTCTATTCAATTACAGGGGTTGGAAGTGT
CCCAGTTGGAAGAGTCGAAACAGGTATCTTAAGACCAGGAGACAAAGTTGTCTTCGAACC
AGCAGGAGTTAGCGGAGAAGTTAAGTCAATTGAGATGCACCACGAACAAATTCCACAAGC
AGAACCAGGAGACAACATTGGATTCAACGTTAGAGGAGTCAGTAAGAAAGATATTAAGAG
AGGAGACGTTTGTGGGCACCCAGACAAACCCACCAACAGTTGCAGAAGAATTCACAGCTCA
AATCGTTGTCTTACAGCACCCCAACAGCAATTACAGTTGGTTACACACCAGTCTCCACGC
25 ACACACAGCACAGGTTGCATGTACATTCAATTGAGTTGTTGAAGAAATTAGACCCAAGAAC
AGGGCAAGTCATTGAAGAGAACCCACAGTTCTTAAAGACTGGTGACGCAGCAATAGTCAA
AATCAAACCAACAAAACCAATGGTCATTGAAAACGTTAGAGAAATTCCACAGTTAGGTAG
ATTCGCTATCAGAGATATGGGTATGACAATCGCTGCAGGTATGGCAATCGATGTCAAAGC
30 TAAGAACAATAAATTCCTTAAATTTCCCTTTTAAATAGCTTTTAAATCCCATTTTATATT
TTTTTAATATTTTAAAGCATTGAGAGGGGAGAGTATGCAAAGGGCAAGAATCAAGTTAT
CAAGTACAGACCACAAAGTTTGTAGTGAATTTGCAGACAAATAAAAGAGATTGCTGAAA
AAACAGGAGTAGATATTTAGGACCTATACCATTACCAACAAAGGTCCTTGAGAGTTGTTA
CAAGAAAGAGTCCAGATGGAGAAGGTTTCATCAACATTTGACAGATGGACAATGAAAATCC
35 ACAAAGATTAATTGACATTGATGCAGACGAGAGAGCTTTAAGACACATTATGAAAATAA
GAATCCCTGACAATGTTCAAATAGAGATACAGTTCAAATAAAATTAGTGTGGTTATTTTA
ATAAACAAAATTTTATAGGCAAAAACGTTGCAATCTGAACAATGAGGATTGCAACGAAAT
TCCTTTTTTAAATATAATTTTATCGTTTCTGATGAATTTTTTGGATTCTTTTCCACTTCTG
40 TATCCGAAATAATAACCTATTATCGTAGTAACCATTTCCAAAAATAGTGAGAAAAATTCT
TTATGTAGAGTATATATCTGGATTTTGGATATAGCAATCAATATAATAAAAAATGCT
ATAACGATACTGCCAGTTATTGCCCTCCTCATCTCTCTTTATCTAATTTCTTATTGTTT
ATCCATCCTAAAAATACAAGCCACAACAAAACAAGTGTAGGAACACCAACTGCTAATACT
AAGGTATCGCAGAATATAACAGTTAGGGATATGCAATAACAGCTATTGAGGTTACTATT
45 GCAACAATTTTGTCAATTATTGTCTTTTATCACAAACCACTTATCAATAATTATTCTA
TTCTCTTAATTTTTTAAACAATCTAACCTCTCAAGAACTTTTTCTTTATCTCTTCAA
TTCTTTTACCCTCTTCAATATGGCTGGGACTATAAACTTCCACTGATGCCATGGTGGCT
GGCATTTTAAATATTACAGATGCCATCTAAACTGCATCCCATTCTCTTTCTTTATCT
TATCCATTTTATTAGCTACAAGAATCGGGCTAATCTTCAAATCAGTTATAAAGTCAAACA
TCTCTAAATCAATTGGAATTTCTCCCTCCCTTTCCATCTTTCAACTATCTCAAAAAATG
50 ATTTCTGATCTATAATTGAACAGCAGCAGCTATTTTCATCAGCATGCTCTTCAATATAAT
GAACAATCTCATCCTTAATCTTCTCTGCACTTTTTTGGTAGTCCAGCCATGTAACCAA
AGCCAGGCATATCCACCAAAATATACTCCCCCATATCGTATTCAATTTTTTAAAGTAA
CTCCTGGCTTTTTTCTTACTCTAATATCTTTTCTCCAGTCATTAATCTAACAAAAGTGG
ATTTACCTACATTACTTCTCCCACTACAATACTTTTGGCTTTGTCTTTTTTCTTCAT
ACTTTTCTTTTAAATCTTATATCTCTCAAAAAAGTCCATAGTCTCACACAATTTAATTT
55 GGTTTTTAAATATCTAAATAAGTAAAAAGATTAAACCTTAGTTATTCTAAAAAGTT
TTGAAAGACCTCTATTAATGCCTATCTGTGGTGTCTAATCTTCAATAATCTTTTTT
ACCTGCAACAACCTCATCTATACTGTGAATAGTCCCTCCCAACTTTCAATAATTTCTCTG
AATCTCATCAAAATCTAAATTTATCCCTTCAATTGTAACCTTTAACATTCTCAGTCTCTTT
ATCTATTTTCATAGACTGTAATTTAACCCCATCAATGTTTGATAATGATGTTAATTTAA
60 TGCCATATCTGTTATTTTGGCTCATGCGGCTTCAATATATCTAAACAATTTCTCCTAAT
GCCGTTCAATTCTATCCCTCTAAATCTTTTTAATTGTTATATTACCTATACTTAGATTAT
TTAAATTTATGTTGATATTTTTATTTATGGATTTATCGAATATTAAAAACCAATGA
TAAGATATTAATAGCCCTAAGATAAACTATAATGTTAAAACTTAAATGGAGGGAACT
ATGGAATAAATGGAGTATATATTGAAGATACATTTGCAGAAGCATTCCCAATATGGGTT

-458-

5 TCAAGAGTTTTAATAACAGCAGCTACAAAGAAGTGGGCTAAGATTGCAGCTACAGAGGCA
ACAGGTTTTGGTTGTTTCAGTTATAATGTGTCCAGCAGAAGCAGGAATTGAGAAATATGTC
CCTCCATCAAAAACACCAGATGGAAGACCAGGATTTATAATACAGATATGCCACCCTAAA
AAGTCAGAGTTAGAGCATCAAATGTTAGAGAGATTGGGGCAGTGTGTCTTAACATGTCCA
10 ACAACTGCTATTTTTGATGCTATGGGAGACATGGCTGATGAGCAGTTAAAGGTTGGATTT
AAGTTGAAGTTTTTCGGAGACGGTTATGAGAAGAAAGATGAATTATATGGAAGAAAAGTT
TATAAATCCCAATCATGGGAGGGGAATTTATACTGAAGCTAAGTTTGGAAATTAAGAAA
GGAGTTGCTGGAGGAACTTCTTTATAATGGCAGATACAAACGCCTCTGCCTTAATCGCT
GCTGAAGCTGCAGTTAATGCTATTGCAAGTGTGATGGCGTTATAACTCCATTCCCAGGA
15 GGAGTTGTTGCTTCTGGTAGTAAAGTTGGAGCAAGTAATCCAAAATACAAGTTCATGGTT
GCTACAACAAACCACAAGATGTGTCCAACATTGAAGGGTGTGTTGAAGATTCAGAAATT
CCAGAAGATGTAATGGAGTTTATGAGATAGTTATTGATGGTGTGATGAGGAATCAGTT
AAAGAGGCTATGAAGCAGGGTATCTTAGCAGCTACAAGAGTTAAAGGTGTTAAGAAAGATT
ACAGCTGGAACTATGGAGGTAAGTTAGGTAATATCAATTTAACTTAAGAGAGTTGTTT
20 GAATAAATTTACTCTATTTACTTTTTAATTTCTTTTTTATAATAGAGATAAAAAACAAAT
TTAATAGTTGATAATTTAAATTATATAAATGGCTGTGGAATTTAAATTTATAAAAAACCA
ATAGGAGGTTTTGGTTTGAAGCCAAAATATGCCATTAAGAAAGGATATGATTGGAGAATT
TACACTAAATAAATCTTTAATACTTATAGAGGTAAAGTTTGAAGGCTGATTTTAACGG
TCCCATAGAAGGCATCGTAATGAAAAACAAAAAGAGCATATCTATTTCTATCCTCTTTT
25 GGCACATACATATGGTTAAACCCTCACTGTGTCCCATAAATGTCATTCCAAAACTTC
TCTACCAACAAACCCGAAGAATGTGCATATTAAGAGGCATTATCAAGAATTGTTGGTAG
AACTTTGAAGGTTTATTATGAGACACCAAAAACATCCTATTTGGGAAGATTGTTGGGTTT
TACAAGAGGGGTTTTTTCATGGACTTTAGTTTATAGAGATACATGGAGAGGTTGTTTTATT
GTTTAACCCAGATTATATTGTTTATTATGGAACAAAGTGAAGTTTTTAAAAAACAAATCC
30 TCCTTACAAACCAAGATTAATGAACATTACAAAAACAGCAAACTATTTAAGAGATG
TTTATTAGAGGATGTAATTATAGAGCCAGAGTATCCAAGAATAAATATTGAGGTAAGGT
TTTTGTTTATCCTTATGGAGTTGTCTCTAAGGATGATTACTTAGGAAAGACAGTAGAAGA
TATATTAAGAAAGAAAGAGTTCCTAATTTAAGGATAATCAATAAATAACAAACAAATTT
ATTTTAACACTTAAGGTCCTAAATTTTAAATTTTCTTTTTTGCTAATACCTCCTA
35 ATCTAATCGAAAATAGTTTCATAATATCCTATTTTTTACATAAAAGCTCAAAAAATTTTA
ATTTATTTTACAGCACCGAAGAGTTTATATATGAGTAATCATTATTTTACACTAAAAATCCT
ACATCTATTATATATCTCGTTTCAATAAATTGAGAAAAACATGTGTTTTTGGAGGTGCGTT
GAATGAATGCTGAGATAAACCTCTCCATGCTTATTTTAAATTACCAACACAGTTTCTCT
TAGTAGCAGGTAGTAGTGAAGGAGAAACACCCTAAACGCTTTTGATGGAGCTTTGTAA
40 ATGCAGGCATAGGGAATGTCAATTTAATTAGAATCAGCAGTATAATGCCTCCAGAAGCTG
AAATCGTTCCTTTGCCTAAATTACCAATGGGAGCTTTGGTTCCAACAGCTTATGGATACA
TCATTAGCGATGTCCAGGAGAGACAATATCAGCTGCAATAAGTGTAGCTATTCCAAAAG
ATAAGAGTTTATGTGGTTTAAATAATGGAGTATGAAGGAAAATGCTCAAAAAAGAGGCTG
45 AAAAAACAGTTAGAGAGATGGCGAAGATTGCTTTTGAGATGAGAGGCTGGGAATTGGATA
GAATTGAATCAATTGCAGTTGAGCATACTGTTGAAAAGTTAGGATGTGCATTTGCTGCAG
CTGCATTGTGGTATAAATAATTTTCGAAAAACATTAAACAGTTAAATATAATTAAGTTATA
ACTATTAAGGTAAAAATAATTTAAAGATAATTTTACTTTCTAAAAGTTCTTACATTAA
TTTGTTTTTATTTACCAATTTGGAGGTGAAAGCATGTTAAATACTTAGGGAAACACTT
50 AATATTAGAGTTATGGGGTTGCGACCCAAAGGCATTGGACGATATTGAGGGCATAGAAAA
GATGTTAGTAGATAGTGTAAAAGCATGTGGAGCTACTTAATTTGTGTGAAGAACTCACAA
ATTCTCTCCTCAAGGAGCTACAGGAGTTGCTGTGCTCGCGGAAAGTCATATAGCAATACA
TACCTACCTGAGTATGGCTATGCCGCCTTGGATGTATTTACCTGTGGAGAGCATACAGA
CCCATACAAGGCATTAGAAGTTATAAGAGAGTTTTTAAACCAAAATCAATACAAATAAT
55 TGATTTAAAAAGAGGATTAATGGAAAATGGGACTTTTGAACTTAAATAAGCTTTTATGCT
TTTCTTTCAATTCTAAAGTTGATTAATTTTTTAAATTTTTCTAAAGAGTTGGATTTTATG
TATATTTCTCAGAGGTATCCAGATTTATATCTGTTATTTTTCTCACAAATAAACTGAATAC
TCAATTCCTAAGTTTCTTAAGAACTACAACAAACATCAATTAGATTCCTGTAGTGTTT
GCTATACTGACATATTTATATACATAATTTCTTTTTTGTATTATCAACTGAACCTCG
60 GAATCATAAAATCCTTTTAGCCAAGAAATCATTAGTTTTTCTGTTATTTCCAATTACATTC
ATATAGTAATCTACATTAAAGACTTTTATACCAATAATAGAAACCTTTTGAACGAACCTCTT
ACAACATATTGGTCTTTTTTATTTTCAAATTTCTAACATATTCATTTATGATTTGAAG
CCAATGTTTTCAAGATTTCTTTTAAATTTCTTATAAAATCCTTATCTGTAACCTTTTAAAT
TCAATCACAATACTTTCTGCTTATTTTACACTTCCATCTCCATTTAAAACTCCCAAT
ATGTAAGCTAACGATTCTGAAGGATTTAAATTTATTTTTTTCGTATTTTGTATTATTAAG
CTTTCAGATGATTTTCTAATATCGATATTATTATTTCTTAGAATTCTTCTTATCGTTTCA
TGGCTACACTTCATAATCTTTGCTATTTAGTAGTTGTATATCCATTTTGATATAACTTA
ATAATTTCTTGAAGGATTCAAATCTAAACCTCTTCTTGGAGTTATACCTAATTTATATAAT
CTGTAACATACTGTTGATTTACTACATCCCAATATTTTTGCAATCGTTCCTGCAGAATAT
CCCTTTTTATATAATTCCAAAATTTCAAATCATCAATTTTAGGATTTTCTTACCCATAA

ATAGCACCATGCAAAAATTTTTATAGACAAAAGGTTTAATTAACATTACTCCATTTATAA
CTATTATATTTACACCTCCTAAAATAAAGGTGATGTAGAGTGAATCAAAAATAATGAT
TTTAAATGCCATATTTGGTTTACAGAGTATCATAACAACAATGTAGCTCTTTCAGTTAGA
5 GTTAAGGATATCTTATATAGGGAGAAATCAGGATTTCAAGAGATAGAGATTATGACACC
TATGATTTTGGGAAGGCATTAATTTAGATAACACTTTTCAGACAACAGAGAGATGAA
TTTATTTATCATGAATTAATATCCCACATACCTCTTTTCACCCATCCAAATCCAAGGAAT
GTTTTGGTTATTGGAGGAGGGGATGGAGGGACTGTTAGGGAAGTTGTTAAGCATAAATCA
GTTGAAACAGTGGATTTTGTAGAGTTGGATGAAAAGGTTATTGAAGCTTGTAAGAAAGTAT
10 ATGCCAAAATTGAGCTGTGAAATTGATAATGAGAAGGTAAATTTGATAATAACAGATGGA
ATTAAGTATGTTGCTGAAACAGAGAAGAAGTATGATGTGATTATTGTTGATTGTCCAGAC
CCTGTTGGGCCTGCTAAGGGGCTTTTTGAGAAAGAATTTTATAAAAATGTGTTTAAATGT
TTAAATGATGATGGAATTATGGTTCAGCAATCAGAGAGTCCATTGTATAACTTAGATTTG
ATACAAAATATCTGCAGATATTTAAAAGATGCTGGATTTAAGATAATTATGCCATACACC
15 TACCCAATGCCAACATATCCAAGTGGATTCTGGAGCTTTACATTAGCATCTAAAAAATAC
AACCCATTAGAAGTTGATGAGGCAAGAATAAAGAAGCTTTAAAGATATGGAACTAAA
TACTATGATGAAGAAGTCCATAAGGGAATATTTTAGCACCACCTAAATTTTTAAAGAT
GCTGTTAAAAAGCTCTTGAATAATTTTTATTTCGTCTTTTTTATTATACACTCATTTC
GAATTTTTACCATTTTAACCATTTTATTTTTAAATATTTTAAATATGTGTTGACTATC
20 TATATGGTTGATTTTGAAGATATCTAAAAATCGTCAGAGAGTTAATATATACACTTGCACA
TTCTTTATTACATTATATGTAAATATGACAAAAATCCAGAACGAAAAAGATAAAAAATAC
GATACGACGTATTAATAGTTCCTTGCAGAACATCTTAGAATAAATATATAACGCTCTTA
ATAAGAAGGCGTTCAAATAGGACTTTCGCAGTTTTATATACTAAGGAATTTAGATGTC
CAAAGGGCACCATATTTCTCTAAAATATTTATTTCTGCGATTTTGCAGAGAAATATGGTG
25 TATAGGACTTTTTATAGTAAGGGGTTTTAAACATGTATTTTATAAAAGTAAAACTATAA
TACATTATATAATATATAAATGTAAATCCAACCTGTTCAATATTTTATAAAAATTTGTA
TTTTTCGATATCTTACATAATTATCCTATAAAAAAATtCCsCCCCCCCCCCCCCCCC
CCCCCGAAAAATCCAAAAAATCGGAAAAACCAAAATTTTTATATAGTCGATTATATTAA
CTCATATTATTAACAACTATACATTATTAAGTCTCTCTATAGGACTTTCACAGTTTAT
30 ATATTAAGTGTTTAGATGTCCAAGGGAATCAATCCTCCGAAAGGTGGAGGGACTATGGAG
GGGAGATACATGAGTCAAGCACATGAATTATTGACAAATACAGGAGTTGAGAATATGGCA
AATAGAACAGCTGAGAGAATGATTCCCTTAATGAACCTTTAGTAACTGGCTATAGCATA
GCGTTAGCAAAAACCTTAGGTAGTGGAGCAGGAGCTATGACTCAAACTTTACTATCAGAA
ATTGGAGAAGTTTTAAGTGCAATGGTGGATGAAATTTAGGCAGTGGGCAAGCAAGTTAT
35 GAATTAGAAAATGTTGAAGAGTTGTTAAAAAATGCGTTCTTGAGTTAGGGATTGCTAAA
GATGTAAGAAATGAAAAAATATAAAGATAACATGGTAATTTACAAATTGTATATAAAA
GGTCTTTTATTTGCTCCTGTCCATAAAATTTAATCGATAGAGGATTAAAAGAGTTCCCG
TTAAGCCCAGAGGGTTTATTAGCTGCTTCCATAGTTAGAAGAGTCCTAAGAGAAAGAAAA
GACGGAAATACAAAGCAAGAATTAATGTAAATACAAAACCTCCAGTTAATGGAGAGACA
40 TTGATTGTTGAAATAAAGAAGTAGGGAGTTTATAATCTTTCAACTTTCTACTAAATTTA
TATAATATTGAATCTGAAATTTATGATGGTTTTCAAATGTTAAATTTCTTAATGCTCC
TATGTATAGGGGGTATATAAATACCACAAATAATTTTTTTAGAAATCACCATAATGCT
CTTATATATAATCTATATATACTCCTATAAGGTGTTATCACGTAACAACAAAGTATTTA
TTATATGAAAGTCTCTATCTAATTAAGGAGGCATAGTTATGATTCAAAAAGAAATCTT
45 GAAGAATTAAGATTTAGATTATATTCATGGAGTTTATTAATAAAAAATGATGGATTA
GTTGAATATTCCAGTTTGTGAGAAGATTCAAATATGGAAGCTTAGGGGCAAGATTCT
ATCATTTTGAACAGTATTTCTGAAGTAATAAAGATATATATAACGAAAAGACAGAATGT
GTTTTTATTAAAGTTAAGGACGATGGAATAATATTAATCCCTAAAGATAATGAAATATTA
ACAATACTATTCAAAGCCAATAATGACATCTTACATAAAATTTATCCAATAATACAAGAA
50 ATAATAAATAAGTTGAAATAAAAAATGAAAGAAATAAAAAATGGGATAGTATGATTGAT
AGGGTTTTGTTGGAGTTGAATAAGACTGAGGGTATTAAGGGTTCTATGGTTGTTGGTAAG
GATGGTTTAGTTATTGCCTCTCAATTGCCTGGGAGTGTGATGCTGAGTTAGTTGGGGCT
ATGGCTTCAGCAGCATTGTTGGGCTGCTGAAAGAACAGCAGCAGAAATTTGAATGGGTACT
TTAGAACAAACAATGATTGAAGGAGAGCACGGTAAACCCCTAATGGTCGATGCAGGAGAG
55 GGAATTTTAGTAGTCTTAACTGACGCAAAAGTTAATTTGGGTTAATTAGAATAACAATG
AAAAGAGCGGCAGATAAGATAAAGCAATGTTCTAAAAAATAAAAAAATTAATTTATCA
AATTTTAAACAATCTTTTTTATTATTTAATGATTAGGATATATTTTTATATGTGCTATG
GTTTTATTCTCTTTTAGTATATTTCTTTGTTGAGGTGTTAAATGGAGGAGCACTTT
ATTGATTTATCTAAATTTATGATGGCAAATTTGCTTTATGAAGAAGCTGAGGGAGTTATA
60 TTTTCAATTCCTTATGATGAAACAACCTCATTTAAACCGGGAGCGAGAGAGGGGAAAC
GCTATAAGAACAGCATCATGGGGTTTAGAAACATACAGCCCAATTTTAGATAGAGATTG
GCAGAATTAATACTGTGATTTAAAGATTTAGATTTGTATGGAAGTCAAGAAGAAATA
TTTGGCACAATTCACCTCAGTCTCAAGGGAATATTAAGAAATAAAAAATCAATGTT
TTTGGAGGAGAGCATTTCTATAACTTATCCAATAATCAAAGCTGTAAAGACATCTATGAT
GATTTTATTGTTATCAATTTGATGCCCATTTGTGATTTGAGAGATGAATTTGGGTAAT

-460-

AAGCTCTCTCATGCGTGTGTTATGAGGAGAGTTTATGAGCTAACCAAAAATATATTCCAA
TTTGGAAATTAGAAGTGGAGATAAAGAGGAATGGGACCTTGCAAGGAAAAACAACCTCTAT
CTAAAGATGGATCTAATGAATAAGGATGATTTAGAATATATAAAGAGCTTAGACAAGCCA
ATATATGTAAGTATAGATATCGATGTGTTAGACCCCTGCCATGCTCCAGGAAGTGGAACT
5 CCAGAACCTGTGGATTTTCAACAAGAGAACTTTTAACTCTTTATTTATTAGAAGAG
GTTAAAGATAAAATTATTGGTTTTGATATAGTTGAAGTTTCTCCGATTTATGATATTGCC
AATATTACAGCAATAACCGCTGCTAAATAGCAAGAGAACTTATGTTGATGATTCTATAA
CTAATTTTGGAGCATATGTGTTAAAGTTATATTTTTCTGCTTATACTTCTAATTCATATGA
TTTTTTATTGTTTTTGGTGAAAGGCTATGATATGATTTAAATTTTTTGTGATTGGAAAT
10 AAATCGAAAAGTATATATACTGGGGAAGTTAATAATATAGTTTCGTAAACATACACAACC
ATTACAGGTTGAGATTATGGATGTTAATGAAATAAGAGAAAATGCAAAAAGTTAATGGA
ATTGATGATGTTAGATAAACCAATTTGTCGCTGTAAATTTGGCAAAATCAAAGGAAGAAAT
TCCAGAAAGGCTATGAAACATTAGACGAAGAAAAAGACACTGTGAAATGATTCAAATGGC
AAGATTAGAAAACAAAAAATTATATGCAACAGTTGATAAACACCTCTGTAAGGGAGGAGC
15 TTATGCAATGGGGGCTTTAGAAAACCCACCAGAACCATTAGCAACAGGAAAATTATATGT
CAAATTAGGAAACTTTAAAGATGAAGAGGCGAGCTAAAAAACAGTTGATGCAATACCAAA
AGTTGAAGAGGAAATTTATGCAACAGTCTATGCTCCATTAGATGAAACCGACTTCATTCC
AGACTCAATTGTATTTATTGGAGAGCCATTATATGCGTTGAGGTTAGTTCAAGCAATACT
CTACCAATAAGGTTGAAGATTCCAGCCAGATTCTCAGGAATTCAGTCATTGTGTGCTGA
20 TGCTGTAGCGGCAGTTTATACAAGAAAAGCTCCTAACATGACTTTAGGTTGTAACGGTTT
AAGAAAATACGCTGGAATTAAGCCAGAAGAGTTGTTGTAGCTTTCCACCAGAGAAATT
GAAGGATATTGTTGAAGCAATTGAACACTTCAGACAAGTTTGGACATGTGGTCATTAATT
TTTAGCCTATAATTTAATATTCTATTTTGGAAAACCTATTTATAAAAATTGGATAAAAT
TTTTATTATAAACTTAAGAGGTTTTTAAGGTGTTAGTATGTCAAAGGTAAGATAGAGCT
25 TTTTACATCAACATGTGTCTCTCAGTGTCTGTCAGCTAAAAGAGTTGTTGAAGAGGTAGC
AAATGAAATGCCGATGCTGTTGAAGTAGAATAACATGAAACGTTATGGAGAATCCTCAAAA
GGCAATGGAATATGGGATAATGGCAGTTCCAACAATTGTAATAAATGGGGATGTTGAGTT
TATTGGAGCTCCTACAAAGGAGGCATTAGTTGAGGCAATCAAAAAAGACTATAAACTCA
AAATTTTAAATTTAGTGAAGGTTATGAAGCTAAGAGTAGTTTGAAGGATGAAAATCTTA
30 CAGATGATGAGCTCTGTATAAAATGTGAGCTCTGTATTGGAAAAGATTAAATGACGATTA
TAGAAATGATGAATGAGGAATATAAGATAGATGAAATTATCATTCCAAATTGTGAGACAT
TAAAAAGAACTTTTAAATATGGATTAAATTTCTCAAATTTCTCTTTTTATTTTTTATT
TAGAACCTTATATATTTGAATATTGTCTCCAATTTTGTCTGCTGGTAGCCAATAACTGCC
CCTATAGAAGCTGGAAGTGCAAAATCAAATCCAATAATCTCTGTGCATAACACTGCTCCT
35 CCCAATGGAGCATTTGTAGTAGCAGATAATGTTGTGGCAATACCTAAAACCTATATAAGGA
GCAGAACAAATCTCCTATTAACTTCCAATAATAATCCAGAAATGCTCCTATACACATC
GATGGAAAAACCAATCCTCCCGGAGTTCCAGAGCCAACAGTAAGGAAGTAGCTAATATC
TTACCTATTAATAGTAATACCAAAAATACCAAGAAAATCCATAATAAACAGTTCTTTT
GTTAATGTTAAACCCATGCCATAACTTCTGGTATAAAATAACTTATTACTGCAACTAAA
40 ATTCCACCAATCAATGTCTTAATGCAGTAAGGAATTTTAAGATTATCGAAAGTTGAAGAT
ATTTTCTATATGTTTTTATATAGCAGTGTGCGATTAAAGAGCAGAAAAAAGCTCCTAAG
ATAAATAAAGAAAATCGTGAATGTTGATAGTATAGGATAAGGTAATGTTAAATAAATGT
TTTCTTCCCGTTATTAATAAAATATTAGATAACCAACAACACTTGAATAATTGGAGGA
ATTAAGTTAATGTAATTAAATTTCTCATGTTCAATAATCTCACATGCCAATATGGCAGTC
45 CCCAAAGGGGCGAGAAAACGTCCTCCCAACCCCTCCAGCAATCCAGTTATAATAACCAAC
TCTCTATTTTTTTCAGTTTTTAATAATCTGTAAGGCTCATCTGCAAAAAGAGGCGCTTACTGC
ACACACGGCCCTTCTTTCCAGCACTACCTCCAACAGCTATAACTGCTCCAGCTAACAAA
ACTTTTAAAAGTCTCGAATCCATGTCAATTTTTTATTAGTATTCAAAGCTTTTAAACC
CTGTCAATCCAGAACCTTTTAGTTCAATAATATAATCAACAAACATCCAGCAATAAAA
50 AATACTATTGGAATTAATAAACATTATGCTTTTTCTGGAAAATTTCAATGATAATAGCT
ATAATAACTGAACCTAGCCCTCCAACAATCCTATTAGTGATGCAATACCAATCCATTTT
ATTATTTTAAATATATTTACCAACATATTAACAATATTATGAGGATTCACATTTTTAT
ACTTTTTTAAATGTTATATGTAGTTTGTATAAAGATAAATATCTAAAAATAACATAAAAA
ACTTTTTTGGTGAAATAATGATTTCAAAAATGTAAGGATAGCCAAAGGGGCTGTAATTGT
55 TGGGGATGTGACTATTGGAGATTATTCATCAGTTTGGTATAATGCTGTTATTAGGGGAGA
TGTAAGATAAAATAAATTTGGGAATTACTCCAATATACAAGATTGCTGTGTCGTTTCATTG
CTCTAAGGGGTATCCAACCATAATTGGAGATTATGTATCAATAGGTCATGGAGCAGTTAT
TCATGGTTGTAGGATTGAAGATAACGTTTTAGTTGGGATGAATGCCACTATATTAATGG
GGCTAAGATTGGAGAGAACTGTATAAATTGGAGCTAATGCCCTTAGTTACTCAAAATAAGGA
60 GATTCCACCAATAGCTTAGTTTTAGGTGTTCTGGTAGAGTTGTTAGAGAACTTACAGA
GGAGGAGATTAAAGCATAAAAGAGAATGCATTGAGATACGTTAAATTATCTGAAACCTT
AGAAAGTTATAAATAAAAAATTAACTAAATAGAAATAACAAAAATCCTTTGAAGTAAAG
GTGGTATTGATGGTAAATCTTGGGTTTGTATTGCTGAGTTCAACAGAGATATAACATAT
ATGATGGAGAAGGTTGCTGAGGAGCATGCTGAATTTTTAGGAGCCACTGTAAATATAAA

ATTGTTGTTCCGGGAGTTTTTTGATATGCCTTTAGCAGTTAAAAAGTTGTTAGAAAAGGAT
GATGTTGATGCGAGTTGTAACAATTGGGTGTGTTATTGAGGGAGAGACAGAACATGATGAG
ATAGTTGTTTCATAATGCAGCGAGAAAAATAGCAGATTTAGCTCTACAATATGATAAACCA
5 GTAACCTCTCGGAATTTTCAGGGCCAGGAATGACAAGGTTGCAGGCTCAGGAAAGAGTTGAT
TACGGTAAGAGGGCTGTTGAAGCGGCTGTTAAAAATGCTTAAAAGGTTGAAGGCATTAGAA
GAATAGTGTCTTCTAAAATTATAAAAAATTTTTATGAAATTGAATGCCTTCCAAAGAAAAG
GTGTTTCATTAGTGCTTAGTTATTACAAAATGTTTTGAAAGACACTATGGATAAGGGATA
TCTATGATTTTAGAGGAAGTTTATGAAATTATAAAACAAAGAATAAAAGAAAAGCCAGAA
10 GGTCTTTATGTGGCAAACTAACACCGATGATAAAAAACGGCAATAAACAAAATCTGT
GAGAAAATTGGGGAGGAATCTACTGAATTAATTTTAGCAGCTAAGGATGACAAGAAAGAT
GAGATTATTTATGAGGCTGCTGATTTAATATTCCATACTATGGTATTATTTGGCTTATAAG
AACATAGAGTTTGAAGAATTATTAAAGGAATTTGAAAGAAGAAAGAAATGATACAATCTT
TTTTTATTTTTAAAACCTGAATCATCAATATAGCAGGAGGATGTTAATGAACATTGGAAAA
15 GTTGATAACATAAAGATTTATACCTTAGCTGAGGATTATGCAGGATATAATAGCCCATTT
TGGAGCCAACATGGCCTTTCTTTTTTAATTGAAGTAGAATCCAATGGTATTAAGAAAGAGA
ATACTGTTTGTATACAGCACTTATGCAGAACCAATCTCTTCAACATGAAACTTCTAAAC
ATCAATCCAAAGAGTATAGACATGATAATCCTTTCTCATAACCACTTTGACCATACTGGT
GGGTATTTTGGCATTATGAAAGAGATTAACAAAGAAATCCCAATATTTGCCATCCAAAC
20 ATATTTAAGGTTAGCTTTGCCACAGAACCAGAATTTATGCTTGCTGGAACCTCTTAATAAA
ACATTAAGAAGATATTGAAAAATTGGGAGGGAGATGGGTTTTAAGTAGAGACCCTATA
AGATTAATGCCTGGTATCTTTACACTTGGAGAGATTGAAGATGAAGAAAAAATAAACTTT
CAGAAAAAGCCAACAATTTGGTCTCTATAAGCTTGAAGATGGGAGAGTAGTTTTGGATTAAT
GTAGAGGATGAATAGGATTGGCTATAGTTACTGAAAAAGGTTTAATTATCGTTAGTGGC
25 TGTCTCATCCAGGAATAGTTAGTATGGTGAAAAAATCCATTAAATAAGTGGAAATTAAT
AAGGTCTATGCTGTTATAGGTGGTTTTCCATTTAATAGATGCCGACAATGAAAGGATTGTA
AGTACAATAAAAGCCCTCAAAAAGTTGGGCGTTAAAAAGATATGTACTGGACACTGCACT
GGGTTTTAAGGCTGAAAACATGTTTATGGAAGAGTTCAAGAAGATTTTGAGAGGTTACAT
GCTGGAAGATTATAAAATTTTAAACGATAGTGTCTTTCAAAACATTTTGTAAATATAAA
30 AGACACTAATTTAAACCTTTGTAACAAATCCCAGAATGATTTAACAGCACTTGGATTTT
TTGGTCTTCTACTTTTAACTAAATATAAATCTAACAACATCCAAATCTACAACCTGGAA
CTATCTTAATTAATCCAGCATCTTCTGCCTTTTTCAGGAGGATTTCTGAAACTACGCTAA
CTCCATAACCTTCAGAACTGCAGTTATAACTGCTGAATGACTACCCAACCTCATTACAA
CGTTTTAAATCCATTATTGAATATCCCTTATCATTTAAAGCCTTTATAAATGCCTCTCTTG
35 TTCCAGAACCCCTCCTCTCTATCAATGTAATCCTCTTTAAGTATATCCTCAAGCTTAGCAG
TGCCCTTCTCTGCAAGTGGATGATTTGGTGGGACAATTAACCAATCTATCTTTACCTA
TAATTTGTATATTCTAATTTCTTATTTTTTAGATAACCAACTGCTGCTATATCTGCCAATC
CTTCATCTAAAGCTTTTAAACATCTCTCAGAGTCAGTTATTGTAATCTCAAAATCAACAT
TTTGTATGAGCTTTTATACTCCTTAATAATTGATGGTAATATATGCTCTCCAGGGTTG
40 TAGAGGCATAAATTTCTGATAATCCCTCTGGATTTTCATGTATGGCTCTCATCAACAATT
TTGCCTCATTTAACAAGTCTAAAATCTTTTCAGCCCTTTGATAAAATATCTTTCTTCAG
GAGTTAAATCAACTCCCTCAGGAGTTCTCAAAAAGAGTTGGGCATCGAAGTATTTCTCAA
GTGCTGATATGTGATTACTGACGGTTCTTGGAGTAATCCCAATCTTTTGTGCTGCCTTAG
AAAAACTTTTTGTTTTACTTGCAACTATAAATGTTTGAATAAATTTATTTTGGATCCA
45 TATTATTATCACCTATGTTACTTAATCCCTATTAGAATAACTAATAATCTATATATAA
AGTTAATGTGTAGTGAATTTTAAAGTACCAATGGAATAGTAAGTATAAATATAAAAAATCT
ATAATAAATTATTGAGAGAAAATAGCTTTTTTATAGTGCTTTCCAAAACCTTACACTCAAA
GCATATATATTTAAATAGTTGTAGATGACAACAGTTACAGGATTAGATTTTTATATCTC
CTTTGTGTTTTAAATAGTCGTAATTTCCCGAACTACTTAAAGTTAAATTTATATACTAA
50 TTATCCCACTAAATATAAATATTAAAGATTTTAAACAAATTCAAAAACAGGGTGAGCA
GAATGGAAAACAACAAAGTAACAATCAGTGTATAAAGGCAGATGTTGGAGGTTTATGTG
GGCACACATTAGCTCCAGATGAGTTGTTGGAGGCATGTGAGGCAGTTTATAGGAGGCAG
TTGATGAGATTATATTAGATTATTATGTCACAAGATGTGGGGATGACATTGATTTAATTA
TGAGCCATAAATAGGTTGTGATAATGAAAAAGTCCATGGATTAGCATGGAGGGCTTTTG
55 AGGAGGCAACAAAAGTAGCTAAAGAGTTAAAGTTATATGGAGCTGGACAGGATTTATTAG
CTGACAGCTTTTCAGGAAACGTTAGAGGTATGGGGCCTGGTTGTGCGAGATGGAGTTTG
TTGAGAGAAAGAGTGAGCCAATAGTTGTTTTCTGTTGCGACAAAACAGACCCAACAGCAT
TTAACTACCCATTATTCAAGATGTTTGCAGACCCATTCAACACAGCTGGTTGGTCTTTG
ACCCATCAATGATTTCTGGATTCAAATTTGAGGTTTCATGATGTCGTTGGACACAAAAAGG
60 TCTTTTTAGACACTCCAGAAGAAATGTATATGCTCTTAGCTTTAATTGGAGATTATGAGA
AGTATGCAATTAAGAGAGTTTATAGAAGAAGAGATAACGAAATAGCTGCTGTTGTTAGCA
CAGAAAAATTAACTACATAGCTGGGGAGTACGTTGGTAAGATGACCCAGTAGCTATTG
TTAGAGCTCAGAGCGGATTTCCAGCAGTTGGAGAGGTTTATAGGCCATTTGCCAACCCAC
ACTTCGTTCCAGGATGGATGAGAGGTAGCCATTGGGGGCCGTTAATGCCAGTTGGAGAGG
AGGATGCAACACCTACAAGATTCGATGGGCCAGCAAGAATTATTGCCTTAGGATTCCAAG

TTTGTGATGGAATGTTAATCGGTCCTAACGATTTGTTTGCAGATAAAGGATTCGATAAAG
CAAGAGAGAAAGCTTTAGAGATGGCAGATATTATAAGAAGAATGGGTCCATTCCAACCAC
ACAGATTGCCTGCAACAATGATGGAATACACAACAGTTCCAAAGGTCTTAGAGGCATTGG
5 AGGATAGATTTATTCCCTTTAGAAGGTTTAGAGTTGATTGAAGAAGGAGGAATCACAAGAA
AAGACAGAGGAGATGTGGAATAAAACACATAAACTCTTTTAATTTTTTAAAACTCTTTT
GCAAACTCTTTTGCTTTTTTAATATCATCTTCATTGGATGATTTTTATTAAACCACCA
AATAATTTAAAGATGCCATAGGTGTGGTAACCTTTACAGCAAAATCTCCAAGAATTTCA
AATCCCTTACTTTTTAAGTTTATCCCTAAGCTCTTTATGGAACATGCTTTTTAAAAAAGGA
10 AAGCCGGCTGTGGAGAAGATAAAGGCTTTTTTATTTGTTTTACTAATCTTATCTAAAAAT
TTAAATATTGATTTATGATGTTTTCCAAAAATAAATCCAGAACC AAAACCTATAAGGTCA
TAGTTTTCAATTATATCCGGGCTTACTTTATCAATATTGTAGATATCAGCATTTAGCTCA
TCGGCATTTGCTTAGCTATTTTTTCAGTATTTTTATGATGAATGGATTGTATAAAATT
AGAGCTTTCATGGTAACCTCCTCTTAAAGCATAATTAATTAGTCTTTATTTACTAATTT
15 TTTACTATTTTTATTATTATCAGAACTTTAATACTTAGTAAGGTTAAATATTAAAAAG
TTAAGATAAAACTATCAATAATTGATGAAATATCGCCAAAAGGATGACAAAATGAAGTT
TGAAAATGAAAATGCATTATTTAAGAAGGCATTGGAGGAGAAAGAGAAGGGAAATTATGA
CGATGCCATTTATTATTAGATTGGGCTTCTCTTATAGCTTTTGCTAAAGGGAATCTACA
AAAGATTAAAGAAATTGAGAAAATACTTTCTGAATTGGTAGAAAAAACTGATTATTTAAG
20 TTTATATGCCAGTTTTTTTTATTAAATAACCAATTCATACTTAAAAAAGAAAACTTCC
CAATAACATAATTGATGAATTTTTTCAGCAATAGAAGGAATTGAAGAAAAAGATAAAGA
GTTTAAATTTGTTGTAATGGCATTAAAAAGAATAGTTAATTACATGGAACCAATGAATCA
AAAAGTTCCCTGAATGGATTATGAATGGATTGAGGATAAAGAGGAGATGATTAAAGAAGT
AGAGAAATTTAACCAGAAAAAGACAAGGTTTTAATTCATCTAAGGATTTTAAAAAAGG
25 TTTTGTACGGGGACATTTATAGGTGGAGAGTTGGACAAATCAAAAATGAAAATTGTTGA
AAGGCTAAAATGATGTTTGGAATCATAGAAGTTGATGGAGCAGTTATAGAATTTCCATT
AATGGCTATGAATTTCACTGGAGGAATTTTCAGGGCTAAAGGAGTTAAAAATGAGGAACA
CCTAAATAAAATAATAAAACTATTGAAGATTTGATGATAGATAGCTATTTCTATTAAAA
AATAAGTTGTTGGTTATATTTGTTAATCCTTTAATTCATAACAATTTTTCTTTATAAA
30 CAATTCCCTCATGTCCAGTAATAACATTTTTCTCAGTTTTCTAATTTCTTTAACTCT
CTAAAGCTAATTTTTCTATCTACATTTCACTTTGGAGGAATCATCTTTAGTATATTATTT
TTAAAGGAGATGCATCTCCTACAACAACATAATCTTTATAAATAACCGATATAGAGCCAT
AGGTATGTCAGGAGTTTCAATAATCTCAATTTCTTTATCTTTAACTTTTTAAATCTT
CAAGATTATCGTTAAATCCAACTCTTTTGGTGAGGCATAAAATGTAGCGTTTTTAAATA
35 TTGGGTTGTTTTCTATATGGTCATAATGGAGATGTGTGTTTATACTACATCTATATCAT
TTGGAGATAGATTTAGTTCAGATAAGCCTTTAATAATAATATTTCCATATCTTTTGTTG
AAGTATCAACAATTATATTGTTGTCTGTAATAATTAACGTTGATGAAGATGAGGCCT
TCTTAATTATTTCCATTTTCTCTGATTAAAAATCCCTTCATATAGGAGTTTATCATAATT
CACCATAATTAATTTTAAATAGAAATTTAAACATGCTAATATATCAATTAAGGGGTTT
40 ATTATGATTAAAAAGGTGAAGATAAAAAAGTTTAAATGGCAGAGATTTTATGATATGGAA
GATTACGTGGCTGTTGAAGAAAGCTATAACATTTTTATCAATGGAGAGTTTGTAAATCT
TTATCTATGTACCAAATTTTTTAAATGAGTTTGCAGTTGGCTTTGCCATAAGTGAAGGG
TTTTTAAACAAAATTGATAAAGTTGAAGTTGATAAAAACACATAAACATCTTTGGAGAA
AAGAATGATAGAGAGATTTAAAAATAATAAAATAATAAAGAAATAAAAAATAGACATTGAA
45 ATCATTAATAAAGATAATTTCTTATGAAATAAAGCTAATATTGGGAATAAAGTGAAGT
TTTCACTGGGCTTCAATGTTTGAATTTAAAGGCAATAGTATAATTTTTGTTGAGGATATT
GGGAGACATAATGCTGTTGATAAAGTTATTGGTTATGCAATATTAACAATTACAACCTTA
AATAAGTTAATATTGAGATATAGCGGAAGAATCCATCTGATATTGTTAAAAAAGCTATA
AACAGTGGTTTTAAATATTATCTCAAAATCCCCACCAACAGATAAAGCCATAGAATTG
50 GCAGAGGAAAATAACATCCTATTAATTGGCTTTGCAAGAAATGGGAAATTTAACATTTAC
ACAAGTGGGAGATTATGGGAAGAGTAGAGTATTTAAAAAAGAGTATTCTGATGAGGAAA
TCTATGAATCTTAGAGAAACAGTAAAGAATGGTTTAAAGAAAGTATAAAACCTTTA
CTCCACCACAAAGATATGCAATTAAGAGATTATGAAGGGAAGAATGTTTTAATTTGCT
CACCTACTGGGAGTGGAAAGACATTATCAGCTTTTTTAGCAGGAATAAATGAGTTAATAA
AATTATCAATGGAAAAATAAATTGGAAGATAGAATTTATATTCTCTATGTATCTCCGCTAA
55 GGGCTTTAAATAACGATATTGAGAGAAATTTAAAGAGCCGTTAAAGAGATTTATGATG
TTGCTAAAGAAATTGGTATTGAGTTAGATGAAATTAGAGTAGCTGTAAGAACAAGTGATA
CAACAAGCTCGCAAAAGCAGAGGATGCTAAAAAAGCCCCCTCACATTTTAAATAACAACCC
CCGACATTAGCTATTGCTTAAACTCACCAAAATCTCCAGTTATTGAGTGGGAATTA
AATATGTAATAGTTGATGAAATTCACGCTTTAACAAACAAAAGAGGAGTTCATCTCTCAC
60 TTTCTTTGGAGAGATTAATAGGATAGCTAACTTTATAAGAATTGGTTTATCAGCAACCA
TTCATCCATTAACTGAAGTTGCCAAATTTTTAGTTGGTAATGGAAGAGATTGCTATATTG
TAGATGTTAGCTATAAAAAAGAGATTGAGATAAAGGTTATCTCTCCAGTAGATGATTTTA
TCTACACCCCTTCAGAGGAAATTAGTAAAAGATTATACAATTTATTAAAAAAAGCTCATAG
AAGAGCATAAAACAACCTTGATCTTTACAAATACAAGAAGTGCTACTGAAAGAGTAGCAT

5

10

15

20

25

30

35

40

45

50

55

60

TTTATTTGAAGCAGTTGGGAGTTGAGAAAAGTTGAAACACACCACTCATCTTTAAGCAGAG
AGCATAGGTTAGAAGTTGAGGAGAAATTGAAAAAGGAGAGATTAGGGTTTGTATCTCAT
CGACATCACTTGAACCTGGGGTAGATATTGGAAGTATTGACTTAGTTATCTTCTCGGCT
CACCAGAGAGTGTTCAGAGCTCTACAAAGAATTGGTAGGAGTGGGCATAGGTTACATG
AGAAAAGTAAGGGGATTATAATCCATTTGATAGGGATGATTTAGTTGAAAACGTAGTTT
TAGCTTATGATGCAAAAATTGGGAAGATTGACAGAATTCATATCCAAAAAAGTGTGG
ATGTTTTAGCTCAACATTTGGTTGGAATGGCATTAGAGAAGGTTTGGGATGTTGATGAAG
CTTATAATTTAATTAAGGCTATCCATATAAGGATTTAAGTAAAAAAGATTTCTTAG
ATGTTTTAAATTATTTAGCTGGTGAATTGAAGAAAAAATGTCTATGCAAGATTTGGC
TTAAGATAACAAATTTGGGAAGAGAGGAAAAAGTGTAGGGCTATATATTATATGAATG
TTGGGACTATTCTGATGAGACAGCGGTTGATGTTATAGCAGATGGCAATACGTTGGAG
AGGTTGAAGAGGAGTTTGCTGAAAAGCTGATGAAGGGAGATATTTTGTGGTGGAGGAA
AGACATACAAATACTTAGGAGGTAGAGGAAATAAAATTAGAGTTAAGGAAGTTTTGATG
AAAAGCCAACAATTCCAGCGTGGTTTTCTGAGCAGTTGCCATTAGCTTATGACTTGGCTT
TAGATATTGAAAAATTTAGAAAGGAAGTTTTATCTTCAGATATAGAGGAAATTAGAGAAA
AATATGACATAGATGAAAAACAGCTAAGGCAATTAATAATTTATGATGAGCAGAAACA
AATTTGCAATAGTGCTGATGATGAAAAAGTGTCTATAGAGAATTTTATGAGGAAAAGA
GAAGATACTATATTTCACTTTGTAGCTGGGAGAAGGGCTAATGAGGCATTAGCAAGGG
CCTTTGCTAATTATATCTCAAAAATAAGAAATGTAATGTTAGAATATCGGTGAATGATT
ATGGCTTCGCTTTAATACTACCAAAAAATAGAAAAATAAGAGAGCTGATATAACTGAAC
TCTTCACTTAGATGTTGTTAAAAATGTAAGAGAGAGTATAGAAAGAAGTGAGATTTTAA
AGAGGAGATTTAGGCATGTTGCTACAAGAGGTTTTATGATTTTGAGAAGATATATGAATA
GAAAAATCAGCGTTGATAGACAGCAGTTAATGCTGAGATGCTTTTAAATACTGTAAAG
AGGTTAATCATCCATTATATAGAGAGACATTGAGGGAAATTTAGAGGATAGCTTAGACA
TTGATAATGCCTTAGATTATTTGAAAAAATTAAGAGGAGGAAGATTATTATTAGAGT
TGCTTCTCCTTCACCAATTTGCTTCAATTTGGTTGTTTCAGCTTCATCAGATGTGATAT
TTATGGAAGATAAGAAGAAGATGATTGCAGAACTTCATAAAAAAGTTATGGAATTTATTT
CAATGAAAGGAAAGAAATAAATAGGAGAGGTTGTAAGTTAGTGATTTACCCCAATTGTAG
AACATTATGAAGCTTTTTATCCCACTAACAACCGTATCGAATTTACTATTACTTGGAAAT
CTATTTAAACCTCTTTAATCTTGTGATAATAAATCTAACCATTGCTGGCTTATGTCT
TCGAATTTGGGAAAGGAATAAACTTACCTTCCTTAACGATAATCCGAGGTAGTATAAAGC
CCTGCTAAGATTTTAACTCTATCGATTCCCTATTCCTTTTAAAAAGCTTCCTCTCTACGA
TTTTCTCCTTTATAACTTCTATCATGAGCCTCATATTTTATTATTTTTTATCAATATTT
AATAAAAACTTAACTTGATAGTCTCTATACAATTAATGAGGTATGTTTTTAAATAACCT
ATAATCTCATTATGAACCTCTTCTACTGACTTTTTTGTGTGTCAATAACTATAAAATTA
TATTCTTCAGCTAACTCTAATAATTTATCCTGAACTTTTTTAAAAAATCTTTTTTTTCA
AATATGCTTTTTGTTTTAACCTCTTTAATGCTGCTCAATATCAACAATTAATAAAAA
ACAATATCTGGCTTTAGAGCATATCTGTTTATTGATTTTATAAAATTTCTCATCAACTCT
GCAACACTTTGATAGGCAATAGATGAGTATAGATATCTATCACAACAACGCTCTCTCTTT
TTTAAATCTCTTTTATTAAATTTTGTATGCTCTATTCTATCAGCCGCAATAACAAAGCT
AAGSTTTTATTATCCACTTCTGTTTTTCCAGATAAAATTTCTCTTATTATTTTCCCTACT
AAGCTATTTGATGGCTCATAAGTCCAAAATGCATCCATTTTTTGTAGCTAAAAGCTTTGAT
TGTGTAGTTTTTCCACTACCATCTATACCTCAACACAATAAACATGTTATCCACCAAA
AAAGTTATACATCCAAGGGTTTTGCTCCTATTGATATGCTCTCAAACTCTTTTAAAGTG
AGGTTGTCTTGGCAACCTCGCTCGGGTATCCCAATAGGGGTTTTCCCATGGCAATATAA
GCCTATTATCACCAAAAGTTATAAATAAGATTTATCATTATTAATCATTATAAATTCCTA
ATAAGTTGGTGATGCTTATGGAACAATTTATTGGAATTGTTAAAGATATTCTTGTCTTA
TCGCTTCATTTGGTATTTTGTGGCTCTTATAGATTATGGATAGAAAAAGATAGAAAAA
ACATAATTTATGCAAGGATACATATTTTAGGTGTTATTGACTGTGCATGCTTCTTAATTT
TTATAGCTTTGGGAGAACTCTTTAGCGTTTGTATCTAATCTTAGCTCCATTCTTAG
CTCATGCAATTGCTCAGCAGCATATAATGACAACCTGTCCGAATAAAAAATTTTTTAATA
TTAAACTCTCTTTCAAGTTGAAAATTCAACTCTTCTCTCCAAACAATTTCTTAACCAT
CCAGTCAGCATCAAAATCTATTAAATCTTGATACCTCTGCTCTACTCTAAATATAAAAT
TGGTTTTCCAATTGCATAGCCTATTGATAGAGCCGCTCCACCTTTAGCATCAGCATCTAC
TTTTGTTAAGATAATFCCATCAATATTCAGTCTCTATTAAATCTTCTGCCTGATATAC
AGCATCGTTTCCAGTTAAAGCATCTCCAACGAATATAACCAATCTGGTTTTGTGACTCT
AACCCTTTTTTAATCTCTTCCATTAAATTAACATTTGTTGCTGTCTTCTGCTGTATC
AGCCAAAACAACATCAATTCCTCTTGTCTTTGCTGTTGATAGCATCATAGATAACTGC
CGCAGAATCAGCTCCCGGCTTATGCTTAATAACCTTAACCTCAACGTTTTTAGCATGCTG
TTCTAATTGCTCAATAGCTCCAGCTCTGAAAGTGTCTCCAGCGGCTAAACTACGCTATA
ACCTTTCTGCTTTAATTTATATGCTAATTTAGCTATAGTTGTAGTTTTTCCAGTTCCATT
GATTCCAACAATAACGATGACTGTTGGTTTTCTTCTGCTTTATCTTTTTGATTATTTT
TTCAATATCAATTTTTTCTTGGGATAATATATTTTTTATAGCATTTTTTACTGCGTTTAT
TGTAATCTCTTCTACGTTATCATCTGGAGAGATTTTTCTTCCAATAATTCATTTTTAAT

-464-

ATTTTCAATTAGCTTTTCAACAACCTTCTAATGCAACATCTGCCTCTAAGAGTGCTATTTCT
TAACCTCTTCTAAGACATCTTCTATATCTTCTCTAAGATAACAACCTCTTTTTTAAAGAAC
TTTCTTAATAGCTCTTGTAAAGCCAAATCTATCAAAGAACGTTATTTTTTCTCCTCTTT
5 TTCTTCTTTAATTTCTTTAATTTCTCTCTTTAGCTTCTTCTACTTTTTTCAGAAGGTTCTGT
TTTTACAATTTAGATTTTAAATTTCTTCTCTGCTTTTTCTTTTTTACTTCTTCTTT
TTTAGGTTCTTTTTTAAATAAACTTGTGAAGGATATTTTGTATTTTCTCTTTTTCTTCTT
TTTTAACTTCTTCAGCTTCTCCTTTGCTGTATATTTTTTTCAGTAATCTTTGATGCAGTTTC
10 TAAGAGTTTTCTTTTTAATTTTCCAAACATTTGTAATCCCTCCTATGCCGATATATAAAT
ATTAAATTTGAATAAAGCATTTGTTAAAGTAATTTTAAATAATAAAATTACGAACAATAT
TTATATGTAATCTCTGTTCTGTTTGCAGGTCGTTTTGGGGTGAAACTATGAAATGTATTT
CAAAACAAGGAGAAATTAAAGAGTTAATTAATAATGGTAAATAAATGATGTTTACAC
TGATTGAAGAAGATACATTTATTTGTTAGAGGAAATTTATGGTTTTTTAAATCTGATGATA
TTCAATTAATAAATAACTTGTTTAGCTATTTTAGGAAATTTATATCTAAAGGAAAGTCC
15 AAATTACTCAACTAATTAACATTTAGAAGAGGTACTTTAGAAAATGACAAAGATGCTA
TTTTAAATGCCCTTTAATTTCTAAAAGAAATTCCTGAAGTGTATCAGGAGGACTTATTGA
AAAGGATAATATTAATAATATTTGGAAAAGATATAAAAGATTGTGAGGATGATAAAGATA
AAAGTACTTTACCAAGTGTAAGCGAGACAAAATAATGATAATATTTGAAATCTTAAAGG
CTGTAAGAACAAGGAATTAATAAAGACAAAATAATGTATGCTGCAAAATTTAGATTGGA
20 AAACATTTTCGTAATTTATAGGATCTTGTAGATAATGAATTTATCAGAAAAACAGATG
GGGTTTATACATTAACACCTAAGGGTGAGTTATTATTGGAGAAAATGAAGAAGTTTTTA
GATTAAATTTATCCAGATAAATAATTGCCTTATTTTCTTTTTTACTTTTCATAAAAAATTT
AAAAACTAAATGGATTAAACACATCTGTTTTTCCACATGCTTTACATTCATAAATCATAT
TAACAAAATACACAATATAGTATAATCAGAAGATGTGGGGGAGGTGATAATGAGGGTAAG
25 TCAAGTATTACAAAAATGAAGTCTAAAACCTGCTGGGTGATGTCAAATGGTAGTAGATGG
TAGCATTATACATTGGTTGATTATTTAATACTCTCAATAATGGGGGAGGTTTTCTTTG
CTAATAAAATTTAAGAAATTTATGAGGTGTTTGAAATGAAAAATCTACGAGGTATATAT
TATCGCTGCTACTCTCAATAATCATGGGAGTTGCAGTAATGGGTTCCACATTTGCTATTT
CAACAACCTTATGGAACAGGACACACAACCTGCAACTGTAGACAACCTTAAGCCTGTAGTTA
30 ATTTGTAGCAGTTACGAAATGGTAATAAGAACAGTTCAAGGAATAAAAGTATATGAATATA
AGAATACAACCTGGAGTAACTCCTGGTCTTTTAAAGAGTGACGCTTTAGAGGCTTATGCCT
ATACTGGAGAAGGAGTAACCTTCTATGTAATGTTAGCGACCCTAACGGGGAGCAAGATT
TACAAACAATGGAGCTGGAGTAGATTTCTTATTAGTTCACAAAGGACAATCTCCTTCAA
ATCCAACATATGTAATCCATGCAGGATTTGACACATCAACAAGTGGAGATGCTGATTTAA
35 CAACCTTAACATTTCTACGCACAATGGACAGTCCCTGCAGGCGCATACGGATGCTTCGATG
TCTATGTTAAAGCAACAGACAAACATGGTGCATGCACAGGATACATCAAGAAAGGTAAGA
TATTCTTGAACCCATGATTGGAATAAACGTTACAAAAGATAACGATGCATATCCTGCTC
CATTACAGGATTAAGCTTCGGTAATGTAAATCCAGGAGATACTAATGTCCCAGCAACTG
AGAATGTTGTAACAATCCACAATATTGACCCAGATGGAGTAGGAATAAGATAGCAGTAT
40 TCGTTTTCAGCAACCTCAATGACACAGGAGGAACTGGAATAATTCAGCAGAGATA
TCAAAGCACATGTTATAAAAGCAACAATATGACACAGAGCTACAATACTCACCTCCAAA
ACAATGTCAAAGTTCTATTATGGCAACCACTCAAACCATGCCATACAAATGCTTTAGAAG
TTAATTTTCACTCGATGTTCCAACACCATTACCAAGCGTTGCTATGGAGGTTCAATTA
CATTCTATGGACTTGGAATATAAATCCCCCACTTTTTAATTTTTTGATAGTAAGGTGAT
45 TACTTATGAAAAATTTCTCTGCAATTTTTGGTTTTATTATCTGTATATTTGTCATTATGG
CCATTTACAGGTTAGTGTTTTAAGTGGGGCAATACTCCACCAAAATTTGATATCATGG
TGAATGCAAGCAATGGGCTTCTCAAGATATAAATAGCATTATTTATGTAAAAAATCCCA
ATAGTTTTCCAGTTAAAGTGGAATGGTTACAACCTGGAGATTTAAATAATTCTAAAAAAG
TAGAAGTCAAATTTATGAAGAATAACTTTACATTAATAACAGGAGAACTGTTGGGGTTA
50 ATATCACATTTACTGTAAAGGAAAAGGACAACCTATGAAGGAGATATTTTAAACGAAATTA
GTCCAGTAGATTTAGGAGATGATAAAAAAGGCGTGAATCTAAAAGCGAGTGTAGTTTTGC
CTACAAAAGTTGCGATAATGGTAGTTGGTAATGAGATTCATACAAAAGAATTGGTAATTA
CTGCAGTTTTTAATCATCAGCATCTTGGGATTAGGTGCTATGTTGATTAGGAGACATCTCT
AATTAACCTTCATTTAAACATTTAAATAAAAAATAAAATAAAAAATGTTTTAAAGTGGTAGT
55 ATGAGGATTTCCCTCCACTCTCAAATAATAAAAAATAGGAATAGAAGGTATAAAAGGTCT
CAATTTGAAGTGATTTTGAATTTTGCATATTATCAAGGAAGGAGAACAAATAAAACA
AGAATTATGTATGCTGCAACCTTAGATTGGAGAAATTTTTCCAAATACATCGATTTTTTG
ATTAGTAATGGATTTATTAAGAAAAATAAAGAGAAATTTGAACCTCACAGAGTTAGGGAAA
AAGTTGATTTCTCGCTGTATGAATTTTGAAGATTATGAACCTCAAGCCTTAAATTTGTG
AGGGGATTTTTATGAAAAAATTTGGAACGGTTTTGCTTTCTGATATCGTTAAAGAAATGCT
60 TGAGTGGGGATGAGTTTGAAGAGAGATGATGGAAGATTTGTTCAATTTTCTAATAAAAC
TACGACTTTGGAGATGGAATACTTCTCTCTCAAAATCAAAAAATGAAATACAGATGT
CAGATTTATTGGCCCTAATAAAGGAAGAAAAAGAGGGTATTAACAGGTTGTTTTCTATCC
TATATCAAACAGATATCCCTGTTGAGAATAGAATTGAAATATTAATGTTGTTAAAGAAAT
TCGTGAAAGAAGAAATTAATGGATTTCAATGGATGTTAGTGAAATTAATTTGTAAAAA

5 AATAACGGCTTTTTTAATTTACCTATTTTATATTGTTTGATGTTTTTTTTATTACAGT
TGTATTCATAATTTAAATTAATAGATTATAGAAAAGTTTATATAGAACTTCAAAAACAT
TACATATATAGAAAACCAAAAAAGAGAGGTGGGGGCAAATGTTCCGAAGAGACCCATTTG
ATTTCATTATTTGAAAGAATGTTTAAAGAGTTTTTTGCAACACCAATGACAGGAACCAAA
10 TGATTCAAAGCTCAACAGGAATACAAATTTCTGGAAAAGGGTTCATGCCAATCTCAATTA
TTGAAGGAGACCAGCATATAAAAGTTATTGCATGGTTGCCAGGGGTTAATAAAGAGGACA
TAATTTTAAATGCAGTTGGAGATACATTAGAGATTAGAGCTAAGAGAAGCCCATTAAATGA
TAACTGAGAGTGAAAGAATTATCTACTCAGAAATTCAGAGAGGGAAGAAATATATAGAA
CAATAAAACTTCTTCCAAGCTGTTAAGGAAGAAAATGCCTCAGCTAAGTTTGAAAATGGTG
15 TTTTATCAGTTATATTACCAAGGCAGAAATCCTCAATTAAGAAAGGAATCAACATTGAAT
AAATGGCTAATTTTCTTTATTTTATACTAAATAACATCTATATAATTACATTTTGA
TGGTGAAGAGATGATAAAGAAAAAGCATTAGAAATGATGTTAGATTCTTTAAAAAGACA
TCCAAATCCAAAAGCTGATTTAGAGCAATATACAATAGACGGAAAATTAGCAGCTGATAT
TTTATTTTTTGTCTGTGAATGATTTTTATAACAATGTTGTTATCGATTAGGTTGTGGAAC
20 TGGAGAGATTAGCTATAGGTAGCAAAATTTAGGAGCTAAGAGGGCTATTGGTATAGATAT
CGATAGGGAGAGTATTGAAGCAGCTAAGAGAGACGCTAAAAAGCTAAATGTTGATGTAGA
TTTTTATTGCATGGACATTAGAGATGTTGATGATGAATTTTAAATAATGTGCTTGGTGA
AGATAGGGATTAAAGAGAGTAGTTATTCAAAATCCTCCATTGGAGCCCAGAAAAACA
TGCTGATAGAGTATTTTAGATAAGGCGTTAGAGATTGGGGATATTATTTATACTATTCA
25 CAATTATCCAACAAAGGATTTTGTATTAAAGTATGTTGAAGATAAAGGGGGAAAAATAAC
TCACATCTATGAGGCATTTTTTAGAATTCCTGCAATATACGAGTTTCATAAAAAAAGGT
TGTGGAGATTCTGTAGTGATTTTTAGAATAGAGAAATTAGGGTTCGAACAGTTTTTAA
TTTTCTATAACTTACAGTAGCATATCATAAACAATATCACAATATAAATATTGTTTT
TTTATTAATAATAGTAATATGATTGTTATATCATTAATGTTAATGAGGAGGCTTTCCTTC
30 GAGACGAAATGTTGATACTAAATATTAACGAAGTTTGGATTTTGGGGCTGTATCTGTTC
GTCCTAAGTCTGATGAACCTTATAGTGAAGGAATGGTGTTCCTGATGAAGCTATGGGCTG
AGGACAACCCATTTCCATAGCTTACCGATTCTGATAGTAAGTTATTAAATGCTATGGTAA
GCTATGGAAACGGGAAACGGATAGAGACTATATTAAAAAATACTTCCCAGAATGTTTAAA
ATATATTGAATGAGAAATTTTATCTTTTTTACCTTCGACCTTTTCAACAATTCTTTTAA
35 CAATCTTTTTTAACTCTTCACTTGCTTTTACAATCAAGTAAACCAATTGGAATTCCTTTAT
CACTTGCTTCTCTGCTTTAATATCTAAAGGAATTTCTACCTAAAAATTCAACTCCAAGCT
CTTTAGCAGCTTTTTCTCCCCCTCCTCTACCAATATATCCACAACCTTTATTGCAATG
GGCAACAAACCCGCTCATATTTCAATAATTCCAATAATTGGGATGTTTAGCATTTTAG
CCATCATAAATGGATTTTTTAACATCCAAGACAGAACTTCTTCTGGTGTGTTACAATTA
40 TAGCTCCATCAATATCTGGAATTGATTGCATGATAGTTAATTGCTCATCTCCTGTCCCTG
GAGGAGTATCTATTAATAAATAATCAAGTTCTCCCCAACTACATCTGATAGAAATTGCC
TAATAGCTCCGCTAACCTTTGGCCCCCTCCAAATAACAGGAGTTTGTGATCTGGTAATA
GATATCCAATAGACATGGTTTTTATTCATCTTTTGTAACCTATTGGAAATATTCAGCTG
45 GTCCCTGCCATAGGTTGGGTGTTCTCAACCCCAAGCATCTTTGGAATGTTAGGGCCGTGAA
TATCCGCATCTAAACTCCAACCTTTTTGCCCCATTAAATTTAGAGCAGCAGCTAAATTAA
CTGTTACTGTTGATTTCCCAACCCCTCCTTTACCCTCAAAATAACTATTTTATGTTTTA
TTTTTGACATATTTTCTCTAATTTTGCATCTTGTGGGCTAAGAGTTTCTTTGTATCTG
GGCAGGTATTTTTTGATGGACAAGTGTACATTTTCCATCACACTCAGCCATGGTCTCAC
50 CTATTTTCCCTCATTTGAGTAAAAATAAATAATCAATGAATAAATAAAGAGGGCATAT
AAAGTTATCTATTTCCATGTGATATAAAATTACACCCCATATAAAGGATGAAAAATAGTT
AAGGAGTTATTTATTCATCTTTAGCTATTAACCTACCAGCATCTGGCCCAGATTTTAAGT
TATAGATTTCACTTATTTTTATGACAACAGCTCCTTTTGGTTTCAAATCTGGTTTAAATG
CTTTATCAACCTCTTCAGCTATTTTTAAATATTCACTTCTTTGTAGTATTCAGCAGTTT
55 CTTTATATTGGTAAGGCATGCTTTTACAATTTGCGGTAGTTAAAGCAACTTTTGGATTTT
CTAAGATATTTTATAGGTTTGTGTTTATGAAAGTTATCTGCTATTAAACAATCCCTTTCT
CAGCATCTAAGACTTTAATTGCCCTCATTGCCGCTACATTTGGAAGTCCATCCTTTGAAG
CTGTTGCTATAAATAACAATCTCATTCTTAAGGATTTAACCATCTCCTCTGTTAGCTTTA
CCACACTATCACCAAAATAAATTTTATGAAACATTTTCATTTAAATTTATAATGTTGTCC
TATACATAATTAATATTTTTTATGGTGATGATTATGAGAATTTGTATCCAACCAAGTTG
60 GAGATGTTAATGATGAGATTTTAAATTTTAAAGAAAAAATTTGGGGAAGTTTTTGGAA
TGTGTGAAATACTTCTTAAATTTGATTTTCAATTTATGCTTATAATTTTAGTAGAGGGC
AATTTAATTCACCTTAATTTTAAATCTCTACCAACAGTTGAAGATATCGTTTATAGGTG
TTACCGAGGTAGATATATACGCAGACAATTTAAATTTTGTGTTTGGAGAGGCAGAGTTAT
TTGGAAAAAGAGCTTTGATATCACTGGCAAGATTAAGACCTGAATTTTATGGGTTGCCAC
CAATAAAGATGTCTTAAATTTAGGGCTTTAAAGAGGCGATACATGAAATAGGCCATG
TTTTGGGATTAATACATTGCGAAAAAAGAGATGTTTATGAGTTTTTCAAATCTATTA
TCGATGTGGATTTTAAAGGATTGGAGATTTGCAAAAAATGCTTAAAAAGCTACAGGATA
GAGGAATTTATATTTCAATTTAATTTTCTTCTTTTCTTCTTCTAATTTTAAATTTGCTT
CAGCAATGTCTCCATTACACTCCTCTAATGCCTTTCTGCTTCTTCTTTGAAACGTTGC

ACTGCTTAGCTACCAACTCAACATCCTCTTCTGTTATCTCAACCTTAACTTCTTCTTCTCT
CTTCTACTTTTTCTTTTTTAATCTTCTTTGGTTTTCTGTTATTGAGTAGGTTTTAACTC
CTAATATGTCCATAACTTGAACTTTTGGTTCTTCAAATACCCATTCTCATCATCAAATA
5 CAAATATTACCTTTCTGACATCTAAATCTTCAGTTTCCATACCAAATCTTTCATCATCT
TCTGCATTTTCTTTAACATCCTTGGATTACTTTTCTGGAACATCCTTTCACCAAAGT
TTTATATTGATTTCTATTTTTATTATCTCTTGATATTTTTATAGTCAATCATCAAAAAT
TTTGGAAAGTCATTGGGTATTTATAAAACCCCTTGGGGTTTTATATTTATGTATTGGTTAAA
AATATTTTGCTTTTGATGAGTGACTATAGTTTATGGCTCCAACAATAAATGCCAAAAGA
10 ACAATGTTCAATTATGATTTTTAAGAAATTTGAAACCTTTGAAGCAGTTTCTTTATTGGC
TCTTTTAAACAATAAAGCCATAGCATAGATAAAACAAAATATCACATATTGCTATCAAAATT
AGATACCATATCCCAAATATTTTTAAATGTATGGAAGAGGGCTTAATATAACCGCTAAA
ACAACCAAAAATGTAGCAAAATATAAAGATTTTTTACCATACTTTATTGGTAGTGAAATA
ACGCCCTTCTTTTTATCCCTTCCATGTCTCAAAGTCCTTAACAATCTCCCTACCCCAA
15 ATTGAAAGCAAAGAGCATAAAACAAAATAACTACTGGCATAACGTTTTTTCCAGCAACT
CCACCAAATAGAAATACAGAACAGTTAAATAACCAATAATAAAATTCCCAATTGGTTTA
TATTTTTTGTATTTTTTTGCATATAGATAGAGGAAAAGTGCATTAATTACAGCAATAATC
AATGCATATATATTTATGAATAATGAGAGAATAATCCCAAATTAATAGAATGGCTGAA
AATTTTTTGCCTCATTTAATTTAATTTTTCTGATGGTAAAGGACGGGATGGCTTGT
20 ATTTCTATCTATCTCAATATCAAAAATATCATTTATTACATTTCCATAAGCACAAACAAA
AATACAACAAAAATACTAAAAGAGATTTTAAATATCAATCTCAAAGTTTGATGATATT
AAATAACCTATAATCCCACCAATAGATGCAGTTATGCAGTTTTTGACTCTAATAAGCTCC
AAATACGTTTTTAACTTCTCCATAAAAACCCCCAAATATGACGCTTTTGTCCATAAAAA
TAATAACAAAAACTATTTATATACCTTCACAAAAAGTATTTGGAAAGGTTAGGAGTTG
25 ATTAACCTTGATAAAAAAGGTGACTATGTCAAAGTAGATTATATATTAGAAGTAGATGGA
AAAGTTATTGACACATCAATTGAAGAAGTAGCTAAAGAAAATAAAATATACTATCTTGAA
AGAGAATATGAGCCAATTGGATTATTGTAGGTAATGGAGAATTAATCGAAGGTTTTGAA
GAGGCTGTTATAGGCATGGAAGTTGGAGAAGAAAAACTGTAACAATTCCTCCTGAAAA
GGTTATGGACTTAGAGATGAGAGATTAATCCAAGAAATACCTAAGGAAATGTTTGCTGAT
30 GCTGACTTTGAACCACAGGAGGGAAATGTTAATCTTAGCCAGTGGAAATTCCTGCAAAGATA
ATAAAAGTTACTGATGATACTGTAACCTTAGACTTTAACCACGAGCTTGCTGGAAAAGAA
TTAAATTTCACAATAAAAGTAAGAGATGTCCAGCCAGCTGAGTCAGAATAATTTCTTTCT
TTAATTTATTTTTTTTATTTTATAGTCTTTAAGATTAGTAATTAATATTAAATACCAACAC
TTTTTTATATCAAACCTTTTTAAAGTTCTTCAAATGCTAAATCCTTAGTATAAAAAATTTTT
35 ATATATGATTTCAATTTTATCATTACTTTACCCTTAACATTTTTTGGTGATTGGATGAAA
GGTGCTGAAGCAATCATAAAAGCATTGGAAGCGGAGGGAGTTAAGATTATATTTGGTTAT
CCAGGAGGAGCTATGCTTCCTTTTTATGATGCGTTGTATGATAGCGATTTAGTTCATATA
TTAACAAGGCATGAACAGGCAGCAGCACATGCAGCAGATGGATTGCGAGAGCAAGTGGA
GAGGCTGGGGTTTGGCTCTCTACCTCTGGCCCTGGAGCTACAACTTAGTTACTGGGATA
40 GCAACCGCTTATGCAGATTCCTTCCAGTTATTGCTTTAACAGGGCAAGTCCCAACAAA
CTTATTGGAAACGATGCATTTCAAGGAGATTGACGCTCTTGGATTATTCATGCCAATAACA
AAACACAATTTCCAAATAAAAAAACAGAAGAGATTCCAGAGACGTTTAGAGCCGCTTTT
GAAATTGCCACAACCTGGAAGACCAGGACCGGTTTCATATAGACCTCCCAAAGGATGTGCAA
GATGGAGAAATAGATATTGAAAAATACCCAATTCTGCAAAGGTTGATTGCCAGGTTAT
45 GAACAAAAAAGCTTAGGGCATCTCTACAGATAAAGAAAGCTGCTAAATTGATAGCTGAA
TCTGAGAGACCTGTAATCTTAGCTGGTGGAGGAGTTAATTTAGTGGAGCTTCAGAGAG
TTATTGAGATTAGCTGAGTTTGTAAATTTCCAGTATGCACAACCTTAATGGGTAAAGGT
TGTTTTCCAGAAGACCATCCTTTAGCTTTAGGAATGGTTGGAATGCATGGAATAAGCT
GCAAATTACGCAGTTACGGAGTGTGATGTTCTCATAGCTATTGGATGTAGATTTTCAGAT
50 AGGGTTACTGGGGATATCAGATACTTTGCTCCAGAGGCAAAGATTATTCATATAGATATA
GACCCAGCTGAGATAGGAAAAATGTTAGAGCTGATATCCCAATAGTTGGAGATGCAAAA
AATGTTTTGAGAGATTTGTTAGCTGCATTAATAGCATTAGAAATTAAGACAAAGAAACA
TGGCTTGAAAGAATTTATGAATTAAAAAAATTATCTATCCCAATGATGGACTTTGATGAT
AAGCCAATAAAGCCACAAAGGTTTGTAAAGGATTTAATGGAAGTTTGAATGAGATTGAC
55 TCAAAATTAAAAAACACAATTATAACAACAGATGTTGGACAAAATCAGATGTGGATGGCA
CACTTCTTTAAACAAAGATGCCAAGAAGCTTTTTAGCTTCTGGTGGTTTAGGAAGTATG
GGTTTTGGTTTTCCCTGCTGCAATTGGGGCAAAGGTAGCTAAACCTTATGCTAATGTTATC
TCTATTACTGGAGATGGAGGATTTTTGATGAACTCTCAGGAGTTGGCAACAATTAGCGAA
TATGATATTCCTGTTGTTATCTGTATTTTGACAACAGAACTTTGGGAATGGTCTATCAA
60 TGGCAAAACCTATACTATGGGCAGAGGCAGAGTGAAGTTCAATTTGGGAGAGAGTCTGAC
TTTGTTAAATTAGCTGAAAGTTATGGAGTTAAAGCTGATAGAATAATAAGCCCAGATGAA
ATTAAAGAGAAGTTGAAAGAAGCAATATTAAGTAATGAGCCATACCTCTTAGATATTGTT
ATAGACCCTGCTGAAGCTCTGCCAATGGTTCCTCCAGGTGGGAGATTAACCAATATTGTC
CAGCCAATTAGGGTAGAACCAAAAAATAAAAAACCACAGTTCGATGAAATTAAGAAAAATA
AGAGATATGGCAGCAGTTAAAGAGTTTAGATAAATTAGCCCATGCTTCTATTTTTTTAA

ATTGTTATTTTCTTCTCTATTATATTATAGTCGTTAAATATTAACACAAGGTTATATTAT
ATAAAAGTAGCTTAGAAGGAGGGGTTAATGAAAGTTGAGTTTATGCAGGGAAATCAGG
CATGTGCAAGGGAGCTATAAAAGCTGGATGTAGGTTTTTCGCTGGCTATCCAATAACTC
5 CATCCACAGAGATAGCCGAGGCAATGGCGAGAGAATTACCAAAGGTTGGAGGATATTATA
TACAAATGGAAGATGAGATTGGAAGTATAGCAGCAGTTATTGGAGCAAGTTGGGGAGGAT
TAAAGGCAATGACAGCTACTTCAGGCCCTGGATTTAGTTTAAATGCAGGAGAATATAGGAT
TTGCATACATGACAGAACTCCCTGTGTAGTTGTGGATATTCAAAGAGGGCGGCCCTTCCA
10 CAGGACAGCCAACCATGGCTTCCCAGGGAGATATGATGCAGTGTAGATGGGGAAGCCATG
GAGATTATGAAGTTATTGCCCTTAGCTCCAAGCTCTGTCCAAGAGATGTATGATTTACACAA
TAATGGCTTTTAACTATGCTGAAAAATACAGAATTCCCTGTTTTTGTAAATGGCTGATGAGA
TAGTTGGGCATATGAGAGAAAAAGTAATTTTGCATGATAATTTGAGATAATTAATAGAA
AAAAGCCAGAAGAAAAGCCATGTAAAAAGCCATATCCTTTTGATAAATTAATCCCAGAGA
TGCCAGTATTTGGAGAGGGCTATAATGTGCATATAACTGGTTTAACTCATGATGAGAGAG
15 GCTACCCAGATGTTTCACCAGAACTCATGATAAGTTAGTTAGGAGAATAGTGAATAAAA
TAAGAAAAAATAAGATGAGATAATTAATGGGAAGGAGAGAACTTAGATGCAGAAATAG
TATTTGTTTGTATGTTTCTCCTTCAAGAACTGTAAACATGCTGTTAGAAATTTGAGAG
AAAAAGGTTTGGATGTTGGATATATAAGGTTGATAACTGTTTATCCATTCCCAGATGATT
TATTAATAAAGTTGAAGGCTAAGAAAGTTGTAGTTCCAGAGATGAATTTAGGACAGATAT
20 ATTATGAGGTTGAGAGAGTTTGCAAAAAGCAGAAGAGGTTATTTTAGTGGATAAAATTG
GAGGAGAGTTACATAGACCAGAAGAGTTGGAGAGGGCTGTTTTAGGATAACACTCGATAG
AAATATTTAATATGGAATAACTCATAGATATACTAATATTTTTTCTTTTGTGTGGTA
TCATGAGGGTTTATAGAGTTTATAATGCTTATAAGATTGTTGGGGCAGTAATATTTTCTA
TGAGCATTATTGTTATTTTATATATTTCAATTATTCTTCATAGTCTTAAGCTTTCTTTTT
25 CTATTATATTAGCTGTTGATATATTAATTATTGCACTTTTTCCTATATCTTTTTAAAC
CCAAGAAATTAGTTGTTTTAGATAATGGGATAAAAGTAGATAATGAGTTTTATAGTTGGG
ATGAGGTAATAGAGTTTTTTGTATCTTTAAATTCAATACAAATAAATCTTAAAGGTAAAA
GGGAAGAGACATTTAATTGGGAAACCCCGGGCTTTTTAAATATAGACCCCAATTTGAAT
ATGTGGTTAAAAAGATGCTGAACTTTAAAAATTTTAAAGGAGAAAATTGAAAATAAAG
30 AAAGAAAAAGGGGTTGAGTATGAAAAAGTATCAATAATTGTTTTATTTATATTATCTTT
AATTTTAACTATTTCAATTTGTGGATTTTTGAGAATGAAAAAGAGGAAGTAATAAACC
AAATATGACAGTCATTGAAAAAGAAAATATAAAAGTCCAAAACAATAAACCATAAGAAAA
TTTAAAGAAGAACTCTGTAAAGTTAAATATTACAAATGATGAAAATAGAACAAATAATAT
AACAAAAACTACAAAAAAATACGATTTTTCAAAGCCAGTTGATATGGACAAGATGTTTTT
35 AAATCTTCTTATAATGAAGAGACGGACTTTGATGATAAAATAATAAAAAATATAAAAA
CATAACCTTTGTAGTCAGCAGAAAGCCAATTGACCTTTCTATGCATACATATATAATGA
AGTTAAAGAGTATCCTGAAAGGGATATTTTTGGCAACTACATATATTACGAGTTCATTCC
AAAAAATGCCAATTTATCAATTAGTTACTGCTATTATAGAAAAGTTGGTAATTACTATAT
AATTATGCAAACTTATGAGAAAAGTAGAAAAGCTAATGATTTGTGGATGAATTGGACAAA
40 ATATGTATTTAGTTTATTTGAGGAATAAATTTTCATTTTATTTTAAATTTTAAATTTTCTA
ATTTTGTTCATTTAACTATAAATCGCCTCAGTGCTCATACGGTTCATCACAGACTCA
GCAAAGCCAATCGTCATCATTGGCGATTTTTTGGTGATTATTATGATGATAGGGAGAGCT
TTAATATTAGATGGTTTACTGACGAACCCGCTGGTTTGGGGGTGCCCCCTTATATAGGC
ATTTACCCAAGATATGCTTATGCTGCTTAGATAAATATAACGTTAAAGTGGATTATATA
45 ACTATCGATAAATTTAGAGAAATTAGAGGAGATTTTAAATTTAAATAAATACGATGCAATA
ATTTGTATTTGTGGATTTACACACCTGGAAAATATTTAAATGCAAACTCCTGCAACATTA
AAGGAGTTTGTCTTATATATAAATATGATGGCTTAAAAATTTTGGGGGGGCCAGCA
CCGACAAAATATGGCTCTTCAATGATTGGAGGAAAGATAGAAGATGAGAGTAAATATAAA
GCATTTTTTGTATGTTGCTGAGGGTGATTTAGAGGCAGTTTTAAATGATTTGTTGAGA
50 GAGGGAAGCATAGAAAAGATTGATTTTAAACAGATATAGAACCTATGAAGAGTTGAGAGAA
TATGCAATAAGAGGAGCTAAGGTTGTTAAAAAGCATCCAACTATCCATATATAATTGCT
GAGATTGAAACTTATAGAGGATGCCCAAGAGCTTTAACTGGAGGCTGCTCTTTTGCACA
GAGCCAAGGAGGTTTGGATTGCCAAAATTTAGAGATGAAAAAGATATCATAGACGAAAT
AAGGTATTATATAATGAGGGAATAAATATTTTCAGAATTGGAAGACAGCCATGTATGTTT
55 TCATATAAATCAATTGATTCCGAGAAGGAAGAGGTTCCAAAACCAATGTTGAAGCAATT
GAAAAGCTGTTTAAAGGCATTAGGAACGTTTCAAATCCAAAGTTTTGTCATATAGATAAT
GCAATCCTGCAGTGATAGCAAGGCATGAAGATGAAAGTAGAGAGGTAGCTAAATATTA
GTTAAATACTGCACCTTCTGGAATGTTGCTGCTTTTGGTGTGAGAGTTTGTATGAGAAA
GTAATTAAGCCAACAACCTTATTAACAACACCAGAAGATGTTTTAAAGGCTGTAGAAAT
TTAAATGAAGTTGGAGGAAAAAGGGAGAAAAGAACTGGGCTGCCGTATTTATGCCAGGCATA
60 AATTTATTGTTTGGATTAAAGGGGAGAGAAAAGAAACATTTACTATAAATTTTGAATAT
TTAAAGAAATCTATGATAGGGGCTTTATGATTAGAAGGATTAACATAAGGCAAGTTGTT
CCATTTTTTGGGACTGATATAACTCTAAAAGACATAAAAAAGGCAGAGAAGAGAAAAAG
TTATTTTTTATGTTTTAAAGAAAAAGTTAGGGAAGAAATAGATAATAAATGCTTAAAGG
GTTGTTCCAAAAGGGACAATATTAAGAGATGTATTTGTTGAAGTTAAAGAAAGGGAAGAT

-468-

5 TTATACTTTGGAAGACAGTTTGGAAAGTTATCCATTATTAGTTGGAATTTTAGATAAAAAAT
CTTAAAAATTGGAGAGTTTGTAGATGTTGAGGTTGTTGATTATGGGAGGAGGTCGATTACT
GGGAAGGTTGTTAGAGATATTAGAAAAATACATATAGTAGGTTGAGTATAAAAAAAGAGC
AAAGAGTAAGCGTTTGAATTGATAGTCAATTAAAAATAAAGGTAGGAAGTAAAGGATTT
10 AAAAAAGAGTAATTATAGGGATGTTTATGAAAATGTTGAAATTATTTCTTTTGATTGTT
CCGTAGTTGGAGTAATTCCTTTGTTGTGGCTGTATTGCTGGAGACGAGTGCAGTCCTCACC
ACCCAATAGACACGCTAAATTTGCTGAGGAGTTAAACACATTTTCTTTAGAGGACGTTCT
AAAAATCATAGAAGATAATTTTAAAAAAGCTTTAAAGAGAGAATACTATGATATAACAA
AATTTAGTGTAATCTTATTTTTTATTTTATTTATGAAAATCAATTAATGTAAATTAATA
15 AATAATTAATAAAAAAATTTAAATCATTAGCAAGGGTAAATCTCACATCATCATCTC
CAACATCAAAAAATCCCAATCTAACACCTGCATCAATCCAGCCATAGGCATAATTTAGAG
AGGCAAGGTCAGTCACATAATCTCCTCTCTCTTAAATGCCTTGGCATCTTCAAAATAGC
TCTCTATCATCAATAAAAAAGTCCTTAGCAACATCATACAACAACTTCTCTTTGGTGGCA
TGCCCTTTTTTAATAATTTTTATAGCTTCTCTGCTCTTAAATAATTTTCTAATTTTT
20 CTTGAGTTATTTTCTTAATCACATTTCTCACCATCAAAAAATTTTCTTAAACAAATAAGG
TTTGTAATTTCCAGCCCTTTGATTTACAAAACCTCTAATGCCTTTGTGTGCTTTATCT
GCCAATAATGATAATCTTAATAACCCATTTTCTTTACAGTATCTCTCAGCCTCCAATAGA
AGTTTGTCTCCCAATACCTCTACCTCTAAAATGTTTCATCAACAATTAATCCTCTAAGAGT
CCAACTCCCTTCTCTCAGCAGTTGATATTAAAGGTTGAATAGAACACATCCCTATAACTC
25 TTCTTTATATCTTGCAACAAAGATTACTGCATCCTCTTTATTTAATAAAAGTTCTAATC
CCTTTTTTGCTTTTCATAGTTTGGAGTAAAATCCTTCTCTATCTCAAAAAGTTGTTTTAA
TAGATTAATCATATCATCGATATCTTCTTTTGTAAATATCTATAGTTATCATAATCTC
ACCAATAATTATTCATCATCTTCATAAATAAATATATCCTCAATCTTAAACACCAAAAAAC
TTGGCTATTTTAAATGCCAATTTTAAAGAAGGGTCGTATTTACCTTCTCTATGGCGATG
30 ATTGTTTGCCTACTAATCTTAACTTTTTTGTCTAAATCCTCCTGAGTTAAATTATGCAAT
GCTCTATAGTATTTTCAGCTTGTTCATTTGTTTCACTATGAAAACTTTTAAATGTATA
GAACTCAATTATAACATATTTGCCGTAATAACAAGCATTATTGTTCTAATAATATCAAC
TGCGTTAATACAGAACTCTTTGAAGGTAATATCAATAAAAACACATAAATAGTAAGTAA
CATTCGAAAATTGATATTAAAGTTAAAAATCCAGATTTTTGTTTAAAGTGCTCAACGAA
35 TTCATCAAAAACCTCAAAGATTAACTTATCTTTGGAAATAAAATCCCCATAACAATTAA
AATAAGTATTGCAAAATTTCTTAAAGTAATATCTAAAAATACCTCATTGTAGATAATTCC
TAAAAATATCAAAATCCCTTCAATAAAATCCAACACTATTGCTAATAAATTTCTCATATAA
CCTTTTCATTATATTATTTTTATCAATAAAATAACCAAAATTACAAACACTGCCAATAAGAA
AGCTAAAACCATTTTTAAATTTTTTGATAAATAGAGATAAAATTAAACTGCTAATAAATC
40 AGTAGCCAATATAAGTTTTATATTACTTTTTAAGTCCATAGTTTCACCTTAAGTGATTTT
TAAAGCAGTAGATAAAAGATAATATCAAAATTCAAAACAAAAGTTGCCATTAAAAATATAA
CTATATCTAAAGAAAATGCAACTTTTACATTAAAGAAAGCCATAAAATTAAGAATCGAA
CTAAATATATCCAAAAGAAAGGATTAAACATAATGGATGATTTTTTAAATATCTCTGCTT
45 TTAATTCATCTATTATTAATAAACTCTGTTAAAAATCCGAGAAGTAATTTACCCATCTTTT
TCTCTATCATGTTAATAATACTTTACATTATGTTAAGTATGTTTAAACATTTTTGTATAT
AAAATTTTTCATAAAAATATTTAAATACTTAGAATTATAAATAATTGGAAATAAAATAGG
ACTTTGCGATGAGGAAATATTTTATTATATAAATAACACTCTTTGAGTATTTAAATCCAA
ATTCATATATAAACTGTGGAAAATCCTATAAAACCACTATGAAAAATAAAGCTGAGAAA
50 ATGAGAGCAAAATCATCAACGATTTTAACTCCTCTTAATGTCAGTTTGTATTTACTACTG
TCTATTGATATTTTAGCAAAATCACATAAATCAAGTAGATGGATATTACTATTAGTGGT
TTAGGGCAGAAATTAGCAATGAAAGATGTAATTTCCATAAATGCCTCTTTTAAATAAATA
AAATCTCAGTTGGAGAAATCTATGAAATTCATTAAATGAAAGCTGGGAGATTAGATTT
ATGACAGTAATTCAACAATAAAGCTGTTAAAAATCAAATCGGCTATTATATTGAAGGAG
55 TAAAAAAGGAAGCTGCTATAGTGTCATTCTCAAAAATAAATACAACATCATTTTTAGAGA
AAGACTATGTAATCCATGTAAATTAATTTTATTTTTCTTATGCCTAAACTATTTTCGTT
AATTGCTTAAATCTCCAAAACCTTTATATATTACTTTTAAATAATTGTTAATGATTGATAAT
GACAGTTTAAAGTGAGTGATGATAGAAATTAGATTTACGGAAGAGGAGGACAAGGAGC
60 TGTTACAGCAGCACAAATTTTAGCTAAAGCTGCTTTTTATGATGGAAAGTTTGTCAAGC
ATTTCCATTCTTTGGTGTGAGAGAAGAGGGGCTCCAGTTATGGCATTACAAGAATAGA
CGATAAGAAGATAACATTAAGATGCCAAATCTATGAGCCAGATTATGTTATTGTTTCAGGA
TGCTACTCTTTTAGAGAGTGTTAATGTTGTTGAGGGGTAAAGAAAGATGGCGCTGTTGT
AATTAACACTGTTTAAAGGATGATTTAGATTTAGGCTACAAAACATATACAATTGATGCTAC
AGGAATAGCGTTAGTGATTTTTAGGAGTTCCAATTGTAAATACTGCAATGTTTGGAGCTTT
TGCTGGAGTTACAGGAATTGTTAGCATAGAATCAGTTAAAAAAGCTATTTTAGATACATT
TAAAGGTAAATTAGGAGAGAAAAACGCTAAAGCTGCTGAAGTAGCATACAATGAGATGTT
AAAAAATATGGATAAATATTGAGGTGAATTAAATGGTTACAATTGCAGCTATTATATA
TGAGCCAGGAAACTCAATTAAAAACAAAACAGGGACTTGGAGAACATTTAGACCAATTTT
AGACAATGAAAAATGTGTAATGTGAAAATGCTATATATTCTGTCCAGAGGGGGCTAT
TCAAGAAGATGAAAATGGAACTTCAAAATAGATTATGATTACTGTAAGGTTGCCTAAT

ATGTATGAACGAATGTCCAGTAAATGCAATAACAAAGGTTAGAGAAGAGAAATAAAATAA
ACACTAAATTACTAAGGTGGAACCTATGTGTGAAGTCAAGGTTATTACAGGAACCTCAGC
TGCTGCTGAAGCGGCTAAATTAGCTGATGTGTGATGTTATAGCTGCCTATCCAATTACACC
5 ACAAACAACGTGTGTTGAGAAGTTAGCTGAGTTTGTAGCTAATGGAGAGTTAGATGCTGA
ATATATAAAGGTTGAGAGTGAGCACTCAGCAATGTCTGCTTGCATAGGGGCAGCTGCAAC
AGGAGCAAGGACATTTACTGCAACTGCTTCACAAGGTTTAGCTTTGATGCATGAAATGTT
ATTCATTGCATCAGGTATGAGATTGCCAATAGTTATGATGGTTGCTAACAGAGCTTTATC
AGCTCCTATAAACATCTGGAATGACCACCAAGATTCAATAGCAGAGAGAGACAGTGGATG
10 GATTGAGATATATGTTGAAGATAACCAAGAAACCTTGACAGCATTATTCAAGCTTATAA
GATAGCTGAAAATGAAGACGCTTATTGCCAGTCATGGTTTGTGTTAGATGGATTTATCTT
AACTCACACAGTAGAGCCAGTAACAATTCCAAAGGCAGAGAGAGTTAGAGAATTTTAGG
AGTTTATGAACCAAAACACGCATATTTAGACCCAGACAGACCAATAACTCAAGGCCAGT
AGGAGTTCCAGATTGCTACATGGAGACAAGGAAACAGATAGAGGAGGCTATGGAGAGGGC
15 TAAGAAAGTTATTAGGGATGTTAATGAGGAATTTGCTGAATGGTTTAAAGAGAAAGTATGG
AAATGGTTTAGTCGAGGCTTATAACTTAGATAACGCAGATACCGTTTTAGTTGCAATGGG
TTCTGTTTGGGACAATAAAGTATGTTATTGATGAACCTAAAAAAGAGGGCAAAAATGT
TGGATTGTTAAGAATAAGAGCCTTTAGACCATTCCCAAAAGAGGATGTTAAGGAGCTTTT
AAAAGATGCCAATAATATAGCTGTGTTAGATAAAAACATCTCATTAGGATTTAATAAAGG
20 AGCTTTAGGTATTGAAATGGCATCAATTTTAAAGAATAAGAAAGTTTGCAACTACATTGT
TGGTTTAGGGGGAAGAGACATCAAAATAGATGATATAAAGACAATAATTAACCATGTTGA
AAAGGCAGAGGATGACTCTACATTATGGGTTGGATTAAAGGAATAAATAATTTTATTTAA
ATAATTTTTAAGGTGATTGTAATGCAATTTCCAAGAGAAGAATATTTGCACCAGGACA
CAGAGGATGTGCTGGCTGTGGAGCTGCTATTGTAGCAAGATTACTGCTAAAGGTAGCTGG
25 AAAAGATACAATTATAACAAACGCCACTGGCTGTTTAGAGGTTATGACTACCCCATACCC
AGAAACATCTTGAGAGAGTTCCTTGGATTATACAGCATTGTGAAAACGCTGCAGCAACTGC
AAGCGGTATTGAAGCAGCTGTAAAGGCATTGAAGAGAAAAAGAGGAAAGTTTGCTGATAA
AAAAATAAATGTCATTGCCATTGGAGGAGATGGAGGAACAGCAGATATTGGTTTTCAGGC
ATTGAGTGGAGCTATGGAGAGGGGGCAGATATATTATATATTATGTATGATAATGAAGC
30 ATATATGAACACTGGAATACAGAGAAGTTTCATCAACGCCCTTCATGGCCGCTACAACAAC
ATCTCCAGCTGGTTCAAAGATTAGAGGAGAGGATAGGCCATAAAAAGACATGACAATGAT
AATGGCAGCTCATGGTATTCCTTACGTTGCTACCGCATGCAATTTATATCCAGAGGACTT
TATGAGAAAGGTTAAAAAGCTTTAAGCATTGAAGGGCCAAAGTTTATACAAGTTTTACA
ACCTTGATACAACAGGTTGGGGATATCCACCAGAAAAACAATAGAAATCGGAAGATTGGC
35 TGTTGAAACTGGAATCTTCCCACTTTATGAAATTGAAATGGGGAGTTTAGAATTACATA
CAAAACAGCTAAGAGAAAGCCAGTTAGGGAATATCTAAAGATGCAGAAGAGATATAGGCA
TTTAAGTATGAGGATATTGAGAGAATTCAAAAATATATTGATGAGAAATGTAAGTTGTT
AGGATTGTAATTTAAATTTCTTTTTTTTACTAAATTAATAAGTTTTTGGTGATGGTGAT
GAAAAAATAATCATGACAACTTCAACTGTGATAACTGTGGGATTGTGTTAAGGCATG
40 CATGGAGAAGATAAAGTTGGAAGAATTGCCATAATGGAGAAAGATGGCAATACATTTCC
AATTGCTGCCAACACTGTGCTTCAGCTCCTGTAAAGGAAGTCTGCCAGTTTCAGCAAT
TGAACATAAAGACGGCTACGCTATTTAAATGAAGATGTTTGTATTGGTTGTGGTTTATG
TGCTTTAGCATGTCCATTTGGAGCTATATTGATGGAGGATAAAGCATACAAGTGTATTTT
ATGCAATGGAGATGAACAGCATGTGTTAAAGCTTGCTCAAAGAGATGCTTAGAGCTTGT
45 TGATGTAATGAGTTAATATTGCTAAGAGGGATAAGTCTTTAGATTATTAGTAAGAT
GTCTCTTCTACACAAAAATCAGATAACAGTTTAATTTCAAAAAATAACAATAGACGCAAA
AGTTAAACCTTAAATTGTTGTAATATTATAACTTTTTATCTTTTTTAATCCCTTATGCAC
CAAGTGAAGAGTTTTCTTTTTATTGGCTATTGATGGTGAAAAAATGGTTGTAGTAAATGTT
GGTCTTGCAATTGAGATGTAGGAGATGTGAAAGGAGTTGTCCAATAAATGGAATAACCTTC
50 AATGAATTTCCAATAAATGTATGCATTGTGATAGAAATCCTTGTCTATATGCATGTCCG
GAGAATGCAATAGAGAGGATTAATAACAAAGTGTTGTTATAAAAGATAAGTGTGTTGGT
TGTGGTTTGTGTGCTTTAGCATGTCCATTTGGAGCTATAAGAATTGATGGAGTAGCGATA
AAATGTAATGGATGTTATAAAAGAGATGTTGAGATTGCAAGAAGTATGTCCAACAGGA
GCTATTAACAACCTTGAAGAAATATTAAATAAATAAATAACAAATACAGTGAATAAATTT
55 AATAAGCTTTACTATCTTTATGCAAAATGCAAAATAATTCCTTAATTTTCTATTTTCGTA
ATTTTATAAGGTTGAAAATTTACAATAAAACATATAAACCTATTTTTATTAAATTGTCCT
TTTATCGAATCTTCAATGGAATCTTACAAGAGTAAATTTATATTTTTATATAGATAAT
ATCTTCAATGTTAAATGTTATAGTTATATACAAATAATATAACACAACATTATAACACAA
CATTCAAATTAACAGATTTATTAGAGTGGTATAAATGGATTATGATAAATATGGTAAAAAC
60 ATTAGAAATATTAAGAGATGTTGTTAATGCCTTAGAATGTGCAGATAAAGGAAATTTGA
TAAAGCATTAGAATATTTAGAAAAAGCTCAGAAAGTTGATAAGGATAATCCTTTAGTATT
GTATGTAAAAGGAATTGTGTTAAACTCAAAGGAGATATGGAAGGAGCAAAAAATATTT
TGAATGCTTAGAAAAATATTGAAGGAACATCTTTATTGCTTTTAGGGAATCTTATATGTTT
AACATTCGTTAAAGGAGAGTATGAAAGAACATTAAATATATTGAGAAGTTATCAAGATT
ATCTAAACCATGCTATTTGCTCCATTCCATAAAGCTTTAATTTATATAGAATTTGGAGA

ATTTGAAAAGGCACCTTGAAGCTCTTGATGAATTTTTAAAAATATATCCAAATCTAACCTC
AATTTTAAGACAGAAGGCATCAATATTAGAAATACCTGGGAAATTAGATGAAGCACTGGA
TTGTGTGAATAAAATTTTAAGTATTAAAAAGATGATGCCCATGCATGGTATTTAAAAGG
AAGAATTTTAAAGAACTTGGAATATAAAAGAAGCGTTAGATGCATTAAAAATGGCAAT
5 AAACCTAAACGAAAATCTAGTTCATGTTTATAAAGATATCGCTTATTTAGAATTGGCAAA
TAATAATTATGAAGAGGCATTAAACTATATAACCAAATATTTAGAAAAATTTCCAAATGA
TGTTGAAGCAAAAGTTCTATTTAGCTTTGATATATGAAAATCTCAACAAAGTTGATGATGC
TTTAAAAATATATGATAAAATTTTCAACAAAAATGTTAAAGATAAGCTATTAATAAA
10 ATCATCTATACTAAATAAAGCGAGAATCCTCGAAAAACTTGGAAAAATTGAAGAAGCAGT
AGAAACCTATAATAAAGCCTTTGATAACAACATTTAAAAAATAAAAAATTTATCTTCCCC
AGAATATGTTGTTTGTAGCTTTTGCATCAACTCCATATATCTTAACATGCCTCTTTT
CATCATTTCTCAACCTATCCATGTATTTATGGTAGAGCTCTTAACATGACTTTCTGGAA
CAGCTACATCAATAGTCCCTTCATCAACATGCCTTTTTAATACAACCTTCCATCTA
15 TAGCTATTGAACTGCCTTTTCTGCTTTTGCCTCTTTAACATTTTCTCCTCTATCTTTTA
TTTCCCTAACATAACCTAATTGCATTCATCCTCCTCATTAAAGGAGCTCCAACCTCTTA
AAGTCCACAGAGGACTTCAACTCCACAAATTGCAGGGTCTTTCTGTCTGAATATACAAT
CTGGTAAAAATCCTGATGATTGCTGGCTTGATAAGTTTTTCAAACCTCTCCATATTTAATTC
TCTCTTCTCTTTTTTAACTCCACTCTGTGAAGTCTCAACCAACTTATAGATAATGTTAT
20 CTAAAAACACCTTTATGTCAATTTTTCAATTTCTTTCTGAGCTTCTGGTAAAAATTTTTA
CGTTAAAGGCAACTATTGCTCCATGTAATGGATTACTCTGCTTGATGATGCAACTTCAA
TAACATCCTTCTTAGTTACATCTCCAACCTCTGCCTTCTTAATCTTAACCTCTGCCTTCC
TTAATCTATTAGCTAAAGCTTCTAAAGAACCAAGAGTATCTGCTTTTATAAAATTCCTT
CATCATCAACCTCTATCTTTGCCTCTTCAACTCTTTTCATAACCTCTCTTTTGCTTCTT
25 CTATCTTATCTTTTGAACAATCCTTATTGGACATCCAGCTATGACTTTATCCAATTCAG
GAGCGGCTATCTTAACCTCTGCAGCGGCAGTAACCTTCATTTACTGGCTTAAATTTATCTC
TTGGGTCTCTCATCTCATCTAATGGCTTCGGCTTTAATAAAGCTTTAACTCTTGCTACTA
AAACATCATCAGGCAATCCAACAATAAATCTCCTCTCTTAGCAATCCCATCATATAA
TTATGGCATCTATCGTTGTCCCAATCCTTTTTCTTCTTAACCTCTAATATTGTTCCCT
30 TTGCATAACCTTCAACATTAAGCTTTAATCTATCCTCTAAAAACTTTTGGGCTAATCCAG
CAACCATCATCAATAAATCAGGAATCCCTCTCCAGTAACCTGCTGATACTGGAATAATAC
AGACAGTTTTTGTAACTCTTGAACCTCTTGAGTATAAATCAGCATCAAAACCAAGCTCAT
TTAATGGTTTTATTATGTTTTCATACAACCTTATTICAAATTCAGTTAAAGCATTGGAT
GCTGATTTTTTTCATTGAAGTTTAAAGATAAAGCGCCCTTCTTAGAGTTCCATCCAGGAA
35 TTAAGTCAATTTTTATTGCTGCTACAACAAATGGGGTTTTGCACTGTCTTAATATATTAA
CAGCCTCAACAGTTTTGTGGTTTTAAAGCCCTCGTTTATATCTACAACATAATGGCTATAT
CAGCCAAAGCTCCTCCTCTTTTTCTTAATGAGGTAAATGCCTCATGCCAGGGGTGTCTA
TAACCAACAATCCAGGGATTTTTAAATCTGCTTTTAGCATCTTTAATAAATCTCCACACA
GCCGTTTTATGACATCTATTGGAATCTCACTTGCTCCTATGTGTTGGGTAATTCCTCCAG
40 CTTCTCTTTTAGCGACTCTTGTTTTTCTTAATCTTGCTTAAAGTGTGTGTTATGAACAA
CTATACCATTGCTATAAAGTTGTGTGTTTCAGTTGTTAAATCATACACATAGCCATCAT
AATCAATAATTTCAACATCTTCAACTCAACAAATGCAATATTTTCTATTAATGATTTC
TATAGTCAATATTCTCTTTTCCAAATTCATGATTCTTCCAAATATTTAATGCTTCTCTC
CTAATTTAGTTAATCTTCCATTCTCTATTAAACCATCGCTTTCAAATGCTTTTAAATAAT
45 TAACATCTCTTTCTTTTCTTCCAATACCTTTATCTTTTATCTAAGTTCTTTGGTTTTA
ATGAATTTAGGAATTTCTTAACAATTTTATAGGAAGGAATCTTTTCCATTTTCATATT
TTGCATAGTATGAGACATTTACTTCAATCTTGTGCTATTCCAACAAATTTCTTAATCTTT
TCATATCTTTATTTATTGGATACTTCTCACTTTTTCTACTTTTTCAATGATTTTGTTTA
AGTTTTCTCTTTATATTTTATTGAAAACCAATGTTTTTGAAGTTCTTTAAGTTTCTCT
50 TTCTTACAATGTTTAAATGGTAGTATTTCTTTTATGTTTCTTTGTAAGATTTTTTAATTT
CATAGATTTTGTATGTTATTTTCAATCTTAATAAAGAATAGAAAGTCTTCAATAAAT
CCTTTGATGCATTTATTACTTCAATCTATTCTGTCTTAATTTACATACCCATCTGCAT
CAAAGTATCCTTTAATAAACTCTGTACAAAGCTTTTTTGGAGCTATGTATAAATTTTGTG
GGATTTTTATATTATGGGATTTCTTTTCACTTGGGTAATCAATAAATTTTTAAGGAGAT
55 TAATTAACGCATTTTTTCCATTTTTAAATATTATTTTATAGGAACTTTTCTTTTTATTCT
TCTCAACTTCAATTCCTAAATTTTCAATGATTTTAAATTTGTTGAATCTTCTTCATCAT
TATTTGCTATTCTATCCACACATCCATCCCAACATAACTCCTGCAAGTAGAATATAG
CTTTCCATTCAATCAACGACTTTGGAAGTTTTATATAGTGTGAGGTTTTCCACATCTGT
GGATTTCTGGAGAGAATGATATTTTTTCAATATTTAGATTATGTTCAATAATATCTCGC
60 TTCTGAAAACATTTTTCTGTTTTTTGTAGATTTTTGTTGAAGGCAACTCTACGTTTTTTA
AATCTTTCTCATTAACTTTTACAATTAATTCATTAGTTAATATCTTTGAATTAATAAAT
CAATGAACCTTCTCAAAATCCTCATTACCATAAATTTTTCTTGGTATTGCAACATACATTC
CTTTTTGATATTTTTCTGCTTTTATCCAACCATATTGGTTAAGAATGGATGTTCTGGCG
TTGTAGTTATTGAATGCCAATCTTTAACTTAACTTTTATCATTTTTCTTTATGTTTTA
GTTTCCACACATAAGGAGCATTATTATCTTAATTTCTCCATTTTCAATTTAGTGTATGAA

-471-

CTTTTATATTCAACTTCTTATTTCTTTTAACTCATCTTCTCAACAATCTCTTTTCCTA
TTTTAAATAAGTCCTCAATCTTAATCTCTCCATACTCAGTTAAACTTTCTCATGAGGCA
TTAAGCACTTTCCATGGTCAACGTGCTCTAAACACACACAATTGGACATCTGAGATTCT
5 GATTTTTATTATCCTTCTTAGTGTTTTTTTAGCCATAATAATCCCTCTTAATGTGTTTT
AATCACAATATATCAATAAATTTATAAATTCAGTTATCATTATATATTATTATTGTGA
AATTACTACTTCTTTGATGTTTAACTTATATATATTTTATTGCAAATTATTTAGCGAA
TAGAATCTTATAATATAGTGATAGTTATGGACTTTAAAAATAAGAAATGTGAAATCTGT
GGTAAAAAGGCAGAGATTTTTTTATTTGGGAGGTTTTATGTAAAAATGAAAAGTGATT
10 GAAGAGGCTAAAAAGCTGAGCATGGCGAGACATAAGTTGAGGATTGTGGCAGTTGGTTCT
ACAAATCCAGTAAAGATAGAGGCGGTTAAAGAAGGTTTGAGAAGGTTTTAGGAGCTGTT
GAAGTAATAGGGGTTGATGTTATTAGTGGGTTTCATCTCATCCAATTGGATTAGAGAA
ACTTATTTGGGAGCTTTAAATAGAGCAAAAAATGCGTTTGAAAAAGTTCAATGCACTTAT
GCTGTGGGAATAGAGGCAGGTTTAAATAAAAGTTGGAGAACATTATATAGATATTCATATA
15 TGTGTTGTTTTGATGGAGTTAATGAGACGGTTGGTTTATCTCAAGGTTTGAATATCCA
AAGATTGTAGCTGAAAAAGTTTTGGAAGGGATTGAAGGTGAAAAATTGCCGAAGAAATT
TCTGGTATTAAAGACATTGGAAAAACATTGGCTTAATTGGTTATCTAACTGATAATAAT
ATAACAAGAAAAGATTTATGCAGGGAGAGTGTTATAATGGCTTTAATCCAGAATGATA
AAAAATGCTCATCTATATTAAATAGTCTTTTTCAAACATTATGGAATAAATATATGAGG
20 TGGAAATCATTAACTAAAAATCAGTAAAAAGATGTTGTTGAGTGGATAATATTCTTGGT
TGTTTTGTTTTAATTTGGAGTCATGTAAATGTTGTCGTTTCTGATAGTATGTATCCTAT
AATGAAGAGGGGAGATTGGTTATAGTGGAAATGCTGGCTTTGAATTTAATCCAAACGA
TGTGTAGTGTGGAGATATAGTTGTTTATAAGCTCATTGGCCTTACTATCAATATTTACT
TTCTGAAATAGATTATAAACTCAACTTAAATCCTTACACTACACTATATATTTCAAAGA
25 GGGAGATTTTAAAGATATGTCAGTAAAGTTTTAGGAGAAAATAAAAAACAGACAAAAGCAG
TTACAAAATATTGGAGGCTGATATCCAAAAAGTCCAACAAAGCCAGTAATCCATAGAGT
TATTGATAAAGTTGAGTTTAAATAACAAACATACTTTATAATTAAAGGAGATAACAATCC
AATCCATGACCCAGAGCTTGTTTCAATCAACCAATAAAGCAGAGGGTTATAGTTGTAGA
TGGACATCCTTTAGTAATCCCTATGTAGGTTATTTATCTATATGGCTTAAAGAATATTG
30 GTATTTGGTGGTTTTTATTGTCCTGATTTATTATGCATACAATTATCTTAAAGGAGGGAG
AAAATGAAAAACTACTGTTAATTATTGGAATAATCTCGTTAATGACTTCAATGTCTATG
TGTTTTAAATAATAACAATTTAAATAATTTGGATTAAAAAAGAGCATATTAGTTGAAGTT
AATGGAATCCAATAGAAATTCATTGAGAGCAACTGTTGGTGAAGCAAAGGAGGTAATA
TTGATAAATACACAGATAGGGAAATTTATAATTATTATCACTCAAAGATATTGATTTAT
35 ATTAAGGGAGATATGAACATTAGTGTTAAAGAAGGAGGGGTTCAATAGTTGATTTAGTA
ACAAAATTAGAGTGGTTAATCAGTTTTACCCCCACAATATAGTTGTTGAGCTAAATAGA
ACTAATCTCAACAGTAACGTGTAATCCATTTTTGCAATGGAAAAACATCAATACTGAG
CTTAAAGTAAATGAAAGTGAATATTTAATGCACAATAACAAGACGATGGTTATAGAAATC
TTAAAAACCCATAATACTGCAACGATAACAAAAATAAATAACACATTTATAATTGAAGGA
40 AATTCATTAAAAAGAAATTGGATAATGCAGAAACACGGTTTGTTATTGACATGTTTAAAGGG
AGTATAACATAACTGATTGGATATTTAATTTAATAAAATTTTAAATTTAATAAAAAAT
CTCTTTTTTGTGGTGTTTTTTATGTTGATTATTGATGTTAATCATGGAGCTTTAACATTG
GCTGAGGAATATTTAAATTTAGGATATGAAGTTGATGTATGGGATATTTACCAAAAAATA
AAAAATCAGAAGATTTTAAAGTTAAATATCAAAAAATTAAGAAAAATTTGGAAATAAG
45 TTAATCTATTTTTTGAACAGCCAAATTTGAAAAATATGATAGAGTTATAGCCCCAATA
CACTGCCAATAGATGTTGATTTTATCCCATTTACAGATGCTGTATCTAAAATATTAAAG
GAGAAGTTTGGAAATATCCATAAAAAATAATTAATGTTACAGGAGTTAAGGGAAAGACA
ACAACAACCTCTTTAATAAACCATATTTTGAAAGATAAATATTCACTTACTTACACAAC
TCAAATTTTGGCTCTATAGCTCCCAACTATTTTAAAGGTTTTAAATAGTTTAGATATT
50 GACAAATATGACTTTTTTATATTTGAAACATCTTTAGGATTAATTAATGCAATATGGA
GCTATAACAAATGTATTAGAAAATTATAAAATAGCTGGTGGGAGAAAGGATGCATTAAT
GCAAAGTTTAGTTCTTTAAAAATGCTGAGTTATCTTTTATAAATAAGAGAGATTTAAT
AGATATGACTTAAATATAAACCATAAATGCCTAAATGTTGTTGATGTAGATAGGGCAAAG
ATTTTAGATAAGTATCCTCTAAATTTAAATACTTTGATGAAATATTTGAGTTCAGCAAG
55 AACATCTTTGGATTACATTTTGTAGAAAATTCGTTATTTGCTATAGAGATTTGTAAAAAT
TTGTTGATATGGAGGAGATAAGATATAGATTAACCACTTCAACATAAAAAATAGAAATG
GAAATTAAGAGATAAATAAAAAAATTTAGTTAAAAATATCAACCTGGCTTAGATGTA
AAAGCTATTTCTACGCTATAAAAGATTTTTTAGAAGTATTTGGTGGAGATATCTATATT
GGCGGGGACTTTGGAATTGTTTGCGAAGAAATIGATGTAAAAAGCTATCTGAAGTTTTA
AAGAGATTTAACTGCCGATATATATTTGTTGGGGAAATTTGGAAGAGTTGCTAAATAT
60 TTAAATGGGGGTATATTAAGAGTTATGATGAAAAATAAGATAAAGAGAGACTCTTAGTT
ATCTTAGAGAAAAATAAATAAACCACTATAGAAATAATTATTCAAAATCTTTGGATTT
ATCTTTCTATTTTCAATTTTACAACCATAGGGCTTCGCCCTATTGGGATACCCCATTTACA
CCTCTGCCTTTGGCAGAGATGTTAGCTTTGATGAACTTTATTAAAGTTTCGGGTGATT
TTCTATTTTCAATTTGCAATAACGCCACTCTACTATCTTCACTGTCATCAATTAATTTG

TATGAGCTGTTTTTCATCTAACATCTTAGCTAATTTTAAATATCTCATCATGTTGTAGCATG
TCCTCTTTCTTTAATCTTTTTTGAGAATAACCAACGTGCATATATGACTTTAACTCAATG
AAATGGACATCAGCTCTTTCATAGAGCTCTACAACTTTAAGATATCATCATTATAGCCC
5 CTAATTAAGTAGTTCCTTATACAAGTCTCTTCTCTCTTTTAAAAATGTCTAAGGTATTT
AAGATACCTTTCCCAATACTCTTCTCCCCCCCACATATCTCTATAACTGTCCAAATCA
TAGGCATCTAATGAGATATACAGTTGAGTTGGCTCTATTTTTTCAATAACATCAGTTAAG
ATTCCATTTGAAACAACAAATGTTGTAAATCCATTCTTATGGAATATCTTTATTAACCTCA
TCTAAGTATGGATAAAGTGTGGCTCTCCTGATAAAGATATTGCCACATGCTTTGGCTCT
10 AAAGCCTCTTTAAATTTCTTCTCTCCAACCTCTATCTAACACTCCAGCATAACCCATAATT
ATTCTTTTATGCATGGCTAAAAATTTTCTCATATACAACCTCTGGCTCTTCCCATTTTGGT
TCTTTAATTTGGCTTATATCTATACCTATATCCCTTGGTAAAACTCTCCAGCAGAATATA
CAATTTTGTCTGACACCAATAAAGTATGGTGTGCATTGAATACATCTGTGTGTTTCAATA
CCATAGAATTTTGATTTATAGCAATTTTATCCTCTAACATCTTTTTCTAACCCATCCA
15 CACAACCTTAACGGCTGTGTGGCCGTCTATTTGATACCTCTGCTTTCTTAAATTTTATAA
ATTTCTTCTGGAATCATACTCTCACTTTAAATATTTATTTATTTTAAATGAATGATTTTT
TGGCTCCTTTTTATCGCTTCCATAAATCTATATCTCCATAGGGGGAAACCCCTATTGGG
ATACCCACAGTCCATTAAAGTGGGGCTTTCAGCCCCAATTAATGTCCAATCTATGTTTAA
CTCCTTTTTTATCGCTTCCATAAATCGATACTTCAAAACAACAGGTGGAATCTCTATATTA
20 GAACATTTTTTCATTGTATGGAATTTGTCTTAGCAATAATACTTTACATTTTTCTTCATT
AAAGCATTTTTAAACTCTTTTTCAATTTCTTCTAAACTTTCTGTAGTTATTGTATCTAAA
CCACAACCTTAGCAATTTCTTCTAAGTTTGTATTTTGGCAGTGTGTGTTTTTGTATTA
CCTGTAGAACCATAAGCAGAATTATCTATTATAACCAATATATAATTTTTTGGATTTCATG
TATCCTATTGTTGATAGTGAGCCAAGGTTTCATCAATATAGAACCATCCCCATCTATAACT
25 ATAACCTTATCTTCACAATTTAAAGCTAATCCCAAGCCAATAGAAGAAGCTAATCCCAT
GAACCGAGCATATAAAAGTTCTCTCCCTATCTTTACATAATACAGCTCTTTAGAAGGA
ATTCCAATATTGCTGACTATTATCTCTTTCTCTCCGACATTTTCAACAATCTTTTAAAT
ATATCTATTCTCTTTGGATACATGGTATCATCTCTTTTACTTTTCTAAATCGTATTCCCA
ATATAGAGCATCAAACAGTAAAGCTACAGGATATGAGATTTTATACATATAGGAGGAAGC
30 ATATTTTATTAATTTATATGCCTCTTCTGGTGTTTTTGGTTTATAAGTAGGGATTTCACA
AACATCTAACAAATTTCTCAATCCATCTTCCCATAGGTATTTGGGCAGGTATTTGTTCCTT
TAAGTCTCCTCTATGGCTGATTATTAATAATGTAGGGATTGGAAGGTTTGTATAATGA
GGCAATGGCATTATTGAGTTTCCAATACCCGAATTCTGCATTAATATAGCTGTTTTCTT
CCCAGCTAAGTATGCTCCAGCACATATCCAAATGCTTCTTCTTCCCTGTGTGCTGGTAT
35 ATTTATTATATTTTTATCCTCTTCAATTAATTTCAAGTAGGTTTTTAAAGTTTGCACATGG
AACAGAGCATATAAAATCTATATTTGAGTCTTTTAAAGGCGTTGTATATTGCTAAGCTACC
TCTCATCTTATCCCTCTTTTTATCATTTTGAAATAAATCACAAAAATATATACTTAATC
CCTTACTATTTACTATCAATTTTTATAATTTTACACTGTGTTTATATTATAAGATAAAT
ATATAGGTAAATAATTCCTTATAAGAAATAAAGGTGATTAGATGAAAGCATTTGAATTTT
40 TATATGAAGATTTTCAAGGGGCTTAACAGTAGTATTAGACAAAGGATTACCTCCAAAT
TTGTAGAGGATTATCTAAAGTTTGTGGTGATTATATAGATTTTGTAAAGTTTGGATGGG
GAACTTCAGCAGTTATTGATAGAGATGTTGTTAAAGAAAAATCAACTATTATAAGACT
GGGGTATTAAGGTTTATCCTGGAGGGACATTATTTGAATATGCATACAGTAAAGGCAAT
TTGATGAATTTTTAAATGAATGTGAAAAATTAGGTTTTGAAGCAGTTGAAATTTAGATG
45 GTTCTTCAGATAAGCTTAGAGGAAGAAAGATGCTATAAAGAGAGCTAAAGATAATG
GATTTATGTTTTTAAAGAGAGTTGGTAAAGAGATGCCAGATAAGGATAAACAGCTAACTA
TAGATGATAGAATTAAGTTAATAAACTTTGATTTGGATGCTGGAGCAGATTATGTTATCA
TTGAAGGCAGAGAGAGTGGTAAAGGTATAGGGCTGTTTGATAAAGAAAGGAAAGGTAAAGG
AAAATGAATTAGACGTATTAGCTAAAAATGTTGATATAAATAAAGTTATCTTTGAAGCTC
50 CCCAGAAGAGTCAGCAAGTGGCTTTTATATTAAAGTTTGGTAGTTTCAAGTTAATCTGGCAA
ATATTGCATTTGATGAGGTTATAAGCTTGAAACATTGAGAAGAGGTCTTAGAGGAGACA
CATTTGGAAAGGTTTAAATCAATAATCCCTCTCTCAACTATTCTAAATTTAACTC
TTTCTCTCCAGCATGTAGATGTTTCTCCAATATAGCCAATCTATCTCCGTTGAGCTTTT
CCAACCTAACAAATACATTTACTCCAATACTCTAACAACTCCCTCCAGAAGCCTCAAAGC
55 CATTAAACAGTCTCTCTTACTTGATTTGTTATTATAACAGCTAAGTTATTTGTTTTAGCTA
ATTTTAAATAAGTTTTTACTTGGTTGCCGAGCATTTTATTGAGCATGATGTTTTTATTAG
CTTCATCACTCAACTCTAATCTATATAAAGATGTTATGTTATCAACCACTATCAAACTTG
CATATTGGTTATTAAATGGAAGCTCTTTTTGTATAATTTTATCCTGCTCATAGAAATCAA
AGGCATTGTATATAATCATATTTTCTAAACTATTTGTAAATTTTGGAGCTATTGTT
60 TAATCCTCTCTATTGATAAACCCTTTCAGTGTCTATATAAATTACCTCCAGAAATTA
CAGCGTTTATAGAGTTGATAATACATATATTTGTCTCCCTACGCTGGAGGCCATAAA
TTTGAGTTATTATCCCTTTTTTCAAGATTTCCCAATAAATCTCTTTTAGCATGTAATCC
CTTATTTCTTAAATTTCTCCAGAAATTTTCTATTGCTTTATCAACTGCCTTGGCAACCT
CTTCAGACAACCTGGTTTTATGTCTGGCATTGTAAATTTTACCTTGACAACCAATAA
CCACGACTTCTATGCCTTTATTATGTAAATCTTTGAGAAATGGGGCTAATGGAACGTTAT

5

10

15

20

25

30

35

40

45

50

55

60

GGGCATCGAAAGAATATTTTTTAATATTCGGTAATTCATCAACATCTATCTTTTTTATTG
TTCCAGGTTCTAAATCAAATCAATGGCATCAACAACAATAATCTTTTTTATATCTTCAT
CAACCAACGTCATTAAATAGTATGCTCCACTTGCCCCAGCATCTATAACTTCAACGTTAT
CTGGCAAGTTTCAATTTTTCTAATTTGCTAACAACCTCACATCCAAAGCCATCATCTCCAA
ACAACAGATTTCCACAACCAACAATTAATATATCCTTCTTTTTCAATTTTATCACTTATTT
AGCATTCTTTTATATTTTTTAGCCTCTTCTTTAGGATTTTGTGATTGATAGATTGCCCTT
CCAACAATGACGTAATCATTCTCATCTAAAATATTTAAAATATCCTCAATCTTCCCTCCC
TGAGCTCCGACTCCTGGTGTTATTACTGGCAATTCTGCAATTTCTTTAATTTCTTTAAGC
CTTTCAGGCCCTTGTGATGGAGCAACTATAGCATCAACTTTTAGTTTTTTAGCCATCTCT
GACAATTTATCTGCTATTGGCTGTAGAAATTGAACAGCCCCTGGATGGCTCATTTCAGTA
ACCATTATTACCTTTTTGTTTAGCTTTTTTAGCAACATCTTGCACTGCTTTAACTGAATCC
TCTCCAACAAAACCATGAACATTATTCCATCAGCATATTTAATGTTATTTTGTCTATC
TTCTCATTGTGCTGGGATGTCTGCAACCTTAAAATCAGCTATAACCTCTTTATTACAA
AGTTTTTTTTATTTCTTTTATAATTTCTGTCCAGTAGATAAACTAAAGGATATCCAACT
TTTATAGCATCAACGTAATCTTTAACATCTTCTACTATTTTTTAAAGCTCTATCTCTATCC
AAAACGTCAGAGCTAACATTAACCTTTGGCATCCTATCCCCGCAATTTTTTGGCTTATAG
TTTGGATAAAAATTTATATAAAAAAGTTGATGTCAAATTAAGTGAATTAATTAAGAAT
ATTTTATATATTGTGAATTTATTGGTGAGAGTATGGAAAATTTAGAAAAGAAAATAGAGC
TTTTAAAGAAAATAAGAGAGTTTCTTATCTTAAATTTAGAAATTAAGAAAGTTAATGCAGG
AGTTAAATGTAGATAGTGATATTACGAAGCTTATGAAAAAGTTACAAAAATTTGTAGAG
AGCCAAATATTAAGCTATATAGACAGTATTATGATGCAATAAAGAGATGTTTTATGAAG
AATATGGTAAAAAAGAAAAGATATCTCTTGGTATCCCAAAATTGATTATAATAGATGCA
AAAATTGTGAAAAATGTATCTCTTTTTGTCCAAGAGGAGTTTATGATGCAGAAAACGGAA
AGGTTGTAGTTAAATATCCATATAGTTGCATAGTAAATTGTAATGCTTGCTCTATAATGT
GCTGTGAAAACAACGCTATAATATTTCCAGATGAAAAAATACCTCGTAGGAATTGAAGAT
GGAAATCTTAAAAAGAGAACTTTGCTATTTTTTAACTTTTATTTTTGATAATAGATAATT
TTTAAAGATTAGAAAAATCTGGTGAGGGAGGAGGATTTCTATTCGAAACGGTCTGATTTT
AATACAACATTAGGAGAATTACAAGGAGAATTTAGAACATTGTTCCCATTCGAAACGGT
CTGATTTTAAATAATTAAAAATTAGAAAATCCAAAAACAGCTTAAAAATAATCTATGCGT
TTCCATTCCGAAACGGTCTGATTTTAAATAAAAGATTGAATACAAAAACAGAAATATATGA
AATTGTTAATGGTATATTTCCATTCCGAAACGGTCTGATTTTAAATTAAGTTATAATAGCT
GTTTCAATTGCTTTCTTTTCATCATTTCCTATCCGAAACGGTCTGATTTTAAATCAAACT
GTTTATTAGATGTAGCGCGTGTGCGAAAATTCATTTCCTATTCGAAACGGTCTGATTTTA
ATGAACCTCTATCGCCCTCGATCAAAGAATGAATCTCATATTTCCATTCCGAAACGGTCT
GATTTTAAATGCAACTATGCATAAACCACTTAGCAATTCCAAGAAATTTCCATTCCGAAAC
AGTCTGATTTTAAATGACACACAGAGTCAGCCAGACCCAGCACAAATGATGCAATGAATT
TCCATTCCGAAACGGTCTGATTTTAAATGAACCTCAAGGGAACCTTTTAGGGTTCCCTA
ACAGATTTCCTATTCGAAACGGTCTGATTTTAAATGAACCTCAAGGGAACCTTTTAGGG
TTCCCTAACAGATTTCCATTCCGAAACGGTCTGATTTTAAATGAACCTCAAGGGAACCT
TTTAGGGTTCCCTAACAGATTTCCATTCCGAAACGGTCTGATTTTAAATGAACCTCAAGG
GAACCTTTTAGGGTTCCCTAACAGATTTCCATTCCGAAACGGTCTGATTTTAAATGAACC
CTCAAGGGAACCTTTTAGGGTTCCCTAACAGATTTCCATTCCGAAACGGTCTGATTTTAA
ATGAACCTCAAGGGAACCTTTTAGGGTTCCCTAACAGATTTCCATTCCGAAACGGTCTGATTT
GATTTTAAATGAACCTCAAGGGAACCTTTTAGGGTTCCCTAACAGATTTCCATTCCGAAAC
ACGGTCTGATTTTAAATCAATCTTTTGTAGTTTGGATATATCCCTCATCCAATCATTTCC
ATTCCGAAACGGTCTGATTTTAAATCGGCTCTCCCAAGAAGAAGATGAGAATCTACAACTC
ACGTTTCCATTCCGAAACGGTCTGATTTTAACTGAAATTTGTTGCAGTATTACCTCCAAAC
TTGTTAGAAATGCTTGTGAAAAATTTCCATTCCGAAACGGTCTGATTTTAAATAAAATTA
AGATACGATACTGTAAGAGAGATAAAGAATTTCCATTCCGAAACGGTCTGATTTTAAATA
TCCGAGCGTTTATAAGGATTTTAAACATAAGAAAATCATTTCCTATTCGAAACGGTCTGA
TTTTAATAGGAAATAACTGATTAATAAATCTGAATATTTAACAGTAATTTCCATTCCGAA
ACGGTCTGATTTTAAATTAATTTCTATTTGTATAATCCACCAATCATCAAATATTTCCAT
TCCGAAACGGTCTGATTTTAAATCATATCTATACAATTACACTGATTATGTTGTTAATAA
TATCATTTCCATTCCGAAACGGTCTGATTTTAAATAGGACAATCATCAACAACATAACATA
CTTTTACTTTTCTAATATTTAAGCTTTCTCTATACCTTATTTTTCTAAGGTTGGGTAAC
TCTCATAATATAAACCTTTTGTATTTAATCTTTCTCCCTTTACTAAAACAAAGCATTT
TTATCTTTTTTAAATTCAAAATTTAACTTATTTGTTAGAGAAATTTATTTATTCTTTCTA
ATTAATCCTAATTTTTTAAATCTAAATAATTCAATAAACTTAAATATTTCCAAATCA
AACCAGCAAACCTTAGAAATAAGATAAAATTAATTAATAACCAAATAAAATTTCAA
ATTAATTATTATCAAATATAAACTTTTCCAACGTGATAAACAAATTTAATAAAATGGA
TGGAAGATTATCTCTAAATCTCCAATATCTTGGCTTTAACTTTTCTTTTCTCTCTCT
GGCTCAACTAAAACCTTCCACATGTTAAACACTTAACAACGGTAGCTGGACTTCCAAAT
ACAATCTGCTCGTTATTGCATTCTGGACATTGGACTCTTAAAGAACTTTGTCCTTGGCTGT
GGGATTAACCTCATCATCTCCCTCTCTACAATTTTGTTTAAAGTGTTTAAAGAGTTTAA

5 TAAATTTATTAAGGTTTTTAAAATTTATTTCTCAACGAACTCAAATCTTCCTGACCTGAA
GCATCCATTGCTTTGTGTGCATCTTTCCACATTCAGTACATTTAAATCTTAAGTCAAT
CTTTTTAACTGGTTTTGACCTGTCTGGTAATGGTCTTGGGAAACCTCCATAACCAGCAGT
AACTCTTCTGAACTGCCTCTGACCCCAAGTCAATTCACCTGGTTTTCTTTTTTGGCCTT
10 CTCTACAATGTGATAGTGTGTTTTTACAGTATGGGCAGTATCTTCTAACTTTCTTCGG
GATTTTCATAACTTTACCTATCCTTGAGATAATCTGTGTTTTTCTAAAATATGAGATA
TCTTTCTGTCTAAAGAGAGAACATCATTTTTGTTTAGGTCATATATAAAAGTACCATCTG
TGAATGGTGGAAAGTTTTATCAACCTTTACAACATCAATATCGTTTATTGTATATATAG
GTTTTGGTGTATCAATCTCAGTAGGTTTTTAAATTCAGGAGTTTCCTCAATTTTCAATT
15 CAACAACAATATTTTCAATGGCATGTATAATATTTAACTCTTCTGGAAGTAAGTTTCTC
TCTCATTATCCAAATACAGAGCTTTGTATATTCTCAACTTTCTAAGCTCTTTGAAATAAT
ATTTTACCCTTTCAAGTTCAATATCATCTTTAATATTTTTTATATATTCCTAATGTCAAT
CATAAAAGTCATCAGGCAATTTTAAACAATTTATCATTTTTTATTTCTTCAAAAATAAAT
TTTTTAGAGATTATACATGGTTATCACAAAATATGGTTTGTGGTCTTTTGAAAAACATC
20 TGAAATAAATAAATAATTATGAAAACCTCAAAATATAGTAAATGCTGCAGAAATGGTTTTT
ATCCTTCAATTTCTTGGAGCCAATAGGAAGGTAAATTTACCCCTGCAATTGAATATTCTA
ATTTTAGAGGCATGTCAATACCTAAGTAAATCTTAATAATGTCTCCTGAGCTAACACCT
TAACCATGTCCATTAAATAATCTAAATGAAAGCACTTTTGCCTCTTCTTTAACCTCTA
AGCTAATTATAGCTGAGCTATCCTTTCAAATATTGCTTCATTCTGTTAAATCTCCCT
25 TAGCATGAATAACAACTTATCCTCATCAGCTTTTAAATTTACATAATCACTGAATAAAT
CAGCATCCTTTAAAGCCTCTTTAAACGCATCTCCTTTAATCATGATTACGTTTGGATATT
CTATTTCAAGAACTTTAACTGATGAGGCAGATATATCTAACAAGCTAAGCTGAACCTTC
TCTTTCCAGTGTTTTCAAATATAACATTTAATTTATTCTTTTCTTCGTCTAACTCTAAAA
TTAGCCTATCTTTAGCTTTAGCTCTATTCTACTTTTTTAAATGCCTCTAAATCTATAC
30 CAATATCATGAGAACTGTCTCATATTCTTCAAAGCCAATCTTGGGATTTCAAACTAA
CTAAAGCAACATGGCTTGGGTCCATTGCACTCGCTTTTATCCCTTCCATCAACTTCAA
AACATATCTCATCTAAAGTGTGAGATTGTATCAACAACCTTTTTTAACTCTTTTGCAC
TCTCCATAACTCCTCTGAACATAATATATCACCATATTTTAGGTAGTTGCCAAAATAAA
TATACTTTTCTGAGGGAATAAATATAAAACCTATTTGAGGTTTTATAAATACCTTTTTAT
35 GTCAAACTTTTGACAGCAGATTATATTTATAATAAAAAAGTAAATAGTAATTTATCCATT
AGGATTATAAAAAACATTTTATACTTCTCTATATTTTLAGGTATTGTCCATCTTTTGT
TTTATACATAAACAATAACAAATAATATGGCGGATAACTTTATATATTTTATTTAAGTTTT
TATAATAACATTCTGGGGTTACAATGATAGAGAACTTGTGAAATTAGGAAGAAGATTG
40 ATGAGATTGACAATAAGATATTTAAAGCTAATTGCTGAAAGAAATAGTTTAGCTAAGGATG
TAGCTGAGATAAAAAATCAGCTTGGTATTCTTATTAACGACCCAGAAAGAGAAAAATATA
TATACGATAGAATAAGAAACCTTTGTAAGAACATAACGTTGATGAAATATTGGCATTAA
AAATATTTCAAATACTTATAGAGCATAATAAGCTCTCCAAAGCAATATCTTGAGGAAA
CACAAATAAAAAACAAAAATAATTAATAAATAAATAAATAAATAAAGGATAAGA
45 AGGTGAGATAGTGGGAAGGATTAGGCAGACATTAATTAAGAAACAGCTATGGAATTAAT
TAAAAAGTATAGAGATTTATTTACAACCTGACTTTGAAACAAATAAAGAGTTTTAGAGGA
AGTTGCTCAAATCTCAACAAAAGATTAAGAAATAGAATTGCAGGATATATACTCACAA
AATGAGACAGCTCCAATAAAGGTGAAGCTATGTTTAAAGGGGTCTATCCCGCCATCATT
CTCCTTTTAAAAATAAAGAGTTGATTTTGTATGGATTAGAGGAGAACATAAACTTTTTAA
50 TTGAAATGGAGTTAGCGGAATTGTAGCTGTTGGAACCTACTGGAGAAAGCCCTACTCTAT
CCCACGAAGAGCATAAAAAGTTTATGAAAAAGTGGTAGATGTTGTTAATGGGCGAGTTT
AGGTTATTGCAGGAGCTGGGTCAAACCTGCACAGAGGAGGCAATAGAGCTTTCTGTTTTTG
CTGAAGATGTGGGAGCAGATGCTGTATTGTCAATACTCCCTATTATAATAAACCAACAC
AGGAAGGTTTTAAGAAAGCATTTTGGAAAGGTTGCTGAATCTATAAATCTTCCAATAGTTT
55 TATATAATGTTCCATCAAGAACAGCTGTAAATTTAGAACCAGACAGTAAAGCTTTTAG
CTGAAGAATACAGCAATATTTTCAAGCAGTTAAAGAGGCAATCCAAATCTTTCCCAAGTTT
CTGAGCTAATACATGATGCTAAGATAACAGTTCTTTCAAGGAATGATGAACCTAACCTCC
CAATAATCGCCTTAGGAGGAAAAGGGTTATTAGCGTAGTGGCCAACATCGTCCCAAGG
AGTTTGTGAAATGGTTAATTACGCATTAGAAGGAGATTTGAAAAAGCAAGGGAATTC
60 ATTATAAATTGTTCCCATTAATGAAGGCGATGTTTATTGAAACCAACCCAATTCTCTGTTA
AAACTGCCTTAAATATGATGGGAAGACCTGCTGGCGAGTTAAGATTGCCATTATGTGAGA
TGAGTGAAGAGCATAAAAAGATTTTGGAAAATGTTTTAAAGATCTTGGTTTAATTTAAC
TTTTATGGTGAAGTTTAAATGGATGAAAAAACCATGAAAAATAAAAAAGAGGCTGAAG
AGATTATTATAAATTTAGCGAGGTATTAGAGAAGTTCACTTAGAGATGGAAGAGAGTT
ACTATATTATAGACACCAGAAATGTTTTAAGAGAGGACGAGCAGTTGAAAGTAATCCG
AATTCAGAGAGAAATTCCTAAAAATGCCCCAAGGTAATAAAGAGGGCTATGTTGTTG
TAGAAAAAGGTAGCTGGTTAAAAATAACAAAACCAAAAAGTTTAAAGTAATGGTTTCATATT
ATTGTAGGTAAAAATTTAAAAACAAGATAAGAGGGTGATACCATAAAGAGGAGTTCAAG
AAGATGGAAGAAAGGAAGGAAGATGAGATGGAAGTGGTACAAGAAAGATTAGAAGGTT
AAAGAGAGAGAGAAAGAGAGCTAGGTACATAATTTTTTACTTTCCTTATTTTATTTTATA

5 GAAAAATTAATCAATTAATTTAAATAAATTGTGAGATTATGAAAGTTGTTGGCTTAACCA
AAAAAATTATGGAACATTTAAAAGAGCCAATAACAATTAAGAAGCTTGCTAAAAAACTAA
ACATGCATCCAAAAAAGCTTAGATGTTAAATTTAGAGTTTAAAGAGATTGGGATTAGTGG
10 AAACAAAAAAGGTAGAAATGGAGGAGTTAGATTAAACAAAAGAGGGTTATATTTGTTAG
AAAAAGGAGAAATTACCTTAGGATCTTTAAATTTGCAGATTGTTGCTAAGGATAGGATTG
GTTTGTAGCTGATATACTTCAAGAATATCAAAGATTGGGGGCAATATAACATCAACAG
TCCTTGAGAGAGAAGGAGATGAGGTAATTTACTTAGTTGTGGAAAATGTAGATAAGG
ATGAGATAAAAAATACTTTGGAGGATGTGGTTGAAAAAATCTCCATTCTTTGGTGAGTTG
15 TTATGATAGAGGTTGAGATTAAGGTAATAATTTGATGATAAAAAATAAGTTGTAGAGCAAT
TAAAAAACTTGGATTTAAATTTATCAAGAAGAAATTTCAAGGAGGATATTTATTTCAATG
GAATTGATAGGGACTTTAGAGAACTGATGAAGCTTTGAGAATTAGGGATGAGGATGGAA
ATTTCTTTTGTACCTATAAAGGTCCAAAAATAGATAAAATATCAAAAACAGAGAAGAGA
TTGAAGTAAAAATAGAGGATAAAGAAAAGATGAGGCCAAATATTTAAAAAACTTGGATTTA
20 AAGAAGTCCACCAATCAGAAAGATTAGGGAGATTTACAAAAAGGAGGATATAGAGGCAA
GTATTGATGATGTTGAGGGTCTTGGCTTATCTTAGAATTAGAAAAGTCAATATCAGATA
TTAATGAAAAAGATAAGGTTTTAGAGGAGATGATGGAGATACTGAAAGCTTTAAATATTA
GTAAAGACAATATCATTAGAAAATCATCTTGGAGCTAAGGGGATTATAATGAAAAAAAC
AAAAATAGGTAAGAGGCAATATTGGCGATATTTGTAGCTTTAGTTATGATGTTATCAAT
25 AATTCAGTATTTTTAATGGGTTTTAGATTATTTAAATAAATTTCTAATTTTTCCAAC
AATCCCTTAAATCGTTTTATGTTAGAAGCTCTTATGTCCTTTTTTGGAGAAATTTAAT
ATTATTTCTGCAATATATTTGTGTTTTGTGGCTTTTTTCATCATATAGTAGTATCTTGCT
ATACAGTTGATTCTTGCAGTTATAAGCTCACTTAAATATGTTAGACACATATCTTCCGT
ACAAGTCCCATGTAATTGCTTCTTCTGCTTTAATAAGCAATTCCTACTAAAATC
30 TCCACTATATCACATTTAATAAGTTCTTTAGAGTTTTGTGTTCTTTTTTAGCTCATAT
AAATAGATGGCTAAATCTCTAATAGAAGTCCAAGGTAAATCTAAATCAACCTTATCTAAA
TCTTCTTTTTTTAATTTCCATAGGGGGATTTTTTCATCATCTAACAATACTTCATATCT
AAGCAAAATGGTATAGTATTTTCATAAACATCCATATTTTTCACTTAAGATTTCTTTTTG
AAATTTTTAAATTTTTAACTAATTTAAGAAGTTAATATTCACTTTTCAACAAAATTTTTA
35 ATAAGTTTTAAGCCCAAATCTGGGAATTTAAGTTATCTGATTCACTTAATATACTCTCC
GGATGGAAGTGAACACCTTCAATTTGGTAGCTTTTTATGCCTAACTCCCATATATAGTTA
TCATCTAAACTCTTAGCAGTTATTTTTAACTCTTTTGGAACTCTTTAGCTATTAAGAA
TGATACCTTCTCCATAGAAATGGATTGGGAATGTCTTTAAGATACCTTCTCCATCATGA
TTTATTAACCTTGCTTTCCATGCATACTCTCTTGTCTCCCAACCTCTCCACCAAC
40 GCCTCAACAATACACTGATGTCCTAAACAACTCCCAATATTGGAATATCTACCTCTTGA
ATAATCTTTATACAATTTCCAGCCTCTTTTGGAGTTTTTGGTCTGGGCTTATAATTATT
CTATCTGGATTTATTTTTCTTTATTTTCATCTAATGTGATTTTTGTTATCCACTAATTAAC
TTATACCCTAAAGTCCCTACATATTGGACTAAATTCAGACAAATGAGTCAATATTGTCTG
ATAACAAGCACTTTTTTAACCTCCATTTAAATCAATCCCCCAAAATTTGCCATCTTAAC
45 ATTAATAATATAAGACATAATTATAAGGATAATAATCACCTTTTACTATAAAAACTTTAA
AAATTTAGTACAAAAATAATTAATAATTTTACATCCTACATCCTTCTGGGCAATTTA
TTCCTAACAATTTAAACCTGTCTCTAATACTGTCTTAGTGCTTTTAACCAACTTTAATC
TTGATTTTTTTAACATCATCAACTTTTGTCAATTAATAATGGACAGTTTGGCTAAAAATC
TATTGAATGCCTTGGCAAGCTCTAATAAGTAGTTGGCTAATATATGTAATCTTCTACTTT
45 CAGCACTCTCTTAATTTATATCCTTAAATTCATCCAACATCTTAATTAATCTTTCTCCT
CACTGGTTAGTTTATAGTTAAATACTGCTTCATCTTTAACTCCTTTATTTCCGCTCTT
TTAAATACTGCAACATCTTGGCTGTGCATACTGTATAAATGGACATCCAACCTTTTCAA
AGTCTAAGGCTTCTTCCCATCTAAATACCATTGGCTTTTCAGGAGAAATCTTGCAATGT
50 TGTATCTAAGTCCCTAATCCAAATATCATAGGCAATATTTTCTCAACCTCTCTTAT
TACACTCTTCTTAGCCCTTTTTTATGCCTCTTCTAACAACCTCATCGGTACTTATAAATC
TTCTCTCTTGTACTCATTTGAACCTTCTGGAAGGGAGATGAATTCATAGAAATATAACTT
CTGGCACTTTGCTTCCAAGGAGTTTTAAAGCTGCTTTAACCATCTCTGCCGTTAATTTGT
GGTCAGCCCCTAAGACATCTATTCCTATATCGCACTTTGATAACTTATCTAAGTGATAGG
CAATATCTCTTGTGTAATACAAGCTTGTCCGTTTGGCCTTGCTAAAACCATTTTTCTTTT
55 CAATGCCAAAGTCTGATAAATCAAGCATATAGGTTTCTTCTTTAATACCTTTCCAGTTT
CCATTAATTTTTCTATAACCTTTTTAACCATTCCATTTCTTACATAAGAGCTTTCCCAAA
CAAAGGTATCATGCTTAATATTTAAATTTCTTAATGTCTCTTTTATTCATCCAATGCAT
AATTTACTGCAAAATCAATTTTTTAGTTATTTTCAATATCTTCAATGTTTTCTAAAGCAT
CTTCATACTTTCTCATTAATCAAGAATCTTTTCTCTCTCTTGGATGCTCTTCCAAAT
60 ATTTATTAATTTTTACATAAGTTTCAAGCAATTCATGGTCTTTCTTTTTTCTTTGCTTA
AACCAATAATTTCAATCCATAAACAACCAAGCCATCTGCCATCCCATATCATTTACAT
AGTAGTGGGTTTTCAACATCATATCCATAGAATCTAATATTCTTTTAAACAATCTCCAA
TAATGGCATTTCTTAAATGTCCAATATGTAAAGGCCATTTGGATTTGCTGATGTATGTT
CTAAGATGATTTTTATAGATTTTTTATCTCCTCTACCATAATTTCTTTTTTATCAA
TCTCTTCCATTAATTTTTTAGCAATTTGTTATAATCAATATAGAAGTTTATATATCCAT

-476-

5 TGACTGCCTTTATCTCTTTAACTCCTTCAATGTTTCATAGCTTTTAACTTATCTACCAACT
CTTCAGCAATAATTTTTGGATTCTTTTTAGCTCTTTAGCTAATCTGAAGCAGATATTTA
CAGAATAATCTCCTAACTCTAAGTTTGGTGTCTTTATCCAACCTTATGTCAATCTCTTTAC
ATATCTCTTTGCTAATTACTCTTTAATGCATTGATGATATTACTTTTGATATCCATAG
10 TCTTCCCTCTCTCATTTTTTTAATTTAATTTAAAAATTGGGGATTTCCTTTAAATACCTTCT
TTTTAATTTATTAAATTTAAATAAATGATAGAAAAGTTTATATATGAAGATGATATTATAA
GAACACTGCTACAATCAATCATCAAATAAACTTATTTACTATGGAAAAATATAAAAACCCA
ATGGGTTTTTTAAATAAATTTAATTACATACCTAAACTTTGATGATTGATTGTTTTGTGGG
CTGGTAGCTCAGACTGGGAGAGCGCCGATTTGGCTGTGCGGAGGCCGCGGGTTCAAATCC
15 CGCCAGTCCACCATTTTTTGATTTCTAAAAGGTTTAGTTTTATAATTTTATAAAATTTA
ATTAAAAATGTTTAAATATTACATTAATGTGTTATATATCTTTTGAATAACTTCAACTTT
TTTAACAACCTTCAATAGCATCTCTACCTAAACTCTAATCATCGGCTCTTTTCTTCCCT
TCCCTATCATATAAATGTCTGGAACCTCCACCAATTTTTCACAAGCTATTTTTGTTC
CCATTCCATAGTTGAGACATTTGGCGGCTCTTCTTTCTATCAAATGAAGAACTGCAAA
20 TTTATCCTTCAACAACCTTTATTAACCCCCCATCATATTTTATATTCATGCAAGCCCTTAT
CTCTGGGTTGAATTTGCTTGCAGATAAAATTATCTTTGCTATATGCTCAGAAGCTCCAAA
CTCAATATCTCCAACAATATAAAAACCTCCAAGCTTATTTTTATTATCCTTCCAGTTAA
TGCAGCAACATCTTAAATCTTTTGAAAATGGTAGAGACTCAGCTATATTACTACCAAC
CTCTGGGATTACGTAAAGTTCACTCTTTTTTAATAATATATGGCATAGCTAAGGTTTTT
25 TATCACTTTTTCTTATTGATATAAGTTGGGTTAGAGTTATAGCCAACTTTGATTTTTT
GGCATAGATAACTGAAGATAAAACAATCTCTTTGCCTCTTTAATTGCCTCTTCTAAATC
ATAGCCCTTAGATAAAAAAGCAGTTATAGCTGTTGAATAAACACAACCAGTTCCATGAAC
TTCTTTATCAACTCTAAATCCTTTAAATGTCTTTATAGGTTTAAATTTTTCTTTAAAT
GTCATCAATGCCAGTAGCTAAGATGTATAAATCATTCTAATCATCAGATTGTTATTTTT
30 TATAAATTCATGATTTTTCTTATATCTTCTTTGTTAGGAGTTATTAAGAGCTCTTATT
AAAAAGCTCAATATATTTTTCCATCAACTTTTCATCAACAAATGAAAACTTTGTTGTAGA
TGCAAGAACCGGGTCGCATATAACTTTAAATCATACTTGTCAATATATTTTAGCAGAGT
ATCGATAGCTGGTTTTGTTAAACTCCAGTCTTAACATATTCAATATCAAACCTCCTCAAA
AACGGCCTTAAACTGATTTTTTATATCTCTCTGGTAAATCAAACCTTTTCATAAACCAT
35 TTTATTATTTTGAGGAATTACTGATGTGTTATTGTTGGGCAATAAACTCCCAATGTATG
GGCTGTTTTTATATCAGCAGAGATGCCAGCTCCACTTGTAGGGTCGTAGCCACCAATAGC
TAAATTAACCAATTAATAATCACCAAAATTTATAATGATTTTCATTTATCTCTCTTAAAC
ACTTCATAACCTCTCTATATTCTCCTCTAAAAATTCATTTCTCTCTAAGTCATCTTTAA
TTTGCTCTTTTAAATTTCTCCATTAGCTATTTCTTTTTAAGCTCATCTTTACTTTTTAA
40 CATTATATTTTTTAAAAATTTGATTTAATTCATTCTCAAGATCTTTCAGCTCTTCTAAAA
ATACCTTTTTTCATTGAGTTTATTATTAATTTTTCCATACCTTAACCTCTCTATAGAATTC
AATTAATCCTCTAATTTTTTAAACGCTTTACCTTCATCAATGGATTTTTTCAGCTAATTT
AATACCTCTTCAACATCTTTAGCCTCTTCAGCAATATATAGGGCAAAGGCAGCATTTAA
GACAACAATATCCCTCTTAGCTCCAACCTCCTCACCTTCAAATATCTCCCAATTATCTT
45 GGCATTTTCTTCAGCATCTCCCCCTCTAATATCTTCTAACTTAGCTTTTTTAAATGCCAAA
ATCCTCTGGTTCAATGTAATAGCTTTTATCTCCCCATTTCTTAACTCAGATATTTTTGT
TTTTCTATAGTAGTGATTTTCGTCCATTCCACTACCATGTACTACTAAAGCCCCCTTCAA
TCCCAAATTTCTTAAACATTTGCCAATTTCTCCGTCAATTTTTCTATCATAAACTCCCAT
50 TAGTTGATAATTAGCGTTAGCTGGATTGTTAAAGGTCTTAATACATTAAAAACAGTCCT
TATCCCAACTCTTCTTAACCTGGTGTAGCGAATTTCTATCGTGGGTGAAAGTGAGGGG
AAACAAAAACCAATGCCAATTTTCTCTATAGATTCTTTAACCCTCTCAATAGGAACATT
TAGATTAACCTCCTAATGCCTCTAAGACGTCAGCACTTCCACTTTTACTGCTCACTGCTTT
ATTTCCATGCTTTGCAACTGGAACATAGGCAGAGACTACAAAGGCTGTGGCAGTGCTTAT
55 ATTTGAATGTGTTTAAATTATCTCCTCCAGTTCCGCAAGTATCTAAAAGCTTAGGAACATT
AGGATTTATTTTTAGTGAAAATCTCTCATATCTTTGCAAAGGCAGTTATTTCTTCTAT
AGTTTCTCCTTTCTATTCTTAAAGCTGTTAAGATAGCAGCTATTTGTGAGGTTTTGCATT
TCCACTCATGATGTCTTTTATAACAGCCTCTGCCTCTTTTTCTATCTAAATCCTTAAATTC
AATAACCTTTTTTAAATGCCTCAGTTATCATGTTATCCCTTTCTATCTTTATAGTATAAT
60 GCAACTGCCCTTATTGAAAACACACCTAAATAGAAATCAACAAATGTTGATAATGCGTAA
GATATTCCTTTATTGATATATAAATATTGTTAAATACTGTTAGCTAATGCTGAATAT
GAGATAAATATATCAATAATATTAGTGGTAAACAACCTATTAGACTTATTATAAAATTA
ATAATTGCTATGATAATCACTAAGATTATGTATCTTATCCCAATCATCTTAAATATTTCT
TTAAATTCAAAGAATCCATAAAATCCTTTAACTGAATAATTAACCTCTGCCAATTTAGAA
TAAAGCCATAAACTAATTACTGAAATATAAAAAATTAGTATTGAGATTATAATAAGGAAA
GCCCCAATAATTTTGCTAATGTATAGTGAAAATATTCCAAAAACAAATAAATTTGCTGGG
ATAAAGTAAATATAATATTTAATAAACTAACCCAACAATATATAGTATTCCTTATAC
AGCAAATCAGTAATGTTATTCCAATCAGGAGCTACATTTAATCCTTCAACAGTAGTCTTC
ATAATTCTCACATTGTATCCTCTATAATAGCAGAAACAATTAGCCCAATGATAAAAAAT
ATCCCAAAATAAATTTAAAAATGACATTATAATATGCATAATGTCATAATTAGCCCTTTCC

5 ATAAATAAATCAATAAATGCAGTAGTGACTCCACTCATTGCTCCAACATATGGCACTCATT
AAGCCCCCAATACATAACTTTTTAAAGTTAAAGATAATATAGTTATATGAGTTCGTTAA
TAAGTCTCAATAGTTCCCATATAACTTCACCTCCAAGTTTATTATAAAAAATTCATAATTA
AAGTATTTAAAAATATCTATTAGGTGATAATTTGTTATATAATATGGATGAGAGATTTGA
10 AATTAAAGATATTGTTGCAAGAGAAGTAATTGACTCAAGAGGAAACCCCAACAGTTGAAGT
GGAAGTTATAACAAAAGGGAATGCTTACGGTTCAGCAATTGTTCCAAGTGGTGCATCAAC
TGGAACACATGAGGCATTAGAGTTGAGGGATAAAGAAAAGAGATTTGGTGGAAAAGGAGT
TTAATGGCTGTTGAAAATGTAAATTCATAATTAGACCAGAGATTTTAGGTTATGATGC
AAGAATGCAGAGAGAAAATAGATACAATAATGATAGAATTAGATGGTACTCCAAATAAATC
AAGATTGGGAGCTAATGCCATATTGGCTGTTTCTTTAGCTGTAGCAAAGGCAGCAGCAGC
AACAGCAAAAATCCCTCTCTATAAATACTTGGGGGGATTAACTCCTATGTCATGCCAGT
TCCAATGATGAACGTTATAAATGGAGGAAAACACGCTGGGAATGATTTAGATTTGCAAGA
GTTTCATGATAATGCCAGTTGGAGCTACATCAATTTCTGAAGCTGTAAGGATGGGTTGAGA
15 AGTTTATCATGTCTTAAAAAATGTCATCTTAGAAAAATATGGAAAAAATGCTGTAAATGT
TGGAGATGAGGGAGGTTTGTCTCCACCATTAAAAACATCAAGGGAGGCTTTAGATTTATT
AACTGAGAGTGTAAAAAGGCTGGGTATGAGGATGAGGTTGTCTTTGCATTAGATGCTGC
TGCCTCAGAGTTTATAAAGATGGATATTATTACGTTGAAGGTAAAAAATTAACAAGAGA
GGAGCTTTTAGATTACTATAAAGCATTAGTTGATCAATATCCAATAGTCTCAATTGAAGA
20 CCCATTCCATGAGGAAGATTTTGAAGGCTTTGCAATGATAACTAAAGAATTAGATATACA
GATAGTTGGAGATGACTTGTGTTTACAAATGTTGAAAGGCTTAGAAAAGGTATTGAGAT
GAAGGCTGCTAACGCTCTGCTTTTGAAAGTCAATCAGATTGGAACTTAAGTGAGGCAGT
TGATGCTGCTCAATTGGCATTAGAAATGGTTATGGTGTAGTTGTTTCACATAGAAGTGG
AGAGACTGAGGATACAACAATAGCTGATTGTCAGTTGCTTTGAACTCTGGACAAATAAA
25 GACTGGAGCTCCAGCAAGAGGGGAGAGAACAGCTAAATACAATCAGTTGATAAAGATTGA
GCAAGAGTTAGGATTAAGCAAAATATGCTGGGAGAACTTTAGATGTCCATTTTAAATTTT
TCTAATTTTTTAATACCTAAGTTTTAAGGTTTTTCATCCAATCTTTCCTAAAAGTTTCTTT
CAAAATGTTTTACAAGAACTATATTTCAACTTTTTTTCTATTTTAATGTTTAATTAGGT
GAGATTATGGATTTAGAAAAGTTAATAAAAAATTGGAGAAAAGAGGATTTGAAACTGAA
30 GTTTTATTTGTTAAATCCTATGAGGTTAGTGTTGATTTAGATGGAAAGAGTGTAGATAGC
TTTCAAACCTGGAATCTCTTACGGTATTGGAGTTAGAGTTATAAAGGATGGGAAAGTTGGC
TTTGCTATGCAATAAATTTGATGAAAATATTGTTTATAAAGCAATGAAAACTTAGTT
GAAGATAAATATACTGAATTTGCCATCCACAAAAATATAAAGAACCAAAAGGAATGTTT
TATAAAGAAATTTTGGATTTAGATGAAGAAAAATTGTTAGAGGATTTAATAACCATGAGA
35 GATATTGCCTTAGATAAATAATGCCATTGTTTTGAGTGGAGGTGTTAGTAAAGAGGTTGGC
TATGCAAGATTGATAAATTCAAACGGCGTAGATGTTGAAGAACAAGATACTTATTTCTCT
GCGGCAATATCTATAATGTATGATGGAGAAACATCCTATGAATGTAGAACAAGGCACAAC
ATTTTTGATGTTGAAGAAATTAGCTATAGGGCATTGGATTTAGCTAAGAAGTCAGCAAAAT
GGAAAAGCCATATCTTACAAAGGGAATATAGTTTTATCACCAGGGCATTGTATGACTTG
40 TTATCCTATACGTTAATGCCAGCATTCACTGCTGAAAAATGTGCAGAGGGATAGGAGTGT
TTAAAGGAAAGATAGGAGAGCAGATTTTTGGAGAGAATATAACAATAATTGATGATGGG
ACTTTAGATTATGCCCTATACTCATCAAGTGTGATGGTGAAGGAACAGCTACCCAAAAA
ACAGTTTTGGTTGAGAATGGAGTTTGAAAAACTACCTATATGATATAAAGAGACCAAT
45 AGAGAAGGAAAAACATCAACTGGAATGCTTCAAGAGGTTATCGCTCTTTACCTTATGTT
TCACCAACAACTTTATTATTAAGAAACAAAAAATAGCTTAGATGATTTTATGATGAT
GTTTATATCAATGGAGTTATTGGCTCTCACACATCAATCCAATAACTGGAGATTTTGTCT
GTTGAGATTTCAAACTCATACTATTACAAAAATGGGAAGATAATTCCAAATAAAGAGGA
ATGTTTGGAGGGAATATATTTGAGATGTTTAAAGAAGCTATCCCATTAACGATGTTGAA
CAGAGAGGGAAGTTAATTTCTCCTTCAGTAGTGTTTAAAGGTTGAAATTATTAATTAATAA
50 ATTTATATAAACAATAAATAACCACTATATATAACTTTTTGGCAATATATGTAGTTAA
AAATATACATATTAGTATTAGGATATAGTATATTTATTTTAAATTGGAATTACATGTAAT
TAAGAGATTACAAATTTTGTGTTGAGGTGAAATAATGCCAATGGGTTTTGGAGTGCATTA
TGTAAGGTAGTGAAGGAGTCGCAATAAATCCCTTTTACGATATTCTTTGGATGATTATTTT
TGTAAGTAATCATTGCGGTAATAATATATATCCTAATCTCTCCATTAACAAAAACAGTCAAG
55 TTCAATAGACAATGAGAACTTATAAAAAATAGAGAAGGATGTTGAGGAGATAAAGAAAT
AGTTAAGGAGTTGAAGAAGAAATGGGAAGAGATAGAGTGATTTTATGAAGTTGATAGATG
TTGTAAAAATGGGAGAGGCATTGTCAAATCCAATAAGGGTTAAGATATTATACATCTTAA
ATAAACAGCCAAAAAATATTATGAATTAGCCAAAGAGTTGGAACTATCAAGACCTGTTG
TCTATGCCCATTTAAGAAAATTGGAAGATGCTGATTTAGTTGAGAGTGATTTGGTTTTAG
AAGGAAGTAGAGCTAAAGAATATATAAAGCAAAAGAAATTAAGTTCTATATTGACAAATG
60 AGATTATAAAAAAATTATTGAAAATGAATAGCTATCTTTTATTCTTTCAATCTTTCTT
TTAAATAATCAACGAGCTCATCTATTTTAACTCTAATCTGTTTGTCCATCTACTGTTATACAGAAATGGAACCTC
TAACAGTTACAGTTCTATCTCTAATGTTTGTCCATCTACTGTTATACAGAAATGGAACCTC
CAATTTTATCAGCTCTCATATATCTCTTCCAATAGCTCCACTGTCTATCACTCAGCTA
TAATACCATTTTCTCTCAACATTTGCTCTATTTCTTTAGCTATTTTGGCATATCATCTT

-478-

5 TATTAACCAACGGCAGAACATAAGCTTTTATAGGGGCAATTGATGGTTTTAAATCTAAAT
AAACTCTATCTTCTCTCTCTGTAAGAGTGTCTAATAAACAGTAGGTTATTCTATCAA
TTCCATAGGATGGCTCTATAACGTGAGGGATAACTTTCTCTCCTTTAATAACTTTTTTAA
CCTTTTTTAATTTCAACATAATCCTTTAAATCTCAAATTCCTTTCCATCAATGTTTATTA
10 TTACTTTTCCATCATTTTCAATGTTTTTAACAAATCTTCTTTTTCTTTTCACTTAAGT
TGTTTATATATGCCCTCAATTGCCTTTGTATCTTTCTTAAATATCTTTCCAACAACCTTAT
AATTTAGATTTATTTCAATGTTTCAATCTCTCTTTCTTCATCAAGCTCAACAAATCTG
AGAGTTCAACTCCACTATGAGCAGAGTGGCTTCTTAAGTCATAATCTGTTCTATCTGCAA
TCCCAACACACTCAATCCATCCAAATCTCTCTGTGTATATTTAGCATCCCAACAGTCAA
TAGCATAGTGTGCCATCTCATTGTTGGGAGGTGCTGTCTAAATCTTATTTTATCTTTATCAA
15 TTCCAATTGCTTTCAAAAACCTCTTTGTTAGAGCTATAAAGTAGGCAATTGTTGATGCC
TTATAATTCCTTTCTCAACAGCCTCACCAATCTTCTTAATTACCTTTTCATCATCAC
TTAAGTTTTCTATCCATCTGCCTTTTCAGCCGGTAATAATGGAACAACCTTCATCTTTAACTA
AATCAAATTTCTCATGCTCCTTTCTCTCTGGATGGACAAAATATTCAATCTCTGCCTGGG
TGAATTTCTCTCAACCTAATAACTCCTGCTTGGGGAAATCTCATTCTATAACTTTTAC
CAATTTGAACAACACCAAAAGGCAATTTATTTCTAAAGAATTGGGCTAATCTCCTAAACT
GTATAAATATTCCTGTGCTGTTTCAGGTCTCATGTATCCAGTCTCTTTCTCCCGGAC
20 CTATAGATGTGACAAACATTAAGTTAAATTTCTTAACCTCTCCAAGCTCTCCTCCACACT
TTGGACATCTTATATTGTGTTTTCTGATTAATTCACTAATTCCTTTAATCTTTTCTCTT
CTGTATCTACATCTACAAATCTTCAATTAAGTGGTCAGCTCTAAACGACTCTAAGCAGT
TTTTACACTCAACAATTGGGTCTGTAAAGTTATCAACGTGCCAGATGCCCTTTAAACTT
CATAAGGTGTTACTGTTGGGCTTTCAATCTCATAAAATCCTTCTTTAATAATATATTGCT
CTCTAAACTTTGATATGATGTTATTTTTTAATAAACATCCTAAAGGTCCGTAATCAACAA
25 ATCCTGCAATTCCTCCATAGATTTCAATGAACCTCCATAAGTAACCTCTCTTTTGCTA
AATCCATAATTTTTTCGTAAATATCTTTTCCATTCTCTCACCAGTATTGTCTCTCTC
TTATCTATTCTGTCTAATAATAAATATCAATAAACTTGATGCAATTAATCAGCAGTTGTT
CCGGGATTAAATTTATTTCTCTTTTGATAAATATTTGTCAAATCTTTGACCTTTTCT
TCTTTAAAGTTATTTAACACATCTTCAGCCATTTTAGAACTTTTAAGGCAGTTTCAAAA
30 CCTCTCTTTCTTGCAATTAATGTATCAGGATATTTAGCCAATAGGTTTAAAAATGTTTTT
GTTACAGCTAAGTTGATATTGTTGAGCTCATCATAATACTTTTTTAATAAATTATAGCCT
TCAAATGAGATTTTAAAGTTATCAACCCATTCTTTGCTTATATTATCCCATCTGCAGAT
ATTTTATAAACATCCAAAGAGTTAATCCTTTTTCAATAAGTTCTTTTTTGATCTTCT
GAAGTAACATCAGGCCCTTTCTTTGGTTTATTAACATAAGCCATTGCTATATTTATAGCA
35 TCATAAACATTTAAGGCATCTTCAACAGTTGTATTTTCAGCAATCTTCTTTAAATCTCT
TTAATTTATTTTTCATCAAAATTTTCTAATTTTCAGCAGCCATGGCTATAGGGATGTGT
AGCATTATAATTCCTAAGTTGGCATTAGTTGGAGACCATTTTTTACTCTCAATAACTGCT
TTTTTTATGTATAAACCAACATCTCTATCTTTTGAGCTGCTTCATAAACCAACATTTCCA
AATGCAATTCAGCATTTTATAAAGTGATGATATTTGATGTCTCTATAATCCCTATTTCTA
40 TGAACATTTCCAGGTTTAAAGGAGCTAACTTCTAAGCAACAGGCTATTTGAGAAGCTTTC
ATTATATCAAAGGGATTCTAGCTTTCACCAAAATTTTATATATTTGGGAATTAGGTAAA
TGCATATACTATAGGTGGGAACAAATGAATGTGGTTGGATTGGCTATTTATCTTTACGCTG
GATTTTTATCTTTTATTTTTGGATTATTTCACTATATGCTTTCATCAAATACTCAAAAT
TAGAAAGAAAAATAAGGAAATTTATGTTTATGTAGATAATTTGAAAACTTTTCTC
45 CATATAGTTTTACAGTATTTTATGACATTTACCATAGTATTTGTTATTTTGTCTTGT
TTATATGCTTTGTTTTAATTTTGAATTTATATTTAGGATTAAGTATGTTGTTCTCTACT
TTTTAATTTATTTATTTTGTCTTTAAAAAATATAGGGTTGAAATATATAAAGATGGCT
TTTATGGTGTCTTTCAAAATGATAAAATTTATTAAGGAAGATTGAAACGCTTCCAAAG
GAAGGCATTCTAGTGCCTTGCTTATTCAGGAAGTTTGAAGACACCATTTTAACCAA
50 TTTTACACTTGGAAGGTTTTGATGGCTATGAGAAAATTGGAGATAGAATAAAATTAATT
GGTAAAAAATATATCTCTCCAGATGTATATTTAAAGATAAAGATGGGAAAGTTGAAGAA
ATACTTAAAAAACATTTTAAACATTAATTAAGGGGTTATTATGGATATTGAGTTAATTT
TATTGATAGTAGTTTTATTTCTTACTCTTATTTGATAGCACTCTTTATAATTTTCAATC
CTCCCTATTGTATTTTGGATTATCTTCTATACAAAAATACAGAAAAGCAAAAGAAAT
55 GGCATATATAACCTCAACCAATATGGGAATGAATAGAAGCAGATGGATTTTTATATTAA
TAGTGGAAATAATTGCTTTATGTTCTGGATTTTATATTTTAAATAATATAAATCGCCCTC
ATGATGAGATATTAACATTTTCGCTTATATTTTGTATTGCCATCATTATGACAAAC
TCACTCCTGCCTCTGGAATGTTGAGATTTATAAAGAAGGAATTGCAGTATATATTAATA
TATTCAACACTTTAAACCATTTTTAAACCGTTATATGTTTACCTTGAAGTTTTTAA
AAGGATATAAATAAATACTAAAAATAACACAAAATATGTCAATTTAGTTCCAAAATCAA
60 GATTATTTTTTAGTATTTATTTAATAGATAGAGATGGAAATGTTGAAAAAATATTAGAA
ACCATTTAATCCTATCCAATAAAACTTTTTAACTCTTCAAAAGCTTTTTTCTGTGG
GAGATTTGGCTTTCTCTCTGTTGTCTTTCTGCAAAAGTTCTTTCTTCTTCTGTTGG
ATAAAATACTGTCAAGCAATCCATATCCTTTACTTCTTATTTCTTCTGAACTCTA
CCTTTAACAATCCCTTTAAATAATCTAACCCATCTCATCACAGTAACCGATAACTGTT

5 TTAAATAGGCATTTCTATTGCTTTACCTTCTAAGAGTTTTAAATTCCTTCATTTCT
ATAGTCTCTTGAACAACTTTGAATATGTTCCAGGAAATCCATTTAATGCCTCAACAAAA
AATCCACTATCTTCAACAATAACTGGCTTTTTTAATATATTATAAACCCACTTTGCCCA
AATTCAGCAACCTCTTCCAATGTTCCCTGAATTTCTGGATAGCTAATTTTATCTGTTCTG
ATCTCTACATCTTTAAATCTTTTAAATAATATTTGCTTCTTTAATTTTATTTGGATTT
CCTGTAGCAAAATAGATTTTCATGATTTACCAAGAGTTCTTTGCAAAACATTTTAGAAT
AAATAAGGTATATTTTATAAGAGAGGTGTCTCCCCAGTTTAAACCCCTCTATCATCCTT
TAGCTCTGCTACGTCAAGAGGGCTAACCCACTGGGGAGCATAATCTATTTAAGATTTTTT
10 AGTATATAATTTTTCTTTATAGCCATTCTATAAAGTGTGTTTTTTAGTTTTTATG
TTATGTTTTAAATCTTTTACTTCTTTTGGTGGATTAAGTCTTTTAAATTTCTAAGTTC
TCTCTTTTCAAGCAATTTTCCGCCCCAGTAGTTAAAGAGGGAGAAACCAAAATTCCTCTA
ACTTTATCCTCACCATATTTGTTTTTAAATATTCCACATACCTTTTATGTTGAGAACT
GCCTGTAAATCAGCTCTCCTTCTCTTTAGCTCTAAGATAACCCATTTATTCTCTTATCT
15 TTTCTTAAATATCAACGATTCCAGTGGGAATCTGATACTCTCTTGATATGGGCTTAAAT
CCTTCTTCAATCAAATCTGGATTTCTAAAAATCACTCTGCCATCTCTGATTCACCTACCC
CTTAGATTTATCTCTTCAATCTTCCAGTTAAAGGACATGCATGATAAACTCTGAA
ATAACAACCTTTAACTCTTCTTTTGGCTTCTTCTAATGCTTTTTTAAATGAAAAAGTTA
TCTTCAACTTCCCATATTATACTACTTCCAGAGGTTGCCAATTTACAGGTTCTCTTTTT
20 TTATCTTTATGAATTAAGAGGCTCCATCTGGTTTTATTATAATGACTCTATCTCCCTCT
TCTAAGTACTTTTAGCTCTGCTTCTATAAAAACTTTACATCGAGCTAATAATTAAT
ATATATTTAAACACATACATATCAATAAATTTTCTAATCTTTGGTAGTAGGATTGCTT
AGATAGAAAATTTCTCCAATCTCATCACCTAAAAATGAAATTATAATTATGCTTCTAA
ATATTTAAACTTATATTAAGAGATTATTTGAAATTTTAAAAATTTTAAAAATTTCTG
25 TTTTAAATTTGTAATCTTTTAAATTTAAATTAATAATATTATTACCTAAAAATAAAAA
TGGTGCAGGGGAGGGGATTGAACCCCCGAACCCCTACGGGACCGGATCTTAAGTCCGGC
GCCTTTGGCCAGGCTTGGCGACCCCTGCACCGCAAGCGAATTATAGAATAGATGAACCTA
TATATATACTTTTCCGTTTCGTGCAAAAGATAAATATATATTAATAAGTTTTCCCATAA
TATAAAAACCTATTTAAATAGGAAACATATTTCTCTCTGAGGTAAAGTATGAAAAAGTTG
30 AAGAGGCTGACGTTAATTTTATACAACCTCTATGATAAAACAAGATGGCATGAAGCTCAC
AAGAGAGCTATAGCAAGAGCCCGCCCAATCTGTTATGCGTTTGATTGTAACCTTAGCGATA
ATGGACTTTCCATGTAAGATGGAGGATATTTTAAATATAAAAACTACTATTGGTAATTTCT
GGGGAGTATTTAGAAAAATTAATCGAAAAAATAGATTTTTTATTGTTGATAAATTTCTA
CCACAATTTGGAATTTCAATTTGCCTCAACATCCAAACCAGATGAAAAAAGGCTATACT
35 CCGTTAGATACTGCCTATTTTAAAGAAAAAACAATTTGGCGTATATGTTGGATTGGGT
AGGCATGGACTACCAAAAGATATAATGGAATCTTGTGTCTATCATTTAGATGTAACCTGAA
AAAAGGGTGTCTTTAGAACTTGCCTGCTATTGGCAGTATTCAGCTGTGATATATTGC
TATACTAAATACATTTGATATTAATAATTTGATAGAGTCAGAGATAAAAAATTTTATA
40 TACATAACCCCTATTTTAAATATTACCAATAACTGCAGGTGGAAGTATGAGCGTTAGTGT
TATGGAAGCAATAAAGAAGTAAAAATTAGCTGAAGAACAGGCAGTTAAAGAAATAGAGGA
AGCAAAAAATAGAGCTGAGCAGATAAAGCAGAGGCAATTGAAGAAGCAAAAAAATCAT
TGCTGAAGCTGAAGAAGAGGCAAAAAAATTTGTTGAAGAGATGATTAAAAAGGCAGAGGA
AGAAGCAAAAAAAGAGCTGAAAAGATTCTTGAAGAGACAGAAAAAGAGATAAAGAAAT
CATATCCATTGGCAAGGTTAGATACCTTTGTTGAATTTGTCTGAGATTCTTGAATTTA
45 AATAAAAAGGTGATTTTAGTGAACCGTAAGAATGAAGAAGTTAAAGCGGTGATTTG
GATGAAAAAATTGATAATGTTGTAAGAAGCTTACATGAAGAAGGGATAGTGAACCTCTGT
GATTTATCTGAAAAGTTGGAGGATTTAGAATGGAAGACATTGTTATCACCTTCATCATCA
GCTGATTATGTTAGAAATGTTACATCATTGATGATAAAGCAGGTAGAATATTGGACATG
TTTTCAAGTGTTAGTCAGAAGGAGACAAGTATAAAGATATCTTAAACCCAAAGCCAGTG
50 GAAAAGAAGAAATTTCTTCAACTCATATCAGGAAGTTATTGATTATGCTGAAAAGGTA
TTAAATGAGATTAGCAAAAGAGTTGATGGACCTGCTGAGAGATTATCAGAGTTAGATAAC
AAAAAATCAAAGTTATTACAGCTGAAAGAGCAGATATCTTATTTAAAGGTTTAGAGTTT
GATTTAAATACCTTGGTTCTGGAGAGTATGATTTATTGGGGCAGGAAGTTCTCTAAG
GAAAAGCTTGGAGAATTGAAAGCAGAACTTGATAAAGTAGCAGATGGATATATTGGAATA
55 TTCTCTGGAAGTGAATTTGAAAAGGATAAGAAGATTAGGGTTCCAATTGTATTTGTTACA
TTGAAAGAGAAGCTTGAGAATGTTTTATCAGAGATTAGAAAGTTTGAAGTATGAAAGATAT
GACATAAGTGATGTTGAAGGAACACCAAGTGAGGCTCTCTCAAAAATAGAGAGTGAATTA
AAGGCAATAGAAATCAGAGAGAAACAGCTTAATAGAAAAGTTGAAAGCATTAGCACAAAAA
TGGGAAAAGGAATTTGTTAGCTGTTTATGAATTTGTTATCAATAGAGAAGGCAAGAGGAGAT
60 GCTTATTCACAATTTGGTAAGACCGATAGAACATACTACATAGAGGCATGGGTTCTGCA
AGAGATGCTGAAAAGCTTAAAGCTTAATAGAAAATTCAGCAGATGGTTTTGCAATTTGTT
GAAATAACTGAACCAGATGAACCAGAAGAGAAAATACCTGTTCTACTTGACAATCCAAAG
GTTATCAAACCATTTGAGATGCTCACAGAGATGTATGCTCTACCAAAATACAATGAAGTT
GATCCAACATTATTGCTGTTCTGTTTCTTATTTGTTCTATGGAATTATGCTAACAGAC
GCTGTTTATGGTTTGCTATTGACTATAATAGGTTTATTTATTTGGAAAAAATTGGAAAA

-480-

5 GTTAGTGAGGGAGCTAATAAGCTTGGTTATATTCTAACATTGGCTGGAATTTCAACAGTT
ATAATGGGTATTATAACTGGAGGTTATTTAGGGGATTTACCTATGAGTTCCTTTGGATTT
GATGTAACAAAGACACCATTAGCTTTAGTCAATCCACTAGGAGAAAGCTACTATATAAAT
AACAACAACCCATTATTCAACCCTTGGTAGTATAAGCGTAACAAATGGGCCAATGGCAATA
10 TTAGTATTTTCCATATTTGTTGGATTAAATACACCTGTTAATTGGATTATTTGTTGGATT
AAAGAGAACGTAAGGAGGAAATATGGGAGATGCTTTCATCAATCAGGGAGTTTGGATA
TTGCTGATATTATCAATATTCGTTGGAATTGGATTAAATGTTGCTGGAGCAAATACAATG
ATAGCTGGAGGAATAATCGGAATCTTTGTTGATTGGCAATCTTAGCTTCAATGTATAAG
GGTTATAAGAGCGGAGGAGTAATGGAAGCAATCTTGGAGCTATGGATGTTACTGGATT
15 TTAGGAAACGTTTTATCATACGCGAGATTGTTAGCTCTCTGTTAGCAACTGGAGGTTTA
GCAATGGCTGTTAATATTATGGCTAAGCTTGTCCGTGAATCCATTCCAGTAATTGGAATA
ATTGTGGCTATAATCATATTGTTGGTAGGACATACATTTAACTTCGTAATGAATGCTTTA
GGGGCATTATCCACTCACTAAGGTTGCACATATGTAGAGTTCCTTAGTCAGTTCTAGAG
GGTGGAGGTAAAAAGTTTAGCCCATTCAGGCAAATAGAGAATACACAACCTGCTTAACTT
20 CTTTCAAGATTATTTAAATCTTTCCAATACTCAATATAACAATAAAATATAAAAAACAAA
AATACAACCTTAAACCTTAGACAAAAATGAGGTGATATTATATGGTAGATCCTTTAATCTT
AGGAGCTGTTGGTGCTGGTTTAGCAGTTGGTATTGCAGGTTAGGTTCTGGAATTGGTGC
AGGTATTACAGGAGCAAGTGGTGCTGGTGTAGTAGCAGAAGACCCTAACAAATTTGGTAC
25 TGCTATCGTTTTCCAAGCGTTACCACAGACACAGGGTTTGTATGGGTTTTAGTTGCTAT
CCTTATCTTGTTCGTCCTTAAAGACAGTTTACCATGGGCAATGTTTGCCGCTGGTTTGGC
AGCTGGTTTAGCTGGATTATCAGCTATTGGTCAGGGAATTGCTGCTCAGCTGGTTTGGG
AGCTGTTGCTGAAGATAACAGCATATTTGGTAAGGCAATGGTTTTCTCTGTCTTCCAGA
GACCCAGGCAATCTATGGTTTGTAAATAGCCATCTTGTATTAGTTGGTGTCTTTAAAGG
CAATGCAGGAGCTGAACTGTTGCCGCTTTAGGGGCAGGGTTTGCAGTTGGTTTTGCTGG
30 ATTGTCAGGGATTGGGCAAGGTATTACAGCAGCTGGGGCTATTGGAGCCACAGCAAGAGA
CCCAGATGCTATGGGTAAAGGGTTAGTTTTGGCAGTTATGCCAGAAACCTTCGCTCTT
TGTTTTGTTGATAGCAATCTTAATTATGCTTATGATAAAATAAAACACTCAGCTCCTTCT
TTGAATTTAAAAATTTTATAAAAAATTAATTTTAACAGGTGAAATTGATGGGAGTTGAT
AAGATAAAGTCAAAGATATTAGATGATGCAAAAGCTGAGGCTAACAAATCATATCTGAA
35 GCTGAAGCAGAAAAAGCTAAAACTTTAGAGAAAGCAAAAGAAAGCAGAGAAAAAGAAAG
GCAGAGATATTAAAGAAAGGAGAAAAAGAGGCAGAAATGACTAAAAGCAGAAATCATCTCA
GAGGCAAAATTAGAGGCAAGAAAAAGTTATTGGAAGCTAAGGAAGAGATTATAGAGATG
GCAATAAACAATTAAGAGGAACTTGTAAACTGCCAGAACAGCCAGAGTATAAAGAT
AAATTAATAAAATTAATAAAAGATGGAGCTATTTTCATTGGGAGGAGGAGATTGATTGTG
40 AGGTTAAACAAAAGAGATATGGAACCTATTGACGATTCAACACTATGGAACCTAGAAAAA
GAAGTAGAAAAACGCAACAAAGAAAGTAAGTGTATTAAAGAAAGGAGAACCAAGTAGATATT
GCTCGAGGATGTATAATAGAGACTGCTGATGGATTAATCAATTGGATAACAGCTTAGAA
GCAATATTCAACAGAACTTAAATGTAATTAGAGCGAGAATTACAGAAAAATTATTCTAA
AATAACAAGATACTAATTGCCCTCTAATGAATTCGGTATTTCAATAGGGTTTTCTTATG
45 GAGGCGGAGAAATTACAGAGAAGTTGTTCTAAAGTGATGCCTAATGGCGATGGATATAGA
GACATTGTTAGATTGGGAGAAGTTATACTCTGCTATAATGACATATTTGATAACCCCTTT
AACATTGCTTATTGTTGTAGCACTATAATCATTGTTCTTATTGTAATCGTATGGATTAC
AAAGATGGTCATTGATTTAGCTCCTTATGCTTATGTTAATGCAAGAATAAGGAGTAAAGA
AGCAAAATTTGTTGATGATGCTAAATTAATGAATTGATTGAATCTGGCAGCTTAGAAGA
50 ATTAGTTGGATTGTTAGAAGATACTGATTACGGGCAATATGTTATAGAGGTTATGAACGA
ATTAAAAGACCCTGTTGCTGTTGAAAAGGCATTAGATATGTATTTAGCTGACTTGTATGG
ATTGATATATAGAATATCTCCAGACAGTGCAAAGAAAGTCTTAAAGTATTTGCCAAAAA
ATTTGATATCAAAAATATAAAAAACATTAATAAGAGCTAAATTCGTAGGATTAAGTGTCTGA
GGAACTTATGCTTTGCTAATACCATTAGGAAATATACCTGTTGAAAAATTAAAGAATT
55 GGCTGAAGTTAAACAGTTGAAGAAGTTGTTAGAGGTTTAGACGGCACTGAATACTTTAA
GATATTGCAGGAGGAGTTATCAAACTATGATCAAACTCTAACATAATAGGATTTGAGTT
GGCATTGGATAAATACTACTTAGAGAGTTTAAAGAAAACCATAATGACTGAAGGTAAAGA
AGAAGATATCTTTAGAGAGTTTGTAGGGACAATAATTGATGTTGAAAACCTTGAAAGTTAT
ATTAAGGTAAGCAGACGGTTTATCAGCTGAAGAACTAAGCAAAATATGTAACCTTTAAC
60 TGGCTATGAATTGGCTGATTGGAAGTTAAAGATTTGATGAGTGCTGGAGGTATTGAGGG
AGTTTTAAGCGGTTTAGAAGGAACAACCTATGCTGAAGTTTTAGCTGAAGCAATGGAAGA
GTATGAGAAAAACAAATCCATCTATGCATTTGAAAAGGCATTGGATAAATTTGTATTAGA
GAAAGGTAAAAAATCAACAAGAAAAACCATTTGGTGTAGGTCCAATTATTGGCCCTGAT
TGTTAGCAAGAGCTTGAAGTTAAAAACCTTAAGGCAATAATTAAAGGTAAAAATAGAAAA
CTTAAAGCCAGAAAGAAATAAGGTCCTGCTTATATCATTGTAGGTGAGGTAAATGAAAG
TTGGCGTTGTTGGAGATAGAGAAACCGCCATTGGTTTTAGGCTGGCTGTTTAACTGATG
TTTATGAAGTTAAGAATGATGAAGAGGCAGTAAAGCAATTAACGAGCTTGCAAACAATG
AAAACATAGCCTTCATAATTATCACTGAGAGGATAGCTGAAAGTATAAAGACAAGTTAA
AAAATATAAATAAGGTTATCGTTGAAATCCCAGATAAGCATGGTAAGCTTGAGAGAAATG

ACCCAGTTAAAGAGTTAATAAGAAAAGCAATTGGAGTTTCAATGAAATAATGATAACTAA
GATTACGATAAAACCAATAAAACGTTAAATGAAAAGAGAGGTTGAGAATATGCCAGTTG
TTGGTAAGATTATTAAAAATCGCAGGGCCTGTTGTAGTTGCAGAGGGAATGAAAGGAGCTC
5 AGATGTATGAGGTCGTTAAAGTAGGAGAAGAGAAATTGACTGGAGAAATCATTGAGTTGC
ACGATGATAAAGCAGTTATTCAGGTTTATGAAGAAACATCTGGAATTAAACCAGGAGAGC
CAGTTGTTGGTACTGGAGCTCCATTGTCTGTTGAATTAGGGCCAGGGATGTTAAGAGCTA
TGTATGATGGTATTCAGAGGCCTTTAACAGCAATTGAAGAGAAAACAGGTTCAATCTTTA
TCCCAAGAGGAGTTGATGTCCCTGCATTACCAAGAGATATAAAATGGGAATTTAAACCAG
10 TGSTAAATGAAGGAGATTATGTTGAAGAAGGAGACATAATTGGAAGTGTGATGAACTC
CTTCAATAGTTTCATAAAATCTTAGTTCCAAATTGGTGTAAAGGAAAAATGTTGAAATAA
AAGAGGGTAAATTTACAGTTGAAGAGACAGTTGCAGTTGTAGAAACAGAAAATGGAGAAA
GGAAGAAAATACAAATGATGCAAAAATGGCCAGTAAGAAAACCAAGACCATATAAGAGA
AACTACCTCCAGAAATTCATTAAATTACAGGGCAAGAGTTGAAGACACTTTCTTTACAT
15 TAGCAAAAGGAGGAACAGCAGCAATTCCAGGTCCATTCCGTTTCAGGAAAAACGGTTACTC
AGCATCAGTTGGCAAAGTGGTCTGACGCTGATGTCTGTTGTTTATATCGGATGTGGAGAAA
GAGGAAACGAGATGACAGAGCTTATTGAAGAGTTCCACACTTAGAAGATATTAGAAGT
GAAACAAATTAATGGATAGAAGTGTATTAATAGCCAACACATCAAACATGCCTGTCTGCTG
CAAGGGAAGCATCTGTCTATACAGGAATTACAATTGCAGAGTACTTCAGAGATATGGGTT
20 ATGGAGTTTTTAAACAGCAGATTCAACATCAAGATGGGCAGAGGCAATGAGAGAAATTT
CAGGTAGATTGGAAGAAATGCCAGGGGAAGAAGGGTATCCAGCATACTTAGCTTCAAGAT
TGGCTCAGTTCTATGAAAGAGCTGGAAGAGTTATAACCTTAGGGAAAGATAACAGACAAG
GATTGCTTTGTATCGTTGGAGCTGTTTACCACCAGSAGGGGACTTCTCAGAACCAAGTTA
CATCAAACACACTAAGGATAGTTAAGGTATTCTGGGCGTTAGATGCAAACCTTGGCAAGAA
25 GAAGACACTTCCAGCTATCAACTGGTTCAGAGTTATTCAATTATACATTGATGATGTTA
CAGAGTGGTGGAAACACAAATACTGGTCCAGATTGGAGACAATTAAGAGATGAAGCAATGA
GCTTATTACAAAAGAGGCAGAGTTGCAAGAGATTGTTCAAGTTAGTTGGGCTGATGCAT
TGCCAGATAGGGAGAGAGTTATTTTAGAAGTTGCAAGAATGTTGAGGGAGGATTCTTAC
AGCAAGATGCGTTTGTATGAGGTAGATACCTACTGTCTCCAATGAAACAGTACTTAATGT
30 TAAAGATAATTATGACATTCTACCAAGAAGCATTGAAGGCAGTTGAAAGAGGAGTTGAAC
CAGCTAAGATTTTAGGAGTTTCAGTTAAGCAAGATATTGCAAGAATGAAATACATCCCAC
ACGATGAGTTTATAAATGTTAAATCAAAAGAAATAATGGAGAAAATTAAGAAATGAATTAG
GTTTCATTAAACTAAATTCCTTTCTTAAACTTTACAACTCTTTATTTGAGGTGATGAT
ATGGCTACAGCAGCATCAGCAATTGAATACTCATCAGTTAAGAGTATTGCAGGACCTTTG
35 TTAATCGTTGAGGGAGTTGAAGGAGCAGCTTATGGAGAGATTGTTGAGGTTATCTGTCCA
GATGGAGAGAAGAGAATGGGACAGGTTTGGAGGCAAGAGAGGGTTTAGCAGTTGTTTCAG
GTATTTGAGGGAACAACAGGATTAAGCACAAAAGATACAAGAGTAAGATTACAGGAAGA
ACTGCTAAGATTGGAGTTTCAATGGAAATGTTAGGAAGAATATTCAACGGAGCAGGGAAA
CCAATTGATGGAGGACCAGAAAATAGTTCTCTGAGAAAGAGTTAGATATTAATGGTTATCCA
40 TTAACCCCTGTTTCAAGAAAAGTTCCAAGTGATTTTCATCCAACAGGTATTTCAACAATT
GATGGAATGAATACATTAGTTAGAGGGCAGAACTGCCAATCTTCTCAGGTTCTGGTTTG
CCACACAACCAAGTTAGCTGCACAGATTGCAAGACAGGCAAGGTTAGAGGAGAAGGAGAG
AAATTGCGAGTTGTCTTTGCAAGCAATGGGTATTACATCAGAAGAGGCAAACTTCTTCATG
GAAGAGTTTAGAAAGACAGGAGCTTTAGAGAGAGCAGTTGCTTTCATAAACTTAGCTGAC
45 GACCTGCAATTGAGAGAATTTAACACCAAGAATTGCTTTAACTGTTGCTGAATACTTA
GCTTATGAGAAGGATATGCACGTTCTTGTATCTTAACAGATATGACAACTACTGTGAG
GCGTTAAGAGAAATCTCAGCAGCAAGAAACGAGGTTCCGGGAAGAAGAGGTTACCCAGGT
TACATGTATACTGACTTGGCTACAATCTATGAAAGAGCTGGTAGAGTTAAAGGTAGAACA
GGAACAATAACTCAAATTCATCTTGACAATGCCAGATGATGATATAACTCACCCAATT
50 CCTGACTTAACTGGTTATATTACAGAGGGGCAGATTGTCTTATCAAGAGAGTTGCACAGA
AAAGGTATCTACCCACCAAGTTGATGTTCTTCCATCATTATCAAGATTGGCTGGAAACGGA
CAGGGTCCAGGAAAAACAAGAGAAGACCATAAAAAAGTTGTTAACCAAGGCTTATGCTGCC
TATGCAGAGGGTAGAAGTTTAAGAGATTTAGTTGCTGTTGTTGGGAAGAGGCTTAGACA
GATAGGGATAGGGCATACTTGAAGTTTGCAGATGAGTTTGAAGATAAGTTTGTAGACAA
55 GGAAGGATGAGGATAGAAGTATAGAGGAACTCTTGACTTGTATGGGAGTTGTTAGCT
ATATTACCAGAAGAAGAGTTGAAGAGAGTTGATAGGGAGTTAATTGAGAAGTATCATCCA
AAATACAGAAAGAAATAAATCTAAATTTTAATTTTTAACTTTTTTAAGATTTTTGATA
ATATTAAATTTTAAATTTTATTTTATTTATTTATTTTGTATATTGCCATACTTAAGTGTGA
GAGCATGGGAAGATGCAAGCATAAATGGTGAAGTTAGTATTTTTGGTGAAGACCAGCAAG
60 CTTTCCTAATTTTCCATTTCATTAAATGGATAAGATTGGAGGTTTGTGATATTGGATGA
GTTATGGTTAAGGAGATGGTGTGAATATAGAATATCCGATGAGAATTCGACATATA
TGTGCCAATTGAGGATTATGGTATTCGACTGTTGAAGATATGGATTGATTGTTGATT
TATAAAATATCATGTTTCTAAAGAAAAGGAGGTTGTTGTTTCTGATTGGTGGGCATGG
GAGGACGGAACTGTTTTAGCCGTATGGGCTGGATTAAATGGGATTAAAAATCCAATAGA
GTATGTTAGAGAGCGTTATTGTGAGTGTGCAGTTGAGACAGAAGAGCAGGAAGAGTTTGT

-482-

5 AATAGAGTATTTGAAAATGAAAAAGAGAGGGTAACCTATCTTGAGAAATCCATATTTACAA
AATGTAGGGTAAAAATATTTAGTAGGGGATAATACATTAAATAATAGTTAATGTGAAAA
TAAGGTTTATGCTTAAATATTAATAAAATGACTGCTATCTTTTTCTCTTTAATCTTCA
TACTCAACTGTGGCATTTTTATATTAACTCCTTCCCTCCAGATAATTTTAATCTTATA
CTTTTACACTTTGGGCAATAGACCTCAAATTCATCTAAAATCTCTGGTTCTCCCTCATAT
10 CCACAGTCTAAGCATTTACACTTTGGTTTTATAAATCAACGTTAATTTTAGCTCCCTCA
CATACAGTTCCCTCAGCAATAACTTCAAATGCAAATTTAACTGCTCAACATTGATAAAT
GTTAGTTCTCCAACCTCTAAGTTGATTCTGTAACTTTTTTATTTTCTTTCCCTTTCT
TCCTCTTTTTTTATGCTGTTAATATTGCTTCAAGCATGGCATTGGCGTAAGATAATTCA
TGCATATTTATCCCAATTTTAGCCCTTTAATAACAATTTCTTAACTCAACTTTTTAAAA
AGGTTTAAATCAAACCTATAAAAATCTTAATAATTTTAAATCCGAGTTTCGTTAGCGACAA
TTTCCTTAACCTTCTCCTCCTTATTTTTTGGAGTAAATATTTTAAAGTTGAAAACAGCTC
15 TTATAATATCATCACCATCTACAACCTCTACACTCTCCCAAATAAGCCTTCTGCTTATCAA
ATCTAACATAAAATTTGTTATCCTCAACTCTTAAGTGAAATCTTTCTTCAGTTTATTTA
TATTTTTATCATCTGATTTTATTAAATCTATAATATGTTTAAATATCTTCTTAGCCTCT
TTCTTCAACATTGACATTGATAATTTTTATGGGTTTCCAAAGTATCCCTGCGTTTCAA
CAACATCTAAGTCTATTTTTCTCTCATCAACGTTCTCAGGAATAAAAAATTTCTATCGCT
CTAAAACCTTATCCTCATCCTCTGTGGCATGAACCTATTGCACTAAGTTTTATAGAATTTA
20 GCATATCAACACCTTTGAGATTTATGATTATTTAGCGAGATTAATAATGAAGACATTTTA
ATGTTGAGAAAAATAATGTATTATCAAACTTACCTTATAAAAAAGAATTATAAAATTT
ATTTAGCTAAACAATTTCAATCGTTGAAACATTAACCTTCTCTACCATCTGGGTCTCTCA
CTTTATCAGTTCCCTATCTCTATTTTTTTAATTTTTATGTCCTTTATAAATCTGTTTCTTA
TCATCTCTGCAACATCCACTGCTTTGTTGATAGCTTTTCTCTTGCTTTTATTATCACTT
CATCATTGCTTGTAGCTGTGTTAGAACTGCTACAACGTAGTTTCATCACTGGCTTCTTCC
25 CTATCAACACTACATTATCCATGCTCTCAACCTTTCTTGAGTTGTTAGATTAAAGATATA
TAGAAATAATTTATCATCTATTTAAACCTTTCATCGGATTTTAAAAAAGTTTCATTAA
AGTTAATAGGATATATCACAATATGAGGCTATGCTCTATTATTATTTTTCATCCAATTA
CGACTCTCTTTATTTCCCTCTTTTAAATCAATCTCTGGCTTCCAACCTAAAGATTCTGCCT
TTTTTATATCCAGATAAATTTCTATAGACCTCTCCCTCTCTTGGTTTATCATATATTGCTT
30 CTCCTCTAAACCAATCTCATGCTTTATTATATCAAATAATTCATTTACTGATGCTCTT
TTCCAGTCCCAATATTTACTATCTCATCTTCCAATTTAAAGCCATTAAATTAGCTTTAG
CTACATCTCCAACATAGACAAAATCCCTTGTTGATTTCATCTCCAAAATAATTTGGGC
TTTGGTTTTTAAACATTTTATCTATAAATATGCTTATAACTCCAGCCTCTCCTTTTGGGT
CTTGCTCTCTCCATAGACATTTGAATATCTCAAATTTGCATATTCAATTCATATAAAG
35 GGTGTATAGCTTAATATATTCTCTCCACGTATTTACTTAACCCATAAGGAGATATG
GGTTTATGGATGATTTTCATCTACTGGCAAATAATTTGGTTCTCCATAAACTGCTCCAC
CAGAAGATGCGAATACAATTTTATCTATATCGTATTTTCTCATCATCTCTAAGATATTTA
TAGTTCCCTAAACATTGATGTCTCCATCATATACTGGATTTTCAACGAAATTTCTAACGT
TTATTTGAGCTGCTTGATGTATAACAACTTCAACATCTTTAAATTAATTTTTTCATCTA
40 AGCTTTTATCTCTAATATCTGCATTTACAACTCTGCCTTTGGATTTATGTTATTTTAT
TTCTGTGTTGTTAAATATCTAAGATAATTACATCGTAGTTGTTTTCGATTAGTTTATCCA
CTATATGACTACCAATAAAACCTGCTCCTCCAGTAACTAATATCATTTTTCCACCAACAA
TTTAATTTCTTTTTAAGTAATTTTTTAGTATATTTCAACGCCCTTTTTCTTTTTAATAA
CTATCTTATGTATTGGGGTGTGTTAGTATTATGTAGTTGTCTTCTATTTTAACATCTTTAA
45 ACTCCTTCCATGAATAAAGAACTCCGCTTACTAATAACCCCTCTTCACAAATATACCCTC
TGGTTTCTCCCTTTATAATAATGTATAGGAATACTACAATCCAACATATTGCAATGAATA
ATATATGAGATATTACAAGTTCTCCTGCAATATACAGCATTTCAAAGTAAAGCATAGTA
ATGAAATAATCAAAAAGAATTTTTAATCATATTACTCTTTAACATCTTAGGTAGGTTTA
TCTTAACCTCTCTTATTATTTTAACTGTTTCTTTATTTTTGAATATTTGAAAATTAAT
50 ATGCTATAAATAAAAACTACCAATTTGTTATAATTATGGCTATAACAATCATTATTAAAT
CCATCATTTGGGATGTTCTATAAAGCCACCTTATTAAACAAATTAATAAATTTATGGGAAAT
AATATAAATAAAAAATTTTGTATAGCTGTTCAATCAATTTTCTTCTGCTTCTTCC
ATTGATGTCTATAAGGTATTCATGTTCTTCCAATATTTTTCTTCCAATCTCTTCAATTA
55 GTTCCCATCATTTCTAACAGCAAATTTACATTGGATGTTCTTTTTAAACTTCAACAAT
CCCTTTGCTACTTTCATCACACCTTGTTATTCTCTCTAAAATATTAATAAATATTCCTTTA
ACATTTTTGTTTTCTAAAACCTTTCTCAAAGCCAATTTTACAGTTTCAGCATCAGCCCT
CCTCCAATATCTAAGAAGCAAGCTGGCTTTCTGCCGAGGTTATTTATAATATCCATACTT
GCCAAAGTTAAACCAGCTCCATTACCTATAACTGCCACATCTCCATCCAACCTCAACGTAG
GCAAATGGTAATTTTTCTTTATTTTATATTCTTCAAATTTCTCATAGTTATGTCTAAAT
60 GCTGCATCATCTAAGTGAAGAACAGCATCAGCGCATAGACGTTCCATCTTTAGTT
ATAACCAATGGATTGATTTCAACCATTTGATAGCATCCAACCTTTTAAAGATTTTGATAAC
TTATAAATAACATCAGCAACCTTTCCAATCTCATTTGCTTGGCAATTTTGCTCTTTAACT
ATCCATCTTGCAATATAAGGGAGGAAAGGTTTTCTAACATCAATATGGTACTTTATAATC
TTTTCTGGATTCTTTTCAGCGACTTCTTCAATATCAACTCTCCCTCAGTTGAGAAGATG

ATTAACGGTTTTTTAGCATCTCTGTCTATGATAATTGATACATAGTATTCTTTTTCTATT
GGCAATTTCTCTTCAACTAAAATTTTTCAACTTTTTCTCCTTTAACTTCTTTATTAAAC
AACTCTTCTGCTTTCTTTATGAATCTCTTTATTTGATGCAAAATAAAATTCCTCCTGCT
5 TTTCTCTCTGCCACCACTAAAACCTGGGCTTTTAAACAACCTCTTTATCAACATTTATA
CTGTTTAAATCATCTTCTTTAGATACTAAAAAGCTCTCAGGAACCTGGGATACCATACTTT
TTAAATATATTTTTAGCTTCATATTCATGTAGTTTCATCCTATCACCTTAAATGATAAAT
TTCTTTTTAATGCAAAATTTTAAATATCATATAAAAAATTTGGTGATAAATTTATAGG
TTAATGTTGTCTGGTGATGAGAATGCAGATTCTTAAACACATCCAAGATATGAGTCATT
AATGAAGAGAGAGAAGATAATTGAAGCTTTAGATAAAGGAATTTAGCTAAGGCTGGATT
10 GATAGCTCACGGTAGAGGAGAGACTTTTGATTATTTAATTGGAGAAAAACAGCACCAAT
AGCATTGGAGGCAATAAAAGCTGCTGCTCTATTAAATTTAGCTGAAAATCCAGTGAT
AAGTGTAAATGGAAACACTGTAGCGTTAGCAATAGATGAAGTTGTTGAGCTTGCAAAAGA
ATTAATGGAAAAATAGAGGTTAATCTATTCTATAGAATAAAGAGAGAGAAATGGCTAT
AAAAGAGCATTGGAAGAAAAATTCAAAGATGATATTGAGACAGGAAGATAAAAACTCTT
15 GGGATAGATGATGCAATAAGCAGATTCTTAATTTGGATAGCTTGAGAGGAAAGGTTTC
AGAAGAAGGAATTTACTGCTGATGTTGTTTTAGTTCCATTGGAGGATGGAGATAGGGC
TGAGGCATTGGTTAATATGGGTAAAAAGGTTATAGCTATAGATTTAAATCCATTATCAAG
AACTGCAAGAAAAATCAACAATAACAATAGTGGATGAGCTAACAAGAGCTATGCCCTTGTT
AATTAATATGTTAAAGAATTTAAAAATAAGGATAGAGAAGAGCTTTTAAAGATAGTTGA
20 AGATTTTGACAACAAGAAAAATTTGAAGATATGATTGACTATATTGCTGAAAGATTGAA
AAATTTAAGCTTAGATGAATTATAGGTTTGGGATAAATATGAAGATAGTTGGTGTATTA
CAGGAGCGGGCATTGTTGAGGGAGAGCTTCCAAGTAATGAAACGATTAAAGAAGAAA
TTGAAGATTTGAAGGTAACCTACCTTAGTTTCAAGGGCTGGAGAGGAAGTTGTAAAGATGT
25 ATGGGTTGTTTGGGGAATTTGATAATCTCTAATGGAATTTATTGAAGACCTTATAT
TGGAGAGAGAACATCCTTACTCATCACCATCACTGGAAGATTGAGCTTAGGAAAGTATG
ATTATTTAATTTGCTCACCAGCTACTGGAAATACCGTTGCTAAGGTTGTTAATGGCATTG
CAGATAGCTTAGTAACAAATGCTATAGCTCAGGCAGGGAAAGGATTGTTAAATCTTTAA
TAGTTCCAGTTGATTATAAAGCTGGGATTGTAACAACAAAACCTTCCTATGCAATTGATA
AAAAGAAATGCAAACTCTGTTTAAATGTATAAACGCTCTGTCCAATGGAGCTATAGTTA
30 AGAGGGATAAATTTGTTGAGATATTATTCTAAATGCTTAGGATGTGGAAATTTGTAATA
AAGTTTGCCCTTATAATGCAATAATTGAGGGAAAAGAGATTAGATGAGGGTTAGAAAGA
TAGATGCTGAAAATACAAGAAAATTGATGGAGTTGGAGGATGTTATTGTATTAAAGCATC
CTTATGAGATTTTGGAGTTTTTAAATATTAGATAAGTTTTATTTCTTTTAAATA
ATACATGTTTCAGCTGGCTTTAAATTCATTTGGTAGCCTAAATTATACTTTAAAGTTTCA
35 CTTATAAATCCAATTAACAATCCTCCCCAAGGGCATGCTGTCTTCAAATTCATAGCCA
CAAATTCCTTTGGGCAGAGATTGCATTTTGATATCTTTACTATAATTTTCCTCTCTCC
TCATTTCATCTCTATCTTTGCAAAATCTAAGCTGGTTAAGAAATCTTTCAATATCTTTAATA
TCCTTAAATTCATAACCATTATTTCATTTGCGTAAATTCCTTCCAGCATTAAGAA
40 CCAGCCATATTGCTTAAGCTCTGAGCTCCATGTCCAGTAATTAATTTTAAATCCAACAGAA
TATCCTATAAATTACCGCTGAAGGTATTGATGGACAGGGATCGTTTTTTGATCTTCTAATT
TTATATAGAACCATGTTACCACCTGTAGTGTTTTTATACAGATGTATAGGAAGATATA
TATGATTATAAATATTATATACCTTTAAATAATTTTATGAGGGATATTAAATGGAATTTAT
TATCAAAGCTAAAGGGCATAAAAAATGCTCAGCTACCCATAAAACAACCTTAGAGATTAC
45 AAAAGAGGATTATTTAACTCCAACAGGACACTGCATTATAGGAATAGATGCAGATAAATC
TATGACTGATTTTAGTGAAGAATTTAAGGAAAAGCTTAGAAATGCTAAAAAAATAATTGT
AGAGATTGAAGTTGAAGGAATAAAGACACTATAATTGGAGAGGGGCATAAAGATTAAAT
TTTAAACCATCCAACAGACATGGTTATTAGAAAGAGTAATTATATATGCCCAAGAACACT
AATGATTAATGCAATAAATCAGCAAAAGATATTAATAGAGAGATAGTAAAAAAATTAAA
50 AGAAGGGAAGAGTTGATTTTTAAGATAATTGTCTAAAGGTGAAAGATGAAGATAAAG
TTGGTGTCTTAGGAGCTACTGGAAGCGTGGGGCAGAGATTGTCCAATTGTTGGCAGACC
ATCCAATGTTTGAATTAACAGCTTTAGCAGCATCAGAGAGAAGTGTGGGAAAAAGTATA
AAGATGCATGTTATTGGTTCCAAGATAGAGATATTCCAGAAAAATATAAAGGATATGGTTG
TTATTCCAACAGACCCTAAGCATGAGGAGTTTGAAGATGTTGATATTGTCTTCTCAGCTT
55 TACCATCAGATTTAGCTAAAAAGTTTGAAGCAGAATTTGCTAAGGAAGGGAAGTTGATTT
TCTCTAACGCATCAGCTTATAGAATGGAAGAGGATGTTCCATTGGTAATTCCTGAGGTTA
ATGCAGACCACTTGGAGTTGATAGAAATTCAGAGAGAAAAGAGAGGATGGGATGGAGCAA
TTATAACAAACCCCAACTGTTCAACAATCTGTGCTGTCTAACCCTTAAACCAATAATGG
ATAAATTTGGCTTAGAGGCTGTTTTTATAGCAACAATGCAGGCAGTTAGTGGAGCAGGTT
60 ATAATGGCGTTCTTCAATGGCAATCTTAGACAATTTAATTCATTTTAAATAAAGAG
AAGAAAAATGCAACAGAGAGCTTAAAGCTTTTAGGAACTTTAAAGATGGAAAAGTTG
AGCTTGCGAACTTTAAATAAGTGCCTCATGCAATAGGCTTGCAGTTATAGATGGGCATA
CTGAAAGCATATTTCGTCAAAACAAAAGAGGAGCTGAGCCAGAAGAGATAAAGAGCTTA
TGGACAAATTCGACCCGTTGAAGGATTTAAACCTCCCAACCTATGCTAAACCAATTGTTA
TTAGAGAAGAGATAGATAGGCCACAACCAAGATTAGATAGAAATGAAGGAAATGGAATGA

-484-

GTATCGTTGTTGGTAGAATAAGAAAAAGACCCAAATTTTGATGTTAAATACACTGCGTTAG
AGCATAATACAATCAGAGGAGCTGCTGGGGCAAGTGTGTTAAATGCGGAATATTTTGTTA
AGAAATACATATAAATTAAATTAAGAAAAATATCTTTTTTATTCTATTCTTTATTTTACT
5 ATTAAGATTTGGIAGAATTATTAGTAATATAATATAAACGGGTTTATTTTGAAAAAAC
CTTTCAAAAGATTATTTGTTATCTCTACCTGACAACGAATTTTAAAGAAGCTAAGAAA
GCGACTCAAGGGTATGAAGAAAAATAAATAATGAAGCACTGACGATATTACGCAATATTG
ATAAATATTATATTGACTGTATGGATAAAAGATAGTTATTCTCTCCCAATATCTTTTCA
AAATTAACCTTCAGTTGGATATTTCCAGTTACACAAGCTAAACATAAATCTTTTCTACCT
10 ATAGCTTTAACTAATCCCTCTAATGATAAATATCCAATAGAATCAACTCCAATAGCTTTC
CCTATCTCTTCTCTGTTTGGTTGAGGCAATAAGTTCCTTTTAGTAGCCATATCTATA
CCATAATAGCAAGGGGATATAATCTTAGGACAGCCAATCTTAAATGCACCTCCTTAGCT
CCAGCTTTTCTAACCATATTTACAATTCTTCTTGATGTTGTTCTCTAACAATACTATCA
TCAACCAAAACAACCCCTTCCCTTCCAATACACTTTTACTGGACTTAATTTTAACTT
15 ACTGCCAATTCTCTCTCATTTTGGGATGGAAGAATAAAAGTCTTCCAACATATCTTTC
TTTATTAAACCTTCATAGTATGGAATCCCTGACTCTTCAGAAAATCCTAAGGCAATGTG
ACTCCTGAATCGGGGATTGGAGAAACAACATCAGCATCTACTGGATGTTCTTTAGCCAAA
ATTTTTCCAATCCTCTTCTAACCCTTAGACGCTAATACCATCAATTGTTGAGTCAGGT
CTTGCAAAATACACATACTCAAACATACAAGTTGCCGCTCCTCTGTATATACATGGCACA
20 TCGACATTCACAGGGTGTATTGAGAAACACCATAATCTAATTTAGATATTATTTC
CCGTCTTTAATTTCTATAATTTCTCCTGGCTCAATATCTTTAACAATTCAGCATTAAG
GTTGTTAATGCACAATCCTCAGATGATATATAGATATTGCTCTCATCTCTTCCAATACAC
AATGGTTTTAAAGCCCCAAGGGTCTCTTACTGCAATTAAGGAATCATTAAACATTATTAAA
AGTGAATAAGCTCCAACGAGCTTTTTTAATGTATTTTTTATTGCCTCAATCTTATCAGAT
25 GTTTTTAACAATCTCTAACCAAAAGTTGAGCTATAACTTCAGAGTCAGTTGAAGAAGTG
AATATATGCCCTTCATCTCTAATTCTCTTCTTAATTCGTCTGAATTTACTAAATCTCCA
TTATGGGCTATAGCTATATTACCAATGAACCTTTAACTACAAACGGCTGACAGTTTTCA
ACAGCCTTTCCCTCCCGTTGTTGAATATCTTACATGTCCAATTTCCAATATAGCCAAATAAG
TTTTGTAATGTCTCATTTTAAAAACATCTGTAACCTAATCCAATATTTTTATAGTAGTGT
30 ATATTTTTCCCATCACTTGTAGCAATTCAGCCCTTCCCTGCCCTCTATGCTGTAAAGCA
AACAACCCATAATAAATTTTTTAGCTACATTTAACCTTTCATAAGAGTAGATTCCAAAT
ATCCACACATATTAAAAACCCCTTTTTTAGTTTTTAGACTTTTAGCAAATAAATAAAAA
GAAAGAAGAAATTAAGAAGAATTAGTAAATTAAGAGATAATTTATTTTTATTCTAAT
ATTATATGCTTATCAATTATATTTAACAACAGCTTTACCAACAATCTTATTTCCATTAAAC
35 TCTAAGCTATCAACAACCTCTACCTATTACTTGGGCTGGGATATTATTTATTAGCTATT
TTTATAACTTTGTTGGCATCTTCTTCATCAACAATTACACAGAATCCAATACCCATATTA
AACGTTCTAAACATCTCTTCATCAGGCACATTACCCAATCTTTGAATCTCTTTAAATATT
GGTAATGGCTCTGGAAGGTTGTCAATATAGTAAGTTACTTTATCATTCAATCTTTAAGC
TTTCTAAAACTTCTCCAGTTATGTGGGCTAAACCTTAACTTCTATATCTTTATCTCTA
40 ATCATCTCCAAAACCTGGCTTTACATAAATCCTTGTGTTGTTAAAGCTCTTCAGCAACT
GTCTTTCCATAAGAGAGTTTGTCAATTAATGTCTAAGCTTAGCTATGTCAAAAAATCTTTC
CTTGCCAATGATAACCCATTGCTATGTATTCCAGAGCTTCTTAAACCAACAATCACATCT
CCAGCTTTAACATCCTTTCCAGTTATGATTTTCATCCTTCTTAACTATTGCTAACACAGTT
CCTGCTAAATCAATACCTTTAATCATATCTGGTAGTGTAGCTGTTTCACCACCAACAATG
45 TTTATATTTGCCCTCTTAGCTCCTTCATTTAATCCTTTTCTATTTGCTCAGCTATCTCT
TCGGTTATATGTCCAACCTGCTAAGTAATCAACCAACGCTATAGGCTCTGCCCAATACAG
ATGGCATCATTTACATTCATAGCAATCATGTCAATTTCCAACGGTATCAAAATTTATAGCC
ATCTCTGCAACTATCATCTTACTTCCAACACCATCTGTAGATAAACTAAATAAATAATCT
CCAAACTCAACAGCTCCTGCATAGTGCAATCCTAACTCAGCTGGTTTTATCACTTCTC
50 TTAAATGTTATCTGTGAAACTAAGGCTTTAATTACTTTATCTTCGTGAGATATATCTACT
CCTGCATCTTTGTAAGTAACCATAATATCTCCTCATTTTGTGTTCAATAACTATACGAT
TTTTGTAGGAATAAAATTTTTTAAACATCCAATTTGCATTATGGAATATTTAACTACA
GAAAGCTTTATACATTATATCTTTTTATCTTTTTTAAACAAACATTATCCCTACATCGACA
CCAATATTTTCAGCAACTGGTTTGCATTTAGCTTTCAATATATAATAGATTGGTTTATCT
55 ATCTTATCTTCATATTCTGTAAACTTTTCAATTAACCCATTCCCTTAGCAATGATTAAA
TCAGCACTTTCAAACCTTTTCAAAAATCTTCTGAACACTCTTCTAAAATAATTCCAATG
ATATCTGAGCCGGTTGTTATAACCTTGGCTATCTCATCAATCTTGGCTATCTTGCATCT
TCTAATGTAGCATCGTTTAGAATTGGTTTTCTTTAACTACTGCAACGATATCTTTATCA
TATTTTTTAATCTCTTCCATTAAACCCATCAAAAATAATCTCTCCAGCGTTATCACAT
60 ATATACAAAATCTTTTTTATGTTTATCTTTTTTAAATCATTTAAGAGCTTCTGCTGTTG
TCTATCTTTAACTCCCATTTAATGTGTCTTCAATTAACCTTTCAATATTTATCCCTGTG
CTGTAAGCTCCAAAGTCAATAACGTTTCTGCAATGTTGCTAAAACCTTCTTTCTCAAT
CTTTCAAGCTCATCATCTGTATTACTCATCTCCCTAACTTTATCTAAATACTGAAGGGCT
ATTTTGTGTTGCCTTCTCTTTCAATTTTTGTAAAGGGTGGTTGTTGTGCTAATTTCTTT
AAATATCTATGCACTACAGTCCCCATCCATGCTGGAACCGCACTCTCACCATAAACATCT

TTAATAACTTCCATAGTACTTTTATTAATCTAAACTGCTCTCTTTCATCATCTGTTATC
TCATTAGCGGCATCAACGACCTGCCTTATTATACAGATAGCACATTCTGGTTTTATTTTC
ACACTCTCACCATTGAAATTTAAGAATTAGTAAGACCAAATTTAAGATAAGTTATAAATA
AATCTTCAAACCTCTTAAACAATACGGCGATAAATATGATTAACTTGAACATTTTAAAGA
ATTCTTATTAAACCTTATAAAGGATTATGGGTATTTTGGTATATTTTGGTTGGATTTTC
TGAGCCAATATTTCAACCATTCCCAACAGAGATATTTATTATAGCAGGTATTTTATTAGG
GTTAGATTGGAAATTAGTTTGGCTTATATCAACAATTGCCTGTAATTTTGGGGCTGTCTG
TACATATTATCTTGCAAAAAAGTATGGGGAAAAAGTTAATGTTAAAAATTATTTGATGAAGA
AAAAATAAAAAAGGAAGTCATTATTTAAAAAATGGGGAATTTTGGGAGTTATAATTGC
AAGCTTTACACCAATTCCTTTTGGAGTTATATGCTGGGTTTGTGGGAGTTTGAATGCC
ATTTGAGAGATATATGATTGCAGTTTTTTTAAAGTAGATTGATTAGGCATGGGATGGTTAT
TTTACCATTGTTTTAAAGACCATATTCATTTTGTAGAGTGCAGTTTATATTAATTAG
ATTTAGTTAAATACTTAAAAAGCAATAAAAAACATTTTATTAATACTAAAAACAGATAA
TTTCATAAACAGAATTTTATATTAAGAACTGTAATTTATTTTGGTGATAAAATGTGTC
TGGCAATTCCATGTAAGGTTGTTGAGATTATAGAGGAAGATGGAGAGAAATACGCAATAG
CTGAATATAAAGGAGTTAAGCAAAAGGCAAAATTAACACTTTTAGATAAGGAGGTTAAAA
TAGGAGATTATATATTAATCCCACTGGCTATGCTTTAGAAGTTTAAAGTGAAGAAGATG
CTAAATTAAGTTTAGAAGCTTGGGAAGAATTGTTTAAAGCATTGGAAGAAATGGAACAAT
AAAAAAGATTTTACAAATAACAGAAAAAGAAATTTAAATTTGCTCTTTTATTCTGGTTCA
ACTTTTACAGCTCCTGTTGGACAGACATCTTACAGACTCCACAATAAGTGCAGTCATCA
GGTCTTGCAACAACACTTTATCTCCCTCAATTTCAAAAACCTCCATTGGGCAGTTATTT
ACACATTTCTGCACACTCTGCCCTTTACATAAGCTGTAATCTATTGTTACAGCCATTATT
ACCACCTCTAAATGTTAATAATTGATTAAATAATTGATTAAAGATTACTACTTGATATAT
ATAATTATCGGAAATGATATCGGAAACAATAATTAAATTTAAATAAAATATGGAGCT
AAAACCTCCTTATATTTGCATTCAATTATGGTTCTCTCTATGTTCCAACTTCATTTAGCA
CATTGTAAGATAGCTTAGGTCTTAAAAAAGGAACCTTGAAACTAACTGCAATGTGAGCAA
ATGATGAGTTATTTCCAAATATTACTGGATAAAGCCCTTTATCCATAATGTAGTTTATGT
AATAATACATCTCAGTTATTGTTCCCATTTCAATGCGGAAACCTTAAACAAATCACTTT
CCTCATAAATGCTGTCCGTGCATAGAAATCCATCAAAATCAACAGGCTCTTCAACCTCTA
AGTAATCAATCTGAGATAAATCCTTATCTTTAACAGTTTCTCTTTTAGAACTAAGTCCCA
ATAATATATCTAAATCCTCATCTCTTTAAATTTTATCTATCAAAATCCCTAATCTTTGGAA
TTTCATTAAATATGTCCTTGCTATGTATGCTCCATCAATATTTACAATACTATAATCAT
GAGATAAGACATCTGTGAGCTTTAGATATAAATTAATATATCTTCAATGGAATCAGCCA
TGACTATTGGAATTAACCTCATTCTTATCTTTATCAACTAATATGCCAGAAGCAACTATTG
GTAGTTCAGTTGTTAAAGCTCCCCCTAAAAATTTAAATAAAGGAATATCTAAGCTGTTTG
AAGCCGCTCTTGCTACGCTAATAGAAATTTCCCATTTGCTACAGTAGGATTATTAAGTATG
TTTCACAAATTAATGAATCAATAAATCAATGTCAGTTGCTGGATATCCAATGAGTTCTG
GGGCTATAACATTTTCAACATCAGCTATTGCTTCTCTGCTGATTATTCATTCAATGATGT
CATAGCCAATAGAAATATTTGTCTATTGTTGTAATCATTACCTTAATTTTAGCTCCTTTAA
AACTTCTTTTGCACCTATTTTTCATAATAACATTTGTCAATTACATCCACCTCAATT
AAAAATAATTTAATTTAATTGTTTATGCCTTCTCTATCAGATGAAATCCTACGGATT
TAACAAATCCTTTGGATTTTGTAGCTCGAAGCTACGCTTCGGTTTCTATTACTCGCCCAT
GGGCGATTACTATACCTCAGAGTGGAGCTTCACTACGTTTCAAGCTTCTAGTTTAAAAA
CAATTAAGCTTTTACCGGTCTTATTGGTTTTTAAAGGAACCTTTCTTGTTTAATTTCTTC
ATAAGCTATTTTCAATGAGCTATCAGATTTTGTCTTATTGTTGCATATGCTCCACTGA
TATCTGCAAACTTCTCGCTCCCAATATCCTTGCAATCTCAAAATTTTGTAAATTTCAATAT
CTCACCTCTGAAATATATAAATATCAAAATGGTGGGGCCGCGGGACTTGAACCCGGGTC
GCACGCCCCCAAGCGCACAGGATATCCAGGCTACCCACGCGCCCGTTAAAAAGAATAA
TAAGTTTAAAAATCTAATTATAGATATCTCTCGTCATGAGCTATTATTTTCATCAATAATT
TCTCTTCCATCCTCTCCTATTCTGTAAGAGATAAACATTCTTCTACAGCAGTATTTTTTA
ATGCCATAATCATCCAAACATCTTTTGGATTCTCTCTCTTTTAAAAATCTCTCTTTGTAC
TCTTCAAAAACCTCAGCGATAACATTACCACAGGAAAAACATCTAATAGGGAACATCATG
TTTCTCACCCAAAATAAAGAAAAAGATAATATCTTTCCAAAAATTTGTAATAAATTTAT
CTGTATGACTTTTGTCTCTTTGCTCTTGGACCTTTTGTGACCTACTTGGTTTGTGTGGT
TCGGTTCTTCTTGCATCGCTAACCAATAATGTTCTGTGCTAAGCTAAGAATTTGTCTCTC
AACTCTTTGCTACCTGTAAATCAACAATAGCTTTACCAATAGCTGTTCTTGCAGCATCC
ATTTGTCCCATTACTCCTCCGCTTTAACTGTAACTCAATCAATATCCATTGTTGCTAATAACT
TCTCTCCAGCTAATAAATTTGGTTCCATTAACTTCAATCTCTTATATTTGGGCTCAATT
AACTCAATAGGTATTTGTTTATTCTTATTCTTCCCTTCCCTTCTCTTGTCTACTGCTC
GCAATAGCTCTTTTCTTTTACCAACTGTTATAACAATTTTCCCATTAAATCACCCTCAG
AACTTCGCTCCTAAGTGTGTTGCTTAACTCAGCTAATGTTATATATTTGGTGGTGTAAAT
TTGTGGCTTATTTTTCATCAACTGTTAAGTTTTTAGGATTTCCAACATAAATTTAACT
CTCTTAAATGCCTCTCTTCTTTTGGTTTTTGTATGGAAGCATCTTCTAATGTTCTT
CTTAATATATCATCTGGTCTTCTTGGGAATTTGGGCCCCAATCTTCTTGGGTTAGCAACG

-486-

TTTTTCTTCTCTCTTCTTCTTGGTAGGTTTTTATAATCCAGTCCTTGTTACCTGTAATA
ACTACCATCTCAGCATTTACAATAACAATTTCTTCTCTCTCAAACTCTTTTGGCTACT
TCTGAAGCCAACTCTCCCAATATCGCTCCTTCAGCATCTATTACTGTCATAACTATCACC
5 GTGTTTTTAATCCAGTTTATATTTACGCCATAATTTAACATTTGAACCTTTTGGATTCT
TTTTATTAGCTCTTCAATTGTTATTGCTTCTCCTCCAGCTTCTTTAATTAATTTTTAGC
TGTTTCTGAGAATGCAAATGCAGCAACGACAACCTTGCTGCTCTAACTTCCAGCTCCTAA
AAGTTTACCAGGAAGCTAAAACAACATCTCCTTCTTTGTGTATCTGTTATCTTACTTAA
10 ATTTACCTCTGCTCTCTTCTTCTTGGTTTTGCTAACCTTCTTGCAATATCCTTCCAAAT
CTTTGCCTGATTTTTATAACTTTCTGCTTTAATATCTCAATTAACCTTAACCAACCTTGG
GTTTGTAGCTGTTATTTCTTTGCCATATATATCACCCTGTTTCTTCAAACCTTTTAT
AATTATTATAAGGTTTGACAAATAATTAGAATGAAAATGGTTTTTTATTGTTCAATCATT
TCTAACTGTTGTAAGAACTTTTACGCTTTATTTTAGTATTTTAACAGCTTCTTCTAAG
15 ATTTCTTACGCTTCCATTTGTCCAAATGTTTCAACGAAAAATTCTACTTCATCATCAGCA
ATTTGTTTTATAGACAGCATTTGATGGTTGCCATTTTGCATGAACCTTTCCAATGCCAGGA
ATTGCTTCACATTCAATCTGTATTCTTTGCCCTTTTCTAATTTAACAATTGGAATGTTT
TTAAAGCAACTTCTCCATTTTACAGATTTTAAATCTGATGAATAAACTGTGCAAGGCCCC
TCTTTTTCTAAGGTGAATGTTATAACTTCATTCTCTAATAATGGTTTTCTTTAATTGGA
ATTAACCCCAATCTATGTGCTAAAATCTCATCATCCATTGATGATGAGTCTCATATATA
20 TAAACATCTTCAATAGCAAAGGTTGGAACCTCAGAAATCATTATTTCTCTAATAGCATTA
GAAAATGAAATTGGGGCTTTTAAAGAAAAATAAATTCCTCCCAATTCTTGTCTTTCTC
TTTTCTTTGATTGTAATCAAAGATTATCACCTTACTTTTTGAACCTCTTCTTAGGTGTTG
TTCCATCATGTGGAACCTGGTGAACATCTTCAATTTCTCAATTTCTTAATCCAGCTCTTG
CTAAAGCTCTAATAGCAGCCTGAGCTCCAGGCTCGGGTTTTCTGCCACTACCTCCTG
GAGCTCTAATTTGATATGGATGTTTTCAATTCCTCTCTCTTTAATACCTCTGCCAATT
25 TAAATGCTGCCCTGCATTGCTGCGTAAGGAGAACCTCATCTCTCTGTTTCTGTAACCC
TCCCACCTGAAACTCTTGAATTTGCTCTGCTCCTGTAATGCTGTTGCATGGATTATTG
TGTTGTTGTAAGATGAGTAGATATGAACATTTCCCAATTTTCTTTTTTCTGTTCTGCCA
TAGTGTTCACCTTTAATTTATATTTTTTATCTGCTCTCTGTTCTGTTCTTCTGCT
ACTAATCCAACAATTTAGCTCTTTCTGGGTGATTGTCATCGTTGAATGGGGAGTTTTTA
30 GCATAGCTGATTTTGTCTTCTTCTTCAACTGTTACCATGTAGCTTGGAGCAGTTACAAC
CTACCATTAACTGCTATATGTCCATGAACAATTAAGTCTTGTCTTGTCTTGGTGTCTT
GCTAATCCTTTTCTAATAACAAGTGTGTTGTAATCTTCTCTAAGATATCTTCAACGGTT
AATGATAAGACATCATCAAGTGTGGGTTCTCAATTTTAAAGATACCGTATTTTAAAT
ACATTGAAAAGCTGGACAGCTTCTTAGCTCCTTGTCTGTTCTATCACTAATTAATCTT
35 CTTGCCCTGTCTCTGTATTTTCTTAATATTGTCTCTGCTTTCCAACTTCTCTCTTCTT
CTTAAACCATACTTCTACACAACCTCTTTTCTCTCTCAATTTCTCTTTAATCCATGGA
TGGTTTTGGTGTTCATAAGTCTTTTTAAATCTTCTCCTTGGGTCTCCCATCTAATCACT
TCAATAATTTTTGTTGAATGTTATGCTAAGTGTTCATTTAATAATTTATTTCTTTCTT
CTTGAACCTCCAACAGTTGGACCTCTTCTAATGTACTCTTTGTTCTCTGTCTCTACAT
40 GGTAAATCCAAGCTCGTGTCTAATTTCTCTATAACATCTGATTCTCTTCAATCTGTTAATA
TCTTCTCTGTTTTATAATCATTAATTCGCTTTCAATAACGTGTTTATCCTCTCCAGTAACA
TAATCTTTTCTTCTGTTAAACATCCATGATGGGATTTCAAATTTAGCAGGGTCTGCCAAT
ACTTCTTCAATTTTTTAACTTCTTCTCTGTTAAATAACCAGCTAATTTGTAGGGTCT
AATTTAGCAACTCTTACAATTGCCCTTGCCATTGCCCTCTCCAACACCGTAGATGCTCTGG
45 AGAGCCATTATTAACTTTTGTTCCCATCTAATCTGTCCTTGAACTCTAATTAATAAC
TTAAATTCAGAAATTTGCATATTTCTCGGTCAAGGTGCACCTCCATAATTTCTGTTTAA
TAGTAATAGATATTAATAAATAAAGAAGTGGCGGGGAGGGGGGATTTGAACCCCCG
CGGGGCAAGCCCCATGGGATCTCCAGTCCCACGCTTGGCCGGGCTAGGCTACCTCCGC
TCTGAAACGTGTTTCAATTTTTATATATTCTTTTTATATATTTCCACAATACTCAACGTT
50 ATGATTAATGGATACCATATTATATATTATTTTCGTTTGTAGTAAGGTTAAAGGATAGT
TATTAATTTGATGTTGAAGTATTTATATCTAATCCTTAAATAATTTACAATGGAACCTT
CGTAGGAATAAATGTTCTATGGAATAATAATGCCCTTAGGCATTTAAATGCCCTTAATAA
AATATACAACTGCCGAAAGTTCTATTACAATATAAAAAATTTAAAAATTTATGCTGATGGT
55 GTCATTATGTCAGTAAAGGTATCTGAATATATGACAAAGAAGGTGTTACTGTTTCAAAA
GATAATACAGTTAAGATGTTATTAAATTTGTTGAAAGAGACTGGACACAATTCATTTCTT
GTGGTTGAGAAATGGAAGCTAATAGGGATAGTTTCTGTTTATGATATTGTAGGAAAGGAT
GATAATGAGAAAGTAGAAAATGTAATGACAAAAAGGAAAGATATGGTTGTTACAACTCT
GATGCCAATATAATGGATGTTGGTAGAATAATGTTTAGAAGTGGTTTCTCAAAATTGCCA
60 GTTGTGATGAAGAAAATAATTTAGTTGGAATTATATCTAATATGGATGTTATCAGGTCT
CAAAATAGAGAAAAACCGCTAAAAAATGGAAAAATATAATCAAACTTATAAAGCTTA
GGTTACAATTTGAGAGTTGAAAAAGAAGAGGTAGATGTTAATAAATGAGACCAACACAG
AATAAAATACACGCTGATGAGCTGGTTGGCAGAAATGATGAACATAAAAAAGGTTTGGCA
GAGCCAATAATTGCAATAAAAAACAAAAAGGGGAGATTATTATATATTGGTAGATGGACAT
CATAGGGCAGTAGCAGCGTATAAATGGGAGTGCCGAAGTTGGATGCCTATGTAATTTAT

5 TTAGACACTGATAAAAAGCTTGGTATAGAAAAGACAGCTGAGATTATGAATTTAAATCA
CTGGAGGATGTTAAGATTGTTGATAGTGATGACGAAAACAGTGTTAAGGTAATAAAATAC
AACAAAAATGGACTATTGGGATAATTATGATAATTAGGGGAATAAGAGGGGCAAGGATAA
ATAATGAAATTTTAAATTTAGGTTTAAAGTTTCAAATTTTAAACGCTGATGTAGTAGCTA
10 CAAAGAAACATGTTTTGCATGCTATAAATCAAGCAAAGACAAAAAACCAATAGCAAAGA
GTTTTTGGATGGAAATTTTGGTTAGAGCTTCTGGACAGAGGCAGATACATGAGGCAATAA
AGATTATTGGAGCTAAAGATGGGAATGTTTGCTTAATCTGTGAAGATGAAGAGACTTTTA
GAAAAATTTATGAGCTTATTGGTGGAGAAATTGATGATTCTGTTTGGAAATTAATGAAG
15 ATAAGCAAAGATTGATTAGAGAAATTTTAAAGATTAGGGGTTTTGGAAATGTTGTTGAAA
GAGTTTTGGAGAAGATAGCTTTAATTGAATTAAGAAAGAGTAAAGGTGGAAATATGAGA
GTTATTGATGGTGGAGTTACAGCCCTAAGGGATTAAAGCCAATGGATACAAAGAGGGT
AAGTTTGGAGTAGCGATAATTATCTCTGAAAAAGATGCAGTAGGAGCTGGGACATTCACA
ACAAATAAAGTTGTAGCTCATCTGTAGTTTTATCAAGGGAGTTGATAAAAAATAGAGAT
20 AAAATTTAGAGCAATAGTTGCAAATAGTGGAACGCCAATGTTTTACAAAGATGGAATG
GAAGATGCTAAAGAAATGCAGAGATTAGTAGCAGAGCTCTTAATATTAATGAAGATGAG
GTTTTAGTAGCCTCACTGGAGTTATTGGAAGAAAGATGGATATGAACATTATAAAAGAT
AGAATAAATAAGGTTTATAATTAAATAAAGAAGGAACAGCTCAATAAACGCTGCCAAA
GCAATAATGACAACGTATACAAAACCAAGGAAATAGCTGTGGAGTTTGAGGTTAATGGA
25 AAAACTGTTAGAGTTGGGGGGATAGCAAAAGGAGCTGGGATGATAGCTCCAAATATGTTA
CATGCTACTATGCTTTGCTTTATAACAACAGACATAGAGATTGATAAAGAAAGCTTAACA
AATATCTTGCAAAAGGTTGTAGATAAAACATTCAACAACATATCCGTTGATGGAGACACT
TCAACAAATGATACCGTTTTTGTGTTTAGCTAATGGATTAAGTGGAGTTAATTATGAAGAA
TGTGGAGAAGAGTTGAAAATGCCTTATTGTATGTGTGCAGAGAGCTTGCCAGATGATT
30 GTTAAGGATGGTGAAGGAGCTACCAATTTATGGAGGTTGTTGTTAAAGGGGCTAAACT
GAGGAGGATGCAGTTAAAGCATCAAAGGCTATAGTTAATTCTTTGTTAGTTAAACTGCT
GTGTTTGGTGGAGACCCAAATGGGGAAGGATTGTTGCTGCTGTTGGATATAGTGGGGCT
GATTTCAACCCAGAAGTTGTTGATGTTATATTGAGCAACTATAAAGATGAGGTTTATTTA
GTTAAAGATGGGATTCCATTGGCTGATGAAGGAAGCTGAAAGAGCTAAAAAGGCCGAGGAG
35 ATTTATGAAAAGTGATGAAATAAAGATAGTTGTTGATTTGAAGATGGGGGAGTTTGAGAAC
GTTTGTATGGATGTGATTTAAGCTATGAGTATGTTAGAATAAACGCTGAATATACAAC
TAATGGTTTGTACAACTCTATATACTAACTGCTTACATAAGAATATAACAACACAAAAA
AGAGGATGATGTTATGGAAACGGATATAATTATAGCATCAATTATGATTAGTTGTTTTT
ATTGGCTATGGTCTTGGTGGCTGTTTGTGGTTGTTCTATGCCTCTAAAAAGTTAGAAC
40 AAAACCTACCCAATAATCTTTTTTATAGCATACTCTATTATTAAGTATATTCCAATTGCT
ATTATTATCATTATGCTTATTTCCAATATGGCAGAGTTTGGAGCTAAACCCCTTATACAAA
CTAAATAGTATCATCACTATTATACCATAACACATGGCATTAAATGGCAGTATCACAAAAA
TTGGTTAAATATCAAATTTAGCTTTTGTGTTATTTTTTAAATCCATTTTAGCCATAAA
ATCCAACAATCTACCTAAGAAAAACATTGACACCAATAACCACACAACAACATAATGAT
45 GTATAATCCTATTAAATAACCTACTGGAAGCTCAAACACTAAGTAGTAAGCAGTTATCAA
AATAATACCATTAGCAAAAACCTTTAACTATTGTAGTGAATACTTTAAATGTCTATCAA
TTGTTTAGTTATCATAATATTCACAACCTCCTAAGCTTTTGATATGGTTAAGGATATATAT
TTTTTAGGATTAAATAAAGTTATCTAAGCTAACAGTATCAAAATTATTAGCTTATGTGGG
50 GGGAGGTTATGTTAAGCCCTGACATGCCTTTAAAAAATTTGGATGAATATGATAGGTTA
GGAATAAAGAAGAAGGCAGATGCTATAGCAAGATTATTGAAAATAGATGGGATTATTTG
CAGAAGAATAATATGATAGCCCTTTATGGAAATTGAGGTAGTGGGAAGAGTAGCGTTATA
AACCATATTATGAGTAAATTGGATAAAAAATGAATTTATTGCTTAAATTTGATGCTTGG
CTTTATGAAAAAGATGATAATTTGCCTTATTCAATTATTGGAGTTTATTGGGACGAATTA
55 GAAGCTAAATTAATAAGGACGAAACTATTACAAAAGAAATAAAAGATAAAATTAAAAAA
TTAGGAAAGAAGTCAGTTAATCTTTGGAAAAACATGGTTTTAGGAGCAATAAATGCAACA
AATATTAAGCAGGGACTTCTCCATAACAGAACTATCTGGGATTAAAAA'AAACGCAAGT
TTTGATGGAAGCAAATTTGTTGGATACGTAGTCAATGCATCAAAGAAGACGAAAAATGAA
GAAGAATCTTACCATAAAAAAGTTAAAGAAATACAGAATTGTTTTAAAGAGTTATCAAAA
60 ACCTTGGCCGACAATGGTAAAAAATTAATTATTTTATTGATGAACCTGATAGGTGCGAA
GCAGAGAATATTTTAAATTTATTGGCATCAATTAAGTTATTCTTTAGTTTAGGCGGAGAA
GATGAAGACGAAAAACAAAATGATGATGAAATAAAAAATATTGTTATTTTGTAGCTGTTG
ATAAAGATGCTGTTTCTAAGGCTATTAACAAAAATATAAAGATATTATAAAAGCAGAAG
AGTATTTGGAAGAAAGATTTTTAATATTTCATTTAGTATGCCAAATCTTATGAATTAAGG
ATTTTATTAACAATATGATTTCTTAATGATGATAAAATTTGCTGAAAAGCTTGAGAGAT
TCTTTAAAGCTATCAATTTTACGAATCCAAGACATTTGAAGAAGGTTTTAAATAAATATG
CAATCCTTATTGAGTTTTAAAAATTTCTAAATTTGATAACGAGAGATTAATTCCTGAAATAA
TAAGAATTGAAAATGGAGAAAGAAAAAGAAAGGATATTTATTTGATACAGTTTTTGTGTT
TGTATTTTATAATTCTTTATGAGTTTTATTATGGGAAATATTTGGAGGTTAAGAGGTATA
AATGTAGATTACAAACAAATACAGGATTACAATCTTATTTGAACGTTATTCTTTATTAT
CTCAAATTATGAAAGTAATAAAAAATAGAAATGCTAATGACATGGATAGAGTCATCACA

ATTTAATGCTGTTGTATTACAACTGGGCTATAGATATAACTATGAAATTAAAGGAAGAA
AGTTTATATAAATTAGTAATAAACAGGGAAATTAGAGATAAGGATTACAATATAGCCAATG
AATTAAGTATAGAATTAAGAAGACCGGAATCACAGTAGATTTTGGGAATATATTAATAA
5 ACAACTATGAAGATTTAATAGAAGAGAATTATCCAAATCCTTATCCATTTACAAATCTCT
TTAAATGGTAGAAACCTATTTATAAAATCTTTTATCCAAATAAGTAAATATCCCTATT
AATAAAAAAGAAAGGTAAAGAAATTTACTTGATTGGAACGAACATTGAGCTTCTTGTAGC
TCCCATACCAGGAGCTCCGTGCTGAACGTTTTCTTGTAAATGAGAAGCTCTCCTAAGTA
GTGTCCAATCATTCTGGAGTTACTTTAACTTCAACGAACCTCTTTCCGTTATAGACACC
10 AAAGGTTAATCCAACCATATCTGGTGTATAACAAAGTCTCTGCAGTGTGTTCTTATAAT
TCTTGGTTCTTTACCTTTGTTAATAATCTTCTTGCTTTTTTAATTTTCATAGCTAATTT
TTTCTGTTGTGGGTTAAACCTCTCAATAATGTTCTTCTCTGCTTTCGAGGCAACAACCT
TGCAAACTCTCTTAAAGGCATTGTTGAAGTTCTTCTAATGTGTATCCTCTGTATCTAA
CTCTATCTTTTTTGAATTTACTTGTTTTTCTTTTTTAATTTCTTCTCCTTGCAGATGC
15 CATATTTAGTCACCTTAAATATTATGTGTTTTGTTTGTGTTTATTTTATCTAATTTTAT
TCAAAAACCTTAATAAATAAGAGAGGAAATTTTCTGACTCCAGTTCTTCTTGCAGATA
TATGTCCAACCTTTCTTCTGGTGGAACTTTCTTTCTTGAACAGTAGTTGGTTTTCCAG
TGTGTTGGTGTCTTCTCCACCGAATGGGTGATCGACAGCGTTTCATTGCAACTCCTCTAA
CTCTTGGCCACTTAACTGCCTTAGCTTTTCATTGCGTGATACTTCTTACCAGCCTTAAACGA
20 ATGGTTTCTCTTTTCTTCTCCACAGCAACAACCTCCAATTGTAGCTCTACACATTTGAGT
GTAAAGCTTTGATGTCTCTGATGGCAATTTAACATAAGTTCTTCTCCATCGTGTGTCA
ATATGTGTGCATAACAACCTCCTGCTCTAACTAATTTTCTCCATCTCCTGGAACGTGTT
CTATGTTGAAGACAGGAATTCCTCTGGAATAGCTCCCAATGGTAAGATATTTCTGGCT
TTATTTCTGCAGAGACACCACACTCAATAATATCTCCAACCTTTACACCTTCTGGAACAA
25 CTAACAATCCTTCTTCTCTGTTTCGTATTCAACTTTTGCAACTGGAGCACTTCTTCTCTG
GGTCTGTAAATATATCAACAATTTACCTAAAACCTTTCTTTTTCTCTAATTCATCAA
ATCTTCTGTATTTTGTCTCTCCCTTCTTTTGTGTGAAGGGCAAGTATATACTGAAGAAC
CCCTACCTCTTCTTTGAGAGATTAATCTTTTTCCCATCTTACCACCACTTGTGATAAAT
TTTTAAGTGTTCATTAATTTAAAAATTTATTTAATTTAGTAGATTCTTAAGCTTGCTGC
30 TATTTTACTTGGCTCATATCCTTCTTTCAACTTAACGTAAGCTTTCTTTTCCCTTTTGG
TGTTATTAATGTATTTACTTTCTCAACTTCAACATCAAAACAACCTTTTCATAGCTCTCT
TATATCTGCTTTGTAGCTCTCCTATCAACGTAAATACTAATTTGTTTTCTCTTCAAT
CATCTTAACAGTTTCTCTGTACTTCTGGAGCTTTTATTACATCGAAGGCATCCATTTT
TATCCCTTGTCTTCTGCACTTTTATTTATTTAATTTCAATCTCTTTTTAATTTCTTAA
35 TGCACCTTTCAGTCCATACGGTTAATCTTCCAGCAACTCCCCAGGAGCTAAATGGATAAT
TCCCAAATCTTTAGCAGTTATAACATCAACTCCTGGTAAGTTCTTGAAGCCAATATAGC
GTTGCATTTATCTCCAACAACAACCTAAGATACTTCTTGGTTTTTTGTATTTCTTCTCT
CATCTTACCTTTTCCAGCTCTAATCTTAATTCGGTTCTTAGCTCTTATAACATCATCACT
GATTCCTAATTTTCAAATACTGCAATACATCTTTGTTTTTTGCAACTCTTCAAATGA
40 ACTTTCAACAATAATTTGGGAGATTTTCAAGTCTCAAAGACATGTCTCTTTCTTAACTAA
TTCAGGGTTTGTCTGTAGCTGCAATAGCACTCTTTATTGCTTTAATTTCTTTCTTTTATT
TACTCTTTCCATAATATTTTCTCAACTTTTGGTGGGTGTGCTCTTCTTCCACCAACTGC
TTGTGGAACCTCTTGCAGCCCATCCTTGTGGAACCTCTATCTACTCTTGGCCTACCGTGTCC
TTTACCAATGTTTTTAGCACTTGTCTTAATCCTGCCAATGGGTCTGAACCTTTTGGCTG
45 TAATCTTGCTGTAAATGCAGATAAGAAAGCTCTCTTAATTAATCTGGTCTGTATTCTTC
TTCAAATACTGCTGGTAAGTCAATTTCTTTACTGCCTCTCCATTTAAATTATAAACAAC
AGCCTTCATTATTATTACCTTCTCTCTCAATTAATTTAAAGTATTTTATTACTTACCT
TGCTTTGATGTGTACTTATGTATGTAATTTAGGTACTTTGATTAATGGCTCCTGTGGT
CTTATAGCTCTTCTTAATACAATTAATCTCTTTGCAGGCCCTTGAACCTGAACCTTTTAAT
50 ACAACATAGTTGTTTTCTTATAACCCGTAAGTGTAAAGATCCACCTTTTGGTGTAAATTC
TCCCCATTGTTTCCAATCTTTAATATCTCTTGTGTATTTCAGTTCTTTGGTGGTATCCC
ATTTGACCTGGCATTGGAACACTCCACATAACCATCTTTGGTTGCCATGGACCAATAGAA
CCAACGTGCTTCTTCTACTCCTTTTCTTGGCTGCTTACCAAAATGTATTTAACTCCCCAT
CTTTTAACTTGTCTTGGAAATCCTTTACCTTTTGTAACTCCAATTGTATCGACTAACTCT
55 CCTTCTTGAAGACATCTGTAATGTTTAACTGCTTACCTAAAATCTCTTTAGCGTAGTTT
AATCTTCTTCAATATCTTTTCTTCAATTTCTAATTTCTAAGATTTCTGGTTTTTTCTTT
GGAAGGCATGTTAATTTTGGATTTGTATGAACGAGAAGCTCTAACATCTTCAATTTTGTCT
TTTAAATGCTTCTAAATCTTCAACGGTCTTTCTGTCTCTTTTTTATAGGAGTTTAAATTTT
CTTTCTAATTTCTTTGTCTAAGTTGTCTGCCCCAACTCTGTAAATGTTGTAAAGTAGTTT
60 CTTTCAATTTCTTCCATAAACTCTTATAGCACATACGTTGATTGGTGGAGCTTCTAATATT
GTGATTGGAGTAAATACCTCCTGTCCAGCATTTGGACTTTTTGGATTATCTTCTTTAATA
AATGCATGGCTCATTCTGCTTTATATACTGGAAATGCCTGTAACCTTACTGTATCCTCT
TCTGGCCAGCTTCTAATTTCTTGGAACTGGTCTTTTTGCTCTTTTTCTTGGACTGAATGCT
AATGAACCTCTTCTGGTCTGTTAATTTTAAACCCATAATCTAACCTCCAGCATATTTA
TTGATATCTTTAAATCTTTTATTTGAGTGTTTTGTGTTGTTAATATCTAAATAGCTTT

TTTATAGTGTCTTTCAAACCTTTTGAAATAACTAAGGTATTAATGAACGCCTTAAAGGCG
TTCAATGTTCTTAAATTAATTTTATTGATTTTGGAGACACTATATTTGCAACCTGT
CATTGCCCTACCCGGGCTTTTCAGGTTTGCATTATTTGAGGTATAAATTAATAACGGATT
5 AGTGTATAAAAGAAAGGAGTGTATAACAAATACTAACAATAGGGTATATAAAATTTT
TGGTGGTAGCAATGGATGAGCTAAATTATCTAATAAACTACCTTGCAAATAAGATAGTG
TTAGAGAAGAAATTTTAAAGTTATCAAGGGAAATAACAAGAGATTGTGCAATGTTAATTA
GAAAAATTCACAAATCAGACGATAAAGATGAGTTTAAAGACAAATTAATGAGATATCAG
AAAAAATTAATAAACTAAATAGTTAGCAACATTCCCAGAGTTTGTGGATATTTATCTA
10 CCCCTCAACAGGAATTTGTTGAGGCATTATCTTTGTATATGATAAAGTTTGATAATAAGA
TTCCAAGTTTCAAAGAGCTTGATTTTATTAAGAAGAGAACTACATCTTAGGATTAGCTG
ATGTGATTGGAGAGTTGAGGAGAGAGGTATTAGAGGCAATGAAAAATGATAATTTAGCAG
AGGTTGAAAGGTATTTCAAATTTATGGAAGATTATATGAATTTTAAATGAACCTTTGATT
ATTATCACGTAGTGGATAATTTGAGAAGGAAGCAGGATATTAGTAGAGGAATCTTAGAAA
15 AAACCCATGGAGATATTGTTACTTTTATTCAAATCTTAAGCTTAGAGAACATTTAAAAA
GAGTTCAAATAGGACTTTCCGAGGAATAAATCTCTATAAGGAAAATGATGCCTTTTAGGC
ATCTAAATTCCAAATCAATATATAAACTGCGAAAGTCTTATTCAAGAGTAATTATTCAA
TAGGGAATCTTAATAAACCGGCTATTCTCTTAAGGCTTTAATTGCTTTCCAGCATCAT
GTTTCAGAGGAAACGATAACTACCTTCCACCCATCTTTCAGTAGTATCTATTATTTT
20 CTATCTCATGATTTCTTACTAAGCTATCTGAACTAATAATGTGTCTATAGCTGAATAT
CTAAAGCTTTTTTACTTCATCAATACCATAAACAGCCAATCCCTTTTAGCAATCTCT
CCAAAAGCTTTTCTATCAATTGTGTTCTTTTGCAACCCCTTGATTGAGCATATATTCTAT
TAATAATTCCTCTTTTAATAACCTCATTTAATCCAGCTCTTGAGGTTGTTGATATGCTCT
CCACAATATTTTATTTTAAAGCTCTGGGTATTGAGAGGAAATAAATTTATAAAGCTAT
25 TTTTGGCAATCCTGGCCCTGCGACCAAAATATTATCAACATCATACTCTGACAAAACCT
TAGCTATTTTCATGATAATACTCTTTTTTAACTCTTCGTTAATTTTATAATCCAATTTT
TTGAAGTGTGAGATTTTATTGAGCAATTTCTTTTATGCTGTAGTCTCTAACTTCAAAGA
TATCTGCTCTTCATCATCCATAACAACAACTAAAACCTTAGGTCTTTTAGATGATTCAA
TAGCTTCCCTTATTCTCTCTATCTGCCATTTTCCAATTTTTTCAATTGAAAGCTCAT
30 CAAATGGTTTAAATTTCAATTGTATGATGACTGCCAAGGGGAACATCGTCTGGGCCATGAA
TTATAGTTCCTAAAATTTCTAACTCTTTTCGTGTTTTTCATCAAATTTCTACGTTTTTACTT
CAATTCCTAAAACATTTTCTTTTGGCTCCTCTGTCTGCTCTAATAACGTCCTCTTAT
CCTGCACTCTTCTCTAGTAAGTCAATATCTTATCTCTCTTCTCAATAATGTTATATA
AGACCCATAAATCATCTAAGTTTTCAGGCATAAGCTTAATAATATTTTCTGTGGAATTT
35 CTCTATAATTTTCATTTAGCTCCCTCCAACATCTAAGTCCCCATTTTCAAGGATGTATA
TTTTAAATTTCTTTTAACTGTTCTTTTTTCTATAAATTTCTGAAGCATTTTCTTTTATAA
GCTCAATGAGCTCTAAGGTATTGTATTTCACTTTTATACCTTCTTCATCAGCTTTTTTAA
ATACAATATCTGGAATTTCTAAAACATCAGTCCCTTCTTCAATTTCAATAGATAGTGGAG
CCATTATCCTATTATAAATCTTTATTGTGTTATATGCCTTCTTATATTTCTTTTGCCC
40 TTTTTCAATCATACTTATGTTGGCTCTACTTGTTCGAAGCATTTTGTCTATTCTCTT
GGGTTAATCCTTTTTTCTCAATTTTAAACCTTAATTTGTGTGTCTGTGAAGATGAAT
CCTCAACCATGCATAACACCAAATAATTTTGGTGGTAATTTCTTATAATTAACATTA
TATTAACATTTATATAAGCTACCTTATATAGATTATATTTGGTGAAATTATGGATTAG
45 AAGAACAAAGAAAGCAGTAATTGAGAAATTAATTAGGGAGGGGTATATAAAAGTAAAA
GAGTAATTGATGCTCTATTAAGAGTTCCAAGGGAGGAATTTCTCCAGAGCATTTAAAGG
AATATGCGTATGTAGATACTCCATTAGAGATTGGTTATGGGCAGACTATTTAGCCATTC
ATATGGTTGGAATGATGTGTGAGCTTTTAGATTTAAAGCCAGGAATGAAAGTTTATAGAG
TTGGGACTGGTTGTGGTTATCACGCGGCAGTAAGTCTGAGATTGTGGGGGAGGATGGTT
TAGTTGTTAGTATTGAGAGAATTCAGAATTGGCTGAAAAAGCAGAGAGAACTTTAAGGA
50 AATTGGGATACGATAACGTTATTGTAATAGTGGGAGATGGAACCTTTAGGGTATGAGCCAT
TAGCCCTTATGATAGGATATATACAACCTGCAGCAGGTCCAAAAATCCCAGAACCATTA
TAAGGCAATTTAAAGATGGGGGAAAGTTATTAATGCCTGTTGGTAGGTATCTACAAAGAT
TAGTTTTAGCTGAAAAGAGAGGAGATGAGATAATAATAAAGGACTGTGGGCCAGTGGCAT
TTGTTCTTTAGTTGGTAAAGAAGGATTCCAAGGGTAAATGATAATAAGATAAATTTATT
55 ATCTCTTTTATTTTATTCTGTTTTATTTTTGAGTGGATAGTTAATGACATATTAACCTAAG
ATTAAAAATGAGAAACAATTTTAATTAGAGCCAAGATAATAAATTTTCAATATATATATT
TTTATGGTGAAATAATGCTTTGGAGAGATGTTTGTGAAATATTTAATAAATTTGAAAAAA
CAACAAAAGGTTGGAAAAGAGAGATTATTTATAAATTAATTGACATGGTTAAAGAGA
AAGGGAGCCAGAGGATTTAAAAAGATTTGTTATATGGCTATAGGGAGGGTTTATCCCG
AATACGATGAGAGAGAGTTAGGAATTGGAGAAAACTTTTAATAAATGCTGTTACATCTA
60 TAGGAATTAAGAAAGATGAATTGTTAGAGAAAAATTAAGAGACGGGAGATATTGGATTGG
CAATAGAGCAATTTAAATCAAAGATTAAGCAAGCATCTTTATTTTTTCAGCCATTAACTG
TAGATGAGGTTTATGAAACCTTAAAGAGGGTTGGGGAGATAGAGGGAGAAGGTTCTCAA
AGAAAAAGTTGAGGTTAATAAGTAGTCTCTTTTAAAGAGCTTCACCAATAGAGTGCAGGT
ATTTGGCAAGGTTAATTTTGAAGATATGAGGATAGGGATGAATGTTCCAATATATTAG

-490-

ATGCTTTGTCAGTTTATTTCAATGTTCCAAAGGAAAACTTGAGAAGATATATGCTATAA
CCAATGATATTGGGCTTTTAGCTGAGAAATTATTAATGGGAGATTAGAAAGTGAGGAGC
TAAAATTAAAATTATTTAGACCAATAAAACCAATGTTGGCTCAATTAACCTCCTTCAATTG
5 AAGAGGCATTATTGGAGATGGGCAGAGCTCAATTTGAAACAAAGTATGATGGAGCAAGAG
TTCAAATACATAAGGATGGAATAAAAGTTAAGATATATAGCAGGAGATTGGAGGATGTTA
CAAAATGCCCTTCCAGAGATTGTTGAGGCGGTAAAAAATATTAATGTAGATAAAATTAATTG
10 TTGAAGGGGAGTGTGTAGCTATAGATAAACAAACAGGAAAGCCAAGACCTTTCCAAGATA
TACTTAGAAGATTTAGGAGAAAGTATGATATTGGAAAGATGATGAAGGAAATAAATTTGA
GAGTTTATTTGTTTGATATTCTTTATAAAGATGGAGTATCATTATAGATGAGGAATTTG
AAAAGAGAAGAAAAGTTTATAGAGGAAATTGTTGGTTATGAGAATGATTGGAGAAGCTGAAA
GAAAGAGGATAGAGAAAGAGCTTAAATCAGATAAAATAATTGATATATCCTATAAATTAG
15 TCACAAACGATGCAAAAGAGGCAAGAGAATTTTATAACTGGTCTCTATCTATTGGGCATG
AGGGAGTTATGATTAAAAAATTTAAAGGCTCCTTATACCCAGGAAGTAGAGTTAGAACAA
TGTATAAATTTAAACCAACTCTTGAGAGTTTAGATGTCGTAATTACAAAGGCAAAAGAGAG
GGATGGGGAAGAGAAAGGATTGGTATGGTTCATTTGAAATATGTTAGAGATGAGGAAG
GGAACCTCTACCTTATTGGACATGTAGGGACTGGACTAACTGAGGCAGATTTAGAGTTT
TGAAAGAAGAGATTGATAAAATATTATTAGAGATTAGGTGAAGAGGTTGAAGTAGAAC
CAAAGATAGTTATTGAAGTTGCTTATGAAGAAATTCAAAAATCTGATAAATATCCTTGTG
20 GCTATGCTTTGAGATTCCCAAGGGTTGTAAGATTTAGATTTGATAAGGGAGTTAATGAGA
TAAACACTATAGAGGATGTTGAAAGGATATATGAAATCCAAAGAGGAAGGAAATAATCTT
TAATATAAAAAATCTTTGATAAATAATTAATTTTTCAATTTTATTTTATAGTGGTAATT
TAAAGAAGAGGTGATGTGAATATGGAATTTTTGGGAACAGCATATCTAATATACTTATT
TTTGTGTTGTTATAACTCTATTGGGTATTTTCATTGGAAAAATTGTGGATAAAATAGTTAGA
25 AATTATCTCAAAAAAATCATAGATAAAACAAAAACAAATTCGATGATATAATATTAGAG
TCTATTGATTTACCAATTATTGTGTTAGTAGTTACATTGTTTTCTATTTTGGGTTAAGA
TTTTTAATTTCTGCCAGATTATATCTCAAGTTGATAGATGAAGCAGTAAAAGTTGAGTT
ATCTTATCGGCTACATATTTTGCAGTTAAATTTATTGATGGGATATTTGAACACTACCTA
ATTCCATTAAACCGAAAAGACAGAAACAGAGTTGGACGAACACATAATAAAGCCATTGAAA
30 AAAGTTGTAAAGATATTAACAATACTTCTTGGTATATTAACGGCTTTAAGCTCTGTTGGT
TATGATATCACTGCTTTATTGGCTGGTTTAGGAGTAGGGGGTTTAGCTTTAGCTTTGGCT
ATGCAAGACACCATAAAAACTTCATTGCTGGGATTTAATATTGATTGACAAACCTTT
AGTTTAGGCCATTGGGTTAAAGTTAAAGGGGCTGAAGGGATTGTAGAGGAGATTGGAATA
AGAAGCACACGAATTAGAAGCTTTGATTACACTTTAATAACTATCCCAAACTCAGAATTG
35 TTGGATTGAGCCATTGAAAACCTTAACAGTTAGAGATAGAAGAAGGGTTTTAATGACTATC
GGTTTAACTTATAACACACCGGTAGAGAAAATTAAGAGGGCTAAGGAGATAATAAAGAG
ATTGTTGAAAATCATCCAGCTACTCTCCCTCCATATAGAGTGCATTTTAGGGAATATGGA
GATTGGAGTTTAAATTTGAGGGTAGAATACTTTGTTAGAAACATGGGATTTGATTACTAT
TTAAATGCCGTTGATGAATAAATTTGAAGATAAAAGAGGAATTTGAAAAGAAGGGATA
40 GAGATGGCATTCCCAACATATACTGTTTATTGGAGAAAGATAACTAAGAGGCATCATCG
AGCAAAGCGAGATGATGCATCCATTTTGGTGAAGCTTTTACTGAAAGGTTTCATTGAGAG
GGCGTTCCCAACATATACGGTTTATTGGAAAAGGATGATAATTAATTTTAAATCAA
GATAATTAATACATCCTAAATAATCTCTTAATTTTATCTATAAAGCTTCTTTCCTTATT
ATTTTAATTTTCACTTCAATGTAAATAGGAACTCCTGCTATTATTGAAGCTAAGCTTCTA
45 TAAGCTTGAGAAGCTGGAGAATCTTTCTATATTCAATAACACTCATCTTTTAAAGCT
GCTGACCTAACATTTTCACTCTCAGGACTTCACTAAAACCTTTACCTTTTATTAACATT
TCAATCTCATCTCTACCCATTTTACCATAAATCTTACCAACCTTATTAACACAACACCC
ATTAAAGGTGTTCCAGCCATTTTACGACTTTCTTTTAAATCTAACAGCGTCAATAATTGAG
AACATCTCTGGGGTGACAACAAGTAAAGTTTATCAGCAATAGCTAAATGAGTAGCCATT
50 TCTCTATTTAACCAGCTGGAGCATCTATAATTACATAATCAAAATCATCAGCTACCTCA
TTAACCACATCTGGAAGTAAATCAATATCTGATTTCTTATAACCTTCTAAGACAAACTC
GTTGGCAATACATAAACTCCAGTTTATGTTTGTAATTTGCATCCCTAACATCTGCCTCT
TCACTCAAAACTTTCATGTAAAGAGGGTTTCTTTTCCATATTGAATAGAATCCCTAAA
TTAGCCATTGATATGCTCCATCAATAGCTAAAACCTTTTTTCCCAATTTAGCAAGTGCT
55 ACTGCTAAAGATGCTGATGTTGAGTTTTCACACCCCTCCTTTACCCGAAGCTATAGTA
ATTATCATAAATATCACAAATTAAGCTTATTAATTTATGTTTATCTATCTTTTATAAAT
TATATTTTAAATTTGTGACATACATTATAAATAGTGTTTTTTATAATTTTAGTGTCACAC
TTTTTAATACCTTCTTTATGTGTGGGAAAATTTTCCAAAGACTTTCACAAAAAATGAAAA
TGACCGAAAAGTTTAAATAAAGGATTTTATAACAGTATTTATTGGAAATCTATTGTGAGG
60 TGGTATTATGGCTGAGCTTCCAGTTGCACCATTTGAGAGAATATTGAAAAAGGCTGGTGC
TGAGAGAGTTAGCAGAGCAGCTGCAGAATACTTAGCAGAGGCTGTTGAAGAGATTGCATT
AGAAATTGCAAAAGAAGCAGTTGAATTAGCTAAGCACGCAAAAAGAAAAACAGTAAAGT
TGAGGATATAAATTTGGCTTTGAAGAAATAAATTTTATTTTAAATTTTAAATTTTAT
TATTAATATTTTACTTCCTTCCAAAACCTTTAGAATCTTTTGTATTTTAATTTATATTC
ATTAATTTATATATTTATTTAAACGGTGGAAATATGCACAAAAGAATAAAAAATATAAAA

5

10

15

20

25

30

35

40

45

50

55

60

TATGCGGTAGTTACTGTAAGTGATAGTAGATATAATGATTTAATTAAGGGAAAAAGAAGTA
GATGATAAATCTGGAAAATTATTAAAAAAGAACTAAACGCTAAAGTATATACAATAATC
CCCGACAACAAAAATATGATTAAAGGAATAGTTGAGCATATAGTTGAATTTTTTGATGTA
GATTGTATTGTTTTACAGGAGGAACTGGAATAGCTGAGAGAGATGTCACTGTAGAAGCA
TTGAAAGAAATTATTGAAAAAGAGTTAGATGGCTTTAAAATTATTTTTCAAAAATAAGT
TATGAGGAAGTTGGATTCTCAGCCATGCTATCAAGAGCTATGGCTGGAATTTATAAAGGg
AAAATCATATATGCCCTCCCAGGCTCAGTAAATGCATGTAGAACAGCATTAAAGATAATT
AAAGAAGAAACAGGACATATATTAGGACATTTAAGAGAGGGATAAGATGAAATTTTTGTT
AATAGCATCAAATAAAGATTAGCAAGTAAAAACATAGCTAATCATATAAAAGAGTATTT
TGATGTTTTTGAACTGATAAGGAGCTTTTATCTCTAACTGCAGAAGATTTGGAGTATGC
AGATTACTATATATTTTTATCAAAGCATAAAAGTATTGCAATAAACCATCCCTAACAGT
CCATACGCCCGGAAATTTAACTGAAGATAATACTTTTGGAGGAAATCCCTAAGGAAGTTG
TCCATGTGATGCTGTTTTAAATACTCTTTTATTAATAAACATTTACAAAAATTACAAAAC
ATACTATGAGGATGGGAAGATTGGAGAGTTTGATGTCTCTTTGAGGTAGTTCATCACTC
TCCAACCGGTTTAAAAGCTCCAACAGTATTTGTTGAAATTGGAAGTAGTAAAAAGAGTG
GATTTTAAAAGAGGCTGGAGAGATAATTGCTAAATCTGTTTTGGAACAATAGATGCAAT
GAAATCCAAAAATTATGATAAAAAAGTTAGAGCTATTGGCTTTGGTGGAGGGCATTATGC
TCCAAAATTTACAAAACCTTGCTTTAGAGGATAAATATTATTTTGGCTATTTAGTTCCAAA
ATATGCCCTCAGTGTCTGAGGATGTTTTAAATCAACTTATCAGTAAGATGGAAGTGGATAA
AGCTCTTATTGATTGGAAGGGATGTAGGGGAGATGATAAAGGAGATATATTGAATTTTT
TGAAAATAATGGAATCGAATGGGAAGAGTTTAAATGTTTTTCTAAAAGTTTTGGAGGG
AATTGAATGGGAAAAAATTTAAGAGATTTACTTTTAGCATTTAAAAATGGAGATATAAGC
TTAGATGAAATTGAAAAACAGATAAAGCTTAACTATTATGAAGAGATTGAGGAAAGATTA
AAGTTGGATATAAACAGGCGATTTAGGACAGGAGTTCCAGAAGTTGTTATGGTAAGGGA
AAAGATATAGATGAGATAATTAAAGCCACGCTAAAACCTGTAGAAAAAATGGCATAGCG
TTAGCAACTAAAATAGAAGATATTGAAAAACTTAGTGACGAAATAGGAAGTGGAAATTTA
AAAACTACGACATAAAAAATTAACAAAAAGCGAAAACATTAATAATAAAAAATAAAAAAC
TATGAAGTAAAAAATAGGTAAAGTGGGTATATTAACAGCAGGGACCTCAGATATTCCA
GTGGCAGAGGAGGCAAAAGACACATTAGAAATAATGGGAGTTGAAGCAATAACTGCTTAT
GATGTAGGAATTGCAGGCATTCACAGGCTGTTTCCAGCTTTAAAAAGAATGATTGAGGAA
GATGTTTGCTGTATTATTGTTGTTGCTGGTATGGAGGGAGCTTACCTTCAGTTATCGCC
TCAATGGTTGATATTCCTGTTATTGGAGTTCCAACATCGACATCTTATGGGATAAAAAAT
ACGCCTCTGTTAACTATGTTGCATTGTTCTCCTGGAATAGCGGTTGTTAATATTGAT
AATGGATTTGGAGCAGGTGATTGTCAGGATTGATAGCTAAGATAATGCATAAGTAATAA
AGATAGATGAGGGAAAAATATGATAAAAGTTGTTGATGGAGAGTATGTAAAGACATTATAT
GAAGGAAATTTAGAAGAGATAATCAATGAGATAGACACTGGATATATTTTAATTTAGTT
AAAGAAGGGAATAAATTACATGAGGGTTATATCTTTGTTGAAGATGGAAAAATTTGTTGGA
TGCTACTACCCGATAGTGAATCTACAGAGGTTTTTGGAAATAAAGAAAAAGTTATTGAA
CTGTTAACTACGAAAACAAAGTTATAGATATCTACAAATATAATAAAGATAAAATAAAT
TTAATGAAATGGCTATATCCAGAGATTTTTGCATGTAAAGACACAAATAAAGTATCTGAA
AAAAATGAAGATATGAGTGAGAAGAGAGACATAGTTGAAAAATATCTCAACATAAAATTG
GACATACCATTTGGATAATTTAATAGAGGCAATACAAAGGACTTTGAAAAATACCTTAGAA
GATAATAAATAATTATTATAAATGCTTATAGAAAAAAGATGGCAATTTGAGAACGGT
TATATAATATACAAAGGACAAACACCAATAGCAGCGGCTTATGAATGTGACTTAGGAGTT
TTGTTAGGAAAAGATGCCTATGAAAAATTGGAAGAAATGTTGAAAGATGAAAAATACAGTT
ATTGATGTTCTATGAGTATAATGAGAAAAAACACATGTTATATTAGAAGTATACCCACAA
ATGAAAAATCTGGATGAAAACGAAAAATAAAGTAGTGAAAAAGCGGATAGTTTAGAAAGT
GAAGGTAGTATAACAACCTGCTGAAGAAATAGAAGAAGATCAACAGTCTCAAGAGAAGAA
CTGCTAAAAAATTTGGGAATAAAGAGCCAGATGAGAATTGGATAGAGACAATATTAGAA
GATGTGTTTAGACCTTCAGATGAAGAATTGGAAGAATAAAGAAAAAATTTAGAGTGAG
ATTGTTAATAAAGTTAAGAGGATGGAAGGTGTTAGTGATGTTTTAGTTAATCTTAAGATT
AAGTGGGAGAATGGTAGATACTATATATTTGGGGATGTTAATGTAAAGAGAAAAAGATC
TTGGGAATTATCAAAAAAGATATAGACCTTCAATTGTTAAATTTGAGATTGACAATACA
ATTAAAAATATGTATCCAAATATACCTCAAGGATAAATATTAATATAGAGTAATAAAAT
AAAAAGCAAAATATTCAAATAGAAGAAATGAAGAGGTATTAACATGGATGCGATAATAATT
TTTTTAATCTTTTTATAGTTGGGGTCTTGATTGGTGTAGGAGTGTATTACTATAAAGAG
AAAGAAAGAAAGAAAAACGTATAAGATTATTGAAATGGAAATTATCGAAAACTTAAAGAA
TTAAACCTTATGTAGCTCCAGATGAAGGTAGGGAATATACAAAAGAATTTGATTGGTT
GAAATAGCTCTTTCTATGATATAGAAGATATTATTGTTGTTAATGATGAGGCTTAGTT
ATAGCCACTACATTAAAGGATGCTGATGAAGTTGGAGCTACTGCATCGAGCATATTTGAA
TATATTAAAAACTATGTGGAATATAAAAAAGGTCGTTATATTTAAGGAAGATAGTTAT
CTATACATCTATCCATTAAACCTTTATGGTGAAAACTGTATGTTATAATAGAGTCAAAA
ATAGCCCTTGACGTTATAGAAGAGAAAGAAATACTGAAAAGAATAACAGGAGTTCTCAA
AAGTATTTCTCAACAATTACAACCATAGAGCAAGAAATTCAGAGGAGGCATTATTGAGT

5
10
15
20
25
30
35
40
45
50
55
60

ATTTAAAAATTTTATAATTTATATTGGCAATATTGTTCTCTAACAGGAACAAAGGTTGG
AATCTTTAATGTCTTCCAAATAGTCATAGCGAATGATAATGATTGATATCTCTCCCCATG
CATAACTATAGCTTTTTCTGGTTTAGGAATCTTCTTTATATATCTAACTAATGAATTATA
ATCACCATGAGCAGAAAATTCTATTTTAACTTTTCCCTTATAGGGATTTATTTTT
AAATGGCTGAATTTCTTTAGCTCCCTCTTCTAATTCCTTCTAATGTTCCTCTGCCTG
ATAACCAGTTAATATAAGCTTGTTTTTGGGTCTTCAATAACTTTAAATATTTAATAC
CGTCTCTCTTGAACCATCCCTGAAGTTGAAACAATAATACAAGGCTCTTTATTAATAC
TAAGCTTTCATCTGCCTTCTTTATCTCACCAATGGATTAATTCTATTCTCAACCATATT
TTTTATTTTTGGATTTAGCCAATTTATATAGCTCATATAAACAGCAGTTGCATGAATTAG
GGAGCCGTCAGTATATATTGGCACATCCCTTAACCTTCCACTTCTAATATAGTTGTTTAT
AATCAACAATATCTCTTGAGCTCTACCAATTGCAAAACTGGGATTATTACTTTTCTCTCC
ATTTTCTATTGTTTCAGATATTTCTCAATTAATTGCCTCTCTAAAGTTTTCTTGCTGG
CTTTATATCCAATGGAGATCCATAAGTAGATTCTATAATTAGGACATCAATCTCATCGAT
ATCTGTATCTGCAGGGAGTAATGTTCTTGAACCTCTTCATTATGTCCCGATGATAGAG
AATTTTTTTCCCATCCACTTCCAAGTATATGGAAGCACTTCCCAATATATGCCCGGCATT
GTAAAATTTAAATTTAATGTTTTAGTTATTGCTTTCTCATAGTAATTTAGGCACTC
AATATTTCCATAGCATGCTGAATGTCTTCTTTATAAGCTTTTGTAAATTTAGAGT
ATCTCTCCAAGTTATAAACATTAAATCAGCTGTTGGATGTGTGCAATAAATCTTTTTGAA
TTTATAAAATGGGATTGCTCCACAATGGTCAAGATGAGCATGGGAAACAATAACTGCATC
TACTGCTTATCATCTACCTTAGGTATTTCTCCAGTGTCTGGAGACATTCCGCAATCCAA
TAAAACCTCTCCCTTTTTGTGTTTCTACCTCAACACAACCTCATCCCAATTTGCTGGCAACC
ACCATGAAACTTTAATAAAACCATACTACCATCCCAAAAATTTATATATATTTTATTGCT
ATAAATCTTATTACCCAGGCAAGAATAGGAAACCAAAAATTAAGTTAAGATTAAAAGAA
AATTTTCATAGTTTTTCGTAAAGTTGTTAAATTTAGTTATGAAAAATTGAACACCTCTA
TCGAAAGACATTTATTATGTCTTTATCTTTAGAATATTTGCAAAAACCAATAATTTAGA
TGCCAAATTAATTAACAAAAGAAAAATTAAGCTTGTCTATCTCTATCAAAAATATGCAAA
TCAAAAATTTAGGTATCATATAATTATTATATGGTGAGTTCTACTAAATATCTATTTTATT
ATTTTTAAATCTTACTATAAAAAGGATTGGTGAATATAATGGAACATAGGCATGTCTCT
CCGCGTTAGTTTTAAATAAACAGGAGTATTGCAGAGAATTTAGGGTTATTTACAAGGA
GaGGGTTTAAATTTCAAGTATTACAGTCGGAATAACAGAGAATCCACAAATTTCAAGAG
TTACGATAGTTGTTAATGGAGATGATAAGATATTAGAGCAGGTTATCAACCAACTCAACA
AATTAATTGATGTTATAAAGGTTAGTGAGTTAGAGGAAAAGAAATCCGTTCAAGAGAGGC
TCTGTTTAAATGAATTTATGCACCAACAGAGAGTGCAAAATCACAAGTTATTCAATATA
CAAGCATATTTAGAGGAATGTTGTAGATTTAAGTCCAGAATCTTTAATTGTAGAGATAA
CTGGTAGTGAAGATAAAATAAACGCATTTATTGACTTAGTTAAACCATTAGGAATTAAG
AAATGGCAAGAACTGGAATAACTGCCTTAGCAAGGGGACCAAAAATCTTAAACCAAAAA
GCTAAGTTTTAAAAAGACCAAAATAAGGTGGAACATGAACGATGACGTTAAATGAAGT
GTGGTTTGGAATGCACGTGAAAATTTAATAAGTTTCATCAAACTAACACCTCTCTCGC
TTACGCTCGGAGGTGTAAATTAATTTAATGGGTGGAATATGGAAGATGTTAAATGA
AGTGTGGTTTGGAGATACATGTTCAAATTGATACAAAATCAAAATTTATTCTGTAAGCT
CAACGAATTTATTAGATGCAGAGCCAAACACGAATGTTTGTCTGTCTGCTTGGATTGC
CTGGAGCAAAACCACTCCCAACCAATAAAAAAGGCAGTGGAAGTTGCAATAATGGTTGCAA
AGATGCTTGGTTGTAAATAGTTGTTGATGAAGATATTTACTTCCAAAGAAAGCATTATG
ATTATCCAGATTTACCGAGCGGTTATCAGAGAATCTCAACCCCTATTGGAGTAGATGGAG
AGTTTATGGGTATTGGAATACATGAGGTTCAATTAGAGGAAGACCTGGGCAGTACAACC
CAAGTTTTGGAATTGTTGATTATAACAGAAGCGGAACCCCACTAATTGAGATTGTTACAA
AGCCAGATATAAAAAGCCCAAGAAGCAAGAGAATTTTTAAAGCAATTGATGACATTAT
TCAGATACCTTGCTGTTTAAAGAGGAGAAGGAACAATGAGGGCTGATGTAATATTTCCA
TTGAATATATGGGAGTCCAAGGAAATAGGGTTGAGGTTAAAAACGTCAATTCAATTAAG
GGGTTTTATAAGTTCTAAAATATGAATTAATCAGACAGAAAAACATTATTAAGAGGGG
GAGAGGTTAAAGAGAAACAAGAGCATTCCTAGAAAGTCAGATGATAACTAAGGCAATGA
GAAGTAAAGAGACTGCTGAAGATTACAGATATATCCAGACCCAGACATTAGCCCAATAG
TCATCTCTGAAAAATGGGTTAAGGAAATAGAGGAAAAATGCCAGAAACACCATTAGCTA
AGAAGAAAAGATTTGTTGAAGAGTATGGTATTGATGAAGAGGATGCTAAGGTATTAGTTT
CTGACTTAGATATGGCTGAAATGTTTGAAGAGTTGTTAAATCCTTAGGTGTTAATAAGG
AAAATGTTGATTGGCAGTTACATGGATTAGAAATGAGTTGAGGAGGTTTACAGTATC
ACAAAGTAGATTTGTATGAGAGTGGGGTTAAGGCAGAGCATATAGTTGAATTAATAAGC
TAATTAAGAGAGGGGTTATATCTCAAAAAATAGCTAAAGAGATTGTTGATTGTTGGTTA
TAAATAGAGGAAAGAAGATGCCTAAAGAACTCGTTGAGGAGCTTGGATTAAACAGTTATTA
GAGATGAAGACGCTTTAGTTAAAGCGGTTGAGGAAGCTATTAACAACTCAAGGCAG
TTGAAGATTATCTAAATGGTAAAAAGAGGCATTGAACCTCTTAATGGGGCAAGTAATGA
GATTAACAAGGGGAAGGGCAGATCCAAAGAGAGTCATTGAGTTATTGAAGAGAGATTAG
ATAAATAAATTTTATTATTCTTTTTTTTAAATAATTATTTTTTAGGTGATAATAATGGCA
GACCTTGATAGGAAGTTAATAGAAATTTTAGATATTTTATCTAAATCAAAAGAGCCTGTA

5

10

15

20

25

30

35

40

45

50

55

60

GGGGCTAAAATTATAGCTAAAGAACTTAATAAGAGGGGTTATAAAATTGGAGAGAGGGCT
GTGAGATATCATTTAAAGTTATTGGATGGGATGAAATTAACAAAAAAGTTGGTTATGCT
GGAAGGGTTATAACTGAGAGAGGTTTAGAGGAGTTGGAGAAAGCTAATATATCTTATAGA
CTGGGGAGTATTTACTCGAATATATTGGAAAAACAATATCTGCCAACTATAGGTTTGGGA
TATGTAGTTATCAACAGATGTCAGGTTTATGCAGACTTTAATGATGTGTTAAAAATAATA
AAAAGTGTCTATGAGTCTGGTTTGGCTGTTGGGGATAGAGTTGGAATTATAGATAGGGAA
AAATTCGTGGAAATAAATACCCCTCTGCTCATTAACTTTGATAATATCCTACTACAAAAT
GGCATTTTTCCACTCCATGTATGTGCTGGAGTTGTTAAATATGAGGATGGAAAAACCAGTA
GAATTTAAAGAAATTATAGATTACAAATCTACATCTATAGACCCATTGAGAGCATTATT
GAGAAGAAAGAAACAGATGTTATGGGTATTATAGAGAATGGGGAGGGTTATTTACCAGCA
AACTTTAGATACTTTGGAGTTGAGTTTTTGGAGAGATTGAGACTATATTGGAGATAGAT
GAATTTAAATGTATTATTAGTTATGGGACAGAAAATGTTTTAGGATTAGATGTTGGAGAT
GATAAGGTGGGAGTCGCTTTAATTGGAGGTCTAACACCAATAGCTCCATTGTTGAAAAAC
AACTACTGCGTTGAAATTTGTCCAATGTCATCAATTGTTAGATTAGAATCTCTCCATAAG
CTTAAAAAGAAATCCAAGGGATATAGTAACAAAGAGGCAATATAAGAATAAAAAACCGCT
TTATCAAAAATGTTCAATGCAATGGCAAAGGTAACCTATGATATAGATGAAGCTGATGGA
GATGTTATAGTAAATACTGCATTATCGATAAAAAATACCTTGATGAGGCATTGATATA
CTAAAAGAGGCATATAAAAAAGGTTTAGGCATATCCGACAGATTGGAATGTTGAAGAA
AATGATAGGATAAAAAATCAACCAATCTGTGCTGTAACCTTAGATGGAATATTTTAAGA
AACTCAGTTCCCTCTCATACCAAAATATCGGGGGGATTTTGGAGATAACTGAAGATAAGGAG
AGGTTTATTGATATAATTGGTTATGATGGTTCGTCATTAGACCCCTCATGAAGTTTTCTTT
AATTTTGTGATTGTGAAAAACATTTTGGCAGGATTTAGGGAAGTGCATAGAGTTGCA
AGAGAGAAATTAGAAGAAGTTTAAAGAAATTAAATTGGAATGGTATTAAAGCTATAGGA
GAGCCAAACAATGAACTTTATGGTATTGGCGTGAATAAAGACATGTGTGGAGTTGTAACA
ATGGGGGAATAAATCCCTTAGTGTATTGAAAGAGAATGAAATACCTATTGAGTTAAAG
GCAATGCATGAAGTTGTTAGATTTTCAGATTTAAAGAGTTATAAGGAGATTTAAACTCAT
ATATCCTAAATACTCTCATTAAAGTGGGGCTGAACGAAGTGAAGCCnGCTCGGGTATCC
CAATAGGGGCTTCCCTATGGATTTAAAGAGTTATAAAAAATTTAACCACAATTAGTGA
TATAAAGGAACTTTAACTTTTTAAGATTTAAAGCCATTTTATTGATTCAACTATTGC
CTTTATTATATAATTATCATCAATCCTTTCAGCATCCCTTGATGTTAAATCAATCCTTAA
ACTTTTACTTGGCCCGCATACCTGCCACGGTTATAGTTATAATCCATAATTTTAA
CAAATTAACCCCAATCTCAATGAGTTTTTAAATATTATAGTGTCTCTTTATAAACTCT
TTTTATTACAAATCCCGTTGGTGTCTTTCAATAAACAATATTTATATTATCATCTATTGC
CTTAAGCTCTTTGTTAATTTTCAATCTTAGATAAATCAAAGTTTTTAGCCCTTTCAA
TGCTTTTCTAATTCTTTCTAAGTTAAAGTTTTTAAAGCTCTATATATACCAGCCAATAA
AGGGGGCTGAGCTTCTAAGCCAACTTAGTGCCTTCAATATATATCTTATCAACAAGTTC
CTTTTTTCCAGCTAATAAACCTCCCTCGGTCTTCCATAAGCTTATCTGTGCTTGTAAAC
TACCAAAATCAGCTCCCAATTTTAAATGCTGGAGTTGATTAAATAACAACCTAATCTCGC
TCCAGAGGCATCATCAACAAAGACAATAGCTTCTTTATTTTAGCTGTATTAATAACTTT
TTAAAGTTTTCAAGTTCAATAACTTTCAAATCCATTGTTGAACCAGTGATAATAACTAG
AGTATCTTTATCTATTTTATTTAAATCTCTCTACTTTATCAGATTCAAATACTTAGC
ATTAACAATTTTACAACCTCTCTCTATTGATGGATGTCCTGGAAGTTCTGGTAGATAGTG
GATAACTTTTTTGGTTTTAATGCCAATATAGTGGCTAAATTTGCCGATGATGTTCTATT
AAAACCAACACATTTATCATTTCTCATCTCCACCTAAATGTTTAAAGCCATATTCATTAAAC
CTTCTCTGCAAAGTAAGATGACCCCAATGTAGGTATTAAATAAGCTTTATCTTTTTCATC
TATTAAAAACCCCTCTGACAATCCACTTAAGTCATACAATGCATCTCTACCCTTTTCATT
TAATATTTCTAAGATAATTTTCTTGCTTCTCTAATCTTAAAAACTCCTCATAGTCGGA
GAGCATTAAATCACCAATACAAGTTTATAAAAAATTTAAAAAATTTAAAAAATAAAGGAA
AATAATAATGATTTATCCAGCCCCACAAGCATCTCCTAAATCCAGGTCTATTAATTTTCC
TTCTTCTAATCTCTTTTTCTAATTTCTTAACGACTTCATCAATATCTTCTTTCTTTCT
TGTTATCTTCGACTTATCGATAACTCTCAATAGGTGCGGTCTATACATTAAATGTTATC
TAACACAACCCCAATGTCTCCATTTTCTGCTTTTCTTATATCTACAACCTCTCCTTTTGT
TCCAGTATTTATATAAACACATAATCTCCAACCTTAAATATTAACCTTCATCCATGTATCC
CACGCTCCAAATATTTTATAATAGGACTTTTCGCAATTTATATATTGAATTTGGAACCTAG
ACACCCAGAGGGTGTCAATACGCAATAAAAAATTTATTCCTGCGAAAGTCTATTACAAT
AATCTTCTCTCATAGCATGTATTAATAATTTATTCAAATTATTGTTCTATTCTTAAAAAC
GTTGCATATAACAACCTCTCGTTATAGGATGCATTGAGGGATGCGTCCCAATCCGGAG
GGGTTGGGGCTGAGGCAAGCCACGACTGGTGGTGAACCCCGCAGCAACCAGCCGCAAG
AAAGGTTTATCTTTCTTGGCAGCGTACCTCCCACTTAATTCGGTTGATCCTGCCGGAG
GCCACTGCTATCGGGGTCGACTAAGCCATGCGAGTCAAGGGGCTCCCTTCGGGGAGCAC
CGGGCAGCGCTCAGTAACACGTGGCTAACCTACCCTCGGGTGGGGGATAACCTCGGGAA
ACTGAGGCTAATCCCCATAGGGGAGGAGGTCTGGAATGATCCCTCCCCGAAAGCGTAA
GCTGCCCGAGGATGGGGCTGCGGCGGATTAGGTAGTTGGTGGGGTAACGGCCACCAAGC
CTACGATCCGTACGGGCCCTGAGAGGGGGAGCCCGGAGATGGACACTGAGACACGGGTCC

-494-

AGGhCCTACGGGGCGCAGCAGGCGCGAAACCTCCGCAATGCGCGAAAGCGCGACGGGGG
ACCCCGAGTGCCACGCCCCTGCGTGGGCTTTTCCGGAGTGTAACAGCTCCGGGAATAAG
GGCTGGGCAAGTCCGGTGCCAGCAGCGCGGTAATACCGCGGCCCAAGTGGTGGCCACT
5 GTTATTGGGCCTAAAGCGTCCGTAGCCGGCCCGGTAAGTCTCTGCTTAAAtCTGCGGCTC
AACCGCAgGGGCTGGCAGAGATACTGCCGGGCTTGGGACCGGGAGAGGCCGGGGGTACCCC
AGGGGTAGCGGTGAAATGCGTTGATCCCTGGGGGACCACCTGTGGCGAAGGCGCCCGGCT
GGAACGGGTCCGACGGTGAGGGACGAAGGCCAGGGGAGCAAACCGGATTAGATACCCGGG
TAGTCTTGCTGTAAACTCTGCGGACTAGGTGTCgCGTGGGCTTCGGGCCGACGgGGTGC
10 CGAAGGGAAGCCGTTAAGTCCGCCGCTGGGGAGTACGGTCGCAAGACTGAACTTAAAG
GAATTGGCGGGGGAGCACTACAACGGGTGGAGCCTGCGGTTTAAATTGGATTCAACGCCGG
GCATCTTACCAGGGGCGACGGCAGGATGAAGGCCAGGTTGACGACCTTGCCAGACGCGCC
GAGAGGTGGTGCATGGCCGTCGTACGCTCGTACCGTGAGGCGTCTGTTAAGTCAGGTAA
CGAGCGAGACCCGTGCCCATGTGTCTACCTCCTCCTCCGGGAGGAGGGCACTCATGGGG
15 GACCGCCGGCGCTAAGCCGGAGAAGGTGCGGGCAACGACAGGTCGCGATGCCCGAATC
CCCTGGGCTACACGCGGGCTACAATGGCCGGGACAATGGGACGCGACCCCGAAAGGGGA
GCGAATCCCTAAACCCGGTCGTAGTCCGGATCGAGGGCTGTAACTCGCCCTCGTGAAGC
CGGAATCCGTAGTAATCGCGCTCACCATGGCGCGGTGAATGCGTCCCTGCTCCTTGAC
ACACCGCCCGTCACGCCACCCGAGTTGAGCCCAAGTGAGGCCCTGTCCGCAAGGGCAGGG
20 TCGAACTTGGGTTACGCGAGGGGGCGAAGTCGTAACAAGGTAGCCGTAGGGGAAGTGG
GCTGGATCACCTCCTGAGAAAAAGCGCTGGTTGCTGCGGGGACCAAACCAAGTCTGGG
CTTGCCCTCATAGGGAAGTGGGCCGCTAGCTCAGCTGGGAGAGCGCCGGCTTGCAAGCC
GGAGGCCGTGGGTTCAATCCACCCGGTCCACTATATATGCAGCCTGCAACTCCAAAGA
GTTGCAGGTGAAGGGCCTGATACGGGACTTTCGAGGAAATAATTTTATTTGGTAATTG
25 ATqCTTTCAGCATCTCACTACCTTATAAATATTACAACTGCGAAAGTCCCGTAAAAACA
TGAGGGCCATGCATAGGCTTCCACATCCCGGTGAATCTGGATACTCTGCCGGGCCACCA
GCCCACCTGGTGGATGGCTCGGCTCGGGGCGCCGAGGAAGGGCGTGGCAAGCTGCGATAA
GCCCGGGGAGGCGCAGGCGAGCCGTGGAACCCGGGATCCCGAATGGGACTTCTGCCCC
ATTTGGGGCGCTCCCGTTAGGGAGCGGGAACGCGGGGAAAGAGCATCCGAGTACCCGC
30 AGGAAAAGAAACCAACAGGGATGCCGGGAGTAGGGGCGACCGAAACCGGCACAGGGCAA
CCGAATCCCTACCCGTAAGGGTAGGGAGATGTGGAGTTGCAGGGCCCCCAATACAGACCC
CCACTGGGAAGCCGAAGTCCCTGGAATGGGGCGCCATAGAGGGTGAAAGCCCCGTAGGC
GTAACCAAGTTGGGGGTCTTGGGGTGTCCTGAGTACCGCGCGTTGGATATCGCGCGGGAA
GCTGGGAGACATTAGGCTTCCAACCCATAATACGTCCCGAGACCGATAGCGAAGTATG
35 CGTGAGGGAAAGCTGAAAAGCAcCCCTTGCGGGGGGTGAAAAGAGCCTGAAACAGGTGG
GTACGGAATGGCAGGCCCGAAAGGTAACACCCCGAAGGAAACTCCCGCGAGGGAGGAG
TACGAGGGGTGGCATGCCGGGGTCTGTCCGTCCGTTTCGAAAAACGGGCGGGGAGTGTA
CGGGTGTGGCGAGCCTAAGGGGTTCAACCCCGGAGGCGTAGGGAAACCGACATGCCCGCA
GCCCTTATGGGTGAGGGGCGGGGTCTTAATGGGCCCGGAGTCACACCCGTACGACCCGAA
40 ACCGGGCGATCTAGGCCGGGGTAGGGTGAAGCCCTCGCCAGAGGGGTGGAGGCCCGCAG
GGGTGTACCGCAAGTGCTCCTCTGACCCCGGTCTAGGGGTGAAAAGCCAATCGAGC
CCGGAGTATAGCTGGTTCCCCCGAAATAACTCGCAGGTTACCCGGGGGTAGGTAGTGG
CGGGGTAGAGCCACGGATAGGGTGTCTAGGGGGCGAGAgCCTCGGCACCCTGTCAAACCTC
CGAACCCGTATCGCCGTAGCCCCCGAGTGAGGGCATAACGGGTAAGCCGTATGTCCGAGA
45 GGGGAACAACCCGACCCGGGTAAAGGCCCTAAGTGCCGGCTAAGTGTAATGAGAAGG
GAGTCCCTGGCCTAAGACAGCGGGGAGGTTGGCTTAGAAGCAGCCATCCTTTAAAGAGTG
CGTAACAGCTCACCCGTGAGGTCAGGGGCCCCGAAGATAACGGGGGCTAAGCCGGCCGC
CGAGACCCGGGGGGGTGAAAAGCCATCCCGTAGGGGGGCGTCCCGCGGGGTAGAAGCT
CGGCCGTGAGGTGGGTGGACCCGTGGGAACGAGAATCCCGGCAGTAGTAACAGCAAAG
50 TGGGGTGAGAATCCCCACCGCCGAAGGGGCCAGSTTTCCACAGCAACGGTCTGTCAGCTGT
GGGTAGCCGGTCTTAACCCCGGGGTAATTCCCTGGGGGGGAAAGGGAAGCGGGTTAAT
ATTCCCGCGCCACCGGGGTACGTGCGGCAACgcAAGGCCAGCTCCTGACGCTTCGGGGTA
GGCCGACACCCCGTCCGGGTGGCCAAGCGCATAAGCCCGGGGAGTGCCGTAATGGCGA
GAACCGGGCAAAAGCGTGATGGGCCCTCCGTTAGGAGGGTTCGGCTGAGCCCTGGAGCCC
55 GTGAAAAGGGAGCTGGCAAGGATCCCGGTGACCGTACCCAGAACCGACACAGGTGCCCC
TAGGCGAGTATCCTAAGGCGTGTGCGGAGAATCCGGCCAGGGAAGTCGGCAATTTGGCC
CCGTAACCTTCGGGAGAGGGGTGCTGCGGTCTTCTCTAAGTGAGGGGACCGCaGtcGCA
GTGGCCAGGGGGGTCCGACTGTTTAATAAAAACACAGGTCTTGGCTAGCCCGTAAGGGTG
TGTACCAAGGCCGACGCTGCCAGTGCCGTTAGTGAACCCGGGTACAACCGGGCGAA
60 CCGCCGGTAAACGGCGGGGTAAGCTATAACCCCTCTTAAGGTAGCGAAATTCCTTGTGCGG
TAAGTTCGACCTGCATGAATGGCTAACGAGACCCCACTGTCCCGGGCCGGAACCCGG
TGAACCTACCATTCCGGTGCAAAGGCCGAGACCCCACTGGGAAGCGAAGACCCCGTGG
AGCTTTACTGCAGCCTGTCTGTGGGGCATGGCCGTGGGTGCACAGCGTAGGTGGGAGCCG
TCGAAGCCACCCCTCCGGGGGTGGTGGAGGCGCCCATGGGACACCACCCACCCATGGCCA
TGTCCCTAACCCGTAAAGGGGGACACCGGCAGGTGGGCGAGTTTGGCTGGGGCGGCACCC

CCCTGAAAAGGCATCAGGGGGGCCAAAGGTCGGCTCAGGCGGGTCAGAACTCCGCCGTG
GAGTGCAAGGGCAAAGCCGGCCTGACTTGGTCGGTAAAGAGGGCCGACCAAGAGGGCGAA
AGCsGGGCTAGCGAACCCTGTGCCCTACCGATGGGGGCCAGGGATAACAGAAAAGCTA
5 CCCCAGGGATAACAGAGTTGTGCGGGCAAGAGCCCATATCGACCCCGCGGCTTGCTACA
TCGATGTCGGTTCTTCCCATCCTGGGCCTGCAGCAGGGCCCAAGGGTGGGGCTGTTCCGC
CATTAAGGGGATCGTGAGCTGGGTTAAACCGTCGTGAGACAGGTTGGTTGCTATCTGC
TGGGGGTGTTGGCCGCTGAGGGGAAGGTGGCTCTAGTACGAGAGGAACGAGCCGCCGGC
GCCTCTGGTCTACCGGTTGTCCGACAGGGCATTGCCGGGCAGCTACCGCTAAGGGATAA
10 GGGCTGAAGGCATCTAAGCCCGAAACCCTCCCCGAAAATAGGCGGCCAGTCTTCCGGGA
CGAGGGCTCTCTATAAGAGGAGGTTGATAGGCCGGGGGTGTAAGCGCCGAGGGCTTTGC
CCGAGGGCTTCAGCCCGCCGCTACTAATCGCCCAAGGGCCCGGCAGGGTATCCAGACACT
AAGCGGATGTGGAAGCCTATGCATGGCCCAAAAAAGGAATGGAATTCTTGAATGGGTT
ATATGGGTGTATAGTTATTATTTATTTTATCACATTATATCAATAAATTTAATATACA
15 AATAAACTGAAAATAAAATTTGTAAAAGAGATAAAATTAATCTCTCTTTCTCTCTT
CTTTCTGGCTCTCTCTTTGTAAATAATTATTTTTCTGCTTTAATTACTGCATTGTATAA
GACTATTTTTATTCCTGGTGAAGCCAGCAAATGTTCTGGAAGAGTCATAGTTGGTAC
TTCAATTCCTTCAACTCTTCCATCTCTTCTTCTACTTCTTCTCTTCAATPGCCTCTTC
TTCAACTTCAGCACCTATTCTTTTCAGCACATGGGTGTCCTTTTTCTTTTAGGAATCTGAT
20 TAATTCATCAGTTGTTTAAAGCTCTTCTTCTGTAGCTATCTTATCATACAATCTTCTGG
TATCGCATCTTAACTCTCTCTTTAACTCTTTTCGGTAACCAACAACCCCTCTCCCAACC
ACCGTCTCCCTGTAAGAACTTAGGGGATTTATATAAGATATTGAAATACCAACGAACCC
AGGAACCTGCTTTCCACCACTACACTGCCAGCTAAAGTAGAGAATGGAATCCCATTTGG
AGTTTCTCCTTTATATCCCTATGTGCTATACCAAAATCCATCAACCTCTGGGATGTAGAA
25 GACAATAGCCTCAAAGCATCCGCAAGATGTGCAAGGTTTTCTAATGCATATGTAGGGT
TACCTCTTCAACAGTTCCTTGAGACCTTCTCTAACAACCTTCAATTAATCCAGAGTAAAT
TCCTAACTTTTCATCCAAGCATTCTCCTTTAGGTATTTCAAATATCGGTCCGTTAGGGTC
TATTTTAGCAGCAGCCCTTGATCTAAGTAGTTTATACCTCCACACAACGCTGGTCTGTC
TGGAGTTATAACACACAGTGTGTTGGAGCGAACTTTGACACATCACACAACCATAGAA
TACATCAACATCCTCTTCATGCAGTGCCTTAGTTTTCTCATCTCTTTGTTGTAAATTTCT
30 TCTGCTCTTTCTAACTCTTCTTAACTTTTTCTGGGTCTGTTATGATGGTTACATCACA
TTTTTCTATAAACGGAACTCTGCCTTAAACAATCTTTGAACGACTTTTCCAATATGCTT
TAATCTCAATCCCTTATTAAGAAGATCCTTATTTATCTTATCCATCTTGGTCTCTTTG
GTTTAGGTGCATTACTCTTCTATGTAAATTTAAAACTCATGGATTCTTCTTTCTAAAC
35 TCCTTCTAAATCTTCTCCAAATTAATTCCTAACTTCAACAATTATAGCGAATGGGT
TCTACTACCTCTTCCATCTCATCAATATCTTTTCTATAATTTCAACCTTATCCTCTGC
TTTATTTACAACCTTTTACCACTCAAACCCATAACTCTTCGGCCCTGCAAGTTCAACATA
CATATCAGGGCCCCCTAACTCTCTCCCCCTCATTATCGGCCCAACAGAGACAGGGATATC
ATCAACATGCTTTCTCACCTTTAAGTGTTTTTATAGGTTTCTTTAGCTTCTTCTCTCA
40 AAATTTTAAGTATTTTTTTCTTTCTCTTCTTCTCATCATGTCAAGTGTCTTCTGATA
CTAATAAGAGGGCTTTGTCTTACAAGCCTCTACACAGGCTGGAGTTATTCTATCAACAT
CCAAGCAGAGGGTGCTTTATGAGCAACCCGTGTTTTTATAAATATTGCTCCTATTGGGC
AGGCAATTGCACACATTCCACAAGCAATACATCTCTCTTATCTACAATTGGAATGCCAT
CTTTAGATAGATTGCATCAACAGGACAAATCTCTTACAGGGAGCGTTTTCACTGCA
45 TGCAAAATATTGGAAATGCCATCAACCTTCTTACTCTCTCTCATGAATCTCTTTAC
AGATGTTTATACAGTCATAGCATTGGTGCAATTTCTGGATTAAAGACGATAATTTTG
GGTTCATTCTACCCCTCCAATAACTTCTTCAAATAGTCTAAATATTCTTCTGCTGAGA
TTTGGGAATGAATAAAGGGTATTTGGCTGATAATTTGCTATTGATATTGTACCACA
TTTGAGAACTGTTTTAGATGAGTTGCTGCCTGAGCTAAGTAATAGTAAGTTATTCCAGTG
50 AATAGGGCTAAATCATAATCACTACTTGCCAAATATTTTATTATAGCCATTAAATTCATT
TCTTCCGGTGTTTTTATTGTTTTTAAGTTAAATTTCTCAATTAATTTGCTGATTAGCTCT
TTCTCATTTTCTTCCAAATTTCTCCCAATATTAAGATTGGTTTTTTAGCCCTCTAATC
ATCATCTTAACAAGTGTGGAGATGTTATTTTCAGCATGTGCTACATTGCTCCGCTGTT
GGGATATAGGCAATAAATCTCTCATCCATTACTATACCAACTTCAGAAATTTAAAGTAA
55 AAGAATTAGGAGTTAATACAATATTGTTGGGTCTGTGGATATTTCTCCAATGGCTTCCA
TCCTTTTTCTTCTAAGTATGCCATTATCTTATCTTTTCATCATAAATGGGATGCTTTTTTC
AGTTCTAAGCAATTTCTCTAAATCTGGAGGCATTCTTCCAAAGTATTTTTCATAGACATC
AACGTAGTGGTAAATCTTATTGGCTCTACCTTTTGGAGTATCGTTGGCCTCATACATAG
CTTTGGAATCATGCAGATGCATTCTTTAACATTCTCAGCAGTTACAATCAAAATGCTCTGG
60 AGCTGGCTCTATCTCCAAATTTCTCCTGTTTTTTATCTTTAACTTTGAATTTCTCTCC
ATTGCTTAAATACAGCCTTCTATACTTAGCTCCATGAGGGCCTAAATAACAGGGATTCC
CCATCTATTGACTCCAGTAGCAATTGCAGCAGCCTTTTGACTCATAGCACCCCATGCAAC
ACCAACAGCTCCAACCTTTGTTTAGTATGTAATCTGCAACTTCAGCATAGTTTCTCTCAA
CGGAACCTTTGGCAAAGATGTTGGCAATTTTATAGCAGCTCCAGTAATGTGGCAGTTTGA
GAGACAAGAACCACAAATTACAAGACCTCCAGCCCTAAATTCACCTGGATACTTCTCATA

5 TAATGTTTTTCCATCTTTATCTTTCCACATTCCAATTGCCATTGCTGCACAACCAGTTGC
TACAACATATATACTTCTCTCCAAGAACTCCTTTGCAATCATCGCTACTTCTTCTCACC
ATTTGGATGGTTTGAACATCCAACATAAGCAACAACCTCCAGGAATATCTCCAAATACAAT
10 TGGAGCTCCAACACTTCTAATTTCAACATCTTTTATAGGCCCTCTTCCAGCCCTCATCTT
GAACTTTAAGTCTTTATAGTATGCCTCTCCAACCTTTGTAGTCATGCTAACTATTGGCAA
ATTCCTTTGGACAGATAGCTTCACATCTTCCACAGCCATAACATCTCTTATACAAATCAAT
GAATCCTTTAAAATTACCTGTTTTGCTAAAGCCATTGCTTCCTTAACTTTAAATGCATT
TGGACAGTTTCTGTTGCACCATCCACATTCAGTGCATTGTTTTGCCAACTCAACAACCTC
15 ATTTAAATCTGGTAGGGTTTTCTATCCTTTCTCTCCTTAGCAACTATTTTAGCAACTTC
AACAGCAACTTTTCCAACCTTTCTTCTCATCTAAGAGTAAAGCTGCCCTATTTCTCAATAA
ATAGCCTATAATTTTCATCCTCATCCATGTGGGAAACATCCTCTAATCCCAAACACATCTT
CTCATTTGTTGCTATCAAGACAGCTCCAGTTTTTAAACCTCCTCTAAGATATCTGTTCT
AATACACTGCTCATCTACAATTACAACATCAGCAACCCACTTCTTACAACATCAACTG
20 CTTTGATAAAGGCCCTACAACCTTTGGTTTTATCTGAAACCTTGTGATGCTATAGCTGT
ACAACAGATACCGCAGACCTCTACTTCATCCTCCATACTGTTTTCTTCTAAATACTCTAA
TATGTAGCTACCTGGGACTACGTTATGCCCAATACACAAGATAACTGGCTTACTCTTGTC
TATGCAACCAAACCTAATTTCTATTAAAGGAGCATCTTCATCTCCTTTTGGCATGTTGTA
GGCAACTATTTGGGCCAAATCTCCTGCTCTCTTGCTAAATCATCAATCATTCCTGCATG
25 TAACGCTTTACTCTCAAAATCTAAGTAATCCCTTCCTGCCAGTATGTGCCGCTGATAA
TAAATGAGTTATCTGCTCTTCCACAGTAATCTAAGATTTCTCTAAATCTCCAAGTGT
TGSTTTAATACCAGTTACTGTCTTGTCTTGGTGCTCAACCTCTATTTTCATTACCCAA
ATCTATTGGATAATCTCTTCCCAACGTCTCAATTAGGTGATGAATAATGCCTACTATG
TCCAGCATGACATGCCGCTCCAATACAGCAGGCAATTAAAACAATTCCTGCTGTTGAGC
30 TTTGATATTTAAACCACAAGCTCCTTTCTCCTCTGCTTAAATCACACTTTCCAAAAGT
ACAGAGACAGCATAAATCACAGATTGGCATATAGAATGGAGGATATCTCTCTAAGAGCTT
AAAGTCCAGTGCTCTTAATGTAGGGATTTTGGCATTGGAGTAGGTCCCATTTGGTTCCTCA
TTCTTCTCCTCTTCTTCTCCAACTTTATACTCATGGATATGTTTGGCTTTTCTCATCTT
AACTAATGGTGTAGGAGTTTTTTAATGTCCATTTCTACGTTATTCCCCATAACCATCAC
35 TTCTTAATTGTCTATGATTAATCATTTATAATTTAAGGTTAGTTTTTAAACTTTAATATAT
AAAGTTGTATGACTAAAGCCAAGTTGGTATGAAAATAAGGACTGAATTTTCTTTTA
ACAAAAAATTACGCATTTTAAAAATTGTTTTGTAGGGATTTTTAAAAATGAGTATCTAT
TAATTTAAAAAATAAATAGTGTGGCATAAAATATAAAGTTTTATGATAGGGCATTTAT
CTTTTCACATTGAGATTTATCACAATCTTGACGTTCTTCATAAATTTGGATTCTCTCCC
40 TCTTTTGCTAACTTGGTTATTATCACTACCAACTTCAATGCCTTCTTTTCTCTCTCAGTA
GCTTTAACCTCTTCTTCTCTCTTCTCGACTTCTTCAACAACCTCTTCTCTGTCTTTTAA
ACTATTGGATGTCCTTTTCTTTTAGGAACCTTGATTAATTCATCAGTTGTTTTAACGTCT
TCTTCTGTAGCTATCTTATCATACACTCTTCTGGTATCGCATCTTAACTCTCTCTTTT
AACTCTTTCGGTAACCAACAACCTCTCCCAACCACCGTCTCCCTGTAAGAACTTAGGG
45 GATTTCATATAAGATATTGAAATACCAACGAACCCAGGAACCTGCTTCCACCCTACAC
TGCCCAGCTAAAGTAGAATGGCAACCAACGGTGTCTCTCCTCTAAAGTTTCTATGG
GCTACTCCAAATCCATCAACTTCTGGGATGTAGAAGCAATAGCCTCAAAGCATCCGCAA
GATGTGCATGGGTTTTGTTAAAGCACTATGTAATGCCATCTCTTCAACAACCTTCTTGGAC
CTCTCCCTAACAACCTCATTACACCTGTGTAGATTCTTAACCTTTCTATCTAAGCATTCT
50 CCTTTGGTATTTTCAATATCGGTCCGTAGGGTCTATTTTAGCAGCAGCCCTTGCATCT
AAGTAGTTTATACTTCCACAGAGGGAAGGTCTGTCTGGTGTATAATACATACATGAGTT
GGAGCAAACTCTGACACATTACACAGCCGTAGAATACATCAACATCTTCTCTCTTATG
GATTTTGTTTTTTCTCTCTCTTTTGTAAATCTCTTTGGCTTCTCTAACTCTTCTTTA
ACCTTATCTGGGTCTGTTATAATAATTACATTACACTTCTCAACAATTGGGAAATGTTCT
55 TTAAAGAGTTGTTTTACAACCTCACCAATGTGTTTTAGTCTTAAACCTTTGTTAAACGAG
TTTTTATTTATTCTTATCCATACTTGGTCTCTTTGGTTTAGGTGCATTACTCCTTCTATG
TAATTTAAAAACTCATGGATTCTTCTTTCTAAACTCCTTCTAAATCTTCTCCAAATTA
CTTCCACTAACTTCAACAATTATAGCGAATGGGTTTCTACTACCTCTTCCATCTCATCA
ATATCTTTTCTTATAATTTCAACCTTATCCTCTGCTTTATTTACAACCTTTTACCAACTCA
60 AAACCATAACTCTTCGGCCCTGCAAGTTCAACATACATATCAGGGCCCTAACTCTCTCC
CCCTCATTTCATCGGCCCAACAGAGACAGGGATGTCAAATTCAACTACCTTAACCTTAACG
CCTTTTCATTTTTAGGGCATTTTCTACTATATTATCAATGTCTGAACCTCTCTAAAGCTCCT
TTAATAACTGGAACCTCATTTGTTGGTTATAACTGGGACTCCAGCTTTTATACATCCAGCT
CCAGCGGCTAAGGTTATGTTATCCAACCTCTCCCAAGCTACAACAACAGCTGGAACCTCTG
TTTTTAGATAGTCTATAATTTCTTCTGTTTTTCCAGGCTCAATTCCTCCAAATATTAAT
GGAGCTCTTATAGCCAAAGTTTGCAGCGTGTATTGCTGAGGTTATTTCAATTTCCAACCTGGA
ACAAGGAGTTTGTCTAAACCATACTCAATGTCAGCTTCATCCATCTCTTTAACTATATCT
CCAACATAATAACGCCAAAATATTTCTCTTTTTTATGTCATCTATGAGTTTTTTTAGCTTC
TCTTTATCTCCAACCTTTCCAATAACTACTAAAATTGCAGGGATTTTTCTCTTACGAGA
GGAACCTCTAAACCTCTCAAAATTTTCATCAGGAATAAAGCCAACATATGGCTCTTTGTAA

5

10

15

20

25

30

35

40

45

50

55

60

GGTTTTCTACTCTTTGCATATTTTAAAGCCTCAATCGCTTCAGCACATATTAATGTTACA
ACTCCAGCATCTAACGCATTTTCTAACGTTTCTTCATCTTTTATCTCAAGTGAGTTAATT
AATTCCTTTTAAAGTCTTTGACTGTCTCTATCTTTTACCTAAAAGACCGTATATAATTGGT
AGGTTGTAATTTGTTCCAGGATAAGATACTTTTAGGTTCTCATCTTCTTTCTCTAAGATT
TCITTTTGTAAATTTAGAACTGTTTTCCCTCCTTCTATTATATTGCCACGACCATCGTT
TCACCATATAAACGAATTTTCAAATATTGGAATTTACCATATACAGTAGTCTAATTTTAA
GTTTATGCATTACTATATAATAGTGGTTACGCATTGCGAAAAATTTAATACAAATAACTT
ATTAAAGATTTTAAATATCCATGGTAAAAATAGCACAAACCTAAGCATTAATTTAAAAATTT
CTATGACTTGCAAAATAAAAAATAGGGCTTTTTTAAATGTTTCTATTGATTTTTTTTAGT
AATATCTGATTTTTTTTGTATTATTATTAGTAATAAAATTTTATATTGGCATCTTACTACC
ATCTTTAAATGTTCTCAAAACAAGAGTTACTTTACATCCATTAACTTAATGGATA
TATCTTCTCTGCTAAAAATTTTCTAAGCTTTCTATATCCTTTAAAAATTGCTATACAAAC
GCCATCATATTCTCCAGTAGTTTGATAGAGTTCAACTATTTTCATCAAGCTCTTTTAATTT
ATTGAGGGTTTCTTCAACCTTAGATGGTTTAAATATATAAACCTAATATGGCAACTACTTC
AAATCCCAAATTTTTTGGATTATAGATGCATGAAAACCTGTTATGATTCTTTTTTTCAGT
TAATCTTTTTTACTCTATTCTTACAGTCCCCTCACTAATACCCAATTCTCTCCCAATTTCT
TCTAAATGATTTTCTGGCATTTCCATTTAAAAATTTCTAGAATTTTTTAAATCAATTTCTATC
AAGCATTTAATCACCATAACAATTTATCTTCAATTTTACTAAAAATTCGCAGTACTCAT
CACCTTTTCCACAACATTTTGTTCACACAGCATTGACTTTTCTTCTTAGCTTTTTTCCA
AAGTTCAGCTATTAGTCCAGCCTCAAAATGACAGAGGGTAGTTCCAACATTTGGAACAT
TATGGCAAGATATGCAGTCTTTTAAATTAGAATCATCTCATTTTCTTCAACTTTTTTTA
CTTCTAAAAATGCCAATTTTTGCCTTCTTTAATATTTCTGCAAAGCTTTGAGTAAATTTGT
CCCTATCGACGTATCTTGAAATTACTTCTTACCAATATCTTTTCCAATATTGTAAATTA
TTGCTTCAATGCCACATCCAGCAGTTAAAACTCCTATTCTTACTGCTTGAAATATAGATA
AGGGTATTAAATTCCTAACGTTCTTTCTGGAGGATGGTTGTTTATTAAATCCTCAATAT
CTTTTTTAATTTTTTTATGTAAAGCTCTTTATCCATTTTAACTCCCCCATAACAGTCAA
AGATTTATATAACAAATGTAGGATTATTCATTAATAAAGCTTGTTATTCTGATACCATG
CTTAGAGATATCGCATTTGAATTTTTTATAATGATTGCCTTGGGTATTTTTATTGGTTAT
ATCATAGCAGAATACACAGATAACAATTTATGGATAGTTGTATTTTTGTTATTAGGCATT
TTTTGTGCATTTGGAAGGTTATTTAAATGATTAAAGATTATGAAAAAGGTGATTTTAT
TGAAAAAACACAGGAAAAAAGATAAATGACAAAGAGGAGCTTATAGTTAAGGAAGAGG
TTGAAACAAATTTGGGATTATGGCTGCAACCTTATGAAAGAAAGATAGAGGATTGTATAA
AGTACGGTGTGTGTAGTTGATAAACAAGAGGTCCAACGCTCTCATGAGGTTTCAACAT
GGGTAAAAAGATTTTAAATTTAGATAAAGCTGGACATGGTGGGACATTAGACCCAAAGG
TTACTGGTGTTTTGGCAGTGGCTTTAGAGAGAGCTACAAAAACAATACCAATGTGGCACA
TTCCACCTAAGGAGTATGTTTGTGTAGTCATCTACATAGAGATGCGTCTGAAGAAGATA
TATTGAGAGTTTTTAAAGAATTTACTGGAAGGATTATCAGAGACCTCCATTTAAAGCAG
CTGTTAAAGAAGATTGAGAATTAGGAAGATTCTATGAATTAGAGTTATTAGACAAAGATG
GTAAGGATGTTTTATTAGGGTTAAATGTCAATCTGGGACTTATATAAGGAAATTGTGTG
AAGATATTGGGGAAGCGTTAGGAACATCTGCCACATGCAAGAGCTAAGAAGGACTAAAA
GTGGATGTTTTGAGGAGAAGGATGCTGTTTATTACAAGATTTGCTTGATGCTTATGTAT
TTTGGAAAGGAGGATGGGGATGAAGAAGGTTGTTTAAAGGATAGTGTGTTGATGCTATCTGCCATG
GGTTAAGGCATTTGAAGAAGGTTGTTTAAAGGATAGTGTGTTGATGCTATCTGCCATG
GAGCAGATGTCTATGTTAGAGGAATAGCTAAGTTGAGTAAAGGCATTGGTAAAGGAGAGA
CTGTCTTAGTTGAGACTTTGAAAGGGGAAGCTGTAGCTGTAGGAAAGGCTTTAATGAACA
CAAAAGAGATTTTAAATGCAGATAAAGGAGTTGCTGTTGATGTTGAGAGAGTTTATATGG
ATAGAGGACTTATCCAAGGATGTGGAAGAGGAAGAAGTAAATGAAATGGTGATTCAAA
TGAAATTTCTCAATAGAGAAAAAGAAATTCATGAAATCTATCAATCTTAGAGGGAGAAC
CAAATATAATTTATTTTCTACGCCCCCTTAAATCTGGTAAAACTGCTCTAATAAAAC
ACATCATTGAAAACAACTAAGTGATGATTATAAGSTTTTTTATATTAATTTTAGGACTT
ATTTAATTTTCAAAAAGAGGGAATTTATTGAAGCTATCTTTACCACTAAAAAGATGATT
TCTTTGAAAAAATAAAGATAAATCAGAAGTTTTAAATTTGATAACAAAAGGGCTAAGA
TTTTAACTGGTATTCCAATACCTGAAGTAGAGTTTGATAAATTTTGAAGAGAAAAATAA
ATGATGCCCTTCCAATACTTAACTCTATACTATTAGAGGTTAAAAAGAGTGGAAAAACAGC
CAGTGTAAATACTTGATGAACCTCAGATGATTAAAGATGTAGTTTTTAAATTTGGCAAAAT
ACTTGTAAAGAGTTGTTTTCAGTTTTTAGTTTTCTTAACTAAAGAACAACATCTATGCC
ATGTTTTTTGTCTAAGTTCTGATAGCTTATTTATTGAATATGTTTATAGTGTGGAGAGT
TGGAAGGTAGAGCCAAATACCTCTTAGTGGATGACTTTGATAAAGAGACAGCTTTAAAT
TTATGGATTTCTTGCTAAAGAGATTTTAAATAAAAACTCTCTGATGAAGATAAAGAGT
TAATCTATACTATGTAGGAGGAAACCGGTATATATCTACAGTGTGATTGATGAGATGA
GGTATAGGAAGTTAGAAGATATTCTAAATTTAATGCTTAAAGAAGAACTCAAAACTAA
AGTATTTTTTAAAGGAGTTGGATTATATAAAACCAAAAGTAGAAGTTAAAGATGAAATCA
TTGAGATTAAAAAGGATGATATTATAAATGCGTTAAATTTTAAAGAAAATTTATGAAG
TTAGTGATGATGATATACCAGAACCGTTTATATTTTATTAGTTAAGAAAAATATTTTAT

TCCTAAATCCTATTGAAGGAATTTTAAACCACAATCATTTTAACTCTGGAATGCTATAA
AGAAATTACTGAATGGACATTAATTGGGGCTGAAAGCCCCAACTTATAACCAATTATCAA
AGGATATTATTTACTATGGAAATTAGAAGCCCCAAGGGCTTCTATATGTGCTTATTTAA
TTAAAAACTTTGATAATTGGTTAAATGGACGAGTTTTGATGAAACCGAAGCGTTAGCTTC
5 GGGCTACAAAACTCGAAGAGTTTTTGTTCAACTTTTACTAAAAAGTTCTTTTAAACCA
CAGAGTTTTTAACTCTGGAATGCTATAAAAAGAGTGTATAACACATCAAAAACTACTTG
GAGGGATAATAATGAAGATAGAAATAAATGAAAACCTTCTGTAAGGGATGIGATATATGTA
TTGTAGTATGTCCAAGAGGAGTATTTGAGAAATCAAAAAAGTTGAATAAAAAAGGTATCT
ACCCACCAATCCCAGTAAATCCTGAAAAATGCACAAAGTGCAATCTCTGTATATTACAAT
10 GCCCAGACCAAGCTATATCAATAGAACTTTTCGAGGAATAAAATTTATTATTGCACAAAG
ATGCCTTTTGGCATCAATGTTCCCTTAATTAGTAGTATAAACTGCGAAAGTTCTATTCAA
TAGAAGAGTAATTAATTTTTTAACTACTACATAAACTTTTTAATGGATAATAATAA
ATAAAACCATAGTGAAGTTAATTATTACTATACTACATACTTTATAAATTAGTGGAGA
GATGGGAAAATGATTCAAATAACAGTAATTCAGATAGATAATTACGGACCTTGGCAGTT
15 ACACCAAATCCAAGAAGAGAGAGCGATTACAAGCTCTGCAGACCAGATTATACGCTGAC
TTAAATTTGATGTTTGGGGCTCATAAGGGACTGGTGTTTACACAAGATTTGATAATTTA
ATAGCTATAACAAATGGTATTGATTTAATTACACACAAAAGAATTCAGGAGAGTATAAGG
AATAGATATCCTTTCAGTGTAGTATGGTTATTGCTTCAGCTGAAACACCTTATGAAGCT
CAAAAATTTAGCCACTGAAACACTCAAGGTATGGAAGTGCTCAGGATGAGAATAGAAAG
20 GAAGTTTTAGATGTTGCCAATGAATTGGTTGTTGATGGCTATGTTCAAATCGCTCATATA
GATATAACAACATTACTGGGACTCTTACTGACATTGTGACTGCCATGACACTTATTTA
AATGTGAATAAGGTTAAATTTGGCTTTAATGGAAGAGCTTTTAAATATAACGCTCTGTTG
TTTTTCATAGGTGGAGATAACTTCATGGCTCCATCAAACGGAATGAGTGAAGAAGATTTT
TTAGATATTTTCAACAGAATCAATAAAAAGTATAAGATTGAGCTAAAAGCAGGAATTGGA
25 ATAGGAAGAAGCTGCTGAAGATGCCTCAAACCTTAGCAGATATTGGTTTAGAAAAAATTAGA
GGAAAGTTAGTTGATAAGAATGTATGCACCTTTAAAGCAGGATGACTTCTTAGAATCAAAA
ATGGGTATGGGAAAAATATACCATCCACAGTTTTAGGTGATTTTATAGATGAACAAAAAA
ATAGAAGAATTAATAAATTAGATAAAAAAGTTGTCTTAGCACCAATGGCAGGCATTACG
GATGGGGATTTCTGCAGAAAAATTTAAGGATTTGTTTGCCTATTGTTACCATTGGTGGCTAC
30 AACTTAGATTCTGCAACCTATAAAGCAAGTAGAGATATAGAGAAAAGGGGAAGGAAAGAA
TTTTCTATAAATTTAGAAGAATTTAATAGCTATATAATTGAGCAAATAAAAAAGGCAAGA
GAAAGTAATGCCTTAGTTTCAGTTAATGTTAGATTTGTTGATATAGATGAAGCTTATGAC
AAACTATTGACTATTGCCAAACATGCTGATATCATTGAACCTTAAGCTTGCAGACAG
CCAGAGATAACTTCTTTAGGTATAGGGCAAGAGCTAATGAAAAATAAAATCTTTTAAAA
35 GAATTTTTAACTAAATGAAAGAGTTAAATAAACCAATTTTTTTAAAGATAAGATTAAAT
TGCATCCCCTAAAAGAGCTAATAGATAATTTAACTATGTGAGAGATTATTTTGATGGA
TTACATGTTGATTGCTTTTATCCAGGAAAACCTTATGCAGATATGGATTCTTAAAAATT
TTGGCAGAAGAATTTAACGATAAGATAATAATTGGAATAACTCAATTGATTCAATAGAA
AAAGCTAAGGAAATGTTAAATACCTGATTTTGATCTGTTGCAAGGACTATTTTAAAA
40 GGTAATGTTGAATGGATAAAAGAGTTAAATAAAGAGAATATTTAATTTTTATTTTATTTG
CCAAGTTTTTTAAATCTTTGGCTAAACACTCAAAAACCTCTTTATCTTCCACATTCTCA
AATATCTTTATTATATCGTAAATTATTCTCTTACACAATGCCTTTGAAAAATCTTCTAAA
ACTTCTCAACTGGCTTATTTTTATTCTTCAATATCTTTTTTGCTTTTTCAACCTCCTTC
TTTCTCACATTTTCAATATATTGCCAAGTTCTTTTATTGCTGTTTCAAATCTCATTTTA
45 TCAAGAAATCTTTTAACTCTCTAATCTTACAAATAATCATCTCAACCTTTGGGATT
TCTTCTTTTCTCTTTAAATTTTCTTTCAGCCACTAATCTTAAATCATCAATTGTGAAT
AAAAAATATCTGGCAGTTCTCTAATGTATCAGTTGTCTCTTTGGATTGGCAATATCT
ATAATAATTGTCTTTCCAGCATTTTTTAACTCTCCTTATTTAAATTTGGATGTGGAGCC
CCTGTTGCTGATATACTATATCGGCATATCTTAAAGCCTCTTCCAATTTATCAAACCTT
50 ATAGCCATTCTCCAAGTTCTTTAGCTAATTTTTTCAGCTTTTTTATAAGTCTTATTGCT
ACGATAATTGCTTTAATGTTTTTTTCTTCAATGCCTTTATAACTAAATTTGCCATCTCT
CCAGCTCCAATTAATAAGACATTTTTCCCTTCTAATCCAAAAATTTTTCTGCCAATTC
ACTGCCGAGAGCCAAATGAAACCCCGCCCTCATTTATCTTTGTCTCTACTCTTGCCCTT
TGTCCAGTATGATTGCCTTTAAATAATTTTCTCCAATTTTTTGGATATTCTGCCTTTT
55 TCTTTTGCTTTTAGATAGGCATTTTTTAACTGCCCAAGTATTTGGTCTTCTCCAACAATC
ATGGACTCTAAACCACATGCAACTCTAAAAAGATGTTCTATTGCTTTATCTCCAATAGA
ATATCAAATTTTTCTAAATCTATATTTTCGATTCCTTTAATTTCTTCTAAGCTATCTGCA
TCAAAGATTATCTCAACTCTGTTGCATGTTTGAATAATATGGCATTATCAAATGTCTCA
TAAAATTTTTCTTCACTTCTGAGCTTTCTAATTCAGAGACGTTGTATTTTTTATAA
60 TCAGCTTTTAGTATTATCATCTCTCCCTTTAGTATATTTTTTGATATTAAGTATTTTT
AGTTTTATTAAAGATATATGCCCTTTGTGAAGTAAATATTCAGCCTCTTCTTTTTTAT
TTCAATGGTTGCGTCATAATCAGCTGTTTGCCTATAATTGTATGCTTCATTTATATATTC
AAATAATTCACATCTAACTCATTAGTTTTTATAAATTCCTTTGCAACATTTTAAAC
TCCACTGTGTTTTTAGGATTAATTTCTTTTGTAAATAAAGCCTTAACACAAATAAAA

5

10

15

20

25

30

35

40

45

50

55

60

CATTGAGTAGTATATTCTTGAAACAGCAAAATCATAAAATTCGCTATTATAAAGATTTTC
TGATGCTTCTAATGATTTTTCTGCTTTTCTATTAATTTTTCAAGCTCTCTTTATACCT
CAACTCCATAATTTTCAACCTCATCAATAAAGACGTTTTTATAGTTTTTTGTAAATTA
TTGGGCTAATTAGAAATATCATATTTAATGAGTATCTTGAGGCAATTTAATAATTTTT
GTTTTTCTTTAAGAGTAGGCATTTCTTAACTAAAATTAAACATCAACATCGCTCTCTT
CATCATAATCTCCTCTTGCAAACTTCCAAATAAAATACTCTGTCTAATTTATCTTTTA
AAATGGTTGATATATCCTTTTTAACTCCTTTATAATTTCAATGATTTCCATTTTCCCAC
TTCTCTATTAATTTTTTTAATTTCTCTCTAATTTTTTCATTTTCAAAAATCTTTTTTAAT
ATTTTTTCCCTATCTTTCTGTTTAGGAATTGTCTCTTTTAAAACTCTCTTATATAGGCT
ATCATATTTATGTGAGTTGATTTTAGATAGTTTTCAACAAAAATCTTATATGCTTAGCT
ATTAAGGACTTTTTCTTTTGTGTATATGCTGAATATTACTTCATCAACCTCTGTATAA
GCAGGGATGATAAAATTAACCTCCTTCTGCTTTGTTGAAGAATTTACAAATTTGTTTAGC
TCTTTAGCTAATTTAACAATTTCTTATTAATTTTCATCGTTGATAGCTGTTATAAAA
TCATACCTTATTATAATTTTTTAGCTCTTCATCACTTAAGTATTAATATCAATTTCA
ATTAAATTTAGATTTTTATTGCTTTCTTTTAATTTTTTTATTTCTTCATCAAAATCTTTA
GAGTATATATCAACAATCCCTCCACTTTTTAATATTTCTTAGCTCTCTTTTTCTCTACA
CTTCCACAACCAATACTGCCACTTTCTTTCTTCAAAAGATAACAAAATAGGAAGCAAA
TTATCCCTCCCATAGTTAGAAAGTATTTATTAGATATAGTGAATATTATATTAGAGTTAG
AACAAGTGAATTTTAAACTTATTATAGGGACTGTCAAGTTAAGTTTTTATTAAATTTG
ATAAAAAATAATAAACTATGAGGCTCAGGATAGAAGTTATAAAGGAGAGAATCGTAGAGA
GGAAGCTTTTTAAAGGAATAGGAAATCGATAGAGGTTAAAATCTTAGCAGGGCTTTTAT
ACTACCTCGGGTTATCGTTAAGGAAGGTAAGTTATTCTTTCCCAATTCGAAGACATAA
GCCAUGAATCGGTTAGAATTTATTATCACAAGATTAAAGAGGTTTTAAATAGATTTCCAA
GTAATAGTAAATTCGATACGGTTGTTAGTTGGATAAAAAGCTTCATGATGTTCTATAATT
GGGTGAATCACTAAGTTGACAATCTCTTACAATACCATAAAAAATTTATATTCAAACAT
CAGTTAAACTTATTAGATGGGCTCGTGGTCTAGTGGCTATGACGCGCCCTCACAGGC
GGTGGTGGCGGGTTCGAATCCCGCCGAGCCCAACAATAATTTTAGACCTTTTTCTGAATA
CCCATTCCATTTTGATGAAACTTTTTCTAAAAGTTTCATTTGTATCTCCGAGCCCCATT
TTCTATTTTATGTTTATTCTACTCCCTCAACATATCTTTTTAAGCTCTCAAGCTGTTCTT
TAGTCCCAAGGCATAAATGATGTCTCAATATTAATTACTGTGTCAGGAGGAGGACTTG
TAATTTGTTTATCTCTTTTTTAAGTCTAAAATTGTGGCTCCAGTTTTTCCCTAATGC
CAGAATCCTTTAAAGTTTGTATCAAGTTCTTTATTTTTTACAATGTATCTTCTAACTT
CCATATCCTCTTCTGTAGCCACTAAGGAATGGATAAATTCACAATATCGGGATTTATAG
CTATTTCTTGCAATTTCCATTCTTCAACTATATAGGGGCAACCGCCCTATCAGCTCTTG
CTTTTATTAGTTTATCCAAGTTGATGGCTTTTCTGCTTTTGCGACTATGTAGATGTTTG
GATTTAACTTTTTGCTGATAAGGTTATGAAAACGTTTTTCAGCATCTGATGAACTACTG
AAATCAATCCTTTAGCTTTTTCAATCTTTGCCTTTTTTAAATATCGTCTGATGTTGCAT
CTCCAACAATGCAGATAAGATTTGGGTCTTTCTCAAGAGCTTCTCTAATAATTTTTCAT
CTGAATCAATGATAACAAATGGAATATTACATTTTTTAACTCTTCAGCTATTACTTTTC
CTAATCTTCCATAACCGCAGATGATATAATGGTTATTTAGTTTTTAAATCTGTCCATCA
TCTTTCTCAACCTGAAGTATTTTCTAAAATGCCCTTCAATGAAAAAACTTGCAATGTTTC
CCATAGTATATGCAACTGCTCCAACACCTGCAATATGTAATTTATACTGAAAGTTTTTC
CAAGAAATGTTTGTGGAGTGAATCTCCATAACCAACTGTTGATATTGTAACAACAGCAG
TATAAAGGCTGTGAAAAAGTCCAGCCTTCACTGTCAATTAATATTACTGATTTCAATTA
AGATGAGTAAGATGATAACTATTATACCAAGCTCTATCTTCTATAAGTTTCCATTAAAT
CTCCCTTTAATGCCTTTTGTAAAGAGGTTATTAAACCAGATATAAAGAATAGGACTGAGA
ATATTATTATTAGCTTCCAGCATCTGTTTTTGGTGTATATCTCCATAACCAACCGTTG
TTATTGATATTGTTGTGAAATAAAAAGCATCAAAGAAATTGTTTATTGCTGGATTACAC
CTGATTCGACAATCCATATTAAGCAGGAAGCAATAAAGCAAATTTGTTAATAATGTTAGAA
AGTTTATTAATGCCTGATTTTCTTAAGTTCTTAACTTAATTTCTAAGTAAAACTA
AAATTTCTAGTAGGTTTATAACCTAAGTCTTAAGAATGCCTTTGAATAAAATACCTGTA
AAGAATACAGTAAGAAAGCAATAACAACCTATGGCATCAACAATATTGTAATGTCTTTAA
AAAATTTGCCTTGCTTCAACATAATAAAAAATTTGATATAAACTCAATGTAAAGAACA
TAATAGAGATATAATCTAACTTTATTAGTAAGTCTTGATACGGTGGATTATATGTTGAGA
GAATGAAAGAGCGACTATCTCAATGTAAAAATTAAGTCAATCTCCATTATTTCTT
TTAACCGCTATCTTTTAAAGTTCAATTTATATCCCAATTTGAAATTTTATAACAAATATT
TTTGGTGTATCTCAATGGAAATTTGTTTGGATATTAAGGGTCTCTTCCATTATTTG
AAGATTTCCGCAATCTACCAACAAAGATTATAACTGAAAATAATTATAAAGAAATTAAG
ATTTAGATGCTTTGATAATACCTGGAGGAAGTTTAATTGAAAGTAAATCATTAAATGATG
ATTTAAAAAAGAAATAATTAAGTTTAAATGGGTATATAATTGGCATTTGCAGTGGTTTTTC
AGATATTAGCTAAAAAGATAGACATTGGAAGAAAAGCAGCGTTCCAATAATTAAGAGG
GCTTAGGTTTGTGGATGTTGAGTTTTCTCCATTAGTTTGCACAGATAGAGTAGAATTTG
AAGTAAAAAATCAATATTTGGAGAGGGAAAGGGAGAAGGGTTTCACTGCCATACTTATG
GAAATATTGAGGTAGTTGATAAAGAACTAAAATTTCTAACAGTTTCAAAAGTAAAAAGC

-500-

TAAATTATAAACTTGGAGCTGAAAAAGAAATTATCTCTGGAGCTTTTAAAGGAAAAGTGT
TTGGAACAATGGTTCATAACTTCTTAGATAATGAATTTGTCAGAGACAATTTTTTAAAC
ATTTGGGAGTTACAGAGGATGAGAAAGAGGAAATATTTGAAAAAATAAGATTATAAAAG
5 ATGAATTAAGAGAGGGCTTTAAATATAGATTAAACCCAAAATTAATAAGAGAATA
ATAAAAAAGATGTTAATAAAAAAGAGGGATTATTTTATTGGCAACATCATCAAACAGTG
GAAAGACGTTTTTAACAACCTGCTTTATCATCAAAATTAATGGAAGAGTTTTTGTGCTA
AGATTGGCGGGGATGTTAGGGATATAGTGCCAGCTCTTTATTTATTGAGAGAGAAGATGA
10 CAAAATACAACAGCATAAAGATTGGAGAGAGAGGATGGGTTGATGTTCTAAATTTTTAG
ATTATATAAAAAAGTCAGATTATGATTACATAATTGTTGAAGGGGTATGGGAGCTTTTA
CTGCAGCATTAAAAATATTTCTCTTATCAAAATAGCCAAAAGCTTGGATTTCCAGTTT
ATATAGTAAGTGCTTGAATATAAGTGGGATAGAGGGAGCTTTTGTAGAGGCAATGGCTT
ATTACAGCCTACTCAAAGATATTGGGATTAAGTTGAAGGAGTAATTTAAATAAAGTCT
ATGATTGGAACCTTTCAATAAATTAAGTGGCTGAAAAACATAACATAAAGCTCT
15 ATGGAGTTGGAAAAATAGCTAATGAGAGTAGGGGACTAATTCAGAAGTAGAGATTGATT
ATGAAAGCTTCTGCAGAAATGCCCTTAATGTTGATTAGAAATAGAAATCCCAGAGGTTG
AAATAAATAATCATATAAAGGATGAGGAAGATAACTTTTTAGAGAGGTTAGATAATTGGA
TGGAAAAATATTAATAAATATTAATTTAAGAGGCATTGCCGAGCGTAAGCGAGGCAATGCA
TCCCGGGTATACCAATAGGGCGATAGCCCTATGGGGAGATAACTTTTTAGAGAGGTTAGA
20 TAATTTGGATGAGAAAGATAATCTAAAAGAACTTTTCAATTTATTTATGTGGGGGGAGAAAA
TGGACCCATTAAAGTGGTTTTTATTAGCTCATTAAATTTGGTGGCTTTTGTCTTTTATTTAA
TTATGGCTCCTCAATACAGTATAAGCAATTACAACCTTGCAAGATTAAAAATACTTAGAG
AGCTATCAAAATAAAGAAATTCACAGTAATAACTATGATACATAGGCAGGAGAGTATTG
GCTTGTGTTGGAATTCAGTTTATAAATTTATAACAATTGAAGATAGTGAGGAGATTTTGA
25 GGGCCATAAGGGCAGCTCCAAAAGATAAACCCTATAGATTTAATTATACACACACCAGGAG
GTTTAGTCTTGGCAGCTACTCAAATAGCAAAGGCATTAAGGCTCATCCAGCAGAGACGA
GAGTTATAGTTCCACACTATGCAATGAGTGGAGGAACCTTTAATAGCTTTAGCTGCAGATA
AAATAATCATGGATGAAAATGCAGTTTGGGACCTGTAGACCCACAACCTTGGGCAATATC
CTGCTCCAAGTATAGTTAAAGCTGTAGAGCAGAAAGGGGCTGATAAAGCAGACGACCAAA
30 CATTAAATATTGGCAGATATTGCTAAAAAGCAATAAATCAAGTTCAAAATTTGTATATA
ATTTATTGAAGGATAAGTATGGAGAAGAAAAAGCCAAAGAAATGTCTAAGATATTAACAG
AAGGAAGATGGACTCATGACTATCCAATAACTGTTGAAGAAGCTAAAGAAGCTTGCTTTAG
ATGTAGATACGAATGTTCTGAAGAGGTTTATACATTAATGGAATTGTATAAGCAACCAG
TAAGACAAAGGGGAACAGTTGAATTTATGCCATATCCAGTAAACAGGAGAAATGGGGCTA
AATAGAATAATTAATTACATTATACTTTTTTATGTTGCAATTATCATTAAATCTAAATAA
35 CTCTATTTTTTACAGATTCTATCCTATTAATAAGACAATATAAAAAAGCTAAGGGATTT
TCACATTCCGAATCGGTCTGATTTTAAATGGAGCGGGGTTTATCTAAAACCATAAGCGGGT
TAAATTAGATAAAGTTTCCATTCCGAAACGGTCTGATTTTAAATCTGATTTTAAATGTCTCA
TTATCAAAATATTACAACCTGGAATTAATACAATTTCCATTCCGAATCGGTCTGATTTTAA
AATATCAAAATTGATAAGTTTATTGAAGGTGGTGTGTTTGTTCATTCCGAAACGGTCTG
40 ATTTTAATCATAAACAGTATATAAATAATATAAATCTGTAATGCGTTTCCATTCCGAAA
CGGTCTGATTTTAAATTAATAATCATCCACTATTAACAATATGTTGTTTTGCTCCATGT
TTCCATTCCGAAACGGTCTGATTTTAAATTAATGTTTATAGTTAATTTAAATGAAAATGA
AGCAAAAAGTTTCCATTCCGAAACGGTCTGATTTTAAATTAACACATTATACACAATAGAT
45 TTAACAACAAAAATAATTTCCATTCCGAAACGGTCTGATTTTAAATGATGAGATTATAG
AAAATATCGCAAAAGATAAAAAACTTCAATTTCCATTCCGAAACGGTCTGATTTTAAATGG
AATGAAGGTGTTTTGTGCTTTAAGTTTTAACTACTGATTTCCATTCCGAAACGGTCTGAT
TTTAATTCCTTATTGCAACGTTATATTTTTTAAATTTACATTATTTCCATTCCGAAACGG
TCTGATTTTAAATTTAAAGCAATAGAAGAAGCTATAGAGATGAAATTAAGACATTTCCAT
50 TCCGAAACGGTCTGATTTTAAATTTCCAGAAGATGTAACCAACAGGCATTAGAAATTAAT
TTCCATTCCGAAACGGTCTGATTTTAAATCAAGTTTTAAATCTTCTCTCCAACCTTTGTA
ACATAATTTCCATTCCGAAACGGTCTGATTTTAAATTAGGCCTTACTATGAACGTATTGGT
AGGTGACATGGGACTTAATAGATTTCCATTCCGAAACGGTCTGATTTTAAATAGAAATCC
AAGGAGAACCTCCCTCCTACCTCCCTGATTTCCATTCCGAAACGGTCTGATTTTAAATAGG
55 GCAATCATTACACAACATAATATACTTCACTCTTAATATTTAAGCTTTTCTATACCAT
ATTTTCTAAGGGTAAGTAACACTCCATAATATAAACCTTTTAAATTTAAATTTTCT
CCCTTTAATAAAACAGAGCATTTCTATCTTTTTTAAATCCAAAAATTTAACTTATAGTTA
GAGAAATTTTATTTACTTGCTAATTAATCTTAATTTTCAAAAATCTGAATAATTTGATT
AAGTTAAATATTCTAAACAATCAAACCAGCAAACCTTAGAAATTAATTTAAACCTCT
60 AAATAAACGAATAAAGTTTTAAAGAAATAAAGCTAAGCAATATTAATTTTCAACAGAT
ACTAATTTATGAAATAATCTTATCAATCATATCTAATTTGAGAGCATCTTTATCTCTCT
TGCAATTTCTGCCCCATACTCAATGGCTCTCCATTGTATAGGAAAGAGTAAGGGCCACC
ATTCATAAAGCTGTTTGTCCACCATCACTCTTGCACTCATTTCAAAGACAATAATTC
AAGATTCTCATTACATAAACTCTGCAACAGAAAGGTCCAATCATTCTGTGGAACAAG
CTCTTTAGCCTTAGCAACTAATTTATCCCCATCTCAAAGACTTGAGGTAATAAATCTCT

5 CCTAATAACAACCTGGAATATTTCCAGTAATCACATAGCTTGGATTTATATTCATCTCTAA
TTGGTCTTTTGGCTGGAATTCCTAACTAAACCATCTATATTACTTTTCATATCTCTTGTCCAT
TCCCAATAACTCAACTTCATCCTTCAATGGAGAGTAGAAATAATGTATGCAGAAGTTAGT
TCCAACAACATACTCTTCTATATGTGCGTTGGCTATGTCTTCATCAGTCAATATTCCTCT
10 TTTCTTTTAAATCCTCAGCTTTTTTATAAAATTCCTCTGTGATGAAGCTATAAAGTAACC
TCTTCCACCTCTTGCCCCCTGGGAATTTGACTATAACTGTTCATCAATGTCTTCTGGGCT
TTCATACTTCTTAGGAACCTCTTAATCCAGCTTCTCTCAACAGCTTTCTTCTAAGCTTCT
CTCTGATTCCCATCTTAATATTCTCCTATTCCCAAACATTGGGACTAAAAAATAATTTTC
CACATTGTCTAAACCCACAGTATGCAATAAAAGAGCCGTGTGGAACACAAATAGAAATTA
15 CTCTCTCAATTTCTCTTGAATCTCTTCATTTTTTATGTGAGAAAAGTTATCAACATATAT
AAATTTATCAGCAACTTTAAATCTCTTGTATGGAACATCTCTTCCCTTCATAGTTATACA
AACAGTAGAAAAGCCTTCTAATTTAGCTCCTTTTAAATATGCAAGAGGTATGGCTTCC
TAATGTTGCTATTGTTATCTCATCTTTGTTGATTTATCAAAAATCTCTAAATCTCATC
20 TTTTGAAATCATTATTTTACCTAATTATAGTTTTTTGCAATATTTAAGATGGATAAGG
CATTAAATGAACGCTTCCAAAGGAAGGCGTTCAAATTTTATTATGAATTTAATGACTT
TTGCAAAAAACTATAGGTTTTTGTAGTATTTTAAATATTCTTTAAAAAAGCATATAAAATG
CTTACTGCTTAACTAAGTAGAAATTTATATATAGAGATAAACTTATGAGCAGAAATGCA
TTTCCCTATCCATAGGGCTCCGCCCTATTGGGATACCCGACGCTCCATTAGTTGGGGCTTT
25 CAGCCCCAATTAATGTCCAATTTAGCTATGTAATACTTTTAGATTTCTGTTTAAAGAAAG
GGTGCAATTATGATAATTATTGGTATTGATGAAGCTGGAAGAGGGCCTGTTTTGGGTCCA
ATGTTGTTGTTGTGCTTTTGAATTTGAAAAAGAGAGAGAAGAGGAATTAAGAAATTTGGGA
GTTAAAGATAGTAAGGAGCTAACTAAAAATAAAAGGGCTTATCTAAAAAAGTTACTTGAA
AATTTGGGTTATGTAGAAAAACGTATCTTAGAAGCAGAGGAAATAAACCATTAAATGAAC
30 TCAATAAACTTAAATGATATTGAAATTAACGCTTTTCCAAGGTTGCTAAAAATTTGATA
GAAAAGTTGAATATAAGGGATGATGAAATTTGAAATTTATATTGATGCATGCAGTACAAC
ACTAAAAAATTTGAGGATAGTTTTTAAAGATAAGATAGAGGATATAATTAAAGAAAGAAAT
TTAAACATAAAAAATTATAGCTGAACATAAGGCAGATGCTAAGTATCTCTGTTTCTAGCT
GCCTCAATAATAGCAAAGGCAGAACGGGATGAGATAATAGACTACTACAAAAAATTTAT
35 GGAGATATTGGGAGCGGTTATCCATCAGACCCAAAACTATAAAGTTTCTTGAAGATTAC
TTTAAAAAGCATAAAAAATCTCTGATATTGCAAGAACTCACTGGAAAACATGTAAAAGG
ATATTGGATAAATCAAAACAGACAAAGCTAATTATAGAGTGATATTATGTTTGTCTATAA
ATTGTTAGTGGATGAGAGAGGGAAGAGATATTGTTAAAAAAGAAATGTTGAGAAGTTTGG
AACAGATTTGGGAATTGTAGATATGAAGGATATTGAGGAAGGAGTTGAGTTAAATCCCA
40 CAAAGGACATACTTTCTATTTGGTTGAACCTACAATGTTTGATATCTTAAAGAGAAATGAA
GAGGACAGTAACAACCTATTACCAAAAGATATTGGGTTTATTATAGCAAGAGCTGGAAT
TAGAGAGGGAGAGACAGTAGTTGAAGCTGGAACCTGGCTCTGGAGCTTTAACTATGTATCT
ATCAAATGCTGTTGGTAAGACAGGGAAAGTTATTACTTATGATATAAGGCCAGAAATTTGC
45 CAAAGTTGCAAGGAAAAATCTGTTGAGAGTTGGAGCTATTAAAAAAGGGCAAAAAATTA
TGGTTTAGATGAAGAGTTTGTATGATGAGATGAGATTGAAATTTGAAGATGGATTATTCAA
TGTCATACAAAAAATTGGAGATGTTAGGGAGAAGATAGATGAGAAGGATGTTGATGTTAT
TGTCTTAGATTTACCAGACCCCTGGAATGTTGTAGAGAATGCAAAAAAGGCTTTAAACAA
AAAGAGGGGGAGAAATAGTTACTTATCTCCCATACATAGAGCAAGTTAAAAAACTGTAGA
50 GAAGCTTAAAGAGGAAGGATTTTGGGATATCCACACCTATGAGATTATTGAGAGAGAGAT
TGAAATCTCTGAAAAAGGTGTTAGGCCATCAACAAGGATGATTGGACATACTGGATACAT
AACTGTCCGAGAGTTCCACGAGGCTTTAGATAGAGAAGAAGAGAAAGATAAAATA
ATTTACACCTCCGAGCGTAAGCGAGGAGGTGTTAGGGTATCCCAATAGGGTTTCCCTATG
GCTGGATATATAACGGTTGCAAGAGTCCCCCTAAGCCTTTAGATAAAGAGAAAAAGAG
55 GATAAGAAAGAAAAATGAATAGGGAAATTATGTTGATATTGCGCACTGCTGGAGTTCCAAT
ATCTGCAGAGGATGAATTTAAAGCTGTAGATGTCTTAAGAAAATTAATTTAGGAGCTAT
GGAGTTGGAATTTGTTAAAGGAGTTTATATGAAAGAAGATTATGCTAAAAAGTTGAAAGA
GTATGGAGAAGATATTATTTCTCAGCCCATGCCCTCCTATATAAATCTTAATGCAAA
TGAGGAGGAAAAAGTAGAGAATAGCATAAGGAGAATAATTAATACTGCTAAGGTTTTGAA
60 TAATTTGTGAAAAAATTTAGTTTTTCATCCTGGATATTATTTGAAAAGAAGTAAAGAAGT
AACCTACAATAGAAATAAATCAAATATTAGAGAATTTTGGATAAGTTAGAGGCTTTAAA
TTTAAATGTTATGCTAAGGCCTGAAACTACTGAAAAACTACTCAATTTGGAGATATTGA
TGAGACACTAAAATTATGCTTTGAGCTGAATATTTTACCATGTATTGATTTCTCCCATAT
TTATGCAAGAAGTAGGGGAGTTATAACGATTACAACCTTTTTTATAAAATCTTGTAAAA
AGTTGAGAATGTTTTTAGGAAAAGAGGCTATAAAAGATATGCATATTCATTTATCTGGAAT
AGAATATGAAAAGGAGGAGAAAGGAGACATTTGCCTTTAAATGAATCTAAGTTTAACTA
TAGAGATGTTTTTAAAGCTTTGAAGGATTTTGTATGCCTCTGGAAGCTTTATATGTGAAG
TCCTATGTTGGAGTATGACCTGTTTTGTTGATGAAGTGTATAATGAGTTGTAGATAAA
GTATATATAAGAGATAGGTAGATTAAATTAATTTATCTACCTAATTTTGTATGGTGATA
CAATGCTATTAGAGTTTGCAGATTTAGACAATTTGGGTAAAAAAGAGGAAGTATTTAT
TTAAAAAGTTTAAATATGAACATTTACCTTAGAAGAGGCAGATAAAGCTTTAAAGAAG

-502-

AAGGAATTGAAGCAGAGAATACAAAAGAGCTTTTATCTATTTTAAGAAGAAAGGAAATAA
TTATAGCAAAGAAAGACCCTAAGGATAAAAGAAAAGGTTATATCAATTTGTTAAATCAG
CAAAGAAACCAACAAAAGATAATTTAATAAGAAATCTAAAATATTGTGCAGATTTAATTA
5 GAACGAGTGTGATTACAAAGTGTATTGGTATTTTATTTTATAAGGCAATTAGTGATA
AATATCTGGCATTAGTTGAGAAATTCGTTAGTGAGGGATATTCTAAAACACAGGCTTATC
TAATGGCAAATAGGAGTTATTTAACGCTCTATGATGAAGATGAAGGAAAGTTGTATGTTT
GGCATGAAATTTGTTAAAAGTAGAGAGACAATAATGGAGTTGGCAAATGCATTAAACAAGA
10 TAGCAAATCTTAATGATAATTTAAAAGATTTATCTAAATGGTTGAGGTTTTGGGGCTTA
TTGGGTTTTATTAATGAGGATAACATGCATATTTTGGAGGAATGGTTAGAGTTTATAATG
AGATGGACTTTTCAGAGATTGATTATGATGCTATTGGTGATGCATATCAATGGATTTTGT
CATACTTTGCCCTCAAAAATGTAAAGAGGGGGAGGCTTATACTCCAGTAGAGGTTGTTA
GGTTGATAGTGAATTTGTTGGATATTGAAAAGATAGTGAGGTTTTAGACCCTGCCTGTG
15 GTAGCGGAATGCTGATTGAATCTTATAGGTATGTTAAAGATAACTATGGGGGGGAGA
TTTATCTCTATGGGCAGGAGAGAAATGAGATTATGGCAATTTTGGCAAAGTTGAATTTGA
TATTACATGGAGTTGATAGTGAGGAGTATGAGATTTATATTGGAGATAGCTTAAAAATC
CCAAAATTTGGAGAGGTTGATTATACCATTGCCAATCCACCATGGAACCTGGATGGATAT
AATGAAGATGTTTTAAAGGAAAATCCAGATGTTAGGAGGATTTATAACACTTTTGTTAGA
GGTGCTTATCCTCCTAAGCAGTCAGCAGATTGGGCATGGGTTCAATTGATGTTGTATTTT
20 CGGAGGAAAAAAGTGGGAATTTGTTTTAGATTCAGGGGCATTATTTAGAGGAGGGAAGGAG
AAGAAGATAAGGAAGGAGATTGTTGAGAAGSATTAAATTGAGGCTATTATTTTATTGCCA
GAGAAGTTGTTTTATAATGTTTACAGCTCCAGGAATGTGATGATTTTAAATAAAAAATAAG
CCAGAGGAGAGGAAGGGGAAGATTTTATTTATAAATGCATCTTTGGAGTTTGAGAAGCAT
CCAGAGGTTAGGAGATTGAATAGATTGGGGGAGGAGAAATATTGATAAGATTGTTGATGTC
25 TATGAGAATTGGGAGGATATTGAAGGGTTAGCAGAGTTGTTGATTTAGAGGAGATTAGA
AAGAATGATTATAATCTGAATGTTAGCTTGTATGCTTTCCAGTTGAGGAGAAGGAGGAT
ATTGATTTAAGGAAGGAGTTAGAGGAGTTAAGGAGATTGAGAAGAAGGAGAAAGAGGTT
TTAGATGAAGTTATTGGATATGTTGAGGGAATTTAAGGGCTGGAAGTTAATTTAAAAAT
TATTTTTTGGTGAAAATATGCCTGGTGTAATATTTTGGACTATATTTATCATTCAATTTA
30 TGATTTGGGTATTTCTTAGCACTACAAAATAGGAAGAGTTATTGCATTTATTTGGGGGA
CAATGCCATTTTGGCATTATATTTGAAATATACGGGATATTTTCCAACAATTTTGAAA
ATCCGGATGTTAATTTATTTGCTAATTTACTAGTAATTTCTGTTGTTGAGTGGAGTTATT
TAGTAGTTCAAACAACCGTTCCGTCATGGATAGGTTTGCTTTTTGGTTTTAAAAATATCTG
GAAATTAATGATCTCCTCAAAATTTAATTTGGAGGGATTTTATGTTCTATAAAGAAAG
35 AGAATTTTAAAAAAACAGAGATTGGAGAGATTCCAGAGGATTGGGAGATTGTTGAGCTAA
AGGATGTTTGTAAAAAAATAAAGCAGGAGGAACACCAAAAACCAGTGTAGAAGAATATT
ATAAAAATGGGACTATTCCATTTGTTAAAAATTGAAGATATAACCAATTCAAATAAATATT
TAACCAATACAAAAATAAAAAATACTGAAGAAGGTTTAAATAATTCCAATGCGTGGATAG
TTCCGAAAAATCTGTATTATTTGCTATGTATGGAAGTATTGGAGAAACAGCAATAAATA
40 AAATAGAAGTAGCCACAAATCAAGCAATTTAGGGATAATACCAAAAGATAATATTTTAG
AAAGTGAATTTTGTATTATATTTTAGCTAAAAATAAAAAATTTACTCTAAGTTAGGAA
TGCAACCAACACAGAAAAATTTGAATGCTCAAATAGTAAAAAGTTTTAAAAATCCTCTCC
CTCCATTAGAAGAGCAAAAAACAATAGCTAAAATTTTAACTAAAATTGATGAAGGTATTG
AGATTATTGAGAAATCAATTAATAAATTGGAGAGGATTAAAAAGGGTTAATGCATAAAT
45 TATTAACCTAAGGGAATAGGGCATAGTAGATTTAAAAAATCTGAGATTGGGGAGATTCCAG
AGGATTGGGAAGTTTTTGGATTAAAGATATATTTGAAGTAAAAACGGGAACCTACCCCAT
CAACTAAAAAATCAGAATATTGGGAAAAATGGAGAAATAAATTGGATAACACCATTGGATT
TAAGCAGGTTAAATGAAAAAATCTATATTGGAAGTAGTGAAAGAAAAGTAACAAAAATAG
CATTAGAAAAGTGAACCTTAAATTTAATTCCAAAGGTTCAATTATTATATCAACAAGAG
50 CACCAGTTGGGTATGTTGCAGTTTTAACTGTAGAATCTACATTTAATCAAGGTTGCAAGG
GATTAGTTCCAAAAAATAACGATTCCGTTAATACTGAATTTTATGCTTATTATTTAAAGT
TTAAAAAAATTTACTTGAAAAATCTAAGTGGGGGAAGCACTTTTAAAGAATTATCAAAAT
CTATGCTTGAAAATTTTAAATCCCTCTCCCTCCTTTAGAAGAGCAAAAACAAATAGCTA
AAATATTAAGTTCAGTAGATAAAAGCATAGAATTGAAAAAACAAAAGAAAGAAAAACTAC
55 AAAGAATGAAAAAGAAAATTATGGAGTTATTATTAACCTGGAAAAGTTAGAGTAAAAACTT
AGATTTTAATCAACCACAATATATAAAACCATAACTTAACATAATTAATGATAACAAAA
AGAGGTTGATGACTATGGAATTAATCCATTTGTTGTTGGAGTTATAGCAATTGGGATTA
TTATGATTAGTGTGGCAGTTCTTTTTTACTATAATGTACAGTAAGATAGAAAAGGAGGTAA
GTTAATTATTTCTAATTTTAAAGTTGTTTTATTATAATAGAGTAAGTTTTTAGAAATA
60 ACAACATAACAACAATTACTGAGATTGTTATCATTCCAATCATAACTATAAAATCAATTG
TAGGCTTTGGATGTTGTTATTTGGTATAAAAACAATTGCGGATATTGTTAAAAATGCATGAT
TTGTTAAAGATGAAAACATTTCAATTGTGAATTTACATAAAAAATTTGTATTTATCATATT
TTGATAGATAAGACAGCTCTCTATGAGTAAATCCAAATAAAAAATAGAAGCAAACCATACA
AAAAATACAAAAACCGTTAAATCCCAGCAGTAATAAGAAATAAGCTAATATTTTGGGGGT
AGAAGATATAAAATACAATTATCGATAGTATAATGGTAATACTACCATTTACAACCTGCCA

5

10

15

20

25

30

35

40

45

50

55

60

ATATCATCTTTTGAATCACTGAAAGATGAGCTTTATGTTTCATTAACCATAACTATCACAA
AAATTAAGAATGACATAACAACAAAAGATAACATAGCACCATTATATATAAAGAACTTTA
TTTTAAGTTAATTACTACATAATATTTAAATTTTCTCTAATTGTTAAAGTTGGAAGAAC
AAGGAAAACTTAAATTTCTTAAATAAAATTTTATTATTAATAAAATTTGGTGAAACTA
TGAAACCCTCTCTGAAATAAAGATATCCTAAGAAAGCATAAAAAAATACTCAAAGAAA
AATATAAAGTCAAATCTATTGCTATATTTGGAAGTTATGCAAGAAATGAACAGACAGAAA
AAAGCGATATAGACATTTTAGTGGAATTTTATGAACTCCTGACTATCTCAAATCTTTG
AGTTGGAGGATTATCTATCAGATTTATAGGAATTAAGTAGATTTAGTTATTAAGGAG
CGATAAAAAATCCTTATATTAATAAAATCTATTGAAGAGGATTTAATTTATGTATAGTGGT
GATTAAATGCCATAAAAAGATGTTAGAGCATTTTATATGACATCTTAGAGAATATGAAA
GATATCATCGATTTTACAAATGATATGACATTTGATGAGTTTTTAAAGATAAAAGACA
CAAAAAGCAGTGATTAGAAGTTTAGAAGTTATTGGTGAGGCAGTTAAAAATCTTCCAGAA
GATTTTATAAATAAATATCCACAAGTTCCGTGGAAGGCATGGCAAGGTTAAGAGATAAG
TTAATTCATCATTTATTTTGAATAAATTATGAGATTATTTGGGATATTGTAATTAATAAA
GTTCCAAACGATATAAAAGAAATAGAGGAAATTATAAAGACATTGAGGGAGAGGATGAA
AACTCTATCTGAAATAAAAGAAATCTTAAGGAAACATAAAAAAGAAATTAAGAGAAAAATA
TAAAGTTAAATCTATAGCCATATTTGGCTCTTATGCAAGAAATGAACAACTGAAACCTC
AGACATAGACATATTAATTGACTACTATGAGCCAATAAGTTTATTAATTTGATAGAGTT
GGAGAATTATCTATCAGATTTATTGGAATTAAGTTGATTTAATTACAAAACTCTAT
TCACAACCCCTTATGTAAAAAATCCATTGAAGAAGATTTAATTTATATTTAATGGTGTT
AAATGCCGAAGAGAGATATAAAGGCATTTTATATGATATTTTATCTACATGGATGATA
TAATTAACCTCACTAAAGATATGGATTATGAGGAGTTTATAAACAATAAGCAATAAAAT
ACGCAGTTATTAGATGCTTAGAAGTTATTGGAGAGGCAGTTAAAAAGATACCAAAGGATA
TTAGAGAAAAATATCCACACATCCATTAAAGAATTGGCTGGAATGAGGGATAAAATTA
TCCACCAATATTTTGGTGTAGATTATTAACAGTTTGGGAACTGCAAAATATGAAATTC
CAGAGATAAAGAAAGAGTTTGAAGAATTATAAAGACCTTGAAGAAAAATAAATATTGA
TTCTTTGATTATTCTAATGTGGGGATTATATGATAAGAGAAGAATTTTAGATGTTGAG
AATATAAAGAAAACTTCAAGAAATTGGATGGGAGGATGGAAAGAAATACATTAACCTTT
AAAGAATATCAAAATAATCCCTGACTACTATATACCAAACCTTTTTTGAAGAAAAATTAAG
GAGATAAATAAACTCTACTAAGTTATTTAACTCCAAAGAGGTTAAAGAAAGTTATTGAT
TTTATAAAAAATGAACCTTAAAAATCCAGATGAAATAAAAAATTGGACTACCTAAATAC
GGTATTGAAGTTGTAGTTAAAAAAGTGAAAAAAGAAATTTAACTCATTGATTATAAA
AATATAGATAAAAAATACATTTTATTTATTTATGCGAAGCAGAAATTAAGGAAATCCAAAA
AATTCAAGACCTGATATAACTTTGTTTCATTAACGGAATCCCTGTTGTAATAATAGAGGCA
AAGGCAACATTAAAAATTGACTCTCATTTAGAAGGAATAAGCCAAATAAGAAGATATGAA
AAATTTAGCCCTGATTTATTTAGGTTTCGTTTCAGTTTGAATATCTTATGGAGAAGAGCAG
TTATATACTCCAAACATGCCAACTGGTATAAAGAAAAATACACTTACCAGCATACTAT
TGGAGAATTAGACAAAAAATTAATGGAAAAAAGGTTGTTAAAGATGACATCTTCTATATC
TTAAATCCAAGCATATTGCTTGAAATAATAAGATACTTCATATTTTACAGAAAAAGACGAA
TACAGCAAAACAAAACTTTAAGCAAAATCATCGCAAGATACAACCAATACTTTGCCACA
AAGAAGGCATGAAAAGAATAGATGAATATTTAAGTGAGACAGTAAAAATAAGGGTTTA
ATTTGGCACTGGCAGGGTAGTGGAACAACTTACACTATGTTTTTTATAGCAAAATATTTT
TTAGACAAATACTTCTCAGAAATCTGTTATTTCTTTGTAGTTGATAGGCTTGATTTA
GAAAGGCAGAGTAAAGAGTTTATGAAGCAATCCAAGAGAAAAAATTTAAACCATTTTA
AAAAGAAATGACAGCATAAATAAGCTTTATGAAGTCATAAAATCAATAAAATGAGTGAA
TTAAGTAATAAAGTTATTGTTAGGGGTATTTACACAACAACAATACAAAAATTTCAATAT
GAAAGAGTAAAAAGAAAAAGGATAAATAAAGGAAAGGATAAAGATGACGAAGATTTG
GATTTATCAAACCCATTGAAGAGATTATCAAAAAAATTGAAGATAAATTAAAAAAGAA
GAAAAAGAGGAAAAATAAAGGATTAAAGACCTTTTAATAATATTGGCATTCTATATAT
CTAAACATCTAAAGAAAAAAACCTGAAGAATATAAAAAACATATAGAAAACCTAAAA
AACTAAAGATAAAGATAAAAAAGAGAATAACCTAATAAACTTAGGAAATATCAAAGA
AAACATATTCTAATACTGATAGATGAAGCTCACAGAACAATAACGGAATTTTGGGAGGT
ATGAGAAAAATAACATTTCCAAATGCCATTACATTTGGATTACAGGAACACCACTATT
AAAAATGAAAAAACACATTTACAGAATTTTCGTATCCAGAAAAGGGAGAGTTTTATTTA
GATGTGATTTCATAGGAGATTCCATAAAGACAAATTTACCTCCCATTAACCTATCAA
ATTGTAAGAAGGAGATATCAAAATCAGAAGGAATTCAAATTACATTGGATGAAGAAGAT
ATAAAGAATTTATTGATGAGTGGAATTAAGGGGGGAAGATATTAACCTATTTGATAGA
AAAAACTTCCAAATATATAAATAAATCAAAACAATTTTATTAAACCCCAAGAAATT
GATAAAGTTCCAAATATATAGTTGATAGGATAGAAGAAGATACTGAAACTTCAAATTT
AAGGCAATGGTTGTTGCAGTCAATAGATTGGGGTGTGTTAGATTTAAAAAAGCATTGAT
AAGTATTTAAAGAAAAGTTTGGAGATGAGCCAGAGAAATGGGCTGAAGTTGTGATGACA
TATCACCACAACGAAGAAGAGAAAGAAATTTGAATACATGAAAAAATTTAAAAAGAA
AGAAATTTACGATTTTAAATGAGATTAACCAAATTTATAGAGAAGAAATCTTAAATTC
GAAATCCAAAAATTTGATAGTTACAGATATGCTTTAACAGGCTTTGACGCTCCAAGA

5 TTAAGGTTATGTATTTGGATAAACCACTGTATGGGCATAGATTACTACAAGCAATAGCA
AGAACTAACAGACCATATCCAGACAAAGAAATTTGGTTAATAGTTGATTCTGTTGGATTA
TTTAAAGTTTTTAACCGAACTATGGCATTATACAACATGTTGGCGGAGGAAGAGATTAGG
GAAGATTTCAAAAACAATTAAATTAGTTCAATTGATGAGATTTTCCAAGAATTTAAATTA
AAGTTAGAAATGGTTAAAGAATCATTAAAAAATTTAAAAATTAACGATGAGGATTTAAGC
ATAGATGTAATACTCTTAAACTTTAACAAAAACAAAGATTTCAATAACAATGAGTTA
AAAGAAAAATTTGGATTTAATTGCATTTTATGCAGAGACGGAAAAAATGCGAGAATTTTA
AAGCTTATAGATGATTTAAAGCAGTAATCAAACCTTTATAAAGCATTAGGTTCTTATCCA
CAAAAGATTTTTTATATTGAGGATATTGAACCTCTATCCTTCATATATGCTTACTTAATA
10 AAAAACTAAAGCCAAAAAGAAATCAAATAGAAAATTTCTGGGAGGAATTAATATCATT
ATACACAATAAAATGCTTGTGATGATTTAACTGTAATTGAAGAGATAAATCTCAACCCT
CATGATTTAGATAAGATTTTAAAGAAAATATTGGAAAGAGAGAGATAAAAAGAGCAGTA
GCAAATTACTATTTTATTTTAAAAATAGCATCTTAGATAAACAGCAGCAGCCCAATATAT
AAGGAAATATTAGAAAGATTGGAAAGATTAAAGAGAGACTGGATTATGAAGAGGATAGAT
15 GACAAAATTTATTTGAACGCCATAAAAAACCTTATGGAATTAAAAAACAACCTACGATAAA
AAAATAAAAGGAAAATCATCAATTGAAAGAATAAAAGAATCAATAAGCACCTATATAGGC
GAAAATATATTAAAGACCAAGATATTAAATTGAACCTAGAAAATACTGAAAACTAATT
ACTAAAATGCAAAATTTAAATAAATTATCAAAATTAACAAAGAAAAAATTCAAAAAGAA
TTGTCATGTGCATTACTTGAAGATTTATTAAGAGCTAAAGGAAAAATTAAGATGAA
20 GACGCTAAAAAGTGGCTGAATTATCAGATAATTTAGTTTCTGAATTCATCTTAAAGAA
ATATGGGGAGAGAATTATGAAAATCAATGAAAATAAAAAAGATATTAAAGACATTGTTAA
TGAAATTTTAATTTCAATTAATATCAATGAAAGCATAAATATAGAAATAAAACCAATGAA
ACAAAAATTTGCTTCATTTTCTTTTAAACAAAGACTTTAAGATTAAACAAATATGTTGT
TGAAAATTTTGATGAGGAACTTCTCCACTATATAATATTACACGAACTTATACACTTTAA
25 AATAAAATCAATAAACCATGGCATAAAGTTTGAGAACGAATTAAGAACTATTTTCTAA
GAATGAATGTGATGAGATTGAATTAATAATCATACAAAACTTATATGATAAAAGAGATA
AAAAATTAATTTAAATAAATTTTGGTGTTTTAAATGAGTGAAATGGATATTATATAAAG
AAACCTATGAAAAATCAAAAATATGGAGATTAGGGGGCGGGGAGAATAGGAAGAGCAG
CAGCTAAGGCATTAAAGAAATATGCTCTAAAAATTAGCCATTTAAATGAAGAAGAATTCA
30 AAAATAAATGAGAGAGGCAGGAAATATATTAATATCAGCAAGACCTACAGCTGTTTCTC
TACCAAATGTTGTAAAGTATGTATTAAGGGCTTAAATGAAGAAAAATCCAAAAGAAAGAG
TTATAGAGAGAGCTGATGAATTCATCAACTCATCTTAAAGGCAATTGAAAATATAGGAA
AGTTTGGAGCAATAGAAATAAAGATGGAGACACTATCTTAACCTACTGCAACTCTGAAG
CTGCAATAAGCGTTATAAAAACTGCTTACGATGAAGGAAAGATATCAAAGTTTCTGCA
35 CAGAGACAAGACCAAGAAATCAGGGATATTTAACAGCTAAAACCTCTATGATTATGGTA
TTGATGTAACCTAATAGTAGATTCTGCAGTGAGGTACTTTATAAAGAGATAGATATTG
TCGTCGTTGGAGCTGATGCCATAACAGCAATGGTTGCCTTGTAATAAATAGGAACCT
CACAAATGCTTTAATAGCAAATGAAAGTAGAGTACCTTTTTAACAGCCGCTGAAACAT
ACAAATTCCTCCAAAGACTATAGTTGGAGAGCTAATTGAGATAGAAGAAAGAGCCAG
40 AGGAAGTTGCAGTTTTTGAAGATAAATACAAAGGAATAAAATTAGGAATCCCGCATTTG
ATGTAACACCAGCTAAGTATATAGATGCTATAATAACAGAGGTGGGGTTAATTCCTCCAC
AGGGAGCTTGGTATATAATAGAAAAATACTTTGGCTGGCTGAGAAATAAATAATTGTTG
GAATAAATATATATACCACAATTTGCATAAATTAATATATGTCCCGGGTGGCGACCTTC
CGCAGGGGATGAAACCACCTCGGCATTCTACCCACAAGCGCGCGCTGCCGAGTAGCCGT
45 ATGGCTTCAATGAAGGCCACGGTTTTCCAAGGGTAGATACATCTTTTTTAGAAATAAAT
TTCACTCTAAGAGGTGTTTTCTTTTTTATCTTTTATATTTAATTTAAATTAATAGAT
TAAATTATTCTGCAAAAAATCAAAAATATATAAACTGTTTATCCAATAGTAATTGTAA
ATAACCTTATAATGTAAATATATATATCAATTTTTCTTATAAGAAAAATAATTTTTAGG
ATGGGAATATGGAATTAAGGAGATAACAATTATCGGTGTTATGACAAGAACGGCAATC
50 CAGAACCTGTAAGGGAGGTTACAATAAAAGAGGAGAGATTGTCGGTGTTGTTGGGCCAA
CAGGAAGTGGGAAATCAAATTTAATCAGCGATATAGAGCAGTTAGCTCAAGGAGATACCA
TCTCCAAGAGAAGAATTTAGTTAATGGAGAAGTTCTCCAATAGAGATGAGAAGAGACC
CAAAAAAGAGAAGAATTGCCCACTATCTCAAAACATGAATTTTTTAGCAGACATGACTG
TAGAGGAGTTTATTTAATGCATGCGAAGAGTAGGGGAGTTTATAGAGAAAATATTGTTG
55 ATGAAGTCATAGAATTAGCAAATAGATTAACAGGAGAGCCAATAAAGAAAGACTACAAC
TAACAATCCTAAGTGGAGGCGAGTCAAGAAGTTAATGGTTGCTGATGTAGCTGTAATAA
GCGATTCTCCCATAGTTTAAATAGATGAGATTGAAAACGCTGGAATAAAGAAGCATGAGG
CTTTAGAGTTATTGGCAGGATATGGAAGATTGTTTATAGTTATAACTCACGACCTGTCT
TGGCTTTAATGACTGATAGAAGGATAGTGATGAGAAACGGAGGAATGCAGAAGATTATAG
60 AAACCTACTGAAGAAGAGAAGGAATTTCAAGAAAAATAAATGAGGTTGATAACTGGCTAC
TCTCTTTAAGAGAAAAGATTAGGTTTGGAGAGAGATTGACTCATGAAGATATAAGCCTAA
TGGTGAAAGGATGAAAGTGGCAATAGTTGCAGGAACCCCTGGAGCTGGAAAGACTTCAGT
ATTAATTCACACAATAAGAACCTTAATTAATGAAGGATATAAGCCAGTAGTTGTAAAAAT
TGACTGTTTATATACTGACGATGATGTCAGGTATAAAAAATTGGGCATCCCTGTTTTAGT

5 TGGTTTAAGTAAGGATATGTGCCAGACCACTTTGCAATATACAACCTTTGAAGAAATGGT
TGATTGGGCTAAGGATAAGGGAGATATCTTACTAATAGAACTGCTGGTCTCTGCCATAG
ATGTGCCCTTACACAAAAACAGTTTGGGAATTTGTGTCATTGATGCCACTTCAGGGCC
GAACACGCCAAGAAAAGTAGGGCCGTTCTTAACAAGTGCAGATATTGTAGTTATAACCAA
10 AGGAGATATCATCTCTCAAGCTGAAAGAGAAGTTTTAGAGAAAGAGTTTTAGAGATGAA
CCCAAATTTGTAGAATTTATGAAGTTAATGGACTTACAGGGCAGGGATGTGTTGAAATAGC
CAAGGAGATTATTGAAAGCAAAGATATTAAGATTTAGAAAATGAAGAGCTAAGACACAA
CGCTCCATTGTGTATTTGCACCTTATGTGTTGGAGAGACAAGAGTTAGTAAAAAGTATCA
CAGAGGAATTTAAGAAGAATAGATGGATTTCATGGAATATGAAGGGGAGTAAAATGGTCG
15 ATGTAATGAAATTAACCAATATCTTCCAGGATTCATTGTGGAGCTTGTGGTTATAAGA
GATGTGATTTTATTTGCTGAGGCATTATTAATAAAGATGTAAAATTAGAGGACTGCCCAT
TTTTGCTTAGGGAGAGATTTAAAGAAAACATGAAAAATTAAGAGATTTTAAAGATTA
AAGGAAAAATTAAGAGAGGAAAAATACATTGGAGTTATTGATGGATATGAGGCAGATT
TTCTATTAACCTCTACCAATGAATGTTCTTGTAGAGAGACACTATTAATTATGGATA
20 AAAAGAGCTTAAAGTTGGAGATTATATAAGATATAGACCTTTAGGTTGTCCAATTCAC
ACTTTGCTAAAATAATCGATCAGTATCATGGCTTTTATATAATCCATGTAGTGGGACCGA
GCCATAGGATAACTGGGAAAAAATAGAGTATAAAGATGTTGGTATAGCGATAGTTGTTG
CATTTGAGGGAATTTGTAAGGTAAAGTTCCAGAGGTTGGAAAACTGTTAAATTTATCC
CAAACACTGTATGATCCAGAAGGTTTCTTCTGGAGTAGTAGTGCAAGTTGAGGAAAAA
GAGTTTATATAGAAGGTATTGATTTGAAAGTATTTAAAAATAAAAAATATTTTAAAT
TATTTATTTATCATCTTTACAGAATCTTTAATCTTGCTGATGCATCTACCATGCCAAT
CAATCTTGGGTCTATACTGCTAATATCTCCATACTTCATATAATCAGTTACAGTTGGCTT
TATTTAGTAAATGCACCTACATAGATATCATATCCAAATGGGAAGTTTCTTTACATAT
25 CTCTTCTATTCCATCCATTATCTTTCAAGTTTCTCTCTTCAACTGTTATAATTATCTC
TCCAACCTTAACTCTCAATTCCATTTCTCGCCTTAACTTAATAACTTTTCTATCTTG
GTGATTTACAGGCAATCTCTTGCAGGACCAATGGAACAGTTTTTGGCAAGGGTTGTCC
ATGAACTATAACCTAACAATCCATCCAAATCATAAATCTCATTAAACCTTCTCTGT
AGTTTCTCGCTTCAAAATATCTGTGTGGAATATTTTACATCAACAACCTTTATCACTTC
30 ACTCATAAATTTACCTCATTTTTCATAACTCTACTATTTCTTTCAACCTTTATAAATCT
TTGATAAATTTAATATTACTTTAAGAAAATTAATAATTTAATTTTATTATCTAAATTC
ATAAATAAAGTTTTCGGGATAAACTTAAGTAATATATATCTCTTAACTCAAATAATGAAA
AAGCAAATTCACCAATTCAATCTTTTATATTACTACATTATAATTAATTTTAAAGGAAC
AGAATCTAATTTTATGAGGTGTTTATTATGAGAAGAGAATTTCCAGAAGAAGGATATA
35 GTTATAGGAACTGTAAAGGATGTTAAGCCGTATGGAGCATTCTGAGAGCTTTTAGAATAC
CCAGGAAAGGAAGGAATGATTCACATCTCTGAGGTTACATCAGGATGGGTTAAAAACATT
AGAGACCACGTTAAAGTTGGGCAGAGAGTTGTTGCAAAGGTTTTGAGAGTTGATGAGAGG
AAGGGACATATTGATTTATCTTAAAGAGAGTTACTGAGCAGCAAAAAAGGGCAAAAGTT
40 CAAGAATGGAAGAGATTCCAAAGAGCTTCAAAGATGCTTGAAGAGCTGCTGAAAAATTG
GGTAAAAGCTTAGAGGAAGCTTGGGAAGAGGTTGGCTATTTGTTGGAGGATGAGTTGGG
GAGCTATACAATGCCTTTGAAACAATGGTTATTGAAGGGAAAGAAGTTTTAGATGATTTA
GAGATTAGTGAAGATGGAATAATGTTTTATATGAAGTAGCTAAGGAGAGTATTGAGCTA
ACAAACGTTGAAGTTGAAGGAGTTATTGAGATGAATCTTACGCCCCAGATGGAATTA
45 CAAATAAAGAAAGCATTAACAACAGCCTTAAAGGCTAACCTTATGAGGATGTTGAGGTT
AAGATAACCTATATAGGAGCTCCAAAGTATAGGGTGTGTTATAGCTCCAGATTACAAG
AGTGGAGAGGAGGTTTTTAAAAAAGTTTGTGAAAAGGCAGTAGCAACAATTAAGAACTT
GGTGGAGAAGGAACCTTACTATAGGGAGAGTAAGAAATAAGATAAGTGGTAGAGATGAGA
ATGAAAAAATGTCCAAATGCGGGCTATATACTTTAAAGAAATCTGTCCAAATGTGGA
GAGAAAACGGTAATTCAAAACCAACCAAAATTTCTTTAGAGGATAGATGGGAAAAATAT
50 AGGAGAATGTTAAAAAGAGCTTTAAAAATAAAAAATAAGGCAGAGTAATTTCTTTTTTT
ATATCAAAATTTTACATTTCTGGGATATTATGCAACTTAGATTATCATCAGGAAATGTAT
TAAATGAAAAAGTCCATAAAGTGGGGATTATTGCCCTTGGGTCATTCTTAGAAAATCATG
GAGCTGTTTTGCCAATAGACACTGATATAAAGATAGCATCTTATATAGCTTTAAAGGCAT
CTATTTTAACTGGGGCTAAGTTTTTAGGAGTTGTTATTCATCAACTGAATATGAGTATG
55 TTAAGCATGGCATTACACAACAAACAGGAAGTTTATAGCTATATGAGATTTTTTGATAA
ATGAAGGTAAAAAATTTGGTGTAGAGAAGTTTTTGATAGTTAATTGCCATGGGGGAAACA
TCTTAGTTGAAAGTTTTTAAAGATTTAGAGTATGAGTTTGATATAAAGGTTGAGATGA
TAAATATAACCTTTACACATGCATCAACTGAGGAGGTTTCTGTTGGTTACATTATTGGAA
TAGCTAAAGCTGATGAAGAACTTTGAAAGAGCACAACAACCTTTGAAAAATATCCTGAAG
60 TAGGAATGGTTGGGCTAAAAGAGGCAAGAGAAAACAACAAGCAATAGATAAAGAGGCAA
AAGTTGTTAAAGATTTGGAGTTAAGTTGGATAAAAACTTGGAGAGAAAATTTTGAGATA
ACGCAATAGAAAAAGTTGTTGAAAAAATAAAGAAATGATAAGGTGAATTTATGGGCTGG
GAGATGCTCCATCTCATATATGTAGGGGAGGAGATTGAGAGGTTTAGCTTTTTGCTGT
CCTCCAATAAAATACTGCTTATTCATAAAGCGTTAGCTGTATTGAAATGTCACCAGAG
GAGTTTATAAGAATAAAGGAAGAATTTGGAAAGAGGACAAAACCTTGGTTTAGGAGAAAAAT

-506-

ACATGCTTTGGTAGTTTAGTTTGGTGTGTGTAATAAACAACCCCTGCCCTTACAGGGAT
TATGAGCTTGCTAAAAACAACATAAGTCCAGATGAATACATGGAGCTAAAAAACAGCTT
GCTGAGGAAATTATAAGAAATAGCCAGTTTTTTAAAGAGGCAGTGGAGTTTTTGTAAA
AAAGGCATTCCAAAAGATATTGCTGAAAAATGTATCTTAGAGACAGGAGATTTAAAGAA
5 GCCTATGAAATGGCTATAAAAATGATTGATAAGGATTAAGATAATGGGATTTTGTTC
TGAAATGTTTTAAACATGTCATACTCTTCTTTGATAGCTTATAGATGGAGTATTTAACA
TCTTCAACAATACACATGCTCTTTAACAATCTGTAACTTTTTCTCCATCATAATCATTT
AAAAATGCATATACTGGTTTTCCATCTTTAGCTACAATATATCCAATTTCACTACCCTCA
10 ATCTTAATTAAACATGTTCCGTAAGATAGAGCATCAATCAATGAAACATTTTCTAAGATT
ATAGGTTTTTTTTGAAGATATTATTTCTTAACAACATCGTTAATTGAATCTCCAAACAAT
AAAACGCCCTTCAGGATATTGATTTTTTAAAGAATTTAATCTTCATTGGATATTTTCTCA
ATTTTTGCAATTATTTCACTAACGGCAAAATGTTGTTTTAGTTTTGCTAATTGCTTTCTC
CCAAATAAAGTTTTTCTACCAAAATATACTGCAAAAACCTCTCTTGTTTTTATAAACA
15 ACAATCCCTTTTTTCAATTTTTAAATCTTTTGGCATAAAAAATAACTTTATTTATGAGTT
AAATATTTATATACATCGTTGTAAGAATTCAAAATAACCTCATTTCTCAAAAACAGGCTT
AGCTTAGAAATTTCAACAATAGATTCTCTGTTTTAAATTTATAAGAGCAGATTTTACT
TCTTTTCAATTTCTTGTATAAATCTCTATTAAAACTCGTCTGGAATTTGTGAAATATC
TCTTCTAACTTTTTTCTCTACCAATTAACCTTTGATGAGATAAGTTTTGAGTCAATGTAA
20 AAGAGAAGGGCATGTCTATTCTAATAATTCTGTAAAATTAACCAATCCAGAAATAATT
TCTTTTAAATCTTCAATTTCTCAAAATTTGAATACACTTCTCCATAATCTCACAAAA
TAATGACGGCGCAGGGGGGAATCGAACCCCGAGGGCTCTCGCCCTCGACGGATCTGAAG
TCCCCCCCCGGCTACCAAGCCCGGTACCCCGGCCACATTAATGGGTAGTAGGCAGTAAT
ATTGATAGACATCCAAAATATATAAAAGTTTTTCATACAAAATGTAATATAGCTATTAA
25 ATATCTAATAACGAATCTGTTTGTCAATTTAAGATAAAATAAAATATTTTTATTTTT
AGAAATTTTCTTTAAAAAATGAAATAATAACGTTTATATATGAAGTTTGGTAATAACT
TAATCTTAATCTAATGATTATAATGACAGATTGGGTGAGGTTATGGATTTAAATCT
TTGATAAAATCATTGAAAAAGTTGGTAGAATTGAGATTGAGGATATAAAAAATCCCGCA
GATGAATTAATTATAAATATCCCATCAGCCCCCTCCAATAGTTATTCTCAAACACCATCA
30 ATAAAGAAAAATTTGGCTGAAGAAGGAATTATAGAAATTAAGATGTCCAGAGTTAGAT
TGGGAACCACAGTTGAAAAATATCCTGGATATATAAGAGAAGTCCAATTTGGAAAACCA
AAATCAGAAGGAGGAAGAGGAAAAAGTTGTGAAATTTGGGGGACAGAGAGCTTTATATAGA
TTTGAAGAACCACAGCCAAATCCACAGTTGTTACTTTTCGATATATTTCGATATACCAATG
CCAGGATTACCAAAACCAATTAGCGATTTTTCCAGGATGTTATGGAAGACCTTGGCAA
35 TGGGCAAGAAGTGTGTTAAAGAATTTGGGGCAGATATGATAACAATTCACCACATCTCC
ACAGACCCAAAAATTAAGATAAAAGTCCAAAAGAGCTGCAAAATTAATGGAAGATTTA
TTACAGGCAGTTGATGTTCCATTTGTTATTGGAGGTAGTGGAAATCCTCAAAAAGACCTT
TTAGTTTTGGAAGCATGTGCTGAAGTAGCAGAAGGAGATAGATGCTTATTAGCTTCAGCA
AACTTGGAGTTGGATTATAAAAAGATAGTTGATGCAGCTATGAAATATGACCACAACGTA
40 TTAGCATGGAGTATTATGGACCCAAATATGGCGAGAGATTTAAATAGAAAACCTTGTGAA
GCTGGTTTGGACCCAAATAGAATTATGGATCCAACAACATGTGCTTTAGGTTATGGG
ATTGAGTTCTCAATCAACGCAATGGTTAGATTAAGATTAAATGGATTGAAGGGAGATGAG
TTGGTTAATATGCCAATGTCTCTGGAACAACAAACGCTATTGGAGCAAGAGAGGCATGG
ATGAACAATCCTGAATGGGGGCCAAGAGAGTATAGATTACCATTATGGGAAATAACTACT
45 GGAATTACGATGATGATGTGTGGAGTAGATTATTTCATGATGCTCAATCCAATATCAGTT
AAAACACTGAAGAGATTGGAAAACTCTAACAACCAAGCCAGGAGAGGTTAAACTAAAC
ACAAACAACCTATGAGTGGATTGTGAGCCCATAGGAGGAGACCTCCTATTGGGATACCTCC
CGTCCATTAAAGTTGGGGCTATCAGCCCCAATTAATGTCCAAGCTTAGTTAAATACGTAAG
ATAAACACCAACAACCTACGATTAGATTGTGGCAAAGGCATAAAATTTGTAATATAATTGTA
50 ATTATTAATCTAAAGGTGATAGAATGCCAAAAAGATTAGTGCAATGGATATTTACAAAT
TACTGCCAAAAACAACTGTAAAAATGCGGTTATCCGTCATGCATGGCATTGTCTACAA
AACTGTTAGAGAAAGAGGCAACAATTGACCAATGTCTATATTAAACACCCCAAAATTTG
AGAAAAATAAAAAGAAGATTATAGAGCTTATCTCTCCACAGTAAAGAAGTTTGGTTTG
GGAACGAAGAAAAAAGCGGTTATGGGTGGAGACGAGTAATGTATAGATATCAGTTAT
55 CATTTCTTAACCTACACCAATTGGTGTGATATTAGCGACGAGTTAAGTGAAGAAGAAA
TTAAAAATAGAGCTAAGGAAATAGAGAACTTTGTATTTGAAAGAAGTGGAGAAAAGTTAA
AATTAGACTTTATTGTTATAAGAAATGCATCTGGAGATGTTGAGAAGTTAAAAAAGCTA
TAGAAATGTTGAAAAAGAAACAAAGATGCCTATTTGCATTGCCTCATTAATCCGGAGG
TTATAAAGGAAGCTTTAAAGTTGTTAAATCAAAGCCAATGGTCTATGCCGCAACAAAAG
60 AAACGTTAAATGATTTTATAAAGTTTAAAGAACATGGCTGCAAGTGCTTAGCTAATGGTA
TATCATCAAATAATGTTAAAGATTAAAAAACATGGCTGCAAGTGCTTAGCTAATGGTA
TTGAAGATTTAGTTTTAGAACCTCACACATACCCAGAAAATATCGCTGAAACATTAGATT
TGAAATGTAATGATTAGGAGGAGTGCTATTGAGAAGGAAGATAAATACTTAGGATTTCCAA
TATTAAATTTACCAATTAACGCTTATTATTATGCTTTAAAAAATGAATGCCCAATCTCTG
GATTTTTTGAGGATAAAGAGGTTGTTGCTAAGATGTTTGAGGCTACAATAGCCAATACAT

5 TGATGAACAGATATGCAGATGCTTTAATTATGCATGGAATGGATATATGGGAATTAATGC
CAGTCCTAACATTGAGACAGTGTATCTATACAGACCCAAGAAAGCCACAGGCAGTTGAGC
CAGGCTTATACCCAATTGGCAATCCAGACGAAAACAGCCAGTTATATTAACAACAACT
TCTCATTAAACATTCTACACAGTTACAGGAGACTTTGAGAAAGATAACGTTACCTGCTGGC
10 TATTGGTTATGGACACTGGAGGAAAGGCTGTTGATGTTTCAGTTGCAGGAGGGCAGTATA
ATGGAGAAAATGCTAAAAAATTAATTGAAGAGACAGGAATCGCTGATAAAGTTAGCCACA
GGATAATAATATTGCCAGCTTTAGCTGCTTCTACAAGAGGAGATATTGAAGACAAAACCG
GCTGGACATGTGTTGTTGGAACAAGAGATTCTCTCAAGTTGGTGACTTCTTAAGAAATA
ACTGGGATAAGATATTAAGAAGATGGAAGGAGAAGAATCAAACAGCTTAAATACATTATT
15 TAAATATTTTATAAAAAAGAAAAATTTGAGGTTTGGAAATTCGATTTTGTGTTTGGT
TTAATGATTGCTTGTGTAATATGTTTGGATTTTGAAAAAAGAGTATTTAGGAATTATT
TATTTAGAGGTTTAAATTTAATTTCTAAGGTTTGTGCTTGTGATTATTTAGAATATTT
GAGTTTATTGAATTATTCAGATTTTAAAAATAAAAAATAAATAATTATCTAAATAAGAT
TTCTCTAACTAATAAGTTAAATTTTGAATTTAAGGAGATAAGAATGCTCTGTTTATTA
20 AAGGGAGAAAATTTAAATATTAAAGAATTAAAAATCAGACCGATTCCGAATGGAACTC
ATCACAATAATGTGTGGCTCTCCAAGAATAAACATTTTCATTAAAAATCAGACCAATATGG
AATAAAAAATTTTATTTAGTCTAATTCATAAATTTGAAAAATAGGAAGTAAATTT
TTAATCTTTTTAGTTTCTAAAAAATAGAAATAAATTTAATAGTTTGGATTTTAAAACT
TTTAAACATCTCTCTATAATTCTTGCAAAATGCGGGTCTTGTATATAAATATCCCTATTA
25 AAACCCCTGCTATTGTAGTTATTGCAATCCCTTTTAACATTCCCAACCAAGAACAAATA
GAGGAAGCATAGCTGCGATGGATGTTGCCGAGAGGCAATATTATAAAGAAAGCCCTTT
TAATGCTTGCCCTTATCTTACCAGCTCCTCTCTTAATGCCTCATCAGTTATGACAATTT
GGTTATCACTCCAGTTCCTACAGCAGCAATAATCCCTGCTATTGAAGGTAATCTAATCT
TCCAATCTATTAAAGAAGCAAGCCCAATATAATAAATCTCTGATATACAGGTTATTA
30 AAATGGGATTGCTATCTTTGGCTGTTGTATCTAATACTGACTATTATCCCAACAGCTA
TAAACGCCAATAATAAAGCAATAGCTGTTCCCTTTTAAAAATCTTTACCAAAATCTGGAG
ATATTGTAGATATATATTCAATATCCAATTTTACTGGCAAAGCTCCAGATTTTAGAGCTG
AATAAATAGCCATTGCTTCGTCAATCTCTCTTTAGTTGGAGGGTATGCTCCAACAGTAA
TAACCTGCTGTGGATGAGGTTTTCCATCAGCTAAGTCTGGAGATAAGACAGGAGCTGAGA
35 TTAATCTTCCATCCATATACAATCACTTTATGATATGCCTTACCTTTAGCAACTTCGG
CAAACCTTTTATGCTCCTTCTAATGTTAATTTCAAAGGAAGTCCATAAGCCCAAGTTTCCC
CTTGTGGAATCTTTGTTGGAAGTTCAACATCTGCACATCACTTCCAGTATATGCAAGTTA
TATTGTCAATCTTTGCTACAAAAACCCCTTGTGTTTCAATATTTTAATTATCTATCAG
TATCACAACCTTTTTGGAATTTCTACAATAATTTTCATCATTTCCTCTTGATATATTACTA
40 CATCGTTTAATCCATTATAATTCATCTTTCTGTAATAATTTAATTGTTGCCTCTATTT
CTTTGCTCACTCATTTGTTTCTCTGCTTTTAAACAATAATCGTTCCCTCCACTTAAATCAA
TCCCAAAATCAAGTCTTTAAATACGATTAAGAATACAGATAGAGTAACAAATATAATTA
AAATCAGTATTTTCTATCTTTTCTAGTATTTTATATATCCATTTATCCCACCTATACCT
ATATAAGTTGGTAAATTTTAAACAACTCTTTTAAATTTATAACATTTGTGGTATTAAAT
45 ATGGACTTTGATATAACTGTTATCGGCTATATTGCTGGAAGTTTAAACAACCTTTGCTATCT
CTCCCCCAATTAATAAAGTCTTTGAAGGAGAAAGATATGAGCAACATCTCATTAGCTTTT
GTTATAACATTCACAAGTGGACTGACACTCTGGTTAATATATGGAATATTAAGAAATGAT
TACCAATAATAGTATTTAACATTTTGTCTTTAATGTTTGGATACCGATAACTTATTTG
AAAATAAGAGATGAGATGAGATGAGAAATCTTAATGAAAGCTAAATATAGAAAGTGGGGCTGAA
50 CATAGTAAGGCCACTCGGAGTATAGTAATAGAGGTTTCTCTATATGCTTGGGATACCGA
TAACCTATCTTAAAAATAAGGAAGAGATGAAGAAATCTTAGATATTGACTATTATCTTAT
TTTGTATATTTAAATTTAAAAATAAAGCATAGGATGAGAAATGAAATGGGATGAAATTTG
GGAAAAATATTGCAAAAGAGATTGAAAAAGAAATTTTACCATATTTTGGAGAAAGATA
AATCTTACGTTGTTGGAAGTTCTCCAAGCGGAGATGAAACAGAAATTTTGGACAAATTA
55 GTGAAGATATTGCCTTAAATATTTAAATCGCTGAATGTTAATATCGTGAGTGAAGAGT
TGGGTGTTATAGATAACAGTAGCGAATGGACTGTAGTTATTGACCAATAGATGGTCTT
TTAATTTTATAAATGGAATTCATTTTGTGCTTTGCTTTGGAGTATTTAAAAATAATG
AGCCATATTATGGCTTAACTACGAATTTTAACTAAAAGTTTTTATGAGGCATATAAAG
GAAAGGAGCTTATTTAAACGGAAGAAAGATTAAAGTTAAAGACTTCAATCCAAATAATA
TAGTTATAAGCTACTATCCAAGCAAAAAATAGATTTAGAAAAATTAAGGAACAAAGTTA
60 AAAGAGTGAGAAATTTGGAGCTTTTGGTTAGAAATGTGTTATGTAGCTAAAGGAGCTT
TAGATGCTGTTTTTGTATGTAAGACCTAAGGTTAGAGCTGTTGATATTGCCTCATCATATA
TAATCTGCAAGAAGCAGGAGCCTTAATAACAGATGAAATGGAGATGAAGTGAATTTG
ACCTAAATGCAACAGATAGATTGAATATTATTGTAGCAAAATAGCAAGAAATGTTAGATA
TAATTTTAGACCTCTTATAACCTTAAATATTTTATAGTACTTTCAACTTTTATAGTGTTA
GTTTTCTTTTACCTATTGGATGACCTAATGTGATTAAGTAAATCCCTTTTCAATTTCT
TTTTTAGCCATTTCTCTACAGGTGTTGATTATTTCTCCATATCATCAAATTTCTCCATC
AAACAGCTTTCACTCCCAACCAATCTCAACCTTTTTAAAGTTCTTATATTTGGCGTT
GGAGCTATTATTTTACTATTTATCCTTAATTTAGATATTAACCTTAGCAGTTCTTCCAGAA

TATGTTGGAGTTATAACTAAGTTAGTATTTAGCTTCTTATATAGCTCATAAACAGCATAT
ACTAAACCTTCATCAATGCTCTCAACCTCTAAACAACTCTATCACCAACTCCTCATAA
TGTTTCATCTGCCACTTTGGCAACCTTATTTAATACCTTTATCGCCTCTATTGGGTATTTT
5 CCAATAGTTGTTTCGTTGGAGAGCATTAAAGCAGTCAGTTCCATCGTATATGGCATTAGCT
ATGCTGTGAACCTCAGCTCTTGTGGAAATGGATTGTTTATCATAGAATCCAATATTTGT
GTGGCTGTTATTGACAAAATCCCATATCTATTAGCTATTCTCAATATATTTCTTTTGTTC
ATTGGAATATTTTCTATTGGAACCTCTACACCCAAATCTCCCTTGCTACCATCACTCCA
10 TCACTTTCTCTTGCTATCTCTTTTATATTCTTTAATCCCTCCCTAGTTTCTATTTTGTAT
ATTACCTCACAATCTCCTTTGTATTCTGATATAATATCTTTAATTCCTTAACATCTTCC
TTATTCCCTAACAAATGATAAAGCAATATATTCAAAGTCCTTTTCTACAGCGAATTTTATA
TTCTTCAAATCAGTTTTCATCAATTATTGGGAGTTCTATCCTTGATCTGGAAGATTAACT
CCCATACCTTCTTTAATCTCTCCCCAACTTCTACAACCTGCGATAATTTTATCAGTTTTT
TCTACAACCTCTTAGCTTAATTTTCCCATCGTTTATTTAAATAAATGCCCCTTCTTCAAT
15 GTGCTATATTTTCTATTGAGCTTTATATCCTCTCCAATAACAACCTTCTCCCCATTTT
AATATTTTATTTTTTAAATTTAATTTCTTTAATTCTAATTTTTTATCCCTTCAAATCCATA
ACTTTGGCGATATTATTTTTTCCAATATATTCAAAAACCTTTTCAACAATAATCTGTTGTG
GCATGAGACATGTTAAATCTAACTCCATCTATCAAATTTATTGCTTTATCTAATTTATTT
TCTAAGGATGGTCTAAAGTGACTAAAATTTTAGTTTTTCTCATCATTTCCACCAAAT
CATTATAGGAACAAATCAAAGTCTGATTGTATTTTTTACCTATCCTTAAAGCAATCTCT
20 GCCTTAGCTAACTCTCTACCAAAATAAGATGCATGGTCTAACTTTTTTATTAAATTTAAT
CTTATCGCGTTTTCATAAATTTCTTTTGGTTTCTTTCTCTAATTATTAAACCTGGTTCT
CTTCTTTTATTAAAGTATATTGCTACTATCTCTTTGTTCTTCTATCAATTTCTATTTTA
AACTTCTTTCATCCAATATCTGCCTCTCATCTTCTTCAGCTTTAATTATTGGGATATTG
TAACTATTGAAGTTATTTCTCTCTCAATCTTTTATCCTTATAATTTATCAAATTTGTAG
25 CCAATATCCTTTGGCAGAGAGTTCTTTTTTTAGCCAAAACATCATCTTTGAGGCAATC
TTTAACCTCTTTTATTGAAAATTTACACTTAGCACTTGCCCTCTGGTGAAATAATATATTA
GCTCCAATCTCAGCCCCAATAGCTGCTAACAAAGCATTGACTCCATTACTATCAGCATCA
AAAAGCTCTGTAACATTTCACAACCAAATAAGTGGCAATTTATTTCTTTTTTTAAAT
TCTCTACATGCAATAACGCTCTCTATAAACTGCATCCGGCATTGTTTATTGGCTCTAAT
30 ATTGGGTGAGCAACTATTTTTTCAATTCCAGCATCTATTAGCTTTTTTATATTCTCCTCT
AAGGATTTAATTTTGCCTTCAATAGTCTCTGGGACATAGTTTGTTTTATAATTTGTTGGC
AGAACAACAACCTGCCGTTTCTGAATCTTTTAAATATGGAATTAGCTCATCTAAATTTCCA
GCATCAACACTCAAAATCATATCTGCCCCATAATTTATTGCCTCAATTAATTTCTTTGTG
TTAATGTATCTACACTAATTGGATTGTCAGTTAAATCTCTCGCTATCTTTAGCATATCT
35 TTAATTTTATCTGCATTATTTTCATTGCTAACCATTTCCCAAATCAATCATATCAGCCCCA
CTTTCTAAGTAATATATATTTTCTCCTCCAACCTCTTTCTCTTTTAGCCATGGGGCATGG
ACTATCTCTCCCAAACCTCTCATTGGGAATTTATCTCCAACCTTTAATTTGCCTATCTTT
ATATCTCCTTCTCCTAATTCCTGCTCCTCTGCTTTCTAATCTCCTCCTCACATTTCTTT
CTAATAATTTCTAATAACTGCAAATCGGCATACTCTTAGTTGATAGTTTATCTTATCC
40 AGATTTTCAATCAATATTGGAATATCAGAAGCTTCTCTGTAGATTTAAAGCATTTTAT
CCGGTTTCTTCTCAACATTCTTTAATCATGTCTTATCAACCCAGTTACTAAACAAAA
TCATAAATATCTTTAATTTTTTCTAATTTGTTTCTAATTTTTTAAATTTCTTTAAT
ATTAAATTAGGTGTTAAAAAGCAGCTACAGAGATATTGCTACATGCACATCTATAAAA
45 TCATATTTTTTTCAGCATCTTTAACTTTCTTTTCTAGCTAATTTTCCAGTGATTATTAGA
ATTTTCATAATCTCCCTCAAACCTTTCTATAGTCAATATAAGATTTAGGACTTTCTAGAAA
TAAATTTTTTAAAGAAAATTTATGCTTAAGGGCATCTAAATGCCTTTTAAATATATAATAC
TGCGAAAGTCTTAAATGAAAACCTATAAATGTAATTAATTAATAAATTTTATACTTA
GCTAAATTTGGTGATAGTATGAAGTTCGTAGAAAAAGCAAAAATAGAGTTTGAAAAATCC
50 CATAGTTATTGAAGCATTTCTGGAACCTGGATTAGTTGGAAGCATAGCAGGTTTTCAAAT
AATAAAGACCTAAACCTAAATATTTTGGATACTTTGAAGTTGATGGAATCCTTCCACT
CACAACCTATTGAGAAAGGCATTCCCTACCTCCAGTGAGAGCGTATGCAAAACAAAGATTT
TATTATTTTATTTTCTAGATATAAATCTCTCCATTTAAGATTAATGGATTGGCGGAGTT
TATAGTTAAACATTTTCAAACAAAAATCCAAACCTATTGTTTCTCTTGGAGGAATAAT
55 GGCAGGAAATCAGAAAAAGTATTGGAATAGCAATAAAGAAAGAGTTGATAGAAGATTT
AAAAAATTATGTTGAAATATTTGATTTTGGAGTTGTGGGAGGAATGGGGGGAAATTTATT
AATAAATGCCATGACAATGGGTTTGTATGCTATTGGTTTGTGGCTGAAACTGTTGGAAT
TAGACCAGACCAAGAGGGGGGGCTAATCTATTAGAGGTTTTGAATAAATGTTCAATCT
AATGTAATATTGAAAATCTCATCAAAGAGGCTGAAGCTATTGAAAACAACTTAAAGA
ACTGGCAGAGCAACATTTAAAGATGATGTCAAAGAGTAGAAAGGAATATCCAATGTACAT
60 TTAACCTACCATAGGAGGAAACCTCTATTGGTATGAACCTTTTAGTAAAGGTTTCACTAA
AACCTAACACCTCCTCGCTTATGCTCGGAGGTGTAATTAAGCAATATTAGGGGAGTATCC
CAAGAGGGGCGTAgcCCCTTTATGGTGTGGATACCACACGTCATTAAAGTTGGGACTTTC
AGTCCCAATTAATGTCCAATCTGAAGATTTTATATTGTTTGAATATGCTAAAACCTTTCGA
ATTGGTATTTTGGTGGTATTATGAAGGTTTATGGATTATTTGGAATTAATGAAAATGCAA

5

10

15

20

25

30

35

40

45

50

55

60

TTAATGATTTTATTGAAAATCATATAAGACATTCACTATAATCAATGCATTAACTTAG
AGACAGTTAAAAACCTAAAAGAAGGAGATTTGGTTTTTATAACATCAACACTTAGGGAAG
ATTTGAGGAATGGAAGTGAAGGAATTTAGGAAGGGTTATAAATGTCTCTTTAGTCCCTC
AAATGATAAACGGCTTTGAAGAGAAGGAAATTATAGCTGGAAGGGTTCAATTGGAAATGT
TGGGATTTGCTAAATGTGTTAAATATGAATCCATCCATGTAGAGATAACATTTAGAATGT
ATTAATTTATTTTGGATAATTTTATTTTGTGTTCTTCTTCAACAGATTTTGCCCACTT
TATCATTTCAATTATAGACTTTATCTTGCTTCAATAGATTTTCATTGCCTATCAAAATTAG
CTTTCTCTTAGCTCTTGTTATGGCAACATTCAACCTCCTCAAATCCTTCAAAAATCCAAA
GTTCTTTGTCTAACGAATGAGATAACTATAGCCTCATTCTCCCTTCCTTGGAATCCATC
TACTGTATTAACCTCTATGTCTATGTTATGCTCTTCAAACAACCTCCTCAAATACCTAAC
TTGGGCATCGTAAGGAGTTATAACGTTTGTGTTATCTTATACTTTACAAGTTTTTAAAC
TATCTCTAAAACCTTCTCCGCTCTTCTATGTTGTAATAAGATGGAGATTCTTTATCTTT
CCTTCAATCCCTTCAACATTTATAAATTGAAGTGGGATTTCTGTTATAATATCTCTATC
AACCTCATCAATCTCCTCCTCTTAACTAAATCTAATAAAGTGATGTTTTAACGCTCTC
ATCTGCCTTTAATTTGTTGTTATAAAACATCTTATTTGGGAATTCATGATTTTTCTGTT
CATTCTATACTGAATCTCCAATATTGATGAAAATCTGGATATTTTTAATCAATCTCTC
AAATAAAGTCTTTTTTAGCTCTTCACTTAAACTGTTGGTGGTAATTGCTTATG
GTCTCCAGCCATGATTAGCTTTCTCTCTTAAACAATTGGAATTAAGCAAGAAGGCTCCAT
TGCTTGGCTTCTTCAATCAATAACAATCACATCAAACCTCCAGCCTTCAAAATTTCTGA
ACCAGCCATAGAGTTTGTGCTACGATAACATCTGCCTCTGCTAAAATCTCATTCTATGAT
TTTTTCAGTAATTTCAATCCAAATATTGATGATTCTTTAATCTTTTTATTTCTTATAAT
CCATTCTGCCATACTAACGATTTTTCTTAGGAATCCCTCTGTAGGATTTCTTTCTTTT
AGCTACTTTTAAATCTGCTCATCACTCATTCTCTCTCCATCTTGGGGAGGGCTTTAA
AAATTTATCCCTCTGTTCTTTAATTTCTTAACTCTCTCTTAAAGCTAGGATTTCTTG
ATATTTCTCATGATTTTCAATTAGATAGGGGAGAGAGTGTGAATCAAATCCTTTGAAAT
CCTTGTGGGATGCCCTACCCTAACAACCTTTAAATCTGGATATTTTTTTATTAGGTACTC
TAAGATGTTATCTGCTGCTATGTTTGAATCTGCTGTAGCTAAAACCTTATGTTTGTAA
TTAACCCTCTGGACGATAACCTCTGTTATAGTTCTTGTCTTTCCAGTTCTGGAGGGCC
GTGAATTAATAACAAATCCCTCTTAAACTGCCTTTTAACTGCTAATTTTTGTGATTC
ATTTAAATTTTATCATAGAACTCTAATTTGATGTCCTCTCTTAAAGGTTTTCTGGGTG
TTCAATGCCTAATATTATATAAGCTAATTTATCCCTCTTTCTTGCAAATCTCTTAAAGC
TTCTTTCTATCTTTTAAATGTTATGTCATTTACGTATAAATCAACTCTTACTCTTTCTT
ATAAACCCTTTTGGGACATCAACATCAAAGGCAACATCTATAAAGTTCTTCTACGTA
TATGACATTCGCATATAAATCACTCTGCAATGGGTTTTCTTTACTAACTAAAACAACGTC
TCCCGGAGATATTTCTGTTTAAATGGCTTTTTCTCCCAATCTTACAATGGTGCAACC
TAAGCTCTCTCCTCAAAATTTCCCTTTAAATTTAAATTTGCTCTTCCAACATTCTCTCT
CTTTTGCCTAATTTAATAATCTCATTTTATGAAATCCATCTCACATCTTCTCTCAAT
CTCAATCAAATCCATGAATTTCTTTACGTATAAATCAACTAAATTCAGCTATCACCAC
TTTAAACCAATTTCTGCAACTATTATATTCTCTTATTTCTCAAAATCTCACTTTAACTG
TCTTCCCTATTAGATTTTGTTCATTTATGTCAGTTAATTATCTGAATTACCCTATCCTTAG
CAACTCCCAAACTTCTCCTTTAACTCTTCCATCTAAAACAACCTTTACTTTTGTACCT
CACCAACTTTGAATGGATAAGGCAATCTTTCTCTTATGCGTTCCAAAATCCTTTGGTG
AAGTTATGAGCTTAACCTCTATACCTTTCTTCTTATATTCTAACTCATATTTCCCTAACA
AATAATAAACTTCTCAAATCCCAACCTTCAATTTTTTTAGGTCTTCTACCTAATTGAT
AAACCTTACAAAGTTGGCAACCTAAAATGGGGTCTTTTTTCCCGGTTAATGGATTAATA
TGTTTTGAGGATTTTTCTGCTCTAAATCAACAGCATACTCAATAACTCTCTTAAATTCCT
CATCGTTTATGTTTGGCAATAAAGGGGAGCAATCAATAGATGAATCTTAGAGTTTTTTA
TATATTGAGCAATATCTAAAATCTTCTTAATATTGTAATCTCTCTACCAGAGGCATTT
TAGCCATTTTTCTATCTAAGGCATTGATAGATAAGTTATCCTATGCAACCCGGCTCTT
CTAACTCATCTATTAGTTTATAATTTAAACTGTCCCGTTTGTGTCATGGAACGATAC
CATTACCTTTTTTATTATCTCTGCCAGTTCTTGAACATAATCAACTAATGGATAATAAA
GGCTTGGCTCTCCCTGCCCATCTAAATGTGCCTCAATAAACTTATTTCTTAAATCAA
CAATCTTTTTGTAATCTCAATTAAATACTCTAAATCAACATAGTAATCATTTTTCTTG
TTTTAGAAAACCTCTCCTTCACTGAGCAAAATATGCAGTTTAAATTACAGCCACAAT
GCCCTCTAACTTGGATTATTTCTACCTCTTCAATTAAACCAAGGAGTATGCCCTA
TTAGAGGAATTGGCTCATTATATATATAGTTTCTCTTTGTTATTTGCTCTTAAAT
TGTTAGCTATGCTATAAGAAATTAAGTTTAAATCCCAACCTTATATTTTCAGCTCTTT
TTGGATGAGCATTAATTTTTATTATTGAGCCATCAATTTCAACCTCTTATAAGGAATTT
CACTTCAATCTCATAAATTTGTTTATTCAAGGATTAATGTGTTATCTTTGTTTTTAA
CGTCGGTTATCATCTGTATTGTGATAAATCTAAGCACACCATAATCCACAACATTCAA
ATATTACATTAATTAACAATTTAAACAATCTTGTTATATTGGGTATTATTATTCT
AAAAGAAGATTTTGCAGTTACTAATATTGTCCTAAATTAAGCAAGCTCAAAATATTGGT
GCGGGGGATGGGGTTTAAAGCATAGGGCTTGGCCCTATTGCTATACCCAGGATACATTGC
TTCTAATGGAAGCAATGCCTCTTCAACCCGCTATCAATATTTGGTGCGGGGGACGGG

5

10

15

20

25

30

35

40

45

50

55

60

ATTGGAACCCGCGAACCCCTACGGGACCAGACCCTCAATCTGGCGCCTTTGACCTGGCTT
GGCGACCCCCGCCCTTAAAGGCCAATTTTATTTATAAACCTCCCTATATAAACTTACGC
CGAAAAGTATATATATGGGTTTGTAAATTATAATGATGTTGCGTGCCGAGGTGGCTTAGCT
GGTTATAGCGCCCGGCTCATACGGATATCCCAGGCTTTACGCCTGGGTCCCTGGGAAACCG
GGAGGTCGAGGGTTCGAATCCCTCCCTCGGCACCATTTTTATTCCATAGGGCTTCGCCCT
ATTGGGATACTCAGAGCAGGgTTGCCAGAGGCCAACCCCACTTTCTTTTAAGAGGCATTGC
CGAGCGTAGCGAGGCAATGCATCCTATTTTGATGAAATGGAAAGCTACGCTTCCAGCTA
TGAAAACCTCTTTTAGTTTTTCAATTAACCGAAGCGTTAGCTTCGGGCTACAAAATCTGAAA
GATTTTGTTTAACTTTTTCTAAAAGTTTCGTTTGTATCCCTCCCTCGGCACCATTTTATT
ATTTTATTTTAGGTTGTTATATTTATTTTATAGATTTATGGATTAACATTTTAAATA
GTATTTATTTTTTAAATCTTAACCTAACAGTTTTTAATGGTGAATTTATGAAAATTATTG
TTTGTATAACCGGGGCGAGTGGAGTCATTTATGCAAAAAGATTGTTAGAGGTATTGAAAG
ATAGAGCTGAAGTTAATCTAATTATCTCAAATTCAGCTAAAAAATAATTAAGAAGAGC
TTGATATTGCTGGAAAGAAATAAAAAAATTAGCGACGGACTATTATGAGAATGATGACT
TTTTCTCACCTCTTGCATCTGGTTCAAACAAATTTGATGCTGTTGTAGTTGTGCCTTGCT
CAATGAAAACCTTTATCAGCCATAGCCAACGGATACTCAGCAAATTTAATAGTTAGAGTTT
GTGATATCGCTTTAAAGAAAGAAAGGAAATTGATAATTATGCCAAGAGAGATGCCATTTA
ATAGCATACATTTAGAAAATATGTTAAACCTTTCAAATTTGGGAGCTATAGTAATGCCTC
CAATTCCTGCTTTCTATAATAAACCAAAAAATGTAAATGATATAATTAATTTTGTGTTG
GAAGAGTTTTAGATATTTTGGGAATAGATAATAGCTTATTTAAAGATGGGGAACGTGTT
AAAGTATAATTCTAAAATTTCTGAAAACAATAAAATTTTTAATTGAAGAAATATAATATT
TTATTAAGTGTGTATAGTTTAAATTTGGTGATATCATGCTCGATAAATTAGGAGAAAATT
TAAACAAAGCCCTAAACAAACTAAAAGCTGCTGCCTTTGTTGATAAAAAATTAATAAAAG
AAGTTATAAAAGATATTCAAAGGGCTTAAATACAGGCAGATGTTAATGTAAAATTGGTTT
TAAAGATGAGTAAAGAAATAGAGAGGAGAGCTTTAGAGGAAAAGACACCAAGGGTTTAT
CAAAGAAAGAGCATATCATAAAGATTGTCTATGAAGAATTAGTCAAATTTATGGGAGAAG
AGGCAAAAAAATTAGAGTTAAATCCAAAAAACAATAATGTTATCTTATTAGTTGGTATTC
AAGGTTTCAGGAAAAACAACAACCTGCAGCAAAATTAGCAAGCTATATCCAAAAAGAGGGT
TAAAACCTGCTTTAATCGCAGCTGATACCTACAGACCAGCGGCTTATGAGCAGTTAAAGC
AGTTAGCTGAAAAAATCCACGTGCCAATATATGGGGATGAGACAAGAACAATAATCACCAG
TAGATATTGTTAAAGAGGGGATGGAGAAATTTAAGAAGGCAGATGTTTTAATTATAGATA
CTGCTGGAAGACATAAAGAGGAAAAAGGTTTATTGGAAGAGATGAAGCAAATTAAGAGA
TAACAAATCCAGATGAAATCATATTGGTTATAGATGGGACTATTGGGCAACAGCAGGAA
TTCAAGCTAAAGCGTTTAAAGAGGCAGTTGGAGAGATTGGGAGTATAATAGTAAGTAAAT
TAGATGGTTCTGCTAAAGGAGGAGGGCGTTAAGTGCGGTTGCTGAGACAAAAGCACCTA
TAAAATTCATTGGAATTGGGGAGGGGATTGATGATTTAGAACCATTGACCCCTAAAAAAT
TTATATCTCGACTGTTAGGGATGGGAGATTTAGAGAGCCTATTAGAAAAAGCTGAAGACA
TGGTTGATGAGAAAACAGAAGAAAGCATAGATGCAATAATGAGAGGGAAATTTACTTTAA
ATGAGTTGATGACTCAATTAGAAGCAATTGAAAACATGGGTTCAATGAAAAAATCCTAA
GTATGAGTTTCTGGATTGGGAGGCTATGCCTAAAGAGCTTCTCATTAACTGAGGCCAA
AGATAAAAAAATATAAGGTAATTATAAGTTCAATGACTAAGGAAGAGAGAGAAATCCAA
AGATTATTAAGCTTCAAGAAATCAGAAGGATTGCAAGAGGTTCTGGAACACAGAAAATG
ATGTTAGGGAGGTTTTAAGATATTATGAAACAACAAAAATGCCATAGATAAGTTGAGAA
AGGGTAAGATGTTGAGAATTGGGAGGACCTTTAGGACAAATAATGAGACAATTAATGTTTA
AGGAAGGATAATCTTTTTTATTTTCTATTTAGCAATTTAATCTCAGATATAATAGAAT
CAAATACTTTAGAAGTTTAAATTTTATATCTCTTTTATATATTTTAGGGATTACCTA
TAGTGTTTTTCAAACCTTAATAAAATTTCTAAGGCCTTATATAAAAGCCTATAGGGCTTT
TATAAATACCTTATACCGTAAAAACATTTGAAAAACACTATAAAAAATTTGTAGAGGTTATG
ATTATGAAAACAATCAAGAGATTAATGAAAAGATTAAAAAGGAGAGGCTGTTGTTGTA
ACAGCGGAAGAGATGATAAAATAGTTGAGGAAGAAGGAGCTAAAAGAGCGGCTGATTAT
GTTGATGTTGTTACAACAGGAACATTTGGAGCTATGTGCTCATCTGGAGTATTTATAAAC
TTTGGACATTCAGACCCGCCAATAAAGATGTTAAGGATTTATTTAAACAATGTTGAAGCT
TATGGAGGTTTTAGCTGCTGTTGATGCTTATATAGGAGCTGCACAACCGAACGAAGACCCA
GATGTAGATATTGATTACGGAGGAGCTCATGTTATAGAGGATTTAGTTAGAGGAAGGAA
GTTGAGCTTTATGCTGAGGGATATACAACCTGACTGCTATCCAAGGAAGGAGGTTAATGTT
AGAATAACGTTAGATGATGTTAATCAGGCAATTATGGTTAATCCAAGAAATTGCTATCAA
ACTTATGCTGCAGCAACAAACAGTAGGGAGGAGAAAATATACACCTACATGGGCATTCTA
CTTCCTGAATATAACAACGTTTCATTTTACGGCGCTGGACAGTTAAATCCTTTACAGAAAT
GATTATAACCCAGAAACAAATCATTTAATACCATAGGTATTGGAACAAGGATTTTCTTA
GGAGGAGGAATTGGATATGTAATTTGGTGAGGGTACACAGCATAACCCACCATTGGAACA
TTAATGGTTAAAGGAGATTTAAAAACAGATGAATCCTAAATTTATAAGGGCTGCTACAATG
CCAAGGTATGGAAGCACGTTGTATGTTGGTATAGGCATCCCAATCCAGTTTTAATGAA
AAGATAGCTGAGAGATGTGCTATTAGAGATGAAGATATTGAAGTGCCAATCTATGATTAT
GGATTTCCAAGGAGGGATAGACCATTAAATAGCAAAAAACAACCTATAAAGTGTTAAGAAGT

GGAAAAATAACATTAAATGTAAATATAGATGGGAAAGATGTTGAAAAAACCGTAAAAACT
GGTTCTGTTTCAAGTTATAAGATGGCAAGAGAGGTTGCTGAAACCCCTCAAACAGTGGATT
TTGGATGGGAAGTTTTTACTAAGTGAAGAGGTTGATACTTTAGGAAGAGCTGAAAAACAAG
5 CCAATGAAGTCACCAATAACATTAGTTAAGGATATTTAAGCAAACCACCAATAACTGCT
CATAGCAATATATCCATTATGGAAGCTGCTAAGATTTTGATAAAGCATAATATAAACCAT
CTTCCTATAGTTGATGAACATGGGAAGTTAGTGGGAATAATTACATCGTGGGATATAGCT
AAAGCTCTTGCTCAAAACAAAAGACAATTGAAGAGATTATGACAAGAAATGTAATAACT
GCTCATGAAGATGAACCCGTTGACCATGTAGCGATAAAAAATGAGTAAATATAACATTTCT
10 GGTGTTCCAGTGGTTGATGACTACAGAAGAGTTGTGGGCATTGTAACATCTGAAGATATC
TCAAGATTATTCGGAGGGAAAAAATGAGAAAGAGAGTGTATTACTGGACAGATTTCAGAGC
ATATAAACAAAGCCAGTTATTTCCGATACTATATTAATACAGGAGTTAAGATAAACATAT
TAAAAGCTAAGGTAGAGCCACAGGAGGCATTTTGGATATTGGAATTGTTGGTAGTAAAG
AAACTATAGAGAAAGCTTTAAATTATCTATCAAAATTTGGAGAAGTTGAGGAAATCTCTA
15 AAGTTATAAAAAGGGATTGAGAGAAGTGTGTGCATTGTGGCTGTTGCATAACCCAAATGCC
CTATTAATGTAATTTATATGGATGAGGATTATAATGTAGTATTCAAAGAAGAGGACTGTG
TCGGCTGTAAAAACTGTTTAAAAGCCTGTCCATTTAAAGCAATTGAGATTTTGTAGTAAT
ATATTTATCACGCTGAAAGAGTTTAGACTTATGTTTAAATAAATTTAAAGGCTTTATTTCT
TTAWTTAAATAATATTTTAAATTTCTAAGGGTTTGCTGGTTTGATTGTTTGAATATT
20 TAACTTAATCAAATTTTGAATTTTGAATAATTAGGATTAATTAGGCAAGTAAATAAGA
TTTCTCTAACAAATAAGTTAAATTTTGGATTTAAAAGATAAAAAATACTCTGTTTAGT
AAAGAGATAAAATTTTAAATACTAAAGGTTTATATTGTAAGATGGTTATTTATCCTTAG
AAAAATATGGTATAGAAAAGCTTAAATATTAAGAGTGATGAAATATATTATGTTGTGAAT
GATTACCCCTATTAAAATAAGACCTCTTGGAGGATGGAAATTAGGTAGAGAAATCACGGCA
25 AAAACAGGTAGAGTAACAATTAAGACCTCTTGGAGGATGGAAATCTTTATCCTTA
TCAATCTCTGTTTGGCATGATTTTATTAAATAAGACCTCTTAGAGGATGGAAACTAA
TTTTATTATATGGGAATCTGCTTGCAATTTATTAAATCAGACCGTTTCGGAATGGAA
ACAATTTAAACAAATATCGCAAAATCAGATTTCTGGAATAAAATACTAATTAATTTCTA
TTTTTTAAATATTTATAAATAAATTTATAACTTCAATAATAGGACTTTTGTAGGAGTAAA
30 TATTTCTTGACTTATATCTACCTTCATATAAATTTCTATAATGTTTGAAGATACTACAA
TTCTCATATAAAGATAATAGTATATAAAGTCTAAAGTCTTATCAAAGAAGGTAAAGTT
TAAATAGCATAATCTGCTATTATAGTCAATCAATGTTTATTAACAACAAAAGAGGATA
TATGGTTTTTTGCAAAAGTTATTAAATTGACGAAGGAAGATTGAmCGCCTTCTATAAGAA
GGCGTTTCATTATATGCCTTAATGTATTCTAAATATTTsCAAAAACATAAAAAACACAAAT
35 TAAAGATTTTAAGGTGATAACTTATGTCAAAGGAACCTCCATCAATGGGTAAAAGAAACA
AAGGTTTCATATCACATAAGATGTAGAAGATGTGGGAGAAGAGCCTACCACGTAAGAAAAA
AGAGATGTGCTGCATGTGGATTTCCAAATAAAGAATGAGAAAATATTTCATGGCAAAATA
AGAAAGTTAATGGTAAGAGAATAAATAAATTAATAAATTAATTAAGAAATTTTATCTTT
40 TTTAATTGAATTTATAGTATCTTTCAAACACTTTGAAATTTCTCTATTATAAATAAG
CTTTATAAATTTTGAAGACACTATATTACCATTGGCAATTGGGATAGTTTATATATA
AATTAAAAGTTATAGTTTTTGTATAATCTTATTTGGTGATAAAATGAGCGACCTTGAAA
ATATTGACTATTATGATTATAAGGCATTATTAAAGAGAGCAAGAAGTCAGATTTCCAGATT
ACGTTTTCCAAAAGATAGATTTGAACCTCCAGAAATTGAGATTTTGATAGAAGGAAATA
45 GAACAATAATAAGAACTTTAGAGAGTTGGCTAAGGCAGTTAATAGAGATGAGGAATTTCT
TTGCTAAGTATCTTTTAAAGAGAGCTGGTAGTGCTGCTAAGTACTTAGAGGGAGGTAGATTAA
TCTTACAGAGAAGAATCAGCCCAGAGTTATTAAATCAAGAATTATGACTTCTTGAGGG
AGTATGTTATCTGTAGAGAGTGCGGTAAGCCAGATACCAAGATTATTAAGGAGGGAAGAG
TTCATTTACTCAAATGTATGGCTTGTGGTGCTATAAGACCAATAAGAATGATTTAAATAC
CATAGGAGGATGCCTCCTATTGGGATATCACATGTCCATTAAAGTTGCCCTTACAGGGGC
50 AATTAATGTCCAATAGGTTGGAATCCCTTTCTACGAGGGATGCTCATAAAAATTTTGATG
AAACAGAAAGTTTCAATTCTGGCTACAAAACCTCAAAAAGTTTTTCATTTAATCGGAGCGG
AGCGAAGAGCTACAAATCCGTTAGGATTTATTAACCAAGCGTAGCTTCGGTAATGAAA
ACCTAACAGTTTCCATCTAAACGTTTATAAAAAGTTTCAAGGGAAATCATGGAAGTAAA
GCCATGGAGATTTTAAAAAATATCTCTCTTTAAATATTCCAAAAAAGATTTTAATAACC
55 TATTTTGTGTTGGGCAGGATTTCTGTTTCTTCTCTGTAGGGAAGTTCTTTTATAT
TTATCATCTATTTTAAATCCAATTTTATATCTGAACCAGCTAAATTAGCTCAAAGTGTT
GGAACGTCAAAATTTAACGCTGTTTCTTCAGCTGTATCGAATACTGTTGGGGTAAAAAAT
GCTTACTTAACCTATGCTCTTTCATATATAGTTTCTAATTTTATGGGGTGTGTTGATTATA
ATGTTTGCTCTTGGAGCACTTGCTTATTTATATAAGAAAGACTTAGAAAAAGCTAAAACA
60 CTTGAAGAGAAAGAAGAACTATTAAAGTGTTATCAAAAATATCTATTAATATTATTATC
TTTACTGTCTATAATCCACTGACTGGATTAATTGGAGTAAATCTTCAATATTTCTGATTTA
ATTGCTGTCTTCCACATGGATTTTTTGAATTTTTTGGATTGGCCACTGCAGTCGTTGTG
GGAGTAGAATTATCAATAAAATTTCTCCCAATAGTTAAAGAGAAATAACAAGTAAAAAA
ATAGTAATTTCTATAGCTTGTTCCTTTATATTTATCTTTATTGCTGGAATGTTGGAGCCA
ATTGACTGGTTTATCTATAGCTATGCAAAAGCTTATGGAATTTCCCTATTAGCTGCCTTT

-512-

5 GCAACTGGGTATAAAAACTTATTTTTGTATCTAATTTCTATGCTTTTAAATCTTGAGGT
GATACGATTAAAGTATTGGCTATAGATATATCTGGAAGGCATCATGAAAATGATATATTT
TTTAGAGTTTATGCTGGGGTTTTAGTTGAGATTAAAGCAGATAGAATTGTGCATCTGGAA
AAAATAGATGTTATGGTTAAAGAAGAAGAACTCAGAAGTTGAGAGATATTGTTAAAGAG
10 GTTAAGGAGTTAATTGATAAAGTTGGAGATGAGTTTGATTACATTCTATGTGAAAGAGGA
GAGTTTTTCAACATATCCAAGGATATTATTTTCAAGCAATTTTAAAAAAGAGGTTATATTT
CCAAAGACCAGAGGGGAGTTGGAAGCGATAAATATAGCCCACCATGTTTCTTATTTCTGTT
AGGAAACTGCTTATAGAAGAAAAAGAAAAAGTTAATAGAACTTTATATTGCCTGGTAA
15 AAAATAAAAAGCTGAAACATAATAAGATAGTTTTTAAAGAAATAAACTTTGGTGATTCTAA
TGTATGAGATAGTTAGATACGAAGGAGGGSTTTATAAAAAACAACATCTTCAAAGAAATGGA
TTGAGGATATCGGAGGTTTTGTTATTCAAGAGCACGTTATGCAGTTAGACGTTTATATGA
CCTTGGCAATTTCTCAAAATGAACTTGAAATATCAAAGAGGAAGCTAAAAAATATAAGG
20 GTATGATTATAGAAACCCCGTTGGCAGGGACTGAAATAGCTGTTGTGGCTCCAGTTTAT
CAAGACATCACCTCCACATACTGCCTGTGATATTTTCAAGATATTTGAGAAGATTTGGAG
CTAAGCCAAACATGATTGGTTTAGCAAGAGGGGTTGGGAGAGACATAGCCCAATTGAGAG
AAAAGAAAGGAGATTAATAGAGGAGCATGATTGGCTGTTTATGTAATGGGTAATTTTG
25 AGGATTGCATTAATAAATAAAACCCATCTATTGATGTGGATATTCCAGTTGTTGTTACTG
GAGGACCTGAAAAAATAGATATTCCTTACCCGTATGTTGGAAATCTTGGGAGAAGAAGCC
ATAGATTAAGGCATGGAGAAGAAATTAGAGCTTTAAGAAAGATGGTTGAGGTAATAACAG
AACTTATAAATGAGAGGAGGAGAGATTATCTTACGACCCCTCCAATTSTTCCACCAGTAG
TTGTTAAAGATGAGATTGAGAAGCAGGTTGAAGAAGTTTATTCAATTTTATCTCCAATGC
CTATCGTTACTCAATTGGATGGTTTGAGAGTTAAGTTAGATTATGATAAATATGCAGATA
30 AAATTAGGGAAGTTAAAGTCAAAAACATATACATTGGGAGATATAGCAGATATTAAAGAA
GTGAGATGAAAACTATATATTAATAAAAAATAAAACCAAAATCAGAAGTTGAATTTGAGA
TGCATAAGGATAAAGCTTAAATTTTATAATTTTATAAATAACATTACGAGGGAGA
AACATGGAGAAGCTTAAATTTTAAATGCTATGATATAGATGAAAAGGAAATCCCAATACCT
35 CCTGGATTACCTCAATCAATAATTGCCAGATTGATAGAGATTTGTAATGTAAAATTTGAC
ATTAGGGAGGATGAAATATACAATGTTAAATATCCAGTGTTAATAGGAAAAGAAGAT
TTAAAGAAGCTAAAAAATATTTAGAGTTAATTACTGAAGCAAAATGACTTTAAGAGAT
ATTGCAAGATTGGCGAGGAGATTTAAAGTAAAAGCTAAGATTTACACAGATGATGAAGAT
TTGAGATATATTTTAGATGTTTTGAGTAACGATATAGCCAAATAGGATTATATAGAGATT
40 GTTGAAGATAGCCAGAAGGAGATAAAGAGGTTATTGAAATGGAGACAAAAAATATAC
GTTGGAATATAAATAAATTAATGACTTTAGCCAATAGAGAGACAATATTCATAACATC
TATTTCTCTATCTATTTTATCTCCTCCTTAAACCTTTTTAAGCTATCTCTATGTGGTA
35 TTCACAGAATGGGCAAACTGTAATTACAGCATCTACATTGGCATCATAAATCATCCTTGC
CCTACTTTTACCTATTAAGTTAGCAATATCTGGTTTTCCACTCCTAACTCCTCCTCCAGC
TCCACAACACCTTGCCCTCTATATCAATAAATTCAAGTTCTGGAATGGACTTTAAATCTC
TCTTGGCTGTTTATATATTTTTTGTCTCTCCTCAATGACATGGGTGCTGGTAAGTGAT
40 TCTCATCTTTAAACGGTTTATACCTTTAAAGTCCAACCTCAGTTAAAACCTCTGTTATATC
TTTAACTTCAAACTTTCTCTCCTTATAATCGTTTTTAAATGTGCTTCCACAACCAGCACA
GATTGTTACAACACAATCAACATCCAACCTTGTTAAATATTTCCAAGTTTTTTCTTTTAG
CATTTCAAGCAACATCCCTCTGCCAGTTCTGAAGAATGGTGAGCCACAGCAAACTGATT
45 TTTAGGAATAACAACAGACACACCATGAGCATTAAAACCTTTATGCACTTTTTCTTAC
ATTTTGCACTCTAAATCAACTAAACATCCTGTAAAGAAAGCTACTCTTAATTTCTCACT
TTTCACTGGATAGAAATCAGCAACTTGCTTTAATAATGGCAATTCCTCTTCAACAACACT
TCTGTTATATTTTAAACATTTTCCCTAACTTTTAAAGTGATTTCTATATAATAGCCCTT
50 ACTAAATGCTAAAGCTCTAAGCTTTTCTATAGCTCTATGAACAATATCAATCTCCTTTGG
GCAGACCTCAACACACTTAGCACACGTTGTGCAAGTTGTAGATATTTTCAAAGTATGCAGT
TATCTCTCTGCCATCTTCGTCCCTCTTATCAAACGCAATCTCGCCAACTGTCTCATAAA
AGTTGGGCCAGGATAGTCGCTAAGCTTTTGTCTCTTCAACATATTTGGGAATGAGAATTTCAAG
55 CTCTTCAGGATAATTTTTCTTATAAGGTAGTTTTTATGCTTAATAACTTTTTATAATA
TGGTTCCCTATCAACAATTAATCTCTAATAACCTTAAATCCTCTTAATGGCTCAATTAT
CATGCCATCCTCTACCTTTGTCTCACATGCCAATCTTGGCTCTCCATTATTGTTACAGC
ACAACCTCCACACTGAGCATTCTGCAAGACGCTCTAAATAAAATATTAGCCTCATAATG
CTTATTTATATACTCTAAGGCCTCTAAACTGTTATATTTCTGGGACTTCATAGCTTTC
AAGATACTCTTCTCTCCGTTAAATCTCTTAACTGTTATCTTTATCATTATCCCATCCTC
60 AAAGAAGCTATTGCAATTATATATAGAGCTAAAAATAAAATTCCTTGCCATCTACCAATC
TTTGAGTATTTTGCAAAATAAATAGAGTAAAGGCTCATAATTACCAACACAGCCATTGT
ACATTTTCCGCTGGGAGATGCATAAATAAACTTCCAAGTCCCAAGGTTTCTCTTTGCTGCT
GCTATGTTACTTCCAATGACATTTTCTAAGACCATGCCTCCAAGGTTTCTCTTTGCTGCT
GCTAAGGAACCATTAACCTCTGGTAGAGATGTTCCAATGCCACTAAGGTAATCCAATA
ACCTTATCAGATATATCTAAAGCTAACGCTATCTTCTTTGCTCCATCAACAAATAATTCA
GCTCCAACATAAACACCAATTAACCAATTATTAACAAAATAAGGAGAACACTACTGAA

-513-

GGGTTGTTTTTATCATTATTTTCTTCTATCTCAGCACTTCCATTCTTTACAGTCCATCTT
AAGTAGATAATAAATAAAATTAGCAAAACAACCTCCATCAATCCATGAAAATCCATCAATT
CCTATAACTGCAGCAAATATAACAAATAGAAGATAAACTAATATATTCTTTTGTAAGTTT
5 TTATCAACTATTATTGGACTTATAATTGCACTTAAGCCAAGGACTAAACCTATATTGCAG
ATACAAGAACCAATGGCATTTCCTATTGATATGCCCGAGCATGCATATAAGAAGCATAA
GCAGATGTTAATATCTCTGGCAGAGATGTTCCAATAGCCATAACCGTAGCTCCAATGACA
AAGTTTGACACATTAAAATGCCTTGCTATCCTCTCACTTCCTAAGACAAACCAATCGCTC
CCATAATACAGTAGAATAAGCCCTAATAGAAAATAACCAACCCCTAAAATTAGCATTCTT
10 ATCCCTACTAAATTAATTAAAGTTTGTGTTTTGAATATATTCTGCAATAATATTTAACTT
AAGCAAAATTTTCAGTTCATCCATATTGTATTATATTGTCTCCTTTAATAGATAAACCC
TATCTCCCTCTCTAAGTATGATTAGCTTAAGTCCGACCTCTCTCCTTTTATAGCAA
TTTCAACATCTTTATGGTTTATCTGCATTGATTAAACAACCTCCTCAACACAGCCAGTAG
TTTTTCCAATTATTAATATGGTATCTCCAATTTTTAAATCATGCCATAGCTCAATCTCTG
15 CCACACTAACCTTTTTGTAAAAATTAACAACCTCTCCAATCTCAATCTTTCTATACTTTG
ATGCATTTCCTTCAATCTCATATTGGAAGTCGTGATTTTTATTTATATCTCTAAAGTAAA
ATCCAGTATCATAGCTCCTATTATAGACCTTCTGAAGCTCTTTTTTGAATATTCAAGCT
TATCATAATAACTGCCGTCTAAAACGCTATCTATTGCTTCCCTATAAATCTTTGTAGTTC
TCATCACATAATCGGCATTTTGTAGCTCTACCTCTATCTTAAATGAATCAAAAACCTCCA
20 TTAACCTCTGGGATGTGTTCTATCATACATAAATCCTTTGGAGATAAAAGATATTTCCCTT
CACAACTATCTCATAAGTGGCGTCATGATGCTCATTAATCAACTCCACTTTCTCTTAC
ATGGTTGTAGGCAGTCTCCACAGTTTGCATGTCTTCCAATAAATAGGAGCTTAAAAAGC
ATCTTCCACTTATAGCAACACATAAAGCACCATGAACAAAGCCCTCAAGCTCTAAATCTA
CTTTATCCTTCTTTAAATTTTCTCTAATCTCTTTTATTTGATTAAAGGTTAGTTCTCTTG
25 ATAATATAACTCTTTTAGCAAACTTTGAATAAAACTTGGCTGTTAAGGAGTTTGTACGT
TGCATTGAACACTTGCATGAACCTCTCAGCCCTAATTCATTAGCTAAGTGCATAGTTCCCA
AATCACTAACTATAACTGCATCAACTTCAGCAGAATTTGCAAAATCTAAAATTTCTCCTCA
CTTCTTTAAATCATTTTCTATAAACAACCGTATTTGTGCAGAGATAAACCTTTTTATTAT
TATCGTGAGCGTATTTAATCCTTCTATTAACTCCTCTCTGTAAAGTTTTTGTATTTG
30 CTCTCATGTTTAGCTCTTTCAATCCGCAATAAAGTGCATCTGCTCCATAATCAATAGCTG
TTTTTAGACATGTTAAATCATTAGCTGGAGATAAAAGCTCTACCATAACCATCACTTAGA
AATTTTTTTAAATTTTAAATTTATATTGAAAGTATAAAATAGCAATAACCAATATGACCTC
ATTATATAAAAAAGATTATCCTATTGGAAACACTACAGGAATCCCTCTAACATTTTCAAT
ATAAGCATCGACTCCATAAAGTCTTTAATATTCTCTGGATTTATAAAGTCTCTCCCTCC
35 TTCAGCATATATAACTCCATCCTTTAGCATTATAAATTTATCGGAGTATCTTAAAGCCAA
ATTTAAATCATGCATAACTACAATTGAGGCTATGTTTGGAGTTTTGATATATCCATAAT
GATTTTCATAACCTCCAAGTCTTTTAAATCTAAGTTGTTTGTGGCTCATCTAAAAG
TAATATTTGAGGCTCTTGCACTAAAGCCCTTGCTATTATTACCTTTTGCAGTTCTCCACC
40 ACTCAACTCATTCGTATATCTTATAGGCATAATCCTCTAAGTTTAAAGCTTTAAACCTT
GTGAGTTATCTCTATATCTCTATCAGAGACTTCCCATTTTATATGTGGCTTCTTCCCAA
CAAAACAGCATCAAATACAGTCATGTAATTTCTTTCAGCTCTCTGTGGAACATAACCAAC
TTTCTTAGCTAATTCAAGATTATCTAAATTTCTTATATCAAAATTATCAATCAATATTGT
CCCTCTCTTTGGCTTTAAGATTTTATTATACATTTTAAATAAGGTAGATTTCAGCTCC
45 ATTAACCTCTAAAATAGAAACAACCTCTCCTCTTTTAACTCAAAATTTATGTTGTTTAG
TATTTGCCCTACTTTTATATGCAATTCACCTCCATCAACAGAGAGAAATCAATAACTCAC
CTATAATAAATTATGCAAGATATATAGCAAAATTTCCAATATTTTAACTACCATTCTCTC
TGATTTTATAACTTTAATTGATTCTATGATGAATCTTTTAAATACATTAAACATCT
TAAACACTCCTCCTCTCCTTCAAACTCAAAGATTATCTTATTATTTCAATTTCTCTCAAT
GCATTTATAATCAATTATTGGCTTTTCTGGAATTTTAGTCATGAATTTTTCATAGCTC
50 TTTATAAAATGGAAGTGGAGTAAAGGTAGAAATGAGAGATATCCATGTCTTCTAATATA
TCCCATTTATATCATGATGCAAACTTCCCTAATTTATGATAGTCTTCTTTATTATCCAG
AGAATCCTTTAAATCCTCTCTAAAAGTTCTTTATTGTTTCTCAATAAAATATAAATTAA
TTTAAATAATGAGCAATATTAAATAATTTACATAACCTTCCAGTTCAACCTTTTTTC
TGATTCGAAGATAAAGGTTATTTTACAGTTTTTCCAACATTCCACCCCAATATTTGG
55 CAACTAATAATATACTATTATTATACTCTTTTATACATCTTTAACAGCAAGTAAAGAAA
CATCGGAGCTCCTAAGAAAGATGTTAAATCCCAACTGGCAACACTATCGGAGCAATTAT
TGTCCTTGCAACGTATCAGCAATAAGCAATAAAACAGCCCCAAACAATGCAGAGATTGG
AATTAATAACCTGTAATCTCCTCCAATGCAATCCTAATATATGTGGGAGATTAAACC
60 AACAAATCCAATTTTCCCAAGAATGCTACATTTACTGATGTTAATAATGAAGCTACAAG
CATGCCAATCAATCTTGCTCTCTGTATTAACCTCCTAAGGATTTAGCTGTCTCTCTCC
AGCCTCTAAGGCATTGTAATCCCACCTTTTATACATGAAATATATTAAAGAGGGAATCAT
AACTGCAGCCATGATATAAATCTCTGTCCATATAGCTCTTCCCAAGTCTCCAAAAGTCCA
ATAAACCATTGCCGCCAACTGCAATCATCTGCAAGGATTGGATGAGCATAGTTCCAGC
TGTAATAGAGAGCTCATAGCAACTCCAGCTAAAATCATGGCCTCTGGAGTTAATCCCT
CAACTAGCAAGTAATAAGATTACAACAACCAATCAAAGCCCTAAGAATGCAAGAT

5 TGTTCATCATGTATGGGTTGTTTATAAATATTCTTCCAGTGCTCTCAGCCCCCTCCAAAACC
AAACATGATTATGGCAAAACATGCACCAACATTGCTCCATGTGAAATCCCATCGTAAA
TGGGCTTGCCAATGGGTTTCTTAAATGCACTGCATAACTGCCCCAGCTACAGCTAAAGA
CATTCCAGATATTATTGCGGCAAAATATCCTTGGCAGTCTGATATTCCAAATAACTAAGTT
10 TATATCATCTTTTCCATAAACCATTAAAGGCATTTACAACCTGATTAACAGTTAATTTATA
GTCTCCTACGCATAAGGCATAAATTGAGCTTAAAAATAAAGTTATAAGTAAAAATAATCCC
AAAAATTATCTTCTTTTTTGTATATAACTTATATTCTGTGGGATGTCCATACTATCACA
TTTTTTGAATTATTTTAAAGCTTTTGTAGCAACAATCATCTTTGCTGGTGAATTATCTTTA
AATCGAAGCGAATCCGAAGGATTGCTGACTTACGAAAACCTCGAAGAGTTTTCGTCAAGT
15 CCTAAAAGTTCTGACATATCAACAACCTTCCAAGATTTTAAAACCTAAATCTTCTAAGTAT
TTTAAATAATCATTGAGATTTAAATCTCCTTCAAATGTGTATCTTATTTTACCCCTCTTA
AGCCCTTCTGGTTTAGAGAAGTTCCATTCCATGTTGTTTATATAGTCTTCAATACCCTCT
TCCTTATCTGGAAGAATTGCTTATTTATAAATAAACCTCCTTCAATTAAAGGCATTATAA
ACCTTCTCTGCAATCTTTGGATTTTTTCCACCTGGATTATATGAGCAGAAATATTATATCG
20 TAGCCCTTTCCGATATCATCCTTATAAAAAATCTCCAGTAATTGTGAAGACGTTTTTTGCA
TTGTATTTTTTGATAAATTTTTTGGTTTCTTCAATAACATTGGTAAATCAAAGACATAG
CACTTTAAATTTCTGTTTAAACATGCTAAATCCAATTGCATACAATCCATGTCTCCAGCC
AAATCAAGAAGTTTTTGGCGTTTAAACTCCTCATATTTTGCCATGTAATTTAAAACC
TTCTGCAACTCCAGCACTTGCACTTCATCTGCCATTCTCCTAACAAACCTTTGGAAAAAG
25 TTATCAACATCCATATTTGAGCAGTTGGATTTATTTTTTAAATATCAGCTAAATTTTCC
CAATTTTTAATATTCTCAAAATAGCTGTATATTGGATTGATTATGCTATAAATTGAATCC
TTTTTCAGATAGATGTTGGTTATTTTCAAGCATTTTTGTAAATAAATCTTTCACTTACAAC
TTACTCTCAATTAAATCTAATCATTAAAGGATTTTTCAGTATATACTCCATTAATAATCAAA
TCAGCGTCTAAATCTCTGCCAATTCCTTAGCAGTTTTTAAACTGCTTAAATACTCAAT
30 AAATTTAAATCAATAGCTGCTTCAACAAATAAAAAATCCTTGCTTTGAATAAACTTCA
TCAAAAAGCTTCAATATCTTCTGGGCTTTTATCTGGAGATTTTAAAGCATTTTTATCA
CCAAAATAAAAAATTATAAAAAAATTAAAAATTAGCTGCTAAACTCTAATTTCTTAAATCCT
CCCAATTTCTCTTTTCTCTCTTTATAAACTGGCTTTCCAACCAAGAAGGTAAATATCTCA
TCTGCTTTTTGTTCTGGGTCTATATCTTTAAATCTATCTGGATAAACTACTTTTCTCTATA
35 TAATAAGCATCAGCAAGAGCTGTTCTATATTTGTTGTGTAGAAGTTATATGGCAATAAA
CCATAAACATCTCCATTCTTAAATGCCTTTAATGAGTTGTAAAATTCTTTATTTCTCTTA
TAGCTTTCAACAACCTAATCTCAATCCTCCTTCAATGAATATTATATCTGGATTCCAT
TTTAGAATTTGCTCCTTAGTAACAAATACATGCCCTCTTTACCCAACCTCATCTGCAACG
40 TTCTTTGCATTAACAGCAACAAATGGTGGATATTTGCACTCAGTGCTGTCAATTCATGCT
AGTCTTTGTATCCAATACCTCCAACATAGACACTTGGCTTCTTATCGTCTGGAATATCT
TTTGTCTCTCATTAAATCATTTTGGCAGTTCTTTATAAATCAATAACCTCCTTAGCT
CTCTCTTCTTTGCCAATATTTTTCTGCAAGCTCTAATGATTAAATAAATCTTCGTTG
TTGAATGTTGCCAATGCCATAGCTTAAACAACCTACTGGAATACCAGTTTTTTGCTGT
45 AATGCATCAACTTCATCCTTTGGCATGTATGTAACAAATATTACATCTGGTTTGACCTGA
ATTATAGCCTCTGGGTTTGGTTTTGGACAAGGCCCTCCTTGCCCTATTGTTGGTAAAGTTA
GCAAGCTCTGGATGTGCAATTCTATAAGGTCTTGCCATGGAGTCCATTTCTTCTCAGTA
TCTTCAACTCCAACAACCTTATCCGTTGCGTTTAGATAGACAATAAGTCTTAAACATCCT
GGACCACAGCATACAATCCTATTAACCTCTTTAGGCACCTCAACCTCTCTACCATACAAA
50 TCAACAACCTTTATGGTGTAGGAGCTTCACTTGCAGTTGGAGTTTGTCTTCTATATTC
TGCTCCATACATCCACAAAACCTACGGCAATAATTAGAATTGTTAATAAACCTATTAAT
TTCTTTAACATATTGTCAACATTTTAGGCTATATGATATGAACAAAATTTTAAATATCT
AATATATATTTTTCGGTAGTTTATCAAAAATAATCGTTAAAAATACATCAATATTCATAA
AAATTATATAAAAAATAGAAAAAGTTATTTAGTTAAATCTCTACAACATCTTTAATTT
55 CAGATAATTCAGCATTAACTCCTCTCCCATTAATCCACATTTTCAATCTCCTTATTGT
TTGGAATAACTGCAATAACCTTATCTTTATTGACATTTTCAAGAATTAAATCTTTGTCT
CATCATCTACCTTATTAACATGAAATAAACCTTCTTACCCAATTTCTCTCCAATTTCTCT
CTATCTTCTTAGATAATCTTATTGATTTCATAGGTTGGGTCTATAATTGCAATAATAACAT
CACATCCTCCCTCAACCCCTCACCAAAATGCTCTATTCCAGCTTCAGTGCAACGATAA
60 CAACCTCTTTATCCTTCAACTTTAAAGATTTTAAAACTCTCTTAAACAAAGCACCCTTG
GACATGCACAACCTTCTCCAAAATCATGGATTTTTCCAATTGCTAAAAGTTTGATATTAT
CTTTCTCTACTAAATACTCTTTTGGTAAAGAATCTATAGATATCTCTCCCTCAAATAACT
CAACTTCTTTACCATCCATTTTTCTCTCAACTTCTTCATGAACCTCTTTCGTCTCCAA
GATACTCTATAAAGTCCTTTGGCAAATCCATACCAAGCAATTTATGCAAACTTAGATTAG
ATTCGTCTCCATCAATAACCAAGCATTATGTCCTTTTTTAGCAAACTCCTTTGCCAATA
AAGTTGTTATAGAGCTTTTTCCACAGCCTCCCTTTCCACAGATAGAGATTTTCATACCTC
TCCCTCAGTCTGATTTAAATTTAATTTAAACCTAATATCTTATTTAGTATAAATCTTTTT
CTAACAAGTGGAGGAACATACACTGGTCTGAAACTATGCCAACAGCTTGATTCTCTATCT
CAAAGTCTCTTCCATTAATATTTTATCTAAAACCTTTTGATAAAATGTTTGAATCTAT
TATTATGCCCTCCAATTTAAATTTTAAAAATAAAGTCCAAAAATAAAACTTAA

5 AATAAGATAATAAGATTATGCTGCTGGAATGATTAAATCTCTCTCTCCAGCTGGCTCAA
ACTCTCTTAGAGCCCCCTTAGCTATACATTTCTTGGCCACTTGAAGTCAAATATCAAGT
TGTCGTCAGCAAACGCTACCTTAATTATTGGGTTTAAGCAAAATGCATCTCCCCTTGCCG
CATGGGGAGCTTGGGCAATTCCAGCATACTCTGGCTGATGTCCAACGTTCAATTGCGTAGT
10 TTGGATAAATTTGGTCTCTACATTCATGCAATAAACCTTCATCACTTCTGATTGATAGTG
AGTTAGCTGCTCCACACTGGTCTTGTAAGTCATAACCATAGAATCCTAATCTGCTGTGAT
ACTCCTTATGTAATATCTGGCTTAGATACCATCCATTAATCCAGCATTTGAGTTTCCCTG
TTGCAAATGCTACTGAACATCCTGCTGCTGCCGCTGTAACCCCGCTCTTTGTGACCCAC
CAAAGTGGTCTTCTAATAAAGCTGGATACTCATCATACTGCTCTAATCCATATAATGTAA
15 CTTCAAGTTGCTATATCTTTAACAACCTCCATGCTTGGCTTAACTCCACATAATCCATACT
TCTTCTCAACATAGTCCATTCCATAATAAACAAAATCATCTAAGATGTCATCTGTGTATG
TTGCTGACGCATACTGTGTAAATCCTACTCCTCCAGACATATAGTTTCTAACCACAACTT
GGTCATAAAAGGTAGCTGCTGCACCAATAACCTCCAATGTTACCTGTGCCGGGTCACTG
AAACTCTTGAAGTCTGTATTATGTCAGCGAATATTCCAAATGGCACCCCTCCTGGTTTCA
20 TAGGCCCTCTTGTCTTCTTGGCTGGCAGTATCATACCCATTTGAATGACATCAGCGTGCT
TTGCAGCGTATGAGAAGTCAGCGATAGCAGCTTCTCCAGCACATAACTTATAGGCAGTAA
TGAAACTCATCCCTATTTGCATAGCACTCCATCTTGAACAGTCCCTCCATCAGCAGTATC
TAACAACATTGTAGGAACCTACTTACTTGGTAAGTCTTATTCCAATATATTTCTTAA
TTTGTCTGCTTGTCTTCTTGGGAATTTCTTTATTTATGTCTATTAAAAATCTCTTGTCAA
25 TTTCAATCAGCTAATTCATCATTTCTGTGAATATCTTAGCGTAACAGTCCCAAACTAAAC
CTGGATGGACTTCAACCATGTGCTCTTGGACAACAGCTCCACCTGGTAAAGCGTGGTTAA
TTGTTTCCATGTATTCGTTAATTTGTTTCTGGTGTAACTCTACCCCTAATCTCTTCTCTA
AGACAGCGTGAGCTGTATCCATCCCTACAATAACAGTTCTCTTAATATCATCAACCAATT
30 GCTGTATTGCTGCGTTATTACAGAAGTGTAATCATCCCTTCAACAAATGCATCAGTTC
CTGATATTTTGTAGGTCATTAACCTTCTCTGCCCCTAATGGAACCCCAATGTCTGGGTTGT
AGAATGGAATTCCTCCTCTCTTTTCAATTAATTTTGGAGCAAATCAACAACTCTCTTT
TTCTTGCTGACTGTCTCCATCCTCCAAATATATAAAATTTGGTGTATTTTCTTTTGGGT
CTTCTTCAAACCTTTCTTTTAAAGCCTTTAGGAAGAGTTTTTTCTCAACATCCATTATTC
35 TTCACCTAATCTCTTTTCAAATCTTTTAAATACTTCTAAACCAAATCCTCCTTTGT
TCTTGCCCTCATGGATTATTTGAACAACCTCTAAAGCTTCTTTATCTTCTCTCATTCCGAT
GTTATCCTTTCTGTAAATTTGTTGTTATTTTGGCAAATAATCGTGTGGTAAAGGCTCTCC
AACATCTACTGGCTCATCCAATGGTCTTCCAACCTGGTCTTTAACATACAAACGCTGTCC
TGCTTTTTCATCATAGATGTATCTCTGCAAAACCATCGAACATCAAACCGTTTTTCATCCAA
40 TCTTAATGAGTGCCCGTGGACAGTAGCTCCTCTAATTCACAAAGTTGCCGGGTGGAAGAA
CTCTGTGTCAATTAAGAAATCTTGGAGATTTTTTCTAAGTCAAGCTCTCTCATCTCAAT
AACTTGCCTTCTGATAGTGTCTGTATCAATCCCTCTAAATCTCCACATGTATGTTCT
TGCCCTATCGTAAGGCTGAGCTGGAGCGTTATACATCGAATCAGCGAAGTGGATGTATCT
AACTCTAATCTCTTTAGCCCCCTGAATCGGCTCAACAATATCTTTAATTGGGTCTTC
45 TTCAAATCCATCTCTTCCAATGGTGGATGAACCGTCTTATAACTTTCTCCAGGTTTCT
ATGCCCCAATATTTTGAATATCTCATCTCTGGAATGTCTCTCAGCTTTTTTAACCTCAAC
CTCTGGATTATGTGCTTTCTTCTATTTCTCAGCAATTAAGTATTTCCAGGATAAAATTG
TGTTTGTATGCCATCCAATCACCATTTTAAATTACTTTTTCTTTCTTTTAACTCTAC
AGCACCTTCAGCAACATACTTTAGTGGTCTCTTAAAGTGGTCAATAGCACTATAAACAGT
50 TCCTACTAATGCTGATGTTCTTTCAACTGAGAACATTGAGTTCCTGCGTCTAAACACAT
TGCAGCTGCAGCACATGGGATAGCAATCCTTTTGAAGTGTCTTGTAAACGAGTGGTTTCC
ATGGAATGTTCCAGGCCCTCCTCCTCCATATATTGAGTGAGAGAAGAATGAGAAACCAAC
TGCTGTCCCTCTGCCCTACCAAAATCAACGCTTGGCAAACAGTTTCGTATTCTAAGAT
ATCGTTGTAGTAGAGGACAGTTGAAGCTACTCCTTGAAGTGGCTTGTGCCCAACATT
55 AACAATAACTGCAGCAACTAAACCTGACGCAGCATAGGCATTCCATAAAGCCCAATCAAC
TGGTTTATAAACCGGTGAACACGAGGCAATGTTTTTAAATGGTCTTATGACCCCATCCTC
CAAAGCCCTTTCAACAACCTGAAGCAACTACAGTTCCAAGTGTCCATCCTTTCCGTTTTCT
CTTAACAAGCTCATAAGTTAAGTTGTGGCATTTAATCCCTGAAATGCTAAACCTAATAA
GTGCAATCTTTCAAATGCCCCCTAAAGCATCTCCCGTTTCAAACATTGCGGTCTGCTCCAA
60 TATTGATGCCAAAGCAACAGCATTCAATGTTTTTTCTTGTAACTGCTACAATATGGTT
TGCCATAATATTTCTCAAACATAACCTAATCCTTCCAATAAACTGGAGGTCTTAATAA
TGTAAGCGATATTAGCACCATTGGAAATCTACTGTCTGTGGGTATCTCCCCATAACTGCTGT
TTTTACTACAGGAGCGTCAAACATATCTACATCAAAGGCATCAACAATTGCCTGAACAGT
TGCTCCTCCTCCAATCAGCGCTGATACTGTGTAAATCAGCAGCTACTCTCAACCTCTTTGA
TGGCAATTGTAATAGTAATTGCTTACCTCCGTTGATTAACTTAACAACCTGTGTATCATC
TTCTTCAATTTGAACCATTTCTTTAATCTTTTCAAGCAATAATTCAGCGTTTTCTACAAT
TGGTAAATCTAACTCTCTCCTGGACAGAAACATGCCTTTCTCCAAACAGCTCCAGTCTT
TAAAGCGTTTTCTATTCTTCCGCAAGTTTATAGCAACGCTCCTCTTAATGTCAATTGACTAT
TTTCTCAATTTGTTGGTTCTTTAGAGGACTTATCGCTTCTAATGGAACATTTTCTCCAA
CAACTTCTCTTTTATCATACAAATCTATTCTATCTTCAATGTAACATTACCAACAC

-516-

CAACCTTTTGTAAATATATTACTACAGCTATAGAAAATGATAGTAATAGGTATATAAAA
TTTTCTATTTTATCCTAAAAATTACTAAAAATGTTAAAAATAATATTAAAAATGATAA
AATTAAAAAAATCTTTAAATCTTTAAAAAAATTTTGAATTCCTCACAGAGGTGAGCCCT
ATTCAATAGAACTTACGCATTTTGTGAATCATAAAGAAAGCCTAAAAGTATCATCAATA
5 GCAATAGAGTATAGCCTCTGCGTAAGTTCATTGTGGGAGTGATTCCCTATGGCATACTC
CATATAACAAAATTCATCATATATAATATTTTCGGTTTAATTTTAAATATAAAATTTTAT
CTTAGATTAAAAATATTCATAACATAATATTTGTATATTTAAATTAATCTTTAATAGCAAT
ATTTTTATAAAACATCGTTATTAATACTATCCAGAAAATAAATATTACATGTGATATCAT
GGAGCGGATTTTCATTAAACCATCGAGAAAAATCTATTAAAGGAAGTTGATGAAATTATTAA
10 TAAGGAAAGAATATCCCGTTCAGAATTTATAAGAAGAGCTTTGGAATACTACGTAAAAAA
ATACGACTGGTTGAGTAGAATTGAATCAAAGATTGGTGAGATAACCGTTATATATAACTC
AAAGCGAGTTGAAGACATCGTTAAATTTGGAAGCCAATATAAGGATATTGTAATTATATC
CCTCGAAATTCATTGGAAGGAAAAATTTAGGATGATTGCGATTAAAGGCGAGAGGGA
TAGGATAATAGAATTTACAAATAAATGAAAGGTATTAGTAGCGTTGAACTTGCTCAACT
15 AACCACAATCAGCATTGAGTGAAATCATGCACAACTTGAAAAGATTAGGGAGGAGTTAA
ACTCATATTTCTTAGAAAAGAGGGAGGAGATTGATATAGCCTTAACCTCTATCTTAGCAA
ATGAGCATACTGTATTTCTTAGGAAATCCTGGAGTTGCAAAATCACAATTAATTAGGGCTA
TAGCTTCCCATATAAACGCCAACTACTTTGAAAACTTATAACAAGATTCAACACCGAAG
ATGAGTTTCTATCGGCCCTTAAGCATTAAAGAGTTAAAGGATAATGACAGATTCTGTATGAA
20 AAACATCTGGTTATCTACCAACTGCAGAAATAGCATTCTTAGATGAAGTTTTTAAGGCTA
ACAGTTCAATATTTAAACGCTTTATTATCAATAATCAATGAAAGAATTTACCACAATGGAG
ATAAGATTGAGAAAGTGCCTTTAATTAGTTTGTGGTGCATCAAATGAATTGCCAGAGG
AGAATGAGTTGTTGGCATCTATGATAGATTTTTATTTAGGAAAGTGGTTAGAGGGATAA
GAAGCTGTGAGAATTTAGTAAAGCTCATTAAATTAGATGAAGAGTATAAACCAAAACTA
25 CCATATCAATAAAAGAACTTAGAAAAGATGCAAGAAAAAGCTAATGAAGTTGATATAGAGA
ATATCATTGGATATTTGGTAGATATAAAGAAGAAATTATCCCAAAACCACATCTATATTT
CAGATAGGAGATTTAAAAAGTCAGTTAAAGCTATTAAGTGCCTTCGCCTATCTAAATGGTA
GAAGAGAGGCAGAAATGAAGATTTAGAGATATTGAGACATATATTTGGGATGATATAG
ATGATATCTTAATTGTTTCAAAGGTAATATTTGATATAACAAACAAATATGCTGAGCAAG
30 TGCTGGATAAGGCAGAAATTTAAAAAATCTCAAAATGAACCTTAAGTACATAGATATTA
AGAAAATTGGAGAGTGTAAAAAAGATTATAACAAGTTAATTGAAATCTCTGTAAGATGG
CATATATAAGATTGAAGTTGAAAAAATAAGGAATGAAGCTATAATAAACAAAGAGAAAA
CTGACTTTTATGATGAGGTAATTAAAGAGACGGATGAATTTAATAATTATATTGAAGGGA
TTTTAAATGAACGTGTGAAGAATATAGAAAGAAATTAAACTAAATTATGGAAATAGAGAA
35 AAATTAAGGTTTTGAAGGAATATATCAAATGGAAGTTGATGAGATAACAAAGTTAAAC
ATTTTAGATGATGTTTTGAGTTATTGACATCAACGAAGGAGAGGGGGTTTTGAGGATATA
ATATCTACACACTACCTCTGACTCAAAGAATAAGGCTATTATATATTATTGCATAAAA
ATTATAGAAAAAGTTGGCATTAAATATCCAAATTTGGTTTATTTATATTCTTTATTTA
ATAAACTCTTAGATAGTGAGTTTGAATGCATTAGATTGCAAGTGCTGAGGCTTTGGCA
40 AACATCCCTTCAAACTAACAACTATGCATATCCAAACTTATAAAGAAATTGGATAAT
GAAGTTTATGCCAAAGTGCTGGTTAAGTTAATCATGAAATCAGATAATAAGGAGGCAATT
TTATTAAACTTTTTGAAAATTTTAACGAATATTCTCTCTATGTGATAAAAGAGCTTTAT
AAATATGATAAGGAGTTAGTTTATGAATTTATCCCATTAATTTTAAAGAGTTTGGAAAT
AATGGTTTATATAGTTTTTGCAAAAGTAATTAATTAATAAGGAAAAATTGAACGCCCT
45 CAATAAGAAGCGTTTATATAACCTTATGTATTTCAAGATGTTTGCAAAACTATAAT
TATGATGCAAGAGATAAAGCGTGATTAACAAATACATTTTCTCAATTCTGAATTGTTGA
GCATAGCTAACTAACTTAGGAAGAGATTTTATCAAATCTCTACTATACTTACAGATATA
AAGTCTGGGATGTTATCATATCATTTTCAGTGCTTATCTCTCCTTCAATATTTGCTTCA
AAGGAAAAGTCTCCATAAGCTTTGATATTACAAACAAAGTTGAATTTTTTTCGCTCTAAT
50 TTTTTATACTCAATGTTCCAATCAACATCTAATCTACCGTTTTATTCTTAGGTATTTTT
ATTGGGGGCTTTATAGATATACTTAAGAGATTAACTCCATACTCTCACCCTGTAATACT
TTTATACAAGATAGTATATATATTTTATGATTTATTTTAGATTAGTATTATGGTGAAAG
AATGATTAGATATGACAAATATGATAAGATGGTTTGGGAGGGATGTAAGAAATAAGATTAC
CTTCCATTTAAGTGAAAGAGAGACGGAGATAGTGTATCTCTCTTTAAATATGAAGT
55 TGAAATTTTGAAGTAACTGATTTAATCAAAAAGATTGTGAGGGATAGAAGATTAAAGAA
TGTAATATCCATAACTACGTTGGATGAAAATATTCTTTAATAGCCACTGAATCTTTTG
TGAGAAGCTTAAGGAGTTGAAAGAAAAGGGCAGAGAAGAGGATATAAGTGAATTGTTGGA
TGAGCTTGAGAGTTATATGGAATAATAACATCATCTTTAGTTCTTTTGGTTCTGGTGA
GGGATATAAAAGCTATACAGACCCAAAGAAAAAATTAGAATTGACTGAAAAATTTATAAA
60 AAACAACAACTTAAAGAATTTATGAAGTTTTAGGAAAGTTTAAAGAATGGCTATAAA
AAAGTATAAAACGAAGATTAAACACTTCTCTGGAGAGAAGTATTCAATAAACTTGGGAAA
TAATTTAATAAACTTATTATCATCAGAATACAAAACCTTGCTGAAGAGATATTGTTGCT
TGATTTATTGAGAAGATATAATGAAAATTAACCTCTAAATTATAAAATATTGGAGAATAA
TGAAAACCTGCGGGGATTTGTTGTTTGTCTTAGATTTAAGTGGCTCTATGAGAGGAAATAA

GGAGATTTGGGCTAAAGCAATAGCCTTATGTTTGATGGATATATCTTTAAAAAGAAATAA
AAGATATATATCAATTTTATTTGATGATGGAGTTAGAGATATAAAGATTTATGAAAAAA
GGTATCTTTTGATGAGATTTTGAATTTGCATCCGTGTTTTATGGTGGAGGGACAACTT
5 TGAAAAACCTTTAAGAGAGGCCTTAAAGTTTAAATGGAGATATTGTCTTTATAACAGATGG
AGAGTGTGAAGTCTCTTTAGAGTTCTTAGAGAAGATTAAGGAGGAGAAGCAGAGAAGGAA
GATAAAGATTTACTCTATCTGCATAAACACAAAACCAACAGTTAGTTTGAGGCAAAATATC
AGATGTATCAGTAACAATTTATGAGCTAACGTCAAAAACAGCAGAAAAGGTGTTTGATAT
GTTGATTTAACAAAAGTTATAAATTTGCAATCTCATATAGATTTAGAATAAAATAATCAA
10 CATAGAGGGATTGATAATGAAATTTCTTTGATAGGGAGAGGGAGATTAATGAAATTTTGGG
CATTTTGGATGAAACTCCAGATAATATCTACTTCACTACGGCCCTATAAACAGTGGGAA
AACTACTCTAATGATGGAGATAATCAACAGATTAAAAGATGACAAAAATATAGAATCTT
CTACTATAATCTAAGAGGAGTTAGAATATCATCTTATAGTGATTTTTTGTATATAATGTT
TGAAATTAGGGAGGATAACAAATTTAAACAGATGGTAAAAGATGCTGATGTTTTAGTTGA
15 AGGCATCAAATTTATAGAAAAACAGCAAACTGTTCAATGAGAGCATTATTTCCCTTC
TGACTTGGCAAAAAGTTATTTCTATCCAAACAGAAGGGTTTTGATGTTTTTAGATACTTGG
GAGAGTTTTTAGAGAGATGAATAAAAAGGGTCTAAAGCCTGTAATTATTATTGACGAAC
GCAGAGATTAAGAAGATTGAAATCTAATGGAGAGTTGATAGATGATTTATTTAATTTTTT
TGTTAGATTGACTAAGGAATTGCATATAACGCACTGTTTTGTTTAAAGCTCTGATAGTTT
20 ATTTATTGAGTATGTTTATGATAGGGCTGAACCTCAGAGGGAGAGCTGACTATATATTGT
GGATGACTTTGATAAGGAACTGCCTTAAAATTTATGGATTTTTATCTGAGGATATTTT
AGGCAGGAACTTTCTGAGGATGAGAAGGAGCTAATTTATAGCTATGTTGGTGGGAAGCC
AAAGGATGTTTATGATGTGATTATTAAGCTAAAGCTTGGTAAGGAGTTAAAGGATATCTT
GGAGTTTCATGCTCAAAGAAGAAATCCAAAAGCTAAAATCTTCTTAGAGGATGTTAAAGA
25 AGATGATGAAGAGCTTTATAACAAAATAGTTGATGCATTGAAGATATTTAAAGAAAATTA
TGAAATTGAAGATATAAAAATACCTAAGAATATTAGAGAGTTTTAGTTAAGAAAAATAT
ATTGTTTTTAAATCCAATAGAAGGGACATTAAAGCCTCAAAGTTTTTATGATGGAATGC
TATAAAGAAATTACTGAATGGACATTAATTGGGACTGAAAGTCCCACTTAATGGACGAG
TTTTGATGAACTTTTACTAAAAGTTTCCTTTAAAGCCTCAAAGTTTTTATGATGGAAT
30 GCTATAAAAAGTTATTATAGAGCTTTGTTTGATAAAGAAGGGGTGTTTCTATGAAATTC
TTTGATAGAGAAAAGGAGATTGCTGAAATACCTCATATATTAATAGAGAGCCAGATGAC
GTTTTATTTTATCTACGGCCCTATAAATAGCGGTAAACTGCCTTAATCAATGAGATTATT
AACAATAGGTTGGACAAGGATAAATATGTTGTTGTTTTATTTTGAATTAAGGGAGATTTTT
ATTTCTAAGTATGACGACTTCATTGAAGTTTTATTTGAAGAATATGAGGGAAATAAAG
35 CCAGTAGAAATTATAAAGAGTTTGATAAAGGACGTTCTCTCTATGTGGTATTCCAGCA
CCAAAAATACATTAGAAGAAATCTTGAAGAAAAGACAATAAATGTCTTTAGATAT
ATAACTAAAGTATTAATGGATATTAAGAAAAGAGGGAAACAGCCAATTTAATTATAGAT
GAATTACAAAAGATTGGTGATATGAAGATTAATGGATTCTTAATCTATGAGTTGTTAAT
TATTTTGTCTCTAACAAGCATAGCATCTATGTCATGTTTTTGTGTTAAGTTCTGAT
40 AGTTTGTATATAGAGAGGGTTTTATAATGAGGCGATGTTAGATGGTAGGGCTAAGTATCTA
TTGGTGGATGATTTTGATAAAGAACTGCCTTAAAGTTTTATGGATTTTTTAGCTAAGAG
AATAACATCAGCTTAACATAAGATAAAGAGTTAATCTATAATTACGTAGGAGGGAAG
CCAAAGGATATAAATATGTTGTTGAAGAAAGCAATTTTAAAGATTTAAAGGAAGTTTTA
GATTACCTGTTAATGATGAGATTTCTAAATTAGATATGTTTTAGAAATTTTAGATTAT
45 TCAAAGCCAAAGGTAGAGTTTGAAGTGAAGTTATTGAGATAAATAAAGAAGATATCATT
AAAGCATTAAAGATTATTTAAGGAGATATTTTATTTTAAATCCGCAAAAGAGAATTTTA
GTTTATGTTTACTTAGTTAAGGAGAATATTTTATTTTAAATCCGCAAAAGAGAATTTTA
AAGCCTCAAAGTTATTTAGTCTGGAATGCTATAAAGAGATTGCTATAATTTAATCCCTA
CTTGATGCTTTCAATCTATTTTCATTTAACAATAAATCTAAAGCATCATTTATATCTTTA
50 ACAACTATATCAGAGCTTAATATCGTTTTACTCCAAGCTCCTTCATCTCCAATAACGCAG
ATGCCTAAATCAGCATTTTTTAATAATAGTTTCATCGTTATTTCCATTTCTATAGCAATA
ATTTTTTTGTTGGGATTTTCTTTTTTAACTCTTCTAAAATTTTTAATTTAGCTATCTTT
TCACTGCCGTATTTCTCTCTATCTACCTTCATACCTTTGACATTTAAGCTTTTAGCAATA
TCGTTTTAAAGTTCCGAAGTATCTGCCGATAAAATATATTTTCAAGCTCTTTCTTTAAAA
55 TAGTTAATCTCTCTTTAACTCCCTCTTTTATCTTCCCATCAGTAGCTATTGTTCCATTTA
AATCTAAAGAATAATCATGGTATCAGCCGAATCTGTTTTTCTATTTGAATTAAGAAAA
GAGATATAAAATGTAGCCATTAGAATTTTAAATAGCTTAGGGATTTTTATAAGCTCCTT
CTCTTCTACTTATCTTTCTAATTATTATTCTATCATCCCATAAAACAACATATTGAA
CTCTAAATTTTCCAATTTAATCTATAAACCTCATCACTGCCTTTTAACTTTTAAATAT
60 CAAATTTTCTTTTGAAGTGGGATTGGTTTTTAAATGTTTCTATTAGTCTTTAACTTCT
TTAAGTTTGAAGGAGGCAATCCTTTAAATCTTTTAAAGACTCTTTTATGTATCTCAACGT
TAACTTCATAATAATCCCAATCTTTCAAAGCCTCTTCTGCTGGCACAGTCTCTTTTTT
ATCCAGAGATTTTTTAACTCTCTATAATTTCTTCATAATCCTCTCAAATTCCTCCTC
TGGAATAGCTAATGCTTTCAATTTTAAATCTTTTCTAATTTTCAATCCTTTTCAAG
GATTTCTCTCTCAATTTTTTCAATTCATTCAATTCAGTTTCTATTGTGCTATCTCTTT

-518-

GTTTATATTGAGCATAGTTATCCCCTTATTTGTCCTATTTTAATTCTTAAGTAGTTTATA
ATATAAAACTTTAATCTCTGTATCATCGTCCCAATACCCTCCTCTGTAAATATCTCC
AACACAAAGCATGAGGAATCTTTCCATTTATTATATGAACGCTCTTAAGTCCATGCTCT
AAGGCATATAAGGCACCTTTAGCCTTTTGAATCATCCCTCCCTTTATTCTTCCATCTTCT
5 ATCATTCTCTTTTAGTCTGAAGCTGTTAATTTCTATGCAACGCTCTGGAATTATTTATA
TCATCCATTATCCATCAACATCTGTTATTAATAAAGCTTCTCCGCTTCAAAGCTCCA
GCTATGCTCCAGCAACGGTATCGGCATTTAAATTATATGCCTCTCCCTTCTCATCCAAA
CCAATTGGTGATACAACCTGGGATGTAGCCGTTGTTTATCAAAATCTCTAATAGTTCAGTA
TTAACCTCAACTGTCTCTCAACTCTACCTAAATCAACCTCTATCTCCTCCCTTTTTC
10 GTTTTTATTTTCTTTAATTTTCTTGGCTAAAATTATCCTTCCAGATTTTCCAGATAGT
CCAACAGCCTTTCCACCAAATTTGATAACTTTGAGACAATGTCTCCATTAATCTTTCCG
GCTAAAACCATTTCACAATATCTAAAGTTTCTTCATCAGTAACTCTCAACCATGGACA
AATCTGGTTTCTTCCCATTTTCTTCCATTTGCTTTGTTGATTCTGGACCTCCACCATGA
ACTACAACCTGGATTTATCCAACTACTTCAACAAAACAACATCTTGAGCAGTCCATTC
15 TTTGCCTTCTCATCAATCATCGCATGCCCGCCATACTTTATGACAAAAATCTTCCATAA
AATTTCTGTATGAATGGAAGAGCTTCCATTAATAATCTCTGCCTTTCAATCATCTCTATC
ATGTCCATCCCCATAAAACCTTTTAAGTTTATGAGTGGATAAAGGAATTATTTAAATTT
ATCAACAATAACTTTAATAATAGAAGCCGTAAGGTAATTAATAAAATTAAGAT
TTTAGATAAAACGAGATTTTGGTAGTTGGTGAGATAAGATGCCGAATTATCATGTGACT
20 TTACAAGCTGCATATATTTGTGAAACGCTAGATGATGTTGAAGACGCTATAAGCGTAACT
ATATCACAATAGGGAAGATGTTGAATAAAGAAGGATTGAACATGTAGATATAGACATT
GGATTAACATCTGTCCGAAATGTGGAGAGTTGGTAGATTGTGTTTTAGTTGTAGCAAGA
ACAGCTTTGGTTGGTGTCTTACTATCTATGAAGGTATTTAATGCTGAAAGTCCAGAACAT
GCTATTAGAATAGCTAAGGCAACAATTTGAAAAGTTTAAAAAATATTCCATTAGAGCCC
25 GTTGATGTTGTAGAGTTAGAAAAATAAAAAAATTAATTAATTTAAATTAATTAAT
TTTAAATTTTATCCTTTTAAATCCAGTCCGAATCCTATTAGGAAAGATGTCCCAA
CGAAAATGAATGGATAAGTCCAATAATCTTATCTCCAAACACCAATAACGAATTTTCAAG
ATTTCCAAGTAATGCTGAAAACGCTTCTTATTAATGCTAATAACTCCTATTTTAGCCAA
ATAGAGCAAAGATAATATATAAATCCCTATTAAGAATGCCACTACTTTTATAGCCTTTT
30 TGCAGCCCAGCCAATAACAAATCCAATAATAAATCCGCTACCTATATCTGGAAGAACTG
TGAGAAGTCCAAAATAATCACCTATATAAATAACTTATCTAAAACATAAAAGATTTCT
TTAATTTGGTATATAAAAGTTTCTTTGTGGGAAGTGATAATTATGAAGACATACATTGGA
AGATACATTTAAATGGTGTGAAAATTTGAATGTCCATTATTAGGGAGAGTTTGTGAA
GTTTGTGGCTCAAAAGCTGAAGAAGTAAGCTAACTCCACCAGGAGACCCAAGATTGGGA
35 TTTAGTATGACATGGATTTTATAAATAAAATTTTGAAGAAGAATTTGGAGCTAAAAAT
GTATTAATGGAAAAATTATTTGTAAATAAAATTCCTGGTAATGAGGAGGCTTATGAG
ATTATAGTTGATGGAGAAGTTAAATATCTGATATATTTTGATGAAGATAAGGAGAAATGG
AAAGTTAAGCTAAAGTTAAATGGAGCAAAGGATTAATGGAAAAAGGAGCTTACAAAAA
ATAATTAATAAAGAAATGATGTTGTAGAATTTTAAAAAATAGAAAGGTTCTGTTTTA
40 AGACCTGGAATTAAGTTCGAATTTACGGATGATATTGAAGAGAAAGATGATGTGATAATAGT
GATGAGAATGACAGAGTTGTTGGTGTGGATTAGCTGTTGTTTCTCCGAAGATATAAAA
AACATGGAGAAGGAAAAGTAGTTAAGGTTAGATTTTATTAAAGATAATGAAGATTAT
AAGCCTGGAAAGATTTATGATAACTTAGAAGAGGCATTCGATTTAATGGTTAGAGCTAAT
GAGGGAGTTATAGATAATTATGAAAGAAATGCTATTGGATTTATAAAAAATACTTATGAA
45 AAAATTA AAAACCCGTTATGGTTGCATTCTCTGGAGGAAAAGATAGCTTAGTTACTTTA
ATTTAACATTAAGGCTTTAGGTAAGACATAGATGTTGTGTTTATAGACACTGGCTTA
GAATTTGAGGAAACACTAAAAACGTTGAAGATGTTGAAGACACTATGGTATTAATAA
ATTAGGCTGAGAGGAGAGAATTTCTGGGAGAAAGTTAAAGAATACGGCATTCAGCAAGA
GATTATAGATGGTGTCTGAAATCTGTAAGTTAGAGCCGTTAAAAAGTTTATTGAAGAG
50 AATTACGAAGATGATGTTTTGTCTTTGTTGGGATTAGGAAGTATGAGAGCTTTAATAGA
GCTACTAAAAAGAGAATTCATAGAAACACTTACATTA AAAAGCAGATAAATGCCCTCCCA
ATATTCATTGGAGTTCTCTGCATGTTGGATATATCTGTTGAGAGAGAAAGCTCCATAC
AACAACTGTATGAGAAGGATTTGATAGGATTGGCTGTTTTATGTGCTCCAGCTATGGAA
ATGGGAGAGATGAATAAAATAAAAGAGAATTTCCAAAACCTTTGGGAAAAGTGGGAAAAT
55 GTTTTGAGAGAATATGCTGAAAACATAACTTAGGAGAGGGGTGGATAAAAAAGGTTTG
TGGAGATGGAACATAAAAGGCAATAAATTTAAGCTTTATATAATGTTCTTTATATGG
AGGGAAACATTTTATAATTATTTCTTACAAATAGTGAAATTTATTAATTTTACTTAA
AGTGAGATTATGAGGATTGGTGTGTTATTCATGGACCTGAGATTATAGATAGTGGCTAC
GCATTA AAAATCATAAATTTACTGAAGAAATTTGGAGAGGTTAAGGCAAAGTTAGGAGGT
60 ACAATGGGAAGAGTTGCTGTTATAGACAACAACTGCAAGATATTATTGATATATCTGAA
AAATTGATGCCTTCCCAATCATTA AAAAATTAGCTAACAAATGATATTTTAATTTAATG
AACTATGGA AAAATCTAAGATTACAGGGCATACATTTGAAAAATCGTAGTTGAGAGAGCT
AATTTAAATAAAACCAATAATTCAGATTGAGAGACCGGGAGAAGAGGATGGAACATAATT
ATTTGGAATGATGATAATTCAAAAATTTGTTAAAGAAATAGCTAATTTTATCAAAAAGAA

5 TTAATTTAAAGATTGAAAAATGTATAAGTAATGCCTTAGAGGTTTGGGAAAAAGAGGGG
AGAGTTTTTAGAAAGGTTTCATGGTGTGATGTTGGTGAAGCAATATTGGTAAATGGCATT
GTTGTTGGAAAAGCTAAGAGTAATGAAGTTATTTTAAATTGCTGAGAATGGGAAGTTAGTT
10 GATATTATTGGAGGAGGTTAAAGGAAGGAGGAATTGAAAAATTAAAAATGTTGATTTA
AAAAAGGCAGTTATAAAAAACCGGATTTTGAGGAGGCATCCAACAAATCCAAAGATTGAG
AGTAAAGAGATTGATGAAGGATATACAATCATTATAAATCATGCTGGAGAGGATGTTATA
GAGATGATTAAAAATAAAGCGTTGTGGCAGTGATTACAATTGGAGATGATACTACAACA
ATATGTGGAGATATATTGGCAAGATTGGAATAAAGATTATTGGCATTACAGATGGGGAT
15 AGAGATGAGATATTAAAAATCCAGTTATATTAAAGGTTTCAGTAATTTTCTAATTAA
AATATGCGGATGATGATGTTGGCAGAATATTAGAAAAAATTTAAACCTTAACAAAAA
TACTGCTATCAAGAGCTTTTAGATGAAGTTAAAAAATATTAAATGATAATAATATTTGT
TATGAAGAATTCGTTTATTAAATTTAGCCAATAATGCCTGAAGTTTATAGTGAATAATC
AGATTTACAACAGTTAATGCAATTCTGATATATAGTAGCATTTTAGTTGAATTATAGAG
20 TTAATTATAGATTCTTGAGTTTGTGATAAGGATTTAATGCTGTTGCTTAACTTTCAATC
TTTTGCTATGATGTTTTAAAGTATCTTCCATAAGGTTATATCTATTGCTTATTTTGAGT
GAAGATTCCTCTAATGAATGTTTTATATCTCTCATTTCATTTTAAACAGCTATTATTGCG
TTATGGGTATTTTCAACAGATTTTTCATATTTTCTGCAAAATCTAAATATTCTTTTAAAT
TTTTCTCTAATTCTCAATTCGAATCTGAAACAGATAGATTATTCTCTCATTGTTATTCTT
AATCCATAATGTATTTCAAGTATATAGTTGTTAATTTCAAGAAATTAAGTTAATAGCTTT
25 GTTATAATTTTCTAATAACAATTTCTGTTTCTAAAACGCTTGAAGAGCTCTTGTCGAGT
TCTTCTATTAAATTTATTAAGCCAATCAGCTTGTATCGTTTCATCTTTATCACCTAAACG
CCCCCCCCACAAAAGTTATTTTCAATGCTCATTAGAAAAATTATCAATTTGTAGAAGGA
GATTCCTTTAATTTATCTTTTAAATTTTAGTTTTTCAATTAACCTCATCTAAATTTTTC
TGTTATCCTCTAACATGTCGATGCTATTTTAAATTCCTCTATGGCCTGAGTTGCTGACT
30 CCATATTTATAATTTTAAAGTTTATCTGTTATTTCTTTTAAATGTAGGATGATGACGCAC
AATTCCTCAATTTCTATTTTAAATTTGTTAGATGTGCTTTCAATATTTTCAATAACTTTGA
TTAAATTTCTAAAGGTTTAAACAAATTTTGGATAATCTCATTATTAGAAAAATTTACAC
TTTCACGATTTTTTAGAATTATTTGAAAGTTTTTCAATAATTTCTAATGTTTTATCAA
TGTTATCCAACATTTCCGCTAATTGTAATAGCACATTGGAGATACTTTCTATCTCTTTTT
35 TGAATTCCTGCGCACTTCTTAGTAGTGATTTTATAGAATATCCAATTTTATAAAAAAGTT
CATCATTTCTATTTTCCATTGAAACACCCGAAATTCATTTTTAATTAAGTTCTTTACT
TAATAATTATATCATATTATAAATTACTTATTTTTAGGTATCAACATCTCGCTAATTTTTG
AATAGGGATGACTCCCTCCCTAATTGATATTATTTATCATCTCTATTTTAAATAATTGT
AGAAGGTTTTGAATATTTGCATTTTCCAATATCAATAACATAATCTACTTTTTTCAACAC
40 TTCTTTATCTATCTCATCCACAGTAGTAGGGCTTTCTTTTCCAGAAATATTTGCTGATGT
GGTTGTTAAAGGAACATAGAAAGCTCTCTAATAATTGGTTCATCTGGGATTCTTATCCC
AATATAATCTTTAGCTACAATATCTGGAATACCTGGTTTTTCTTTAAATTTATCGTTAA
AGGTCTCGGAAGAAATTTATCAATAATTTTTTAGCTAAATCATTACATAAGCGTATTT
45 TTCAATCTCATTCTTATCTCTAACACATATTGATAGAGGCTTGTTGAATCCCTCTCT
TATATTATAAACTTTTCTTACTGCTTTTTCATTTAAAGCGTTTGCTGAAATACCATATAA
AGTGTACAGTCCCACAGATGACAATCTTTCCATTTAATATCTCTTTTTTAAAAATTTCTAA
AACTTTTTTCTCTCTCTTCAATTAAGTTCTGATGATTTTATTATCTTGTTTTTTAGTCC
CATAGGTTATCCCTTTAAGCATCATAAAGTATTATTGCTCCATACCTACAACTTTTAA
50 AACTCCCCACACTTTGTGCAGTTATTTTCATTTTAAACAACACTCTATTGTTTTTAT
AGCAAAAACGTTATTTTACAGACTCTATAACATGATAAACAGTTTTTACATTGTTATA
ATCAATCTCAATTATTTTATTTGATTTCTCTTCAATTTTTTCTTTGCTTTTAAATATACC
TAAATTTTAGATAACATTATCTCACCTAAAATAAAAAATAATAGCTTATCCAATAATAGC
ATGTTTTAAAGCCCATAGGGAAACCTATTGGGATACCCCAACACCTCTCGCTTACGCT
55 CGGAGGTGTAATTAAGGATTTTAGTTTTATAATTTACCCAATAACAGCATGTTTCAAA
GCATCTTTGCAGATACACTTCTCTCTCCAAAGCCATAATTTATAAAGTCTCAACAAC
TTCAAAATTTTATTTTCCATCTCTTTTATTTTTTCCAAACTTCATCACTGTTAAAAA
TTTTTGTATTTCCACAGGCATAGTTTGTATGTTGCATAGAGAGCATAGCACATCTCC
AACTCCCTTGCTAAAACAACCTCAGGATATCCAGTCATTCTACACATCCCCCAGTTT
60 TTGTATATGGCTATCTCTTTTTTGTTCAAATCTCGGTCCTTCAAGTCAAACATAAAGC
CCTTCTCCATAAGAGAAGTTATTTTATCTAATATTGATTTTAAATATTTCTCAACTCT
GGACAGTAAGGGTCTGTCTATCTATATGAACAACCTTTCTCTCATCGTAAACGTCCTCT
TCTCTCTTTTGAATTTCTATAAATCATTTGGAACAAAAACATTCCAGGCTTTTAA
TCTCTTTTAAATGAACCAACTGAATTTATAGCCAATATTCTTCAACTCCCACTTTTTT
AAAGCGTAGATGTTAGCCCTATAGTTTATTTTATGTGGTGGGATGTTATGCTTACTCCA
TGCTTAAATAACAAAACCTACTTCGTTTTCTTTATCAATTATAACTCTTGCTTTCCCATAT
TTTGTATTTATAATCTCTCTTTGTCTCTTTTAAATTTTCAAGCTATTCCTGTCCCTCCT
ATTATACCAATCACACTATCACCAAAAATAACATGATTAATAATAAATAAAGTATTT
AATTAATAACTTTAAATAATTTTCTATGTTTTATTTAAACCCATCTGATAAAAAATTT
AATGGATATAATAGATATCTGAAAAATAAAAAATAGATTAAAGTTATAATGCCTCTTTT

-520-

CTTCTTCTTTTGTCTTACTCTTACGACTCTTTCTACTGGTATGACGAAGATTTTCCAT
CTCCTGGGTTTCTGTCTTGCATTCTCGCATATGATATCAATAACATTATCAACATCTT
CCTCTTTTACAACCACTCAATCTTAACCTTTGGAATTAATCAACAATATACTCTCTCC
5 CCTATACCTCTCAACTATTCCACCTTGAACCTCCCTACCTTAACCTCACTAACAGTCA
TTCCAACATACCCAGCATCAGACAAAGCCTTTTAAACAATCTCCAACCTCTCCGGTCTTA
TGATTGCTTCAACTTTTTTCATAATCTCAACCTCATTTTTATAATTTTACAAATTTGGTG
GTTTTTAGATTAATTTGAATTTGGTAGTAATCATTTTTATTTTTATCTAAAAGGAAAAA
GATTCTTTATTCTAAATAATAGGAAGGAAAAATCTTCTTAGTAAGTTATATATTTAA
10 GCTTTTCCATTAGGGGAATTAGGAAGATGGGTAGTAGGTAAGATAATTCCTATAAAAGTG
TTTGAGGTGAAACATATGGATGGTATTGATGTTTTCTTTTTTATGTGGGCAGCATCGTTA
ATATTTTTCATGAAGGCAGGGTTTTATTGCGTTGGAAATAGGGCAGTTTAGGGCTAAAAAC
GTCTCATATCATTTGTGTTTTAAAGTTGTTGGATTAGCTGCAGTGTTTATCGCTTATTTG
TTCATTGGTTATGGTATCTCTTACGGATTTGAAAATATAATGCCCTTAATAACAGGAACT
15 TTTGATGCTGATTTGGGAGCTTGGTGGATGAAGATGGTTATGTTTGGCGTCTGCAGTT
ACAATTATAACAGGAGGAGTCTGCTGAAAGAATTAATACTTACCTTACTTTATAGGGGCT
TTGATTGTTGGAGGTATTTTTGTATCCAATTGTTGAACATTTAGTTTGGGGAGGAGGTTTT
GCTAATTTAGGAATAAACTTCCACGACTATGCTGGAAGTGGGGCAGTTTATTATTTGGT
GGTTTAGTTGGTTTAAATGGCTGCCTATGTTTAGGGCCAAGAATTGATAAATATATAAAT
20 GGAAAACCAAGGCAATTCAGGGCATAACATTCGAATAGCTGTTTTAGGAGCTTTTTATT
TTGGCATTTGGATGGTACGGATTCAACATTGGAAGTGCCTCTGGCATAGCTAATGGAGTA
GAGTTGGCAAGCGTAGCTATGGCAACAACAATGGCTTTAGCTGGAGGAATTATAGGGGA
GCATTAAGCTCAAGAAACGACCTCTTTACACAGCAACGGTATGTGTGCTGGTTAGTA
GCTGTTTGTAGTGGAGTTGATTTATCTCAATTTGGAGCGTTTATAGTTGGTTTATTA
GCAGGGATTACAGCAGCATTACATACAAGTTTATTGAAGAGAAATTAAGATTGATGAC
25 GTCTGTGCTATAGGGCCAGTTTATGCTATGAGTGGTTTATTGGAGTTATCTGTGCAGGA
ATTCCATTCTTATTAAGCTGATGCAGTGTCTAAAGTTTCAATTACTGGGCAATAATT
GGGCTATTGTTATTGCTTTAATTGCAATCGTTGGAGGATTAATTATTTATAAGGGTTG
GATTTAACAATTGGCTTAAGAGTCAGTGAAGAAGCAGAGAAAGTTGGTTTAGATACCTGCA
ATATTGCAACAACATGCATATTCAGAAGAATAAACTTAATAATTTTTATTACGCATATT
30 CCTTTTTTAACTCTCAATTATTTCCCTCGATAAAATATTTATATGATTTTTAGATTTTA
AATATTACGCCAAAAGATAATTTTATATTGTGATAACATGGAACCTATGATGGCTATTG
GTTACCTTGGATTAGCTTTAGTTCTTGGTTGCTTAGTGGCAAAAATTGCTGAAAAGTTAA
AAATCCAGATATACCGTTATTGTTATTGTTAGGTTTAAATCATAGGGCCTTTTTTACAAA
35 TCATCCCATCAGATTACAGCAATGGAGATTTTTGAATATGCGGGACCGATAGGATTAAT
TTATTTTGTGGGAGGAGCATTTACAATGAGGATTTCACTACTTAAGAGAGTTATAAAAA
CAGTAGTGAGGTTAGATACAATAACATTTTTAATTACTCTACTTATTTCTGGTTTTATTT
TTAATATGGTCTTAAATCTCCATATACATCCCAGTTGGCTATTTATTTGGAGCAATAA
CTGCTGCTACAGACCCAGCACTTTAATTCCAGTGTTTTCAAGAGTTAGAACAAATCCTG
AAGTAGCTATAACGTTAGAGGCGGAGAGTATCTTTAACGACCCATTGGGAATAGTTTCAA
40 CCAGTGTATTTTTGGGTTGTTTGGTTTATTTTCCCTCATCAAATCCATTAAATTGATTTAA
TTACACTTGCTGGTGGAGCCATAGTTGTTGGCTTATTGTTAGCTAAAATATATGAAAAA
TTATTATACATTGTGACTTCCATGAGTATGTGGCTCCATTAGTTCTTGGAGGAGCAATGC
TCCTTTTATATGTGGGAGATGATTTATTGCCAAGTATTTGTGGTTATGGATTTAGTGGTT
ATATGGCTGTTGCAATAATGGGACTTTACTTGGGAGATGCATTTATTAGAGCGGATGATA
45 TAGATTATAAATATATAGTATCGTCTGTGTATGATTTATCTTTGTTGGCAAGAGTGTTTA
TTTTTGTATTTTGGGAGCATGTATAAAGCTAAGCATGTTAGAAAATATTTTATTCCAG
GTTTGTAGTAGCTCTTGGCTCTATATTCTTAGCAAGACCTCTTGGGGTCTTCTTGGGTT
TGATAGGTTCAAAACATTCATTTAAAGAAAACTCTATTTGCTTAGAGGGGACCAAGAG
GTGTTGTTCTGCGCTTTAGCTGTAACCTGTTGGTATAGAAAATATTGAAAAATGCTGATA
50 AGATTCCAGCATCTATAACAAAATATATTACTCCAACAGATATTGCAGGAACAATAATCA
TTGGAACATTTATGACAATTTTATTGAGTGTTATCTTAGAGGCATCATGGGCTGGAATGT
TGGCTTTGAAGTTGTTGGGAGAGTATAAACCAAGTATAAAGAAGAATCCCACCATTAAA
ATTATTAATAATTTTGGTGAAATTGATGATTATTGAGGGAGAAGTAGTTTCAGGACTTG
55 GAGAAGGGAGATATTTTTATCCCTCCCTCCTTACAAAGAGATATTTAAGAAGATCTTG
GCTTTGAACCTTATGAGGGGACATTAATTTAAATTTAGATAGAGAATTTGATATAAACA
AATTTAAATATATTGAAACAGAGGATTTTGAATTTAATGGGAAAAGATTTTTTGGAGTTA
AGGTTTTACCAATAAAAAATATTAATAGGTAATAAAAAAATAGATGGGGCGATAGTTGTGC
CGAAAAAACATATCATAGTAGTGAGATTATAGAGATAATTGCCCAATGAACTTAGGG
60 AGCAATTTAATTTAAAGGATGGAGATGTTATAAAAAATAAATTAAGGGAGATAAAGATG
AATAATGTAGAAAAAGCCATAGAAGCATTAAAAAAGGAGAAATAATTTAGTTTATGAC
TCAGATGAGAGAGAAGGAGAAACGGACATGGTTGTTGCTCCCAATTTATAACTCCAGAG
CATATAAGGATAATGAGGAAAGACGCTGGAGGATTGATTTGCACAGCTTTACATCCGGAT
ATATGCAATAAATTAGGAATTCATTTCATGGTTGATATATTAGAATTTGCATCTCAAAA
TTTAAAGTATTGAGGGAGCTTTATCCAATGACATTCCTTATGATGAAAAATCATCTTC

5

10

15

20

25

30

35

40

45

50

55

60

TCAATTACAATAAACCCACAGAAAGACATTTACTGGAATTACAGATAATGATAGGGCATT
ACAATAAAAAAATTGGCTGAATTGGTTAAAGAAGGAAGATTTAATGACTTTGGAAAGGAA
TTTAGAAGTCCTGGACATGTAACCTCTATTGAGGGCAGCAGAAGGTTTAGTTAAAAATAGG
CAAGGACACACTGAAATGACTGTAGCTTTGGCAGAGCTGGCCAATTTAGTGCCTATAACC
ACAATATGTGAAATGATGGGCGATGATGGAAATGCTATGAGCAAAAATGAAACAAAAGA
TATGCTGAAAAACATAATTTAATTTATTTAAGTGGAGAGGAGATAATTAACATATTATTG
GATAAATATTTAAAGATTAAAGGTTAGAGACTAATTATTTTTATTTCTTTTATTTTTT
GATTTTTTGTAAATTTTATCATTTTAATGGGAGATGTAAATGGATAGACATGTAATGGAG
GCATTAGGAAAGGCAAGAGTTGTTGTTGAAAATGGCAGAGTTGTTGAGTTACAGAACCA
AAAATAGAAATCTGCCCATTTGTTGCTAAGCATAGAGGAATAAAGGAGATAACAAAAGAG
AGCATAAAAGAAAACATAGAAATTTAGGATAAAGGATTTTGGGCTATTTACAAAAATAGA
GTTGTTGAAGAAAGTAGATATATAGTTCCTTTTGGAGCTTCAGAGATTTTAATGAGTGC
TTAAAGAGAAAAGCTATAGATGTTGCTGTTATAGTGGCTGATTGTGCTGGGACTATTATA
ACTTCAAATCCAAATTTAGTTCAGGTCCTCTGTGGGAGAATCTCTGGAATAATAGAGACC
TCTCCCATTTTAGAGGTTATAGAAAAGATTGAAAAGCTGGAGGGGTTGTTTTAAATAAA
AAAATGCTGAAATAAATCAGTTTGAAGGTGTTAAAAAGCTATTGAGTTGGATTATAAA
AAAATAGCTGTTACTGTAACAACTTAGAAGATGCTAAAAGATGCAAATCATTAGAAAAT
GATGAGATAAAGATATTAACATTTGGTGTTCATTTAAGTGAATTGAGGGAAGTGAAGAA
ATAGCCAAATACTTTGATTTAGTAAGTGCATGTGCATCAAAGGTTTTAAGGGAATAA
AAAGGCAAGATAAAGCAGAGATTGGAAGAACTATACCGATATTTGCATTATCTGATTTT
CGAAAAGAGATTTTATTGGAGAGAGCTAAAGATTAGATAAGGTATTAATAAGTATTGAG
AACTTGCCAGTATTAATGATAATCAGCCAAAGCCCTTGATTTAGAAAATTTTTTTAAC
AGATATTGTTTACAAAACATAAAACAATACTGCTATATATCAGCATTTTTTAATACATAT
TTATACCCAGACATGGGATTAAGTTTTAATGGTGAAAACATGATTATCTTCGGATTATTT
GGAAAACAGGATGTGGAAAGACAGAAATATTAAATGAATTAAGAAACATCATCTCTGTA
ATAGATATTGAAGAAATTGCAAGAACAGAGGGAGTATTTTAGGGGATTATATCACTTA
AGTATGAGAAAGCCAGGAAGAGTTTGACTATCTAATAAATAAAGAAATTGAAAAGGCTAAA
AAATTTGGTTATGCAGTGGTTGAATATGAGGGAAGGAAGATTGGTGGAGAGAAAAGCTA
AAAATCCTGAGTTGTTGGCTGATATTAAAACTATACCTTACAAAATCTTAATTGACTGT
CCTTATGAATGCCAGATAAACAGATTAGTCTCCATTTATAAGCCAAAAATGAAAAGAG
AAAGAAATTTTGATAAACAAATTTTTAATATTAAAGGAGAGTTTAAAAAGCCAGAGATG
ATTGAAGCAGTTGATAACATCATTGAAGTCAATAAACAGACAAATACTATGAAGCAGCA
AAATTAATTGAAGAAAACTTTATAGAGAACATTATATGAGAAATGTGAAAAGATAAAG
CCAGATTTAATTGTTTATAATGAGGATGTTAAAAAATCAGCTAAAATAATTGATGAATTT
ATTAAGAAAAAATTAAAGGAGCATAATTTAATTTAAGAGGGAACATGGACGAGGGAAT
TTAGCTCGGCTAATAACCTTTACAGAGGATGTTGTTTTATGTATTGTTTTAAATGATGG
GAGGAAGATGATACTAATGGTAAAAAATATTGGCTGGAAAATTTGAAGGAGAGCTTGC
TTCTTTTATATTATCTGCCTCTAAAGAATTTTTAGAAAGATAAAAAGGTCGGTGTA
ATTTAAAGATTACGACATATACTTTGAAAGAATAGATATCAACAAGTTTTTAAATCCAT
TGGGGGAGAATTTGTTAAAAATACAATAACTGTTAGTGAGTTGTTAGAGTTGATAAAAA
AGAGGATGTTATTATTGTAGATACAAGAAGTCCAAGAGAATTTAAGGAGGAAACACTCCC
TGGAGCTATAACATTCCACTATTTTGGATGATGAGCATGCATTAATTGGAAAGACCTA
CAAGCAGGAAAGTAGAGAAAAGCTATAGAAATAGCAACAGATATTGTTGAGAAAAGCTT
AAAAAGAATTTTAAATGAAGCAAAAAAATTTGATAGGGATAAGTTAATTGTTGTTCTG
TGCAAGAGGAGGGATGAGGAGTCAACAATGGCTTTAATTTTACAACATTGGGTTTTAA
AGTTAAAGATTAAATAGGTGGCTTTAAAGCGTTAAGCATGCAGTAGATAAATAAAAAAT
TTAAATTTATAAAGTTTAAATGTCCTGTTATTTTATCTATTTTCTCATCTTTCTCAGG
GCCTATGGCTACAGCTGTCAAAGTTCCTGGCTCTAATTGTGTATGCTCTGCATCTCTAAT
GATTGAGCACGCAATCCTTCACTTCTTGTCTTGTGTAATATCTATCAACTCTTTTTTC
AGAATTTACTTTTAACTACTACCTTTTTCTGTCTCTCTCAACCATTCATCAACAGCCCT
TGGATTTTTCTTTTAGCATCTAAGAAAGCCTCTATTATTGCATGCTCCTCCCTGAGCTAC
CATCTTTCCCTTTCCCATACCTAAATCGTTCCTTATTACTACAACCATCTTCATAATTAA
ACCTCAAATAAATGTTTAGTATATTGTATTATTTTATACCTAAGAACGCATTAAATACT
TATAAATTTAATCATGATGTTTATCAACTAAAAAATTAAGGATGAGAAACATGCAGGA
AAAAGGTGTTAGTGAGAAAGAAATTTTAGAGGAATTGAAAAATATAGGAGTTTGGATTT
AAAGTATGAAGATGGAATATTTTCGGTTCAATGTGTCCAATGTATTACCAATAACAAG
AAAAATGTAGATATCTTCTTAGAAAACAACTTGGAGAGCCCTGGACTATTTAAAGGGAC
TAAATTGTTAGAAGAAAAGCTGTGGCTTTATTGGGTTCTTTGTTAAATAACAAAGATGC
CTATGGACATATAGTTAGTGGAGGACTGAAGCCAATTAATGGCTTTAAGATGCAATAAA
AAATATATGGAGGGAAAAAGGAGAAAGGCTTATCAAAAAATGAACATCCAAAGATTAT
CGTTCCAATAACTGCCCATTTCTCATTCGAAAAAGGAAGAGAAATGATGGACTTAGAGTA
TATCTATGCCCAATTAAAGAAGATTATACAATAGATGAGAAATTCGTTAAAGATGCCGT
AGAGGATTATGATGTAGATGGCATTATAGGAATTGCTGGAACAACAGAGCTTGGAACTAT
TGACAACATAGAGGAGCTAAGTAAATAGCAAAAGAAAACAACATTTATATCCATGTAGA

-522-

5

10

15

20

25

30

35

40

45

50

55

60

TGCGGCATTGGAGGCTTAGTAATCCATTTTATAGATGATAAATATAAGAAAAAGGAGT
AAATTATAAATTTGACTTTTCTTTGGGAGTTGATTCTATAACCATAGACCCCATAAAT
GGGGCACTGCCCAATCCCAAGTGGAGGGATTCTATTTAAAGATATAGGTTATAAAGATA
TTTGGATGTTGATGCCCTTATTTAACTGAAACAAGACAGGCAACAATCTTAGGAACAAG
GGTTGGATTCCGAGGAGCCTGCACTTATGCAGTTTAAAGATATTTAGGTAGAGAGGGACA
GCGAAAAATTTGTAATGAATGTATGGAAAAACCCCTTTATCTTTACAAAAAATTGAAGGA
AAATAATTTTAAACCAAGTCATTGAACCAATATTAATATTTGTTGCAATTGAAGATGAAGA
TTATAAAGAAGTCTGCAAAAAAAGCTTAGAGATAGAGGCATTTACGTTTCAGTTTGCAATTG
TGTTAAAGCTTTGAGAATCGTTGTTATGCCACATATTAAGAGGGAGCATATAGATAATTT
TATCGAAATATTGAATAGTATTTAAAGGGATTGATTGAAAAGATTGAAATTGAAAAAGTA
TTTATATCTTAATAAAATAATAAATATATTAATAATTTATGTATATTAATAATTTATGCT
TTTAGTTATTATAAATGTTATTTTGGTTATATCTACATATATCTATTAATCTCAATAT
AATGTTATACAGATATATATTATTTGGCATATACCTGTAACTTAAAAATTTAAGATGGGG
GAGGGGTATGGACGAAACTTGGAGAAAAATTGCTATTAAAAATATAGCAGAAATTAATCA
AAAAATAACCAGGTTAGAGTGGCTCTTAAATTCGTATAAAAAATGAAGAGGAGATAAAACA
TATCAATAAAAAAGATAAATGAGCTAAAAATTTAAAGAGAAGAGTATATGAAAGCTCTTAG
AGAGTAAGATTATTTATTTGTTATTTATTTGGTAATTTATATTTATTATTTATTACAG
CATTTAGCTACGTATATATGTTATAAAAAATTGAAAACTTTCAAAAACCTTAAGGTTGGAGA
TGTCAGCGTAATCTTAAATATCTATTTTCAATATCTCTATGGGTAGGGTATTTTATCA
TCTTAACTATTTTGGAGGTGTTGATGATGGAAGAGAGAATATACACAATCCCATTGAGAG
ATGTTATAAACAAATCAGTTAGAACAAGAGCTCCAAGAGCTATAAAGAAGATAAAAC
AGTTTTTAAAGAGACACATGAAAGCTGAGATTGTTAAATTTGACAATGAGTTAAATGAAA
AGATTTGGGAGAGAGGTATTCAAAAACCACCAGCAAGAGTTAGAGTTAAGGCAGTTAAAG
AAGGAAATGTTGTTATAGCTACACTTGCAGAGTAAGGGATGACCATGATTATAAGAAAAAT
ACTTCTCAGGAATCCCACAATTTGGTGTATTGGCATTAACTGAAGAAATAACTCTAT
TACCAATTTTCTTGACAAAGATGATGTTAATGAAGTATCTGAGGTTTGAAGACAAAAT
GCCTCCAACTAATATTGGAGGCAGTTTCAAGTTGTTGTTTATCAGTAGCAAAATAAAT
ATGGGCTATTACTACCAAAAATAGTTGAAGATGAAGAATTAGATAGAATAAAAAATTTCC
TAAAGAAAAATAATTTAGATTTAAATGTTGAGATTATAAAATCAAAAAACACGGCTTTAG
GTAACCTAATATTAAACAAATGACAAAGGAGCTTTAATATCTCTGAACTAAAAGATTTTA
AGAAGGATATTGAAGATTCCTTAAATGTTGAGGTTGAGATTGGCACTATTGCTGAACTTC
CAACCGTTGGAGTAATGCCGTTGTAACAACAAGGCTGTTTGACCCATCCTTTAGTGG
AAGATGATGAACCTGAATTTTAAAGCTTGTTCAAAGTGAATATATTGGTAAAGGAA
CAGCAATAAAGGAACCACTTCAGTTGGAGCTTGCATTATAGCAAACTCCAAAGGAGCTG
TAGTTGGTGGAGACACAACAGGGCCTGAGCTTTTAAATCATTGAAGATGCTTTAGGCCTGA
TTTAATAACTTATTTCAATTTTGTGTTTGGTTAATGGATTGCTTGTGTAATATGTTT
GAAATTTGAAAAAAGAGTATTTAGAAGTTATTAATAGTTCAAAGGATTTTTATTTAAT
TTCTAAGGGTTTGTGTTTGTATTGTTTAAATATTTAACTTAATTAATTTATTTGGATT
TTTGAAAATTAAGATTAATTAGGTAAAGTAAATAGATTCTCTAACAATAAGTTAAAT
TTTGAAATTTAGGAAGATAAAAAATGCTTAGTTTGTAGTAAAGAGATAAAATTTTAACTA
AAAGGTTTATATTGTAAGATGGTTATTTACCCTTAGAAAAATATGGTATAGAAAAGCTTA
AATATTAAGAGTGATGAAGTATATTATGTTGTGAATGATTGCCCTGTTAAATCAGACCG
TTTCGGAATGGAATCCAGTTGTTATGCTGGGGTAATGGAGGTTTTTGGCGTTAGTTAA
AATCAGACCGTTTCGGAATGGAATTTATCTGTTATTGATACTTTTCCCTTTTCCCAAT
AATTGTTAAATCAGACCTCTTGGAGGATGGAATAGATAAGATTGAAGGCATTAAACA
GTATTTACTGAAGATTAAATCAGACCTCTTAGAGAATGGATAGAGGATGGAAACGGATG
AGTATTATATTTCAATGCTTTTAAATTTATAAGATAATTAAATCAGACCGTTTCGGAATG
GGATTCTGTTTTAATTAATCAGCTTATTGTTATTTGTTTTATCTTTATCAATATAT
TTGAATATAACAATTAATATTTTATAAAAAGTATTTAATAGCAAAAATAACAGAAATTA
AAATTGAATAAAAATGGTGGTATCATGGAATTTATTTAGAGGAGCGGCGTTAGAAGTT
GGAAGAAGTTGTATAGAAATAAAAACTGATAAAAGCAAAATACTATTAGATTGTGGGGTT
AAGCTTGGAAAAGAAATAGAATATCCTATATTGGACAACCTCCATAAGAGATGTTGATAAA
GTTTTTATCTCACATGCCCATTTAGACCATTGAGGGGCTTTACCAGTCCTATTTATAGG
AAGATGGATGTTCCAGTAATTACAACAGAATTATCAAAAAAATTAATTAAGGTTTTATTA
AAAGATATGGTAAAAATAGCTGAAACAGAAATAAAAAAATCCCTACAACACCATGAT
GTAAAAGAAGCTATAAGGCATACAATCCCATTAATTAACAACGATAAAAAATACTACAAA
GATTTTCCCTATGAATTGTTTAGTGCTGGGCATATTCCAGGAAGTGCATCCATATTATTA
AATTACCAAAATAACAAAACCATCTTATACACTGGGGATGTAAAGTTGAGGGACACAAGA
TTAACCAAGGAGCTGATTTAAGCTATACAAAGGATGATATTGATATCTTAATTATAGAA
TCAACTTATGGAAACAGCATACCCAGATAGAAAAGCCGTAGAGTTGAGTTTATAGAA
AAGATAAAGAGATTTTATTTAGGGGAGGAGTTGCTTTAATTCGGGCTTTGCTGTTGAT
AGAGCTCAGGAAATATTATTAATTTTAAATGACTACAACATAGATGCTCCAATTTACTTA
GATGGAATGGCTGTAGAAGTTACAAAGTTAATGCTAAACTATAAACATATGCTAAATGAA
TCGTCTCAATTAGAAAAAGCTCTAAAAAATGTTAAAAAATTAAGAAAAATCAGAGGACAGG

-523-

ATTAAAGCAATCGAAAACCTTATCAAAAAATGGAGGAATTGTTGTAACTGCAGGAATG
TTAGATGGAGGGCCTTACTGTATTATCTAAAATTATTCATGCATAATCCTAAAAATGCC
TTATTATTAACCTGGTTACCAAGTTAGAGACTCCAATGGAAGACATTTAATTGAACTGGA
5 AAGATATTTATTGGAAAAGATGAAATTAAGCCAACTTAGAAGTTTGCATGTATAACTTC
TCATGCCACGCTGGGATGGATGAGCTACATGAGATAATAAAAAAGTCAATCCTGAGCTA
TTAATTATACAAACATGGAGAGGAAGTTTCAGGCAACAATTTTAAGAACTGGGCGTTAGAA
CATGGATTTGATGCAATAACTCCAAAATTAGGAGAAAAAATAAGAATCTAAAGATAAAGA
GGAAGAGATATGTTGGGATTAAAGATTGAAGATGCTATAAAATACAATGAAAAATTAAAA
AAGTATGTTTATAAAAAAGGAGATAAGCTTAGAATTAACCTTTAAAGACAAAGAGGCGTTA
10 ATAGAATATAACAAACAGTTTGTAAAGTTTATTTGATTTGGATATAGAATTTCTATAAA
AATGGATTAATCCCTACACCAATAAACAGATATCTCTTTATAAAATCCACTTTTGAACT
TTAAAGGAGCTTGGTATAGAAAAACCAACTGTTTATAGAGATTGGGACTGGGCACTCTGCC
ATAATCTCCTTATTAATAAAAAAATTTTATAATGCTGAAGTTTATGCCACTGAGGTTGAT
GAAGAATTTATAGATTTTGTCTAAAAGAAACATAGAGAAAAATAAGTTAGATATAAAGATT
15 ATAACTCTAAGGGTAGAGCTATTGAAGGCATTGAAGAGCTTAAAGATAAAAAATTCGAT
TTAATTATTTCTTATCCTCCTTTCTATTCAAAAAATTCAGTAGCAAGTGAAGAAAGTTT
GGGGGGGCTTTAGCTAAAAATGTTGAGCTAATTGGTGGAGGAAAAATTTGGAGAGGAATTT
TCATTTAAAAATAATTGAGGAGGAATCAACTTTTAAATAAAAAAGGAGTTATCTCTTTA
20 ATGATGCCAAAGAAACCAGAAAAAGAGAGCTTATAATTAAAAAGATGAAAGAAGTT
GGATTAGATGTTGAGGTTGATGAAATTAAGAACTGGAATAGGTTGAGATATATTATAAG
GGAATAAAAGGGTAGATATTTGAATTTAAAGATACTGTCTTACTTGAAGGAATTTTA
ATGAATATGTAAGGATGTTTAAATTTAAATGAAGATTTATTAAGCAACAAATCTTAGATG
TTGCCCTCTGGAGTTAGCTCTTTTGTGTCAGAGGGAATAAAAAAGGCTATAACATTACAT
CTTCAGATAAAATTTATAATCTAAAACCAGAGGAATTTGAAGAAAAATGTAAAAAAGACT
25 TGGATTTTATGGAAAAACATTTAAGAGGGATGTTTAAAAACAACCTTAACTGGAATGAAT
TTAAACAGTTGATGAATGGAAGAAAAACAAGAGAAAGAACTTACAAAACATTTTATTGAGG
ATTATAAAACAAATAGGAAAAGATATATCTACACAACCTTATCCAAAACGAATTTTAAAG
ATGATGAATTTGCTATTTCTCTTGTAGGGCATTTTTTTGTGTTGTATGATAATATCCTCA
ACTATCAATTCATAAAGAAACAATTGATGAGCTTTTAAAGATTCTGAAGAAATTAGAA
30 TATTCCTCAATATTAATTTAAGAGGGGAGAAATCAATATTTTGGACAAGATTTTAAAGG
AATATAAGCAAGGATTGAAAAGACAGATTATGAATTTATGAAAGGAGGAAATAAGTCT
TAATTATAAGGAGGTAATATTATGCTAACCATATTAATAATTAGGAGGGAGTATTTATCA
GATAAAATGTTCCATACTCAATAAAATGGGACAACCTTGGAGAGAATAGCAATGGAGATA
AAAAACGCCCTTGGATTATTATAAAACCAAAATAAAGAGATAAAATTAATCTCGTCCAT
35 GGAGGAGGAGCTTTTGGTCACTCAGTAGCTAAAAAATACTTAAAAATTGAAGATGGCAAA
AAAATATTTATAACATGGAGAAAGGATTTTGGGAAATTCAAAGAGCAATGAGAAGATTT
AACAACATCATTATAGACACTCTACAGAGCTATGACATCCCAGCTGTTTCTATACAACCA
TCTTCGTTTGTCTGTTTGGGGATAAGTTAATTTTGTACCTCTGCTATAAAAGAGATG
40 CTTAAAGGAATTTAGTTCCAGTTATTCTGAGAGATATTGTAATTGATGATAAAACGGC
TATAGAATAAATTTCTGGAGATGACATAGTTCCATATTTGGCAAATGAATTAAGGATGAT
TTAATTCCTATGCTACAGATGTTGATGGTGTTTAATAGATAATAAGCCAATAAAGAGG
ATTGATAAAAAATAATATCTATAAAATTTGAATTATTTAAGTGGTTCTAATAGTATAGAT
GTTACTGGTGAATGAAGTATAAGATAGACATGATTAGGAAAAATAAGCTAGAGGTTTT
45 GTATTTAATGGAAATAAAGCTAATAATATATACAAAGCTTTATTGGGGGAGGTTGAAGGA
ACAGAAATTGATTTTTTCAGATAAGTTTATTGCTTTAACCATCTATCTAATGTTACCT
CCTCCCTATACCACTCTACTTTTGTAGGTTTAAAGGATATTTTCCATATTCTCCTCCAC
CACCAGGATAGATGTATATTTTTCCCTTCCATAATAGATTAAATGTCTCTGCTACTTTTG
GATGTATTTTTTGAAGCTCATCAATATCAGCATTTATCAAAACCTCAATCTCATTTCCAT
50 ACTTTTAAATAAACTCCTCCCATAGCTTTGAACAGCCTTTGTAAATATCCCTTTACCAA
TAGTTAGGCTAATCATCTCAGCCAATGGAATTAGCTTATAATAGGGAGGTCTAAATTTTG
GATGCTCTATCTTTCCATCACTCAGCTCTTCAACTCTACTTAAACTCCTTTCTTTATAC
TTCTCCACACTTTGGGCATTTCCAATTATATTTCTTAGCATCTTCTAACTTAAACCTTG
TGTGGCATTTAGAGCAAGCAGTTAAATGATACTTCCCAATTTTGGGTCTAATCCATAGT
55 TAGCTATAATTTTATTATGTTTATTGCTTTTTTATTGTTCAAAGTTATCTTCAATTC
CGCCAATATAATCAACCTCTATTTGATTAAATCTCTTCCCAATCTATGAGGATGATATG
AATGGGCATCTGAATTTGATAAAATGGCAAATCTCTTAGCTCAGGAATCATGTCTGCCA
TATCAGTATCTGCTGACAAACCAAGCTCTACAAAGTCAGGTTTTTGTATAGCAGTCAT
ATATTGAATCAAAAGATTTATAGAGGGATGTTCCATGGAGTAAAGCAGTTATGTAAAGTTC
CTGAACAGTTACATAGCTTGAATCATCTTCAACCTCCAAGTTATATACAAATCCATCAT
60 AATACTCCCTCCCTATCTTATAATTTGGAGCATATAGGTAATTTCTTTAATCCATCCAT
ATCTAACATCTTTTTTGGAGCTTAATATCTTCGTTTTTAACTCATCTACAATTTTTT
CATCCAATATTGATACTCTCCCTGCCATCTTGCATGGTATTTAATAACTTCTCTATCTC
CAATTTTGGATTTTGGAAACATGTTGCTAAATGTTATTATAAAACCTAATCTTAAAG
AAATCAATCTTAACTGATTCATTAATCTCTGAAGTTGTTACACCTTTATCTCCTCTCC

ACCATCCAATAAATATTTGAAGTTGTTTATTCTTAGGAAGATATAAAAACTCATTAGGTA
AAGCTTTATTCCAGCTCTTTTTTCGTCTCCACAATAAAACATGTCTCCAAAGAAATCTC
TTAAACTCTTGAGTAATATTTAATTCTATTCTTCACTTCTTCCATCATCTCTTATTT
5 TCGGTTTTAAGTTGAATATTTTCTTCATCAAATATTCTATATCATCAATGATTTTTTCT
CATTTTCTCCTAATGCAAATCCTATCCCATCTCTAAAGCAATAACCTTCAGATAAGAAAT
ATCCAACATACTACAAAACCTCTCAGAACTTCAATTTTTCTGGGATTCTACTTCTAC
AGAACTCTCTTTAATATTGCTAAGATACTTATCTAATGACAGATATTTAATGTCTCTCA
10 CTCTATTTCGGTATTGGATAGACAATCACATCGCCCACTTTTAAATCCTTAGCTATAATCC
ATTCTCTCTTATATTTTCTATACCTCTTTTACATGAAGGATTGTATATTGAGTTAAGC
AGTTGAATTTACAAATCCATGAGAGCCGTCACATCTCTTTTCTCTTTAATTGCATAAA
CCGGATGTTTCAGGAGTTAATATTATCTCTCTGGGAAGTATCTAACTTTAATCTTTATTA
TGTCTCCAATATATCTCTTTTATAAACTTTTTCACTTTTTTAAACCTATTTTCATGAG
TTAATACCTTATCTCTACTTTTATATCGACTATTCTTTTAAAGCCATTTTCTAATATCA
15 GCAGTGTATCTGGAGGAACGCAATGAGCAGGACCTATTAAGCCCAACGCTCTCAACAA
TCTCTAAAAGCTCAGCTCCACCAATAGATACTCTTGGCCTTCCCTCTTTATCAATATCCT
TAGAGTATTTTTTAAATCTCTCTAAGCTCTTCTACTTTGCTTATTGAAGGCAATAAGA
TAAGGTGATGAACCTCTGTTTTATCTTCAATTTTCAGTAGTTAAAATTAGCTCTCTATCTT
TGTATTGCTTTATCTCTCTAAATAATCTGGATGTGTGCAGTCCGCAAGTTCCAATAATGT
TTAATCCCTTTAGTTTTCCATATTTTAGGATGTTCTCTACATTCAATCTTTGATGTTT
20 CACGAGAACTCTGAATGGATGTGCAAAATCAACATTAGCTATCATTGTATCACCATTAT
GGTTAATTTTTAATGCTTAATTTTCTTACTTTTTAAACTTGTTTTTTAGAGTAATGTAT
ATTTATTTAAATATACAAATTATTATGTCATGTTAGGTAATACCTAATTTTAATAAGATA
CAAAAAAGATACCGAAAAGTTATATATTAGATAACCTAAGGTATTATCTGAGAATGAAA
AGGTAATGAAAAGGTAAAGTTAGGTGATACCTTATGAATGTGAAATGTCCAGAATGTGGG
25 GCATGGATATATGTTGTTGAAGAAGATAGTGGGGGAGACGCTATGGAAGTAAATGCCCT
AAATGTGGGACTTCAATATACGTAGTAAAACCTATGGGTGAGAAAATGAAAAATAAAGA
GATAAAGATTTTTTAGATGTAAAAATACTTGAAATAGAGGAAACAAAGAAAACCTCACCA
TATAAAGATACAAAATCTGAGGATGTATTAAGCCCTTAGAGTAAAGCAAAACATAAAT
GGAGAAATATATGAATTCAGAATATGGCAAATTGCTAAAAAACAGAAATATAGAGGAATG
30 GTATATGTAGTTAAATCCGTATCTCACTATTGTGGTAGTGTCAAACTAAAAATTCCAA
GTTGATGAAGATAACGATATATACGTAAAGCAAAATTTGGTATTATTGAGGGAGTTAAT
AAAAGTAAATAAAGCTACCAAAAGAAAGAATGGAAGAGATAGCAGAAAAATTAGGATTT
GAGCTTAAAGAGGGAGATGAAGGACTAAGGTTATCTTAGGAGAGAAATATTCAGAAAAAT
CCACCATTATCAACAAAGACCGGAGTTAATTGAAAAGCTTATAAAGTGTGGATTGCAAT
35 TGGGAGCCAACAATGATTTAAACTTACTTAATTTTTAATATTAATATATTATGAACTA
TCATGGCTAGTATAATAAATAAGCAATAATAAGTCCAACGGGGAGAAACATGGAGATTA
TAAATTATGAAATATTAAAAAAATATCCTCTCTGTGATAGATGCTTTGGAAGGTTGTATG
CTAAGTTATTACATACAACAAACACTGAAAGAGGTAGGGCGTTAAAGCTATATAAGCTT
TGGAACCTTGAGGCAAGATAAAAAAGCTAAGGAAAAAGGAATAAATTATGAAGAAGAA
40 TAGCTTTATTAAGAGCTTTGGCAAAAGTGGAGTTGATGAAATAAGATTGGAAGATATAG
AGATAGAGAAAGAGAACTGCCCATGGTGTAGAGGCATTTTAAACAAACAAAAATGGA
AGTTGTTAAATAAAGCCATTGAACCTTTTAAAGAATATGATTTTGATACATTTTAAATTG
GAACTCACATACCAGAAGAGATTAAAGACCTTGAGAAAGAGATTGAAACAGAAATTTATGG
AGAGTATAAAGCAGGAATTTGGTAGAGAATTTGGGAAGATGTTGGCAGTTAGGTTAGATA
45 AAGCCCCAGATAAAGAATATCCAGATATTGTTGTGCATATAAATCCATACACTGAAGAAA
TCTATCTACAAATAAATCCTTTATTTATTAAGGAAGATATAGAAAATTAGTTAGGGGGA
TTCCACAACAAAGATGGCCTTGCAAGAAAGTGTAGAGGAAAGGTTGTGAGCTCTGCAACT
ACACAGGTAAAAAATATCCAATATCAGTTGAAGAAATTATTGCCAAACCATCTCTAGAGG
CAACAAAAGGAGTAGATGCAAAATTCATGGAGCTGGGAGAGAAGATATTGATGTAAGAA
50 TGCTTGGAGATGGAAGACCATTGTTTTAGAGATTAAAGAGCCAAAGATAAGAAAAATTG
ATTTAAATAAAATTGCTGAGGAATTAATAAGGATGGTAGAGTAGAGGTTTAAACTTAG
AGTTTGGTGTAGGAAGGATAAAGTTATATTTAAAAACACTCCACATAGAAAAACATATA
GGGCTTTAGTTGAATGCTCTGATAAAATTACTGATGAAGAACTAAACTCCTTGAAAAAG
55 AACTTGAAAATAGAACTATCTATCAAAAAACACCAAAAGGGTTTTACATAGAAGAGCTG
ATTTAGAGAGAATCCGTAAAGGTATATAAAGTTAAACCAGTAAAGTAGATGACAATCATT
TTGAGATGATTATATATTGTGATGGTGGATTATATATAAAGAGCTAATCAGTGGAGATG
ATGGGAGAACAAACCCATCAGTCTCATCTATATTAATAAAAACTGTATCTGTAAGGAAT
TAGATGTTTTGAAAATACACGATAACAACCTTTTAGAAAAAGGTTGATCAAAACAGATGC
ATTAAGTTGCCTCTTTTCAGAGGCAATTAATGCCTCATTTAAAAACCTATTCAAAAGGTTG
60 AGAATTATGGTTCAAATGAGTGAAGGATTTAGAAGAAAAACAAGAAAGATTATCAAAA
CACCCAAGAGAAAGAGGTCTCTATCCAATAACAAGAGCTTTGAGAGAGTTTAAAGAAGGA
GAGTATGTCCATATAGTTATAGATCCATCAGTCCATAAGGGAATGCCACACCCAAGATTT
CATGGAAGAACAGGGATTGTTGTTGGTAAGCAGGGAAGAGCATTTATTGTTAAAGTAAGA
GATGGAGGAAAATACAAACAAATCATTGCTTACCCACAGCATTTAAGACCTGCTACTGCA

5 TAAATATTTAATTTTCATAAAAAATCTCTATTAATTAACACTTTAATTATTTTTCCTTGAT
TTAAATACAACCTCCAGAAATAAATTATTAATTATATTTTTATTGTATCAAGCTAAGAGG
GAGAGAATGATAGGCCAAAAAATCCTTGGAGAGAGGTATGTAACAGTATCAGAGGCTGCT
GAAATTATGTATAATAGAGCCCAATTTGGAGAGTTATCTTACGAACAGGGATGTGCTTTA
10 GATTATTTACAAAAGTTTGCCAAATTAGATAAAGAAGAGGCCAAAAAATTGGTTGAAGAG
TTAATATCTTTAGGAATAGATGAAAAACAGCAGTTAAAAATAGCTGATATATTACCTGAA
GATTTAGATGATTTGAGAGCAATATATTACAAAAGAGAATTGCCAGAAAATGCTGAGGAA
ATCTTAGAAATCGTTAGGAAATATATTTAATTTTTTTTATTACTCCTTTAAATTTGTAAT
TTAAATGAAACTTTTAGAAAAAGTTAAATGAAAACCTCTCCGAGTTTTTCATAGCCCGAAGC
15 TAATGCTTCGGTTTTTCATCAAAACCTAACACCTCCTCGCTACGCTCGGAGGTGTAATTTAA
GTCCAGGGTGTTTTATGCTCCGATATATTTCGTAGATTTAAATGAAGGGTGAAATTTTATG
GTTAGAGGGCAATATAAAAAAGGAAACGATGAAAGAAATGAGATTTCTAAAAAATAAG
CCACAAAAATTTGAAAACCTACGCATGGGTTTTGGATTATTTACCTTACGGTTATCCCGAC
AAACCTGATGAACCTATAGTTCAAGGGCTTGGAGAATATCAGTTTTTTATTAATGGAGATG
20 ATTCCAAAACCAAATGTAGATATTGAATTAGGTGAAAGAGTCTATATTGGAAGGTAAG
AGAGATAAAATAGACCACGTTAGAAGAATGATTAAATATGAACAATACTCCACAGCT
AAATCAGAACTTTTATATGTAGTAATGGAAGCCGTTAAATACAGGAGGATAGGTTTGTG
AGATTCTTTAATGAATGCCCAACCAATAACCAAGATTACATACCTTAGAATTACTTTCCA
GAAATTAAGAAAGAAATATATGTGGAATAATTGGAAGAGAGAGAAGCAAAAAATTTGAA
25 AGTTTTAAGGACTTTGAAGAGAGAATTGGGAAAAATCCTGTGAGAATTATAGCTAAAGAA
ATTGAAAAGAGCTTTTCAATGACAAAAAGATAAATACTACTTATTTGTAATGGAAG
AAAGGAATAATATTGAATGAGGATAATATGACATTCTATCTAAAAGAAATAGTCATAAATG
TGTTTTAGCAAACTCTCTCAATCTCTAAGAGTCCCAAAATTTAGCAGACCAATATCAGT
TATTGCTATAACCTCTGCTCTTAAGTAACTCTCTTTATAATTTTGGATGATGCAGAGTT
30 ATTGATTAAATCATTCCAGGAGATAAAGGGTTAAAGCGGGTAAACAATATAGTTCTT
GTTTAATAAATAGGTAGGAAATTTTGAATAGCACCAACATCATCTCTAAGTTTTATTGA
AGGATGTTTCATGCCCTAAATCCAAAACCTCTCTTTTAAATAAATCTCTATCTATTTTTAT
CTCTTTATCCCCATGAAAGATTAAATAATTACCAAGTTCAAAATAATCAAAGATTTTCGTA
35 GCCAGCAGATGATATAAAGTATCATGATTTTCTTTAATTTAAATAACATTAAATATATTC
TCTCAAAAACCTCAATAAACTCTTTTAAAACTTAATCTCCTTGGGATATGGCTTAAAGTT
GTGCTTTATATCCCCATTGATTATTAATTTGTTAATTTTATATTTATCGATTATATTCAA
AGTCTCTTTTATAACCTCATCTTTCTGCAATAATGGGAAGTTAGCTCCCCCTTACCCAAA
AAAGACATCAATCCTATATGTGTGTGAGCTATTATTGCATAATCCTTATAAATAAACA
40 TCTATCAACCGTTATATAAAAAATCTTTAATTTTAAAGTCTCTCTCCATAAAATCACTTAA
TTGAGGTTTTTATAAATTAATAAAGAGAAAAATAGAAGAAAGCTTTATGCTTGTTC
GACCAACAATCTTGCTGTTTCTGGTGTGTATCTCCAATCTGCTGGTAACACACCTTTTGA
CTTGATGATTATTTGACTAATCTTCTAATCTTTGATTCAATTAAGTCAAACTCTCTTTGA
45 GTGCAAGTCTTTTGGGTGCTGTTCTAAGTGTTTTCTTAAATTGACAGCTCTTCTCATTAA
GTTCAATAAATCCTCTGGAACCTTTTGGATATAAGCCGTGTTCTTTTCAATCTTACTGAT
TTTTTTTACCAGTAATTAACCTAACATCTGGAATTCCGTAGGTATCTCTCAATATCAAACC
AATCTGTGCTGACTGGTAACCTTTCTTAGCTAACTCTACTACTAACTGCTCTACTTGCTC
CGGTGTGATTTGGACCCATTTCAGGAACCTTCTTCTGACGGGTCTCTTTGAACCGGAGCG
50 ACCTCTTTTTCTTGGTGCATTCTTGCCATTCTATCACCCGATGGTCCGCGATCCAAAGA
GACCTGGCATGTTTTTTTATTTCCATAGGCTTCCGCTTATTTGGGATACTAGACTACAGTG
GGGCTGAACGTAAGTGAAGCCCCACTCGGGTATCTCAATAGGGGTTTCCCTATGGGTCTGA
AGAGACCTGGCATGTTTTTTGTTATTTTTATTTATCGATATGGTAATCTTTTATTGTAT
GAGCTATTAATAATATATCCGCTTTTAAATGAACATTACAAAAGACCTATTTATAATTTT
55 TGGTGAGTATCATGTTATTAAGTAGAGGATTTACATGTTTATAGAGGGAACAGAGAGA
TTTTTAAAGGTGTAATTTAACTGTAGAGGAAAATGAGATTCATGCAATTATAGGGCCGA
ATGGAGCGGGAAAAATCAACCTTAGCTTATACAATAATGGGAATTTCCGGATATAAACCAA
CTAAGGGAAGGATTATATTTAAAGGTGTTGATATAATTGATAAAAAATATTACTGAAAGGG
CGAGGATGGGAATGACTTTAGCTTGGCAGGAACCTGCAAGATTGAGGGGATTAAGTTA
60 AAAACTACTTAATGCTTGGAAATGAATGAAAAGTATAAGAAAGATAAAGAAATAGCAGAGG
AAAAAATTAGGGAAGCTTTAAATTTGTTAAATTTAGACCCAGACAAATATTTAGATAGAT
ATGTGGATGAAACACTAAGTGGAGGAGAGCGAAAGAGGATAGAGTTAGCTTCAATTATCT
GTATGGAGCCGGATTGGCTATCTTAGATGAGCCAGATAGTGGGATAGATATTGTATCAT
TTGATGAGATTAAGAGAGTTTTTGACTATTTAAAGGATAAAGGATGTTCTTTATTAGTTA
TTACACACAGAGAGGAGTTAGCTGAACATGCCGATAGAGTCTCTTAACTGTGCTGGAG
AGGTTATAAAGAGTGGAGACCCAAAGGAAGTTGGAGAGTTTTATAAAAAAGAGTGGGAA
AATGCTATAAGAAAGTGCCAGATGGAAAATAGTCTACAAAATAATTTACACCTCCGAGC
GAAGCGAGGAGGTGTTATAGGTATCGCAATAGGAGTTTCTCTATGCTGAGGAAAATGCT
ACAAAAAGTCCAGAGGAGAGGGAATAAATTTAAATCCAGAGGGAGAGAAATGAGCA
TCAAAGAGGAATTAATGGAAATAATTGAAGCAATTAATATACGTCTGAAAAACCTGAAG
AGATTGTTTCATGGTAAAGGACCAAGAATCATTGTTAAAGAGAGTAGGATTATTGATGTTCT

-526-

AAGGAGATGAAGGAATAATATTAGAAGGGAAGGAAGAGGATGGAAAGATAAAGGCCAAAGA
TTATTGTTAAAAAAGGCTATAAATTTAAATACCCAATTCACATGTGCTTTGGAATCACTG
AGGAAAATATATCTCAAATCATAGATGTTGAAATCATCTTAGAGGAGGATAGCTCAATCT
CTCTAATGTCTCACTGCTCATTTCCAAAAGGTAAAGGAATTAAGCATATTATGAACGGCA
5 TTATAAAGATTGGTAAGAATGCAAAGTTCTCCTATAATGAATCCACTACCATGGAATGG
ATGGAGATATTTTAGTTAAGCCAACGTGTAAGTTGAGATTGATGAAGGTGGCATCTATA
TATCAAACCTTCACATTAACCTAAGGGAAGGATAGGGACTTTGGATATAGAACAGGAGATTA
TTGCCAAAAAAGATGCAATAATTGATATAACCACAAGAACATACGCTATAAAGGAGGATG
10 TTGTTAAGGTTAATGAAGTTGTTAAGTTGAATGGAGAAAATGCTAAATGCATTATAAAGA
GTAGAGGAGCGGCGATGGATAACTCAAAAATATCCCTAAAGTTAAAGATTGAAGGAAACG
CTCCATACAGCAAAGGACATATTGATTCTGCTGAAATAGTTAAAGGAAATGCTGAGGTTG
AATCAATCCCAATAGTTGTTGTTAGAGATGATAAAGCAAGAATAACCCATGAGGCGGCAA
TTGGAAGTGTTGATAAAAAAGCAGTTAGAGACGTTGATGGCTAAGGGATTGGATGAGGATG
AGGCAACTGAAATAATTGTTAAGGGAATGATAGGGGATTATAAAAAATATTGGCGATGA
15 TGACAATTTGCTATCTGATTCTGTGATGACTACTCCCGCAGCTGAGCCAAACCATTTATT
TTAAAGATTTTTTAGATATTCATCAACATCGTAGTGTCTTTCAAATTAATAAAAAATTTA
CTAAGGAAGGTTTGAACGCCCTTCCCTTCGGAAGGCGTTCAATTTATACCTCAGTTATTCCA
AGAAGTTTTGAAAGACACTATAATCCAACCTTTTCAAACCATCTTTTTTCTTTTATAA
TAATATTTCTCTCCACTCTCTCTTTGTTTCTGGAAAGTCTTCCCTATAATGTGCTCCTC
20 TACTCTCCTTTCTATATAAAGCAGATTTTGTAACCACTTAGCAACAACAACCATGTTTT
TCAATTCAAAGTAGTTCTGCAAGTCAATAATCCATTAACCTTTGACATTATCTATATTTCT
TCTCAATTTTCATCAATTTTTCTAAGGCTTTTTTAATCCATCCTCATTCTAATAATGG
ATACATAATCCACATAACCTTTCTCAAATCTCAATTAATATAGACGTTTAAATCTC
CTTTCAAGCTATTTATCTCCTCCAATATTTTGGCAACATCTTCTTCAGCATCAATATTAT
25 TAAATCATGATTTTCAACAAACTCTTTGGCAGATTTTCCAGCAATAGCTCCAAAGACCT
GGGTATCTGCTAAAGCGTTCCTCCTAATCTATTAGCTCCATGAACCTCCCTGTAACTCT
CTCCACATGCAAAATAATCCAATTATATTGGTTTACATCTTTTCAATCTTTAAACCTC
CCATAAAATGATGAGCAGTCGGAGAAACAATCATCGGCTCCTTTCTAATATCAATTCCTA
CTCTCAAAAATTGCTTTAACATAGTTTCTAATCTTTTCAATAACCTCATTAGGCAAAAT
30 GAGAAACGCTCAAAATAAATCCTCCATTAACCTCTACCTTCTTGAATCTCTTTATATA
TAGCTCTTGCAACAACATCCCTTGTCGATAGCTCCATCTCTCCTTGTCGTATCTTACCA
TGAATCTCTCTTTATATTTATTGTATAAAATTCCTCCTCTCCTCTCACGGCCTCTGTAA
CTAAATTCAGATCCCAACCATCCAGTTGGATGGAATTGAACCATCTCCATGTCTATAA
GTTTCAAGCTCCTTCATTATAAGCTATAGCAAAACCATCTCCAGCTTTTGTATTGGATTGG
35 ATGTTATTGGATATAGTTGCCAGCTCCTCCAGTTGCCAATATAGTTGCTTTAGCAAATA
TTGGAAATATATTCAGCTCTTTAAATCTAAAAATATCGCTCCATAGCATCTGTTATCTT
TAACAATCAACTTTATTGCCATAACCTCCTCTAAATCTTAATCCTTTCAAATTTTGAGA
TATATTCATTTAAACCTCTCATTATTTTCATGTCTGTTCTATCTCCACAGTAGCAAGTTC
TATTAACCTCTGCCCTCCAAATGGTCTTTGAGCTATAAAGCCATCTTCAGTCCATCAAA
40 ACAAGCTCCAAACCTTTCTAAGTTCAAAGCTCTTTAGGAGCATTTTAACTAAATCT
CTACCAGCTTTGGATTGTTTATAAATCCCCCTCCTTTTACTGTGTCATAAAAAATGCTTCT
TAAAGCTATCTTTGGATTAAATACTGCGTTATAACCTCCTTCAGCCATAACTGTGCATC
CACTCTTTCCAAACAATCCCTTAACAGCTATTATGACATTCTTATCTCTGCATTCTATTG
CCGCCCTTGACAGAGCTCCTCCTCCGCTTATAATTAAGATATCAGTTTTCTTTTATC
45 ACCAAAAATAGGATACCTCATCAGATATTTAAACTTATAAATCAAAATAGCTTTGATG
AAAAAAATATCTTAATGAAAAATTTGGCATAGTATAAATAAAAAAAGAACAGAAAAAT
AGTAATATTTTTAATAAGGCACCTGGTAATCCTAATCTTTTCCATGCTCTATTTCCTTCA
CATGAACCTTTTAGTAAAGGTTTCATCAAAACGGATGCACTGCCTCGCTACGCTCGGCAG
TGCCCTCTTAGTATGGAATAGGTAGTCCGAGCTCTTTCTATGTTGATTTCTTTCTATGTT
50 TTTCTCTTTCTTTGCAAGTGCTAATTTCTCAACTAATCCTAATCCTGGTTTAACTCTTC
TATTGGTTAACTTCTAAATACCCATCTTCAACCATTTTGTTAAATATTTCTTCTCCCTT
AGCAGTTCTTATAAATACAGTGCTCCATCCGCTCTGGGCTTCCAACCTGAACCTGTTGAAAT
ATCTGCCAATCTGCGGTATAATCTGTACAAACATGGCAAGCGATTGTTTCATAAGGATG
AGTTTCTTTTAAATTAATCGCTTTTGTCTCTCCCATCTTTGTATAGACCCAGAATCTACC
55 CTTTCCAATATCCATCTTGACGACATCCTCCATCTTAACCTCCACAGTGTCTTCAACAAT
CAACTTCAATCCGTAGTATGGGAAGTTCTCCATACAGAAGATTCCGATTATTAAAGCAAT
CTTATCTGGAACGTGTCTAAATCCTACTGGATATTTTCATCAACTTTCTTACAGCTCTAAC
TTGGCAAGGTGTTCCAACAACCTCCAATTTTTTCACAGCCATATTCTCTAACAGCACTCTT
TAATACTGAAATGTTTGGGACAGCTGTATATTTGTTCCAGCTGCCTCTAAACTTCTTC
60 TGGTGTGTAGTACTTTTAGGAACCTGCTTAAACTCCCCAGCGTTGTCTGCAACTATAAC
TCCATCTAATAAATATTTTCTAATCCATAAATAAAGCTGTTGAAACGATTCCCCCATC
CTGAGCCTTCTTAAACTTCTTTTAAATGTACTCCTTGCTGAGACAACCTTTTTATAGCT
ACCAAAAGGATTCATCCTATTCCACCTCAAAAAATTATATTATATTATTTATCTATTT
TCTCAATTAACCTCTGGGAATCTAATCTTTGGACACTGGACAGAGCAAGCTCCACACTTAA

TACAGAGTTCTTTCAAGACATTTGGCCTTCCATCTAACATTTCTATAGCTCTTGTGGAC
AAGCAGCAGCACAAAGTTCCACATCCCATGCAAAGGGATTTATTGACAACTTTGTAGATAA
CATCACATCCGCAAGCTTCACTTCCTTTTTCTGCCAATTCAGCATAAGGTTGTAGATACT
5 CCATATCTCCGTTTAAATGCTGCTGTAATTACTCCACGATTGCCTCTGGTGAAGGTGGGC
ATCCAGGAATTGCTAAATCTACTTTAATGACTTCAGTTAATGGAGAGAATGAGCTATGAA
CAGGCTTTGATAATTGGTTTCCTTTACAGTATCTTGTAAACCCCTCCTGTTGCAGCACATG
CTCCTAAGGCAACAACAATTTTTGCCTTCTTTCTAACTTCTTGAGCTACTTCCAATGAGT
GGTGGTCATCTAAACAGACAGAGCCTTCAACTAAAGCAATATCGCATTGAGGAATTTCTC
10 TTGCATCTGCTAAAGTTTGACAATAAACCAACTCAATTGAATTCAAACATCTAAAAGCT
TTTCATATGTGTCTGCTAAAGACACTAAGCAACCGCAACAACCTGCATAATTGAACATGAG
CAACTTTAACCACCTTAAATCACCTCTCAACTCTCTAAGAATTATCTCAACTGCCCTATCA
ACGGCTTTTTCAACCTCTTCACTCAACCAATATAAACATCTGGCTCAGAAATATACTTG
GCTTGACAGCCGACAACCTTTAACCTCTATATTATATTTTTTTCAGCAACTTCCCTAATAA
15 GGAGCTAAAGGCCAGTCATGAGAATCTAATCTATGATATTTTGGATTGGAAGCTCATCC
TTCTCAATTATTTTTATTTCTCCTGGTTTTATTCCCAATCAATTACATCAACAACAATT
ATTTTTTTGTTTTAGAGTTTTTCATCTATTAATGTTAAACTTGCTGAGGGGCTCCAGCT
CCAGCATCAACTAAGGCAATTTTTGTTTTCTTTGTGCTAAGATTTTGTAAATTTT
TCAATGACATGAACGCTAAAGCCATCATCGGCAATAGTATATTACCACAAGCTAAGACC
20 ATAATCTCTTTTTTAAATATGAAGGGGTTAAATCAAACAATTCATCATCTTGGCTTTCT
ATCTCTGCCCTTCATGGTTTCATTCATTTAAGTTTTTAAAGGGTTAATTTAAGCTTTCCA
AAGAAACAGGACTTTTCGAGTTTATATATGCACTTTGGAACCTTGACATCTTTGGATGTC
TATATTTCCATTGAATATTTATCTGCGAAAGTCTGTTATGCCTCTCGGGTCCCTTTCCG
GGTCCCTCGAGGCTTATAACATTTTTCTAACTTCTATAATCTCTTTTGTCTCTTCATC
25 TTTAACTATAACGTGTGTTGCACATGAAGCTCATATATCATAAGCTCTCATTATGACTTC
AGCATACTGCTGTGGATAGCCTTCAATTGCCTTTTCAACAATGGGAAGTTCCATGTTGA
TGCCGCTATAATTTCTATAGCTCTTAATTTTTCCATCCTTTCCAACCTCTGCCATGTGTG
GTTTGTAGCTCTTGGAGCTTCATGAACCCCTATTTCCAAAGCCATCTTTATATTCTACCTC
AGCTCTTGTTTTTCCGTTTAAAGTCGAGTTTCATCTAAAATCTCTAAAGCTCTATAAACAGC
30 TCCAAGGTTCTCTTGAGCTCTTGCTATATTTATATCCATTGCACTTCTCTCTCTGAA
ATTACCAAACCTTGACCATCTTGCTCTTGGCCCTCCTTCAGCAGGAACCTCCAGCATATAA
AGGAATTTGGATTGTTGTTGTTTGTAGCTTCTTCATCATCGTAGTATCTTTGGGCTGG
AATTTCAAGTTACATCATCCAGTTTATTGCTATCTGCTCCGTATGTTGTGTGAGTTGC
TATATATGGATATTCATGAGCTCTTAAGTCTGGGATTCCAATCTCTTCTAAGTATCTTTT
35 AATTAATTCAGTGTATTTCTCATACAACCTCATAGGCATCTTTTCTACTGTCTTAATGC
ATAGTATAGTCTTGATTTAGCTCTCTCTGTTATGTTTGTCTCATTCCACCAATTACAAT
GTTTGGTGGGTGGATTCTCTCTCTCAATATCTACAACCTAATTGTCCAACCTTTCT
CATTCTTTGGATTAAATTTTATTAGTTCAATTTTTAAATCTGTCTCATCTGGTTTTAAGAA
GTCGTCAATTGTCAATAGGTGGTGTAAATGGGTGGGAGTGAATCTATTTCCAATTCCTAC
40 TAACTCCCTTAATAGCAAACCATCATCTGGAACCTTCACAGTCAATAGCGTTTTCTATAGC
TTCACAGGAGGCAATTCGCTGTGTGGTTTGACAGATTCCACAGATTCTCATCACTGCTAT
TGGAGCAAACCTCTGCTGGCTTGGCTTTAACATTGTTTGAATCCTCTAACTGGGGTGT
GTTTAAATAGTATGCTTTATTTACAATTCCTCTCATCAACCTCTAAAATTAATTTGGC
GTGTCCTTCATGCCCTGGTTGTAGGGGCAATTTCTATTCTATTGGTCACAAAATTCACCTC
45 CAAAGTAATAAAACATTGAAAAGAGATATTTGTTTAACTCAACTATCATTAGGTTGTTTTA
TATAAGCTTATATAAGCTAATATCTCTTTTAAATATGCCAAATATAGGGATTTAGGTTTTG
GATATGTTAAATCAATTTTTTGTATTATTAATCGAATAAAATATTATAAATAGATATT
ACCATACTCTAAAAGATTTAAATAAATGTAACGCTAAGAGTATTTATTTGGCAGATGAT
GACGTTTATCCCCGTCTGAGTTATGATGAGTAGCAAGCGGCTGATGCCACTTTTCTTT
50 TTTTATTTATCAACTAATAAGAAAGTCAATAAAACCTTCTTTTATTCTAATTAGAGGG
GCTAAAAATGGACGAGATGAAAGTAATTGAAATAATCAAAAAACCTCTAAAGTTTCTAA
TGAAATATTGTAAAAGGCATTGATGATGACTGTGCAATTATAAAATTTGATGAAATTT
TTATTTAGTTGCTACAACAGACATGATGGTTAAAAAAGCCCATATCCCTCTATATTATC
CCCATATGAAATTGGAGGGAGAATTTAACCAGCAATGTTTTCAGATATTGCATCTATGGG
55 AGCCAAGCCATTGGCATTTTTTAGTATCGATATCCCTATCTAAGGAAGAAGCAAATGAGAA
GTTTATTAAAGAGCTTTATTTCTGGCTTAGATGATTTTTCTAAGCTTTATGACTGCCAGT
GGTTGGTGGGATACAAATAGGGGAGATGAGCTCATATTATCAGGAACCTGCTTTGGAAT
AACTGACAACTCTATATATAGGAGAGGAAAGTTGGGGATGATATCTGTGTAACCTAATGA
TTTAGGTAGGGTTTATTGTGCTTTAACTCTATATTATATGCTTAAAGAGAACAAAATTAG
60 CTACAAAGAGTTTGAAGACTCTGCCAGAAATATCCAAAGATTATTGAAAAATTAAGAAA
ACCTATTGCAAGGATTAAAGAAGGGCTATTAATGAATAAATCATAAATGGTTGTTGTGA
CATCTCAGACGGTTTGGGAAAGGAAATTAATTTTCAAAAATTTTGAATATACAGTGA
TAGGATTTTTAAGCTTATTCAGAAAGATGTCATTGAATTTTGTGATGCCCTTTAATTTAA
CCCCATAAAAGTTGCTCTAAATAGTGGAGAGGAGTTTGAAGCTTTTATTCACAACATCTAA
ATTTAATAAAGTGAAAGATTCACTAAAAGGCTATTCAAAGATTATAAAATCGGTAAT

-528-

5

10

15

20

25

30

35

40

45

50

55

60

TATAGAAGATGGGCAGTTTATTGATGGAGAGGAATTTTATGGTGGAGGATACATTACAA
ATGGTAAATTGAGTAAAAAGAAAAATTTGTTTTTGATAAGTTTATATTATATTTT
TAGTAGTGTTTTTTATTTAAGCTATTTGGAAAATATTTAATAGGAATTGTTACATATC
TAAGCTACATATTTACAAAAATAATTATTTTCAGATGCAAGATTGGCAGATAATTTTATAT
ATTTGCCAAACAACACTGTTGAAGTGGTTGAAGAATGCACAGGAAGTTTTTAATTGCTG
GACTTTTAGCTCTAATTATGTTTTATTCAAAAAACATTAAAGAGTTTATAATTGGAATCT
TTTTTGATTGTTAGCATTTTTTTGTAATATTTTTAGGATTGATTGATTGCTATTTGG
TAAATATGCATCCGGAGAGTTCCTATCTATATCATGAAATTGCGGGATATGGGGTTATAT
TAACGTTAGTTCCAGTATTGGTTATAGGTTATTTAAAAATTATTGAAAAATATAGACACT
CATCAAATAAATCCCACTTATAAATAGGAAGTAATATAAAGCCCTTTGGGCTTTTATCA
ATACCTTATTAAATAATAAAGTTTGATGATTGTCTATAAAGGGGAGAAAATGCAATTTAT
AAGAGTTAATACTCTAAAGATTAATCCAGAAGTATTGAAAAAAGATTAGAAAATAAAGG
TGTTGTTTTAGAAAAAATCTTTAGATTATGCTTTTGAAGTAAAGAAATCTCCTTTCTC
AATTGGTTTCTACTCCAGAGTATTTGTTGGCTATTATATGCCTCAATCAATATCTCAT
GATTCGCCCGATTGTTTTAAATCCAAAGAGAAGATGATTTTATCTTAGATATGTGTGCCGC
TCCAGGAGGGAAAAACAACCTATTAGCCCAATTAATGAAAAATAAAGGGACAATAGTTGC
AGTTGAAATTAGCAAAACAAGAACAAAGGCATTAAATCAAATATAAATAGGATGGGAGT
TTTAAACACTATTATAATAAATGCAGATATGAGAAAATATAAAGATTACTTATTAAAAA
TGAGATATTTTTTGATAAGATTTTATTAGATGCCCCATGCTCAGGAAATATTATTAAGA
TAAAAACAGAAACGCTCAGAGGAAGACATAAAATACTGCTCTTAAGGCAGAAGGATT
GATAGATATAGGTATAGATTTATTAAAAAAAGATGGAGAGTTAGTTTATTCAACCTGCTC
AATGGAAGTTGAAGAAAATGAGGAAGTGATAAAATATATTCTACAAAAAGAAATGATGT
TGAGTTAATAATTATAAAGCAAATGAATTTAAAGGAATTAATATAAAGAGGGATATAT
AAAAGGAACTTTAAGAGTTTTTCCACCAAATGAACCATTTTTTATTGCAAAATTGAGAAA
AATATAATTGGTGATGAGATGGATTTTATTGTTATTGATGGAAGTTACTTAGAAGGAGGA
GGGCAGATTATAAGAACTGCTGTTCTTTATCAGCTTTAACTCAAAACCAGTAAAAATT
ATTAACATAAGGAAAAAGAGAAAGAAATAAAGGTTTAGCTCCTCAACATGTATCTGCAGTT
AAAGCAGTAAAAAGCTTTGCAATGCTGAAGTTTTTGGATTAAACGTTGGCTCAGAAGAA
TTAAGTTTTATACCTTCAAAATTATCTCCAAAGGATTTTACAATTGATATTGGAAGTCT
GGGAGCATATCTTTGGTTATACAAACTCTCCTCCCATTTATCATTAGGAATTAACAAAAAA
TTCAGTGTAATAAATAAAGGGAGGACTGATGTCAAAAGAGCCCCACCAATTGATTATGTA
AAAAATGTAACCTTAAAAATCTTAGAAATTTTGGAGTATTGACAGAGCTAAAAGTTTTA
AAAAGAGGATTTTATCCAGAAAGCGGAGGAGGTTATTTTTGAAGTAAAGCCTTCAAAA
ATTAATAAATTTGATTTAATAGAACATTCTAAAAGTAAGTTAGTTGAAGGAATTAGCTAT
GTGCAAAATTTAGATGAGAGTATAGCAAGAAGATGAGAAAAAAGGCAGTTGATTTATTA
AACAAAGAAAAAATCTGCCCCAATATAAATAAGAAATGTTCAAAGGGTATTTCTACTGGA
GCAGGGATAGTTTTATGGAACGATACTTTAGGGGGAAGTTGTTTAGGAGAGAAAGGGTTA
AGGGCGGAGATTGTTGCTGAAAGGGCGGTTAATGAGTTATTAAAGGAGAGGGAAAGTGGG
ATGGCTTTAGATAAATATATGGGAGACCAATAATCCCATTCTAGCTTTTGGTAAAGGA
ATACATGGGGGTTTTAGAGATAACCAATCATACAAAAACAAACATGTGGGTTGTTAAACAC
TTTTTGATGTAGATTTTGAGATTAAAGAATATAAAGAAAAATAATTGCAATGGATTTACT
ATTGAGGTGGTTTTAATGTTTAATTATTTGAACTACTGCTGATTTGGGTGTTGAAGCA
AAAGGAAAGAGTTTAGAAGAGGCATTTAAAGAAGGAGCTAAGGGACTTTACAATATTATG
GTAGATATTGATAAAGTTGATAAAAAAGAAAAATAGAGTTTGAATAACAGGAGAAGAT
TTGGAAGAGCTCTTATACAATTTCTAAATGAGTTACTTTTTTACTGATGTTGAAAAAT
CTGGTTTTTAAGTACTTCGATGTAAAAATTGAAAAAATGATAATGGCTACAGGTTAAAA
TGTACTGCTTACGGAGAAAAGATAAAACAAAGAAAAACATAATATAAAGAGGAGGTTAAA
GCAGTAACCTATCATAAAAATGGAATTAACAAGAAGAAGATGGATGGAAGATTAGATAT
ATAGTTGATTTATGAGCCATAGAGGGATGAAAAATAAATAATACAATATAATTATATTTT
CTATCTAAAAATTAAGTTTCCCAATAATCTCAGGAGCATACATAGCTAAAATTATAAC
TAAATTAATTATTATCATATCCCTCCTAATAATTTTATTTCTCTTTCAATTTTTTGATT
TAATAATTCAATTTTTTCCCAATCTTTCTTCTACCAATAAATAATCTTTCTTTTGATG
CAATTCGTTCCCTTAACCTCATCTCTAAGCTTATTTTAAATAAGTTTATTTCTTTGAT
AATCTCAATAATTGCATTATACAATTCCTCTGCGAACTTTTCAAAAAAGTTTCATCAAA
ACATGATGCATTATCTCGCTTCGCTCGATAATCAGATGAAATCCTTATGGATTTCTATTAC
TCACCTCACTATGTTCCGTGATGCTCTTAGCTTTTCTCATATTTATCCTCTTTTCCGTA
TTCAGTATTTCAATTAATCTTTTATCTTTAACATTTTTATGAATAATCTCATACAACCTTAG
CATAGGCAACTGTCATAATACCCCTACATTCTTCAAGATTACTTTTTTGTGTTTATTGTT
AATGTTTAAATTTTATTTCCATATATAACTTCTTAAACCTCCCTTTTCAATTTTAT
AATTATACAGCTGAATTTTATACCTTCCATCTTTTCACTTAACTTTTCAACAACCTTTT
AGCTATAAAATTGAACACATCATTTAAACTCCTTTTTCTCTAAAATTTTAATAACTTC
CTCTGTTGATTTGAATATAAAATTTTTTTTATCGCCTCTTGTCTCAATAAATAGAGA
CGAATAAGCTGCTAATATCTCATTTCTACAATCAGCTACCTTTGAATGAGTATTATATAT
CCCCCGCCCACTTAATTTATTTTCCAGCATGTCCAAAGATTAAATCTCTCAACACC

TTTTCTTTAGCTTTATCAAGCATAAATCCCCAAAAGTTTGAAACCTCAATAATCTCATC
ATCATTAGCATTTAAAAGTTGTTTAGCATATTTAGTTCCAATATTTCCAGGAACAAAAT
TAATCTCTTATAGCCATTTGCTAATGCAACATCTATTTGTGGAGCTAAAGAGTTTCATATA
5 TGCTTCATTTGACATTGGTCTAACAATTCCAGTTGTTCCCAATATAGATAATCCACCAAC
AATTCCAAGTTTTGGATTTAGTGTTTTTTAGCAAGTTCTTTTCCTTTTGGGATAGAGAT
TGTTACCTCTACAACCTTCATCATCATTTAACAATTTAAAAGGTTGTTCTAATCATCTC
TCTTGGTTTTGGATTTATAGCTGGCTCTCCTTTCTTTACCTGCAAGCCATTCTTTGTAAC
TATTCACCCCTTCTCCACCTTTGATAATAACATCCTTTTTTCCTTTTTTAACTCCAC
10 TTCAGTAATAATTTCAATTCCGTTTGTATATCTATATCCCCTCCAGCATCTTTAATAAC
CACTGCTTTAGCTTTATTTCCACATTTTCAATTTTTCTATTGGAATAATTAATTTATC
ACCATTTTAAATTTCTCAATCTCAACATAACTAAGTTTTTTTCCAAATTTTAAATAATATAA
TGCAGAATAAGCCCCAGCAGCAGCATGAGCCAGTAGTGTAGCCAAATTTTGATTTTTT
CCTGAAATCATAAATCATAATCTCCATTATCTTTTTATAGTTTTTTGCAAAACATTTTG
15 AGTATTAATGAAGAAATGAACGCCTTTGGCGTTCAAATAACCTTAGTAATTTAATAACT
TTTGCAAAAACATCTCTCTCTCTAAACTTTAGTTTTTTAGTTATTAATGGGATTCTC
TCTACTCTAAAGCATCAGCTGTAGGGTAGAGTTCTGAGATATAAGCTGAGAATGTTATA
GGAAACCTCTGCCCTTTCATCTCTTCAATAATATCCTCTAATATAAATGGATTTAAGCAT
ATATTTTTATCAATAATTTCAAACCTCTATCTCATTTCTTCCAAATCTCAGCCATTTCC
20 TTTAAATCATCCTCATTGTCAAAAATCATAATGCCTCTCAATAGTAAGCCATCTCAGTT
ATAACCTCATAAGGCTTAGCTACATTCTTAGCTCTATTTATTAATCTATTTCTCATCTGT
ATGGCATCTTTAAAACCTGATGGGCAGTAGTTAATGAATAAATCACCTTTAAATCTTTTT
ATAACTTTTAAAGCTGTTTTCTTCACTGCCAGCAATTGCATTACTTACATCATCTTTGGC
ATAAAACCTCTCTCTCTAATTCATGATAATTTTCTCAGAAAACCTCAAGCTCATTGATA
25 TTCATAAATTTGGCTATTCCATCAATTGCCCTCAGCTAACTTTAAATTTCAATTTCCATA
TTTGGGATTGCTGGAATTTCAACCCCAACATCTTCAATGTATTTGTTGCATAAGTTCAAT
TTATTACATAAAAACTTTATATATTCTTTCATCATATCCTTCATTGAATATTTTGTGGA
TGTAGCCTTATCTCATCTAAATCTGCCCTCTTTAGAAGTTTAAAGTTCTCTTCAATTA
30 GTTTCGGAGATTGTATATAGATGAGCATGAAATTCATCAAACCTCTTTTTTAGTGCTTTT
AAGAATTTTACAGTTCTATTTATTTTAAATAAAGGATTACCTCCTGTATTCTACTCCC
TTACTACTGCAGAGCTTTGCCCTCTCTATAGCCTCTTCAACGGTAGTTATTAACCTCTCA
TTGGCATATTTACATCTTTATTTCTCTCTTTTTCAGATAAAGGACAGTAGTAGCAGTTG
TTATTACAAATTCCTGTGATGAATAAACTAATTTTCCCCCTTAAACACACTGCTTACAT
35 CCTCTGGCAATTTATCAAAATTTCTTCCAAATATTTTCAATCTCTTCAACATTCATG
TTTTCACCGTAAATATTGAATAGTAATTTATTATTGGATAGATGAAGCCAAAAGCTTCAA
AGTTCCCTTAATATATTTAAATTCATTCAACCTGTTAACTTTCTTTAAAGATTTTATT
CCTGCGAAGTCTATTGAGGTAAGTATATATACTTAAAGCTACTTAATATATTTATGGCG
GATGATGAACGGAGTAGCTGCTGAGCTATGATGATTGATGGGCGAACTGACGCCACTTTT
40 TATTTTGCAATATTAATTTATATTTAAATATAAAATTTATATGATAGCTATCTTTT
TATAATTTTTATACCCTAATCTATATAACAATCTCTAAGAACTAGTTTTAAAGGTGGAACGA
TGAATGTTGGAGATGTTATAAGGGTAGAGACAGACAAAGGGATTTTGAAGGTATCTTAT
TGCCATCAACTAACGAAAATATCATTACAATAAAGATGAAAAACGGTTATAACGTTGGAA
TATTAAAAGAAATGTAAAAAATATTGAGATTATTGCTAAAGGAGAAAAGCCAAAGTATG
45 AACTACCTCCATTAAACATTGAAAAAATGAAAAATAAAAACAATCTCTATTTTATCCA
CTGGAGGGACAGTAGCTTCAAAGGTTGATTATAAAACAGGAGCTGTTCACTCTCTTTTA
CAGCAGATGATTTAATTAGGGCTGTACCAGAGCTTTTAGACATTGCCAACATAAAAGGAA
GGGCTGTAATGAACATATTAAGCGAAAATATGAAACCAGAGTATTGGAGAAAGATTGCTG
AAGAGATAAAAAAGAGATAGAAGAGGGAGCTGATGGAATTGTTATTGCCCATGGAACAG
50 ACATATGAGCTATACAGCTTCAGCTCTCTCATTTATGGTTAAAGCTGATGTCCCAATAA
TTTTGGTTGGAGCTCAGAGAAGTAGTGACAGACCTTCATCAGATGCTGCTCTAAACTTAA
TAAGTGCTGTTTTAGCTGCAAGAGAACCAATTAAAGGAGTTTATGTAGTAATGCATGGGG
AGAGTGGAGATACATTTTGCTATCTACATAAGGGAGTTAAAGTTAGGAAATGCCATTAT
CAAGAAGAGATGCATTTAAATCTATAAATTCATTTCCAGTAGCTAAGATAAAACCATTTA
55 CAAAGGAAATCATCTATTTGCAGGAAGTTGAAAAATCAGATAACAGCAAAAGGTAGAGA
TAAACACAACTTAGAAGAAAAAGTGGCTTAAATAAAGTATATCCTGGAATGGATGGGG
AAATTATTAGATTCTATGTTGATAAAGAGTATAAAGGGATTGTCTTAGAAGGGACGGGTT
TAGGTCATGCCCCAGAGTATATTTGAACACATAAAGTATGCAACTGATAAAGGAGTAG
TTGTTGTAATGACTACTCAACAATCAATGGAAGAGTAAATATGAACGTCTATTCAATG
60 GAAGAGAATTACAAAAATTAGGAGTTATTGGTTGTGAAGATATGCCCTCCAGAAGTTGCAT
TGGTTAAATTAATGTATCTCTTAGGAAATTATGAGCCAGAGGAAAGTTAAAAAATTAATTA
ATAAGAATTTGGTTGGGGAGATTGAATATAGGAGCAGATTGATGCATACTAATAATAAC
AAATTAATTTGGTGATAACATGGAGATTAACATGAAAAAGTTGGTTTAAAGGTTGGGTT
AGAAATTCATCAACAGTTAAATACAAAGAGAAAGTTATTCTGCCACTGTCCAACAATTTT
AAGAGATGATGAACCAGATGGAGAGATTGTTAGAGTTTTAAGACCTTCATTAAGTGAAT
GGGAGAAGTTGATAGAGCTGCTTTAATAGAGGCAAGGAAAGGGAAGAAATTCATTTATCA

-530-

ATTTTATAATGACACAACATGTTTGGTTGAGTTGGATGAAGAACCTCCACATCCACCAAG
TGAAGAGGCTTTAAGGATAGCGTTAGAGGTTGCTTTATTGATGAATATGAACGTGGTTGA
TGTTCATACACAATGAGAAAGATAGTTATTGACGGTCAAACACTTCTGGATTTCAAAG
5 AACCATATTTTAGCAAGAGATGGATATATAGAAACATCTGAGGGAAAAGTAGGAATAAC
AAGCTTATGTTTAGAGGAAGATGCTGCAAGAAAGATAGAAGATAGAGGGGATGCAGTTGT
TTATAACTTAGATAGGTTGGGAATTCATTGGTTGAGATTCAACAGCTCCCGACATAAA
GACTCCAAAGATGGCTAAAGAGGCAGCAAGAAGATTGGAGAGATATTAAGAGCCACTGG
10 AAAGGTTAAGAGAGGTTTAGGGACTATAAGGCAGGATATAAACATATCAATTAAAGATGG
AGCAAGAATAGAGGTTAAGGGAGTTCAAGACTTAGATTTAATTGAAAAGGTTGTAGAGAA
TGAAGTTATAAGGCAACTAACTTATTAAAGATTAGAGATGAATTAAGAGAAAGAAATGC
AGAGGTTGTTGAGAGATATTTGATGTTACAGAGATATTTAAAGACTGTAATCAAAAAT
TATACAAAATGCTTTAAAGAAAAGAATGGAAAGGTTAAGGCAGTTTATTAAAGGATT
TGCTGGTTTAGTTGAAAAGAGATTACAGCCAGGAAGAAGATTAGGAAGTGAATTTTCAAG
15 TAGGGCCAAGGTTTAGCTGGCGTTGGAGGGCTTTCCACACTGATGAGTTGCCAAAATA
TGGTATTACAGAGGAGGAAGTTAAAAAATTAAGAGTTTGTTAATGCAGAAAGAAATGA
TGCTGTAATTATTTGTCAGATGAGGAAAGCAAGGTAGATAGGGCGTTAGAGGCTGTAAT
AGAGAGGGCTAAAGAGGCATTAAAGAGTTCCAGAGGAAACAAGAAGGGCTTTAGAGGA
TGGAAATACTGCATATCTAAGACCGCTACCTGGAGCCGCAAGAATGTATCCTGAACCGA
20 TATCCCAACAATAATTATAAAGAAGGAGTTTATTGAGGAGATTAGAGCTAATCTGCCAGA
ACTTCCAGAGGAGAAGTTTGAAGGTTAAGAAAGAATATAAATTAAATGATGAATTAGC
TAAAAAGATGGTTTTAAGTTATTACGTTGATTATTGGAAGATCTATGTAAGAAATTTAA
GAATGTTAAGCCGTTTTAATTGCTACAACCTTAGAAGGGACATTGAAGGAGATTAAAAAG
AGAAGGATATGATATTGATAAGTTGGAGGATAGACATTTAGAAGAGACCTTTAAAGCTCT
25 ATCTGAAGGTAAGATAGCTAAAGAGGGAATTGTTGAGGTTTTAAAGGCTTTTGTGAGTT
TCCAGATAAAAGTATAGATGAGATTTTAGAAATTAAGGATTAAAGGATTATCTAAGGA
AGAAGTTGAAAAGATTATTGAGGGCATAATTAAAGAACATTTAAATGTGGTTAAAGAAAA
AGGAGAAAAGCCCTATGGATTTTTAATGGGTAGATGTAGCAAAGCTAAGAGGAAAAGC
GGATGGAAGTTAGTTAATGATATATTGAGAAAAAGTTAAAGGAGATTTAACTCCATTT
30 CTTATAATTACTCTTTTGGATTACTAACTTCTTATAGTATTTTCCATTTACATAAGACTT
TTTTACAAATATTTTTCTTTTCTGAAATTTTAGTAATATGCAACTCACCATTCTGTA
ATTTTAAATAGTAAGTTTTCCATTTCTAATTTCAATTAATAGATAATTTGTATATTAAC
TTTATTAAGCGTCATATCTGAACCCCAATCAGGTAATGAATTAATCTTTAACTGATATAT
35 GAGGTATTTTAAATAATGCACCTCCAGAATTTGATACACCTTCAATATTCACAACCTGA
CAAACCTTGAATTTCAATTTCTAATCCCTTATTGTTCCCAATAATTCCTGTTGATATTGA
ATTTCCAATTACATTATCAACATATAATTTTCTCCGCCAGCAATATTTCCAATACTAAC
ATCTATAAGCCCACTAAATCCTTTAAGATCAATTCCTGAATTGATATTGCCTTCTACAAA
CAACTTTTCAACTTTGCCCCCATATCCAACAAATATCTTCCCGTTTGTCCGGTAGAACC
GTGTATTGTAATTTCTTTTATTATACCTCCATCTTTAACTTCAATGTCACTTCCACCTAA
40 TTGGTCTGTTTCTAAGGAATTTATAATTGAACATATCCTCTACTAATATTTTTGGGCTGCC
AATTAAATTTATTTTATTTTATTTGTTTATTGTTGAATTTGAAAGCTCAATGTTGGGCT
TCCTATCATATTGTTTATTATCATATTTCCAATATTTACGTTTTTAACTTTACATTTCC
TCCACTTACAATATCCCTAATTTTCATTGTAGATATTGCTCCATTTTCAAATACTGTCTC
TGCCCTCCTCCAAAGTTACCACTATTAGTTTCAAATGTATTTATAGCAAAGTCTTTAAA
45 TTTTACTTTAGCTCCTCCAGTTATCTTTTCAACATAAAATCTATTAATATTTGTATTACC
CACAGTAAGTGAACACTTCTCCCAATTTGAGATTCTCCGCTATTTTGTCCCTTATTAT
GAATTCCTGTATATACGGAACATATACTTTAAGCTTCCGCTACCAGTTAAATATGTCTG
GAATTTATTTATACATAATAAATTACCTAATTTGTAATTAGCACTACCTTCTAAATATG
50 ATCTCCATAAACTTCTCCAATAGCATTTTCTTCAACACATTTACTATTTATAGTTTATAGA
AATGTCTCCAGAAACATCTTTAGCATCTCCAGATACTATTAATCTTTTCGTTATTAGACC
TTTGAAGTTTCTGAAACTCTTATATAAAGATACCCTCCACCAGTTTCATTATTTGAGTT
GTTGATTTCTGTATTATTATTACCTAAATTTGATATTGTAGTATTTTCAACTGTTAAATT
AAATTTGATTCATTTATGAACAATCCCATAGTTTCTTTTAACTTCTAATGGTTTATC
55 TCCAATAAATATTGGACTTTTTTCTACTAATCCCATAGTAATAACAATTTCCAACAACGT
CATACCTAAAATTAATAAATGAATTTCTAATGTGAGTTGCCCTTTCTTTTTTTGAAAAT
CATTATACACCACCTAATTACCCATATATCAAATTTTAAAGTTAATAGTTATATATGCT
TTTTTCTTTCCAATAATATATAAATATTTAGATAAATATTATTATTAAGTTTTTTAAAT
ATATAAATTTTTATTATCTTTTCGAGACTGTCAAGTTAATGATTTTACCCAATTGTAGAA
60 CATCATGAAGCTTTTAAATCCAGCTAATAACTGTATCGAATTTACTATTATTAGGAAACCT
ATTAAGAATGCTTTTTGTTCTCGTTTAAGCACTGAGAAGAAGCTTCTACACAATTTCT
TAGTCCGAATTTAACTTTTTTCGAATTTCTAAGCCTAATTTTCGCAACGCCACGGATACCA
CTTTCCACCGTCAACTAAATCTTTGGCTTATTTCGAGCAAAATTTTAAATATACTCTTAAC
GAATAATATAGTATCGAGGTAATTTCTGTCTTCGATATATAAATCCTAAGCATTTCTT
CGTTTCTACATCGATGGCAGACCATGCATAAATATATTTGTCTCAACCTTTAGTTTAAT

CTCATCGATTGCAATTAAGTTTCTTTCTTTCTTTCTGGCTCGTTTAAACTTCTTTAAT
CTTGTGATAATAAATTCTAACCGATTTCGTGGCTTATGTCTTCGAATTGGGAAAGGAATAA
ACTTACCTTCCTTAACGATAATCCGAGGTAATACAAAAGCCCTGCTAAGATTTTAACTC
5 TATCGATTTCCTATTCCCTTTTAAAAAGCTTCCTCTCTACGATTTTCTCCTTTATAACTTC
TATTGTGAGCCTCATATTTTATTATTTTATCAATATTTTGATAAAAACTTAACCTTGAC
AGTCTCTCCCATCAAATAGATAAATATATAAACTCTTAACCTTAAATATATCGATAAAAAA
TAGTGGAGGTGATAGCGTTATCAAAAAATCAAAAAATTCGAGAGTTAAGCGTTTAAATAA
GCTTATGCGAGCTAAGTTTTATCCGATAGTTGCAAAGTATAAATCACCTATATCCTTAG
10 AGAGATAATCTCTAATCGACTTAATAATCTTTTCGGTTTTATGCATGATATATTTTGC
AGGAGTGATAAATGTGGATATGAGTTTTAATTGAATATTTACAATTATTAGACGAAAT
CACTTGTGATTTCTGTGCTCTTCGCTTCGCTCCGATTCCCAAAATGTTGTTTCATCGATG
CAATCCCAATTAAAAACAAAGAGCTTGTGAGGAAACTCGACATGAGAGGATAGGAATTT
CAAAGCTTATTAAAAAACAGTAGTATTGGTTACAATCCATCGAAAAAATGTTGGTATTT
15 TGGATATAAAGCAACTTTTATTACCGATGGGAAGTATTTAATGTTACTGTTTATAAATCC
AGCAAAATCAGCAGGATAAGGATATTTTAGAGGAAAATTATAAAGAAATCATTAGGGACTT
CAAAAACTGTGTAATAATCGGAGATAAGGGCTATATTGATAAAGGCTCTCCAAATCTATT
TAACTCGGAGGCGTTTATTTTCATCCCAATAAAAAGAAAAACATGATAAAACCGAATGA
AGAAGCTAAAAAATATAAAGAGCTGAATAAATTAAGAAAGGCAATCGAAACAAACTTATC
20 CAAATTGGCAGAGTCATTCCCAAGGCACATCCGAGCTGTAAAGCAAGAAAGGTTTAAAGTGC
TAAGCTTTTACTCTTCACAATCGCTTACAACATACAACATAAAAGAATCAATAAATGAAT
AAAAACATTTAATGTGAATGAGAACTACGGTTTGTATTATGATATGCTACTATAAG
TTATAGAAAATTAAAACTGTTTCGAACCTGCTGATTGGTTACAATATCAACAAATAA
CCCATCTTTTTAATTCAATTAATGCCTCTCTAACGTTAGGCAGTAATTCAAATTCCTCT
25 ATTTTTTAAACATAGTCTCCAATTAGTCGTTTATTAATAACTCCATCCCTATCTAAAAAA
ATTGCCTTATTCAACATAGTCTCCAATTAGTCGTTTATTAATAACTCCATCCAACTAATGTCAGTCCCAAC
CTTTCCAAACAACAAATTGAACCTTGCTTATTTGCCAATTTAATCGCATCAACTAAATCATA
CCCTTCCGAAACTGTTATATATTAGATAGACAAATATAGGCATTGATGATTATGGAGCGA
CATTATACCTTTAAAGAGGCATCGAAAATCTTGGGAGTTTCGATTAAAACGTTGCAACGA
30 TGGGATAAAGCAGGGAAGATTAAATGTATCAGAACCTTAGGAGGAAAAAGAAGAGTTCCA
GAAAGTGAGATAAAACGAATCTTAGGAATTAAGGATAAAGAACAAAGAAAAATTATCGGC
TATGCAAGAGTTTCATTTAACGGCAAAAAGATGATTTAGAGAGGCAATACAACATAATA
AAATCCTATGCAGAGGAAAAACGTTGGGATATACAAATACTGAAAGATATTGGTAGCGGT
TTAAACGAAAAGAGGAAAAATTACAAAAAATTTTAAAAATGGTTATGAATCGAAAGGTT
35 GAGAAGGTAAATAATTGCCTATCCAGATAGATTAAAGAGATTGGCTTTGAAACGTTAAAG
GAATCTTTAAATCTTACGGAACGGAATTTGTAATCATAAATAAAAGCATAAGACACCA
CAGGAAGAGTTAGTAGAAGCTTAATAACAATCGTTTCTCACTTTGCTGGAAAACCTTTAC
GGAATGCATTTCTATAAGTATAAAAAGCTTACAAAAACAGTTAAAGAAATCGTAAGGGAG
40 GAGGATGCCAAAGAAAAAGAAATAAATCCCAACCGAAATTTGATTGACTTATAAGGTTAA
ACACAACCACGATTTAAAAAATCTTACCTGATGAGTTTATAAAAAATCTCTCAAAGGCTAT
CGATATTATTTGGGAAAACATCAACTGGAAGGAAAAGGTAGTTAAACATCGATACAAAT
AGGAAAGAAGAAATACAAATATTACACAACCTACTCGACTAATCCCTAAAATTCAAAGGA
CAATGATTTCAAAGAGAGTTGAGAAATCGTTTATTAGAGGGCTGGGAGTTTGCCTCTCA
CTATGTCGATGGAGCTATTAAAGACAGCTTATTCAGCAATAGAGAGTTGGAAATCAAACCTA
45 TTTAAACGTTAATAGAAAGAAAAATAAACCGATATTCAAAGACCTTTTGTAGAGTTAA
AACTACCTTGATGAAATACGATAGAAAGAAATGGGATTATAAGAATTACAATAAAACCGAG
AAAGAGTATTTAATTTTAAACATTAAAGATGAGTGGTTTTTCGAAAGAGTTAAAAAATTT
TAACATTGGAGAAGTTATTTTAAAGAATAACGAGGCATTAATAACCTTTAAAAAACCCTT
AAATTTATTAGATAAAAAGGTTGTTATTGGTGTGATAGTAATCTAAAGTCGTTAGATTT
50 GTATCATCCAGAAGAGGGCTGGATTAGAGTAGATTGCTCTGAATTACATTGAATTAAGAG
AGTTTATGATACCATACCGATAAGCTAAAATCTATCTATAAAAAAGCTCCGAAGAGAAAT
TGGTAAATTATTGAAAAAATACTGGAATAGGAGAAAAAACCAGAGTCGAAGATTTATTAA
CAAGCTAACTTCTCAGTTGTCTAACTCTTTCCAGATGCGATTTTCATCTTTGAAGATTT
AGATAAATTCACATGTATGATAAGAATTCGAATTTTAAAGGAATTTGGATAGAACTAA
55 CTGGAGAAAAATAGCGAAAAAGTTGGAGTATAAGAGTGTGCTCTATACGTTAATCCTCA
CTATACTTCAAAAACCTGCCCGTATGTGGGAGTAAAATGAAGTCCCAAGAGGGGCGAGGT
TGTAATAATGCGATAAGTGTGGAATTTTGTATAGACAGTTTGTGATGCTATAATATTTT
TAAAGAGGAGTTGAATTAGCTAAAAAATCTTAGGCGGAGTTGGAGTTCCCGTGGCTGG
GGCTGAGGTGCGATGATTTACTCTCCAAATGAACCCAGAGGGGAGTTGAGACTGGTGAAGCC
60 CAATCCCAACGTTGAAGCGAAGCTTCCAGTAAGGAAATCGAACCGAAGGTTTCGAGTACA
AAATCCGAAGGATTTTGTTCAAATCTTTGATTTCCCTCTGATGGTCTATACAGTTGATTT
AAATGGAAAGTACCTCAAATCTATAATTGTCCATGAATGACCACGTTGGGAAGACCCCT
TATTTAATATATAAGCACACAATGTAAATCCCAATTTCTTGGTGTTCCTCTCTTTAA
TATCTTTAATATTCCTTCTTTAATTTAATGCTAAATAAGGTACATCTGGACATCCTC
CACCAGAGATATTGACTATATTTCCCTCTTTATCAATAGTTATTTTCATATTTCCACATC

5 TGACCAATATAAAGCCATCTACCTCTTTAACTTTTATTAATTCAGAGGTTTAAAGAAT
AATCATTTAGAGAGATAAACTTCAACGGCTTTATATCATTACTTTCTAATTCTCTTTTAA
TTCCAAATTCATCTATTAATTCATCTCTATTGCCAAATCACAGCCCTCTCTAATTTCTG
10 GAGGGGGAGCAACAACCTTAATTTATATTTGTCTTTTAAATGCTCTCTGCTCTCATTG
CGTCTTTTGTGTTTTCAAATATAATTAATCCTTTTCCTTCTAAACTCTTTTAGCTTTTT
CTTCTTTTTTCCCTTTTCCCTAATTTAAAAAGATTCTTTAATTTTCCCTATCAAGTTATCCC
TCTAATAAATCTATTTTCATCATCCTTTGGAATATAATACCTCAACCTATCTCCAGACCTT
AAACCATAACAGTAAAGCCCTATCCGTATAGTTTAAATTAATGCATCAATTCCTCCCT
15 CTTATTCTTAAATGCCCATTTGAACAACTTATTTCAATTAATTCCTTAACATTATCAACT
CTAACATTTTTGCCGTAATAAGATTGGCACACTTTCTCCAGAAATGGATTAAATTCCT
ACAGAGGGAGTTGAATGGTCTGCAGTTATTATCAGTAATCATCCTCCCTAAGCTTTAAA
TTTCTATAAGCTTATCAATCTTTCAATGACTTTAACCTTATTTAATGGATTTTAGTG
TGAGCTGCTTCATCTGTTTTCTTTGTATGCAGATGGATGAAATCATAATCCAACCTGGGA
20 ATTAAGTCTATCCCTTCCCTCAAAGCTCTCAATTTTTATAAAATCCATACCTAAGAATTGA
GCTAATCCTTTGAATAGTGAGCTTTCTGCTAAAATAACAGCATTCAATCCCTTTCTCT
TTAAAGCTCTCTACCTCTTATATCTTGATGCCCATTTTGTCAATAAAAAGTTTGCTGGC
ATCTTCTCCAACCTCCCTCTCTTTCTATTTATCTTATGGTTTGTAGAATTTTATAGACG
TTTAAAGATATTTATTTAACGCCCTTGCAAGTGTCTTTTGCTTGTCTATACTCTACCTCA
25 CTTTACAAAGCTCTCTTATTGCTTTAACTTTTATAACATACCTATTTTATAAAATGGG
TCAGAATCTGAGATTTTATCTGAAATCCATCCATTTCTTTCTTTAATTTTTAATATAAAA
TGGACGTCAAAGAATAGAAAAGCTCAAACCTTATATCCATCTACGCATGTAGGGAGGAA
TCAACCAACTTCTCAATCTCTCTCTGCTTATATCTTTTGTCTCTGTCTATAACTAAA
AATCCCTTCTCATCCTTTTAAACAAAGCCTAAAGATGCCCTCAGATAAATGGCATTTTTC
TCTATCTCTATATCCTCCCTAAAGCTTCAATAACTCCTCTCCCTGGAAATCTCTCTAAG
30 GAGTAGCCCCAAAGTAGAAAATGAGCTACTTCTGTCCCTAAAGGGATGCCTTCTTTATAC
GTAGTCATTAAGCCACATGCGCTTTTCAAGCTAATCTATCTAAATTTGGAGTCTTTGCA
AATTGTAGAGGAGTTTGTATTCAAATTTTCGGATGCTCTATCTCCCAACCATCCAAT
AGAATTAATAAGCCCTCATCTCTCACTAATAAGCTTTTAAAGATATTTAAATAGTT
AAAGTTTCTTTGTAGCCTTCTTTTAAATCTCAACTGAAGCAGGGTAGATAAATTCATT
35 TAACATCTTTAAATCCCTTCCCTATCAAAAATTACCTTTCCATCTTTATCTCTATAGTT
TCCACTAATAACATGAAAATGCTTCTCCCTTGCTCCCATCTTCTCCTATGATTTCT
TTTGATTTTCTTTCCCTCTCTTATGTATCTTATAGGTAGAATTAACCAACATCAAAATC
TCTGCAGATTTTGTCTATAGACATTTTAAACCTCCTCTATTTGGTCAATTTTGAATCTCC
ATTGTGATAAAGTCTCTCTCCACTAATTATCTTTCTCCTAAGTGCTTTGCCAGAGGAAT
40 CCTAATTATCTTAAATAAGCGTGGCATCCAATGCATGGACGGTAATAACCATATCTTTT
AAAAGATAAAACCAACCATCTCCCATTTAATGCATTCCAGAGTTTGGCTCAACATAAA
ATGCAATGGCAGTAAATTTTATCCTTATCAATTTCTTTGATTCTTTTATTGACAATCTC
CCAGTTTTTGTAAATATATTTATGTTCCATAGTCAGTCCAGTAAATGCAACAACCGG
CAGAACAATACTATCCCTTCTTCGATGGCTTTGATTATTGCCGCTACGCTATCTCTCCC
45 AGAAACTCTCCAATAGCAATTTCTCTCAGCTTATTCCTATTCTCTTCAATTATTTTAA
CGTTTCATCAGATAGGGGTAGTTCTTTAAAGGATTCTTAAATCAATAAATTTGGAGT
ATTTTCATTAAATATCATTTATTTACCTATACATCTCTAAATAATCTTTTAACTTCTC
TCAGTTCTTAAACCTCTTTAATATCCATCAATTCATCAAAAACATTTTACATTTAATG
TCTAAGAGCCTATCCAATATCGGCTTTAAATGTTGAGATTTTGGGTGGTAGGTGCTTT
50 CCACTCAACTCTATCTCATAAAGCTGAGAGTTATAAAGCTCTATCTGAGCAGATTTCTAAG
AACTCCAACCTCTTATTATAAGGAATATGCCAACATCAACGTTATATAACAGTTAATT
TCATCGGCTATCTCAATTATATTATTCGGATTTCGATGAAATCCTTTCCCTAAATTTCTCT
ATGCATAATTTTATTCATTTTCTCTGCAAAATTCATTAACAATCGATAAATTTTCAATT
AATGTCTCTTTGTTAATTTTCCCATATTTTCCATTGTGCAAGTGGATTGTAGATAATCC
55 CTACCCTTAATGTTTTCAATTATGTTTTTAAATAATAATGCTCTCTTTTATCCAAA
TCCAAAATTTGGAGCATGATAACCAATAATGTTGTTGTCTTTTACTATCTTTGGGTGTAA
TGCAATCCCCATCCATCAACTTGTGTTAAAAAGAAACCCCTCCTTGGAACGCATGCAT
ATAGCTATCATACTCCACAAAACATTAATAGGAATTAAGATATATAAAAGTATATATT
AGAAATCTAATAACTAAAAGTAAAAAGAAAGAAATTTAATCATCTCAATAAATGCCTCC
60 AACCTTGTTTTTAACTGCTCTCTATCACTTTCAGAAATAGTCAGTTTCAATTCTTATAATT
GGAATGCCCTCCTCTTTTAAATGCTCCTCTACCTTAGCTCCCTCTATGTTAAATGTATGG
CAATACTGCAAAGTGAATAAACAACCTCCATCGACGTCCAACCTCTTAACCAATCTCTTT
ATATTTCAACTCTCTCATCGTTTTTAAATCTACAAGCACATGGGATTTTAAAGTATCTT
TTTGAATGTCCTCTACGCTATAGCCCTCAACAAAGTTTTCAAGAATCTTGTCCAGTG
CAGCTTCTTCAACCAACAACCTACTCCTCCAACCTTCTCAATAATTTCAACAATCTTATTG
TTTCCAGCAACCATTTGGACAGCCAGTTATTAATTTCTCTTTCTTCTATAACCTTCTCCT
TTTTAACTCTCTCTCAACTCCTCAATTAATCCTCTAAAATCCCTATTGTGTCATCA
ATATCCAATAAATAGGCAAACTGGAAATAATTTAAACATCTAAACCTTAATTGGAGCT
GGTTTATTCTTCTCAATTCATAGAGTTTATAAAACAACCTCCCTAACTTTATTTACTTTA

5

10

15

20

25

30

35

40

45

50

55

60

TCAACTGTCTCTTTTAACTTTTCCTCTGTTATTTTATTTCCAGTCTCTTTCTCAACCAAT
TCTTTTAGCTTTTCAACTTCTTTAATCCAGATTTTCAAAGAATCTTCATCTTTTCATGTGT
GGGAGGTGCATTATATGCATTGGCACCATTCTCTCCATCAACTCAAACATCTTCTCTCTT
CCTTCACAGGTAGTTTCTCCAATAACTATATCAGATGCTTCAAAGTAAGGGCAGGTTTTT
GCCTTCTTAAACCATAGGATGATTTTATTAATGGGCATAGGTTTTCTTGGCAAATCCTCC
TCTGCTATTGGGATTGTGTCAATTTTACCTCCACACAAACCACTGGGATTGCATTGTCT
GCTAAATATTATTCTATTGGAACATAGGCACAGAACATTCCAAAACTTTTCTACCTTCT
TCTTTTGTCTTATATAGCTGTTCTTTTCTACTGGCGAATTTTTGCATCAACTTTTCAATT
GCCTTTAATTTTCATCATATCACCAAATTTAATATCTATTTAGTTATTAGATTTTCTAATA
ACTTATGAAGATTGGGTTATTTTAAAGAAATTCATTAAAGAGTATATTTCTAATCA
TAAAAATCTTATCTTCAAATTTTAAATGGTTTGTAGTTGATATTAGAAAATCTAATAATAG
TAGTAATACTTATTTAAATTTCTATCTTATTTAAGTAATAATAATTTAAATTAAGTAGTA
AATTTTATATATGATAGTTGAAAATAGTATTAATATATTAGTAATATCATTGACATAATA
AATATTAAAAAAGGTATCAAATCTAAGATTAGTAAGATAAAGGAAAGCTAGAAATCAA
AATTAACCTTAGACAAAAATAACACAGAGAATTTTTATGACAAATAGAACATTTAGGT
GATATTATGAAAGTTGTCATACTATCTGCCAGGTTGTAGTGTGGATGTGGAATTGAT
TTGATTGTTAAAGATGATAAAGTTGTTGGCACTTATCCATACAAGAGACATCCAATAAAT
GAAGGTAAAACTGTTCAAATGGAAAAATAGCTATAAAATAATCTATCATGAAAAGAGA
TTAAAAAAGCCATTGATTAAAGAAGATGGAAAGCTTGTGAAGCTACATGGGATGAGGCT
TTAAGCTTTATTGCAGAGAAATTAAAGAATTATAATGCTGATGATATAACCTTCATAGCC
TCTGGAAATGCACAAATGAAGATAACTACGCATTAAAAAGTTGGTTGATAGCTTAAAA
GCTAAATTTGGGCATTGTATCTGCAACTCTCCAAAGGTAAATATGCTGAGGTTTCTACA
ACAATTGATGATATTGAGAAGCAAAAAACATTATAATTATTGGTGATGTCTCTCTGAA
CATGCGTTAATTGGTAGAAAAGTTATTAAAGCAAAAGAAAAGGATCTAAGGTAACAATT
TTTAAACACAGAGGAGAAGGAAATCCTAAAGCTAAATGCCGATGAATTTGTGAAGGTTGAT
AGTTATTTAGGTGTTGATTGTAGTAATGTGATAAAAAATACCATTATCATAATTAATGCC
CCAGTAAATGTTGATGAGATAATTAAACTGCAAGGAAAATAAAGCTAAGGTTTGGCCA
GTTGCGAAGCACTGCAATACAGTTGGAGCAACACTTATAGGCATCCCTGCTTTAAATAAG
GATGAATATTTTGAATTATTAAAAAATCAAAGTTCTTATACATAATGGGAGAGAATCCA
GCTTTAGTTGATAAAGATGTCTTAAAAAATGTTGAATTTTGTAGTTGTTCAAGATATTATA
ATGACTGAGACAGCGGAGATGGCAGATGTTGTTTTGCCCTCAACATGCTGGGCTGAAAAG
GATGGGACGTTTATAAACACTGATAAGAGAATTCAGAAAAATAAAGCTGTAATCCT
CCTGGAGATGCTATGGATGATTGGCTTATAATAAAAGCTTAGCTGAAAAGCTTGGTAGT
GATTTGGGCTTTAACTCCTTAGAGGATATACAACAGGATATTCACAGGAATAAACTTCTA
TAAGGAATTTGACGCTTTTAGGCATCTAAATACCTTAGAGATATATAAACTGTGAAAGTC
CTGTTTAAAGAAATAACTAAGGTGATATCATGAAATACGTTTAAATCAAGCTACAGAC
AATGGGATTTTGAGGAGGGCTGAGTGTGGTGGTGTGTACAGCCTTATTTAAATATCTA
TTAGATAAAAAAGCTTGTGACGGCGTTTGTAGCTTTAAAGAGAGGAGAAGATGTTTATGAT
GGAATTCACCAATTTATAACGAATTTCTAATGAGTTGGTTGAGACTGCTGGTTCTTTACAC
TGTGCTCCTACAACTTTGGAAAGTTGATTGCAAAATACTTAGCAGACAAAAAGATTGCC
GTTCTGCAAGCCATGTGATGCAATGGCTATTAGAGAATTGGCAAAATTAATCAAATA
AACTTAGACAATGTTTATATGATTGGTTGAATTGTGGAGGAACGATAAGTCCAATAACA
GCCATGAAGATGATTGAATTATTTATGAAGTTAATCCATTAGATGTTGTTAAGGAAGAG
ATTGATAAGGGTAAGTTTATTATCGAATTAAAGAATGGGGAGCATAAGGCTGTAAAAATA
GAAGAATTGGAGGAGAAAGGCTTTGGTAGGAGGAAAAATTGCCAAAGATGCCAAATAATG
ATTCCAAGGATGGCAGATTTAGCCTGCGGGAATTGGGGGGCTGAAAACGGTTGGACATTT
GTTGAAATCTGTTTCAAGAGAGGGAGAAAATTAGTTGAAGATGCTGAGAAAGATGTTTAT
ATTAAAAATTAAACAACCTTCAGAGAAGGCAATACAAGTTAGGGAGAAAATTGAAAGTATA
ATGATAAAGTTGGCTAAAAAATTCAAAAGAAGCATTAGAGGAAGAGTATCCAAGCTTA
GAAAAATGAAAAAATATTGGAATCGATGTATAAAATGCTACGGTTGTAGGGATAACTGC
CCTTTATGTTTCTGTGTTGAATGTAGTTTAGAAAAAGATTACATTGAAGAAAAAGGTA
ATCCACCAATCCATTAATATTCCAAGGGATTAGATTGAGCCATATATCCCAAAGTTGT
ATAAATGTGGGCAGTGTGAAGATGCATGCCAATGGATATTCTTTAGCTTACATATT
CATAGAATGCAGCTAAAAATAAGAGACACATTAGGCTATATCCCGGGAGTAGATAACAGT
TTGCCCAACTATTAAATATTGAGAGGTAATTAACCAATATAGCTCCAACACAGCAAA
CAATCTGTGTTCTTTTGGAAATTAGTAGTTTTTATTCAATTTTTTCTCAAACATCTCAA
CCAAAACCTTATTTTAGCAACTCCTCCACTAAACACTATGTTTTGAATTTTAAAGCCTAT
TGGTCATTGGGATAACCTTATTTATATACTCTCATAGACGCCCAATTAATGCTCTCT
TTGGAATTTTTTGTAGTAAGCTTATTATCTCACTTTCAGCAAAGACAGCACACATTG
AAGATATTTAGCGATATTATCTGATTTGTATTTATTTATCTCATTTTTATCAATTTTTA
AAATATCTAATGCCTTTTCTAAGAATTTTCCAGTTCCAGCGGCACATTTATCTGATAGGA
TAAATCAACAACCTTTTCCGTTTTTATCAATCTTTAAGACCTTTGTATCTTGCCTCCAA
TGCTATAACTCCATCTGCCTCGTTAAAGAAATAGTTAGCTCCTTTTCCCAATGCAATAA
CTTCTGGAATCTTATCTGCAAAACTAACCTTATGCCTTCATATCCAGTTGCAACGA

-534-

TTTTATCTATTGGATATTTTGTTCATCTCCTTAACCATTTTAAATAAAATATCTTCCT
CAATAACAACCTCCAATATCCTCTATCTTATACCAAATTATCTTGCTATCTCCATTAGAA
CCATCTTCGTTGTTGTAGATCCAACATCTATCCCTAAAATCATTTTATCATCTTCTCTAA
5 AGTTTTTACAAATTTATGTAAATCTTTTTCATTTTTTGGATATTCTATTGCTTTAATGAT
GATATTTAATTTTCAACCTCTTTAAAAAATCTTCCATCAAAATTCCTCTATTTTTTAAA
AATATCACAAGTTGTAGAGTTTCTATCCCAATTAAGATAAAATTTATAGTTGTCTTTTTT
ATATTCTTGCAGATATTGATTATTGGTTCCAAAAGTTTGTGCAAGTTCTCTGTATTCT
CTTTGTGTCATATTCCTCTTTTGTTTTTCTTCTCTATCAATTCCTCAATAAATCAACTC
10 TGGACATGGAAGTTGATTATTCCTAATTAATTTCTTTAAAAGAATCTCAACAACCTTCATT
AAAAGCTCCTTCAGCCCTTTCCAACCCATTAACAACACTATTTTGATTTAATATGCGATG
AGAAACAATGGCTATTCTTTTTCTTTCTACTCTCACAATTTAATAGAATGTTAAGAGA
AATAAATTTTAAAGGAAAGTTGATGACTTTTGATATTCATACCTTATGAGAATATATAA
ATAAAGTACAATTTATTTTAAATACTAATCTGATAAAATCACTGGTTTTTCTCAA
15 AATAGGAGTATATAAAGTTATTGGTAAAAAATTAATTACTAAGTGAATTTAAAAAAGC
TAATATCATCCACACAAAATTTTACGAACATTTAGATTGGACATCTTGTATTTTCTGGT
CTTAGTTTTAAATAACTTTACAATATATCAAAAATTTTCATATCTTATAGAGATAAAAAT
TTAATTTAAAAAGTTAAGTCATGATTGCCTTAACCGTTGAAGCAACTATTTATGGAAT
ATTACTGCCCCAACAGCTAATCCAATAGATAGGCTATAGCTGTTTTGTTCTTCAGCA
20 GCCATAATATAATTCCTTAGAGGACAGCCCCCTGAACAACCTGAAAAGAATCCAACCTCCA
AAACCTCCAATAATTGCTAATGGGTCTCCTGGGATTGGTGAAAACCATTAACAACAAC
CATGGGAACGCTGAAATATTTCCAGTAGCACTAAATATAATATATCCAATCAATGCGTCA
ACAAACAATCCAAATAAACCTTTAATTAACATAACGCTAAATATTCTCCATAATCAGTTC
TCAATGTTTCTTAATTGGACAACACCCTTAATAGAGCATCAAAATACCAATTATAAA
25 AAATTATATAAAAAATTACATAAGTCCTATTATAAAATACTACCAATTAGAAATTTCTAAT
AATTTTGGAGATATTAATAATCCAATAGCATGGAGATATTTATGGAAGTTCCAATATTCTG
TCGTTATCTCTGGCAGTGATTTGTATGGGATTCCAAATCCAAGTGATGTAGATACAGAG
GCGCTCATATCTTGGATAGAGAGCTATTTATTAAGAACTGCCTATATAAAAGCAAGGAG
AAGAAGTTATAAATAAATGTTTGGAAAGTGATTTTGTAGCTTTGAGCTTGGAAAGT
30 TTTTAAGAGAGTTATTAAGCCAAATGCTAATTTATTGAGATAGCCTTATCTGATAAGG
TTTTGTATTCATCGAAGTATCATGAAGATGTTAAAGGGATAGCTTATAATTGCATTTGCA
AAAAGCTATATCATCATTGGAAGGGATTGCCCCAACCTCTACAAAATTTGTGTGAGAAAG
AAAGTTATAACAATCCAAAGACACTTTTATATATTTTGGAGAGCTTATTAACAAGGTATTT
TATGCTTAGAGAGTGGAGAATTTAATCAGATTTTAGCTCATTTAGATGCTTAGATTGCT
35 ACGATGAGGATATTGTGAGCTATCTTTTGAATGTAAAGTAAATAAAAAGCCAGTTGATG
AGAGTTATAAGAAGAAAATAAAAAGCTATTTTATGAGTTGGGTGTATTGTTAGATGAGA
GCTATAAAAACCTCTAACCTAATTGATGAGCCATCAGAACTGCAAGATTAAGGCTATAG
AGCTTTATAAAAAGCTATACCTTTGAGGATGTGAGAGAATGATAAGCAGTAGATGCAAAAA
TATAAACCATTAGCAATTAGGGAGATATTTAATCTAGCTACATCTGATTGCATAAATTT
40 AGGAATAGGAGAGCCAGATTTTGACACTCCAAAGCATATCATTGAGGCTGCAAAAAGGGC
TTTAGATGAGGGGAAAACCTCACTCTCCAAACAATGGAATTCAGAGCTTAGAGAGGA
GATAAGCAATAAGTTAAAGGATGATTACAACCTTAGACGTTGATAAGGACAATATTATTGT
TACCTGTGGAGCTTCAGAGGCGTTAATGTTATCTATTATGACTTTGATTGACAGAGGGGA
TGAGGTTTTAATTCCAAATCCATCTTTGTGTCTTATTTTTCTACTAACAGAGTTTGCTGA
45 GGGTAAGATTAGAATATAGATTTAGATGAAAACCTTTAATATTGATTTAGAGAAAGTTAA
AGAATCAATAACTAAAAAACAAAGCTAATAATTTAATCTCCATCAAAATCCTACTGG
AAAAGTCTATGATAAGGAGACCTAAAAGGCTTGGCAGAGATTGCTGAGGATTATAATCT
AATTATTGTTTTCAGATGAAGTCTATGATAAGATTATCTACGATAAGAAGCATTACTCTCC
AATGCAATTTACTGATAGATGCATATTAATTAACGGTTTCTCTAAAACCTATGCCATGAC
50 TGGATGGAGGATTGGATATTTGGCTGTTTCTGATGAACATAAGGAGTTAGATTTAAT
CAACAATATGATTAAGATTTCATCAGTATAGCTTTGCATGTGCTACAACCTTTGCTCAATA
TGGGGCATTAGCAGCTTTAAGAGGTAGTCAAAAGTGTGTTGAGGATATGGTTAGAGAGTT
TAAATGAGGAGAGATTTAATCTATAATGGATTGAAGGATATCTTAAAGTCAATAAGCC
AGATGGGGCATTCTATATATTTCCAGATGTTTCTGAGTATGGAGATGGGGTAGAGGTAGC
55 TAAGAAATTGATTGAGAATAAGGTTTTATGTGTTCTGGAGTTGCATTTGGTGAGAATGG
AGCTAACTATATTAGGTTACGCTATGCTACnAAATATGAAGATATAGAGAAAGCTTTAGG
GATTATAAAAGAGATTTTTGAGTGAATTTTTAGTATTTTATTTAATGCTCATTTCTCTT
CTGATTTTAAATAAAGAGTGTAGAAAAGAGTAATTGAGTTTAAATAAGAAAAACGTTTTA
TCCCGAATTGGTCTGATTTTAAATAAATAGGAAATAATTTGTAACCTATCACAGACATAG
60 ATTTCCATTCCGAAACGGTCTGATTTTAAATCATTAAACCACTATAAACTTTTTGTAACCT
AAAATAAGATTTCCATTCCGAAACGGTCTGATTTTAAATCATTAAACCACTATAAACTTTT
TGTAACCTAAAATAAGATTTCCATTCCGAAACGGTCTGATTTTAAATCATTAAACCACTATA
AACTTTTTTGTAACTAAAATAAGATTTCCATTCCGAAACGGTCTGATTTTAAATGGGGG
GATGAGATATGATTTTAGAAGGTTTCGATAAAAAATTTCCATTCCGAAACGGTCTGATTT
TAATTGGCTCGGTAATGCTTGGGAACAATTCAAATCTGGATTATTTCCATTCCGAAACGG

5 TCTGATTTTAATGAAGAATTAGAAAGCTTTTAAAAGCAAGAGGGTGGTAATAATTTCCA
TTCCGAAACGGTCTGATTTTAATTTAAAAGAAGCGTTAAAGTATTATTATGCTTTAATTA
TGTCATTTCCATTCCGAAACGGTCTGATTTTAATACAGCTTAATCCCCCTTAACATTAAC
CATTGTTTTAACTTATTTCCATTCCGAAACGGTCTGATTTTAATATTAGATTACCTGTG
10 AGTGTGTAGTTCCAAGTAGATATTTCCATTCCGAAACGGTCTGATTTTAATATGGGAAT
GTTAAATAAAAAAGGTTAAGGAGGGAGATATAATTTCCATTCCGAAACGGTCTGATTTT
AATTTAAAAGAAGCGTTAAAGTATTATTATGCTTTAATTATGTCATTTCCATTCCGAAAC
GGTCTGATTTTAATTTCCACTATCTAAGTCATAAGCAACTACTTCACCAATATTTCCATT
15 CGAAACGGTCTGATTTTAATTTCTGAATTTCTGTCTATCAATTTGTATAATGCTGTTTGCT
TTCCATTCCGAAACGGTCTGATTTTAATTTGTTCCATCAACAAACGCAGTTATTGAGAGAA
TTTCTACTTTCCATTCCGAAACGGTCTGATTTTAATTTATGATGAGGAAGCTGAAAGGGA
TATAATTAAAGTTAGTCTTTCCATTCCGAAACGGTCTGATTTTAATTATGGGAAAAATT
TTGAACCTGAAGGTATCGCCACAAGCTGCTTTCCATTCCGAAACGGTCTGATTTTAATTC
20 TTCAAACATCCAAATAAAGCATCAAATTTCTTCTATCTTTCCATTCCGAAACGGTCTGAT
TTAATTTTGATTTCCATCGTGAAGTAATCCAAGTCGTAGAAATTACTTTCCATTCCGAAA
CGGTCTGATTTTAATTTTGCAATTATAAATTTATAAAAAAGTATTACATTAATCTTTCCAT
TCCGAAACGGTCTGATTTTAATTTCTATTAGGTGCTATTCTATTAGCCTCATCAATTATGC
25 TTTCCATTCCGAAACGGTCTGATTTTAATTTTCGAAAGTTGTAAAACGTCAGAATATGTTA
AGAGACAGTTTTTCCATTCCGAAACGGTCTGATTTTAATTTCCGCAGTATTCAGTATCTTC
ACTGTTTGATTAGATTTTCCATTCCGAAACGGTCTGATTTTAATTTATAATATCCGCA
CTGCCAGAATACAACCTGCAAAATTTCCATTCCGAAACGGTCTGATTTTAATTAATACG
CTACATACGCTCCTCCATCTAATGCAGGAGCAAAATTTCCATTCCGAAACGGTCTGATTTT
AATTAGGGCAATCATTCACAACATAATATACTTCATCACTCTTAATATTTAAGCTTTTCT
30 ATACCATATTTTTCTAAGGGTAAGTAACCTACTTCATAATATAAACCCCTTAGTATTTAAA
TCTTTCTTTCCATAATAAAACAGAGTATTTTATCTCCTTAAATTTAAAAATTTAACTTA
TTTGTTAGAGAAATTTTATTTACTTACCTAATTAATCCTAATTTTCAAAAATTTCAAATAA
TTTGATTAAGTTAAATATTCTAAACAATCAAACCAGCAAAACCCCTTAGAAATTAATTTAA
AACCTCTAAATAAAACAAATAAGAAATTTACATGAATCTTTTTTAATTATAAAGTTTCTCA
35 ATGTAATAAACACTAATGTAGCTCTAATTATTAATGCCCTACGGATAATAAAATTAGCAA
CGTAAATTATTTAAGCATTTTGTATTACAATATTTTAAACAAAGTTTAAATGAGTGT
GATGGATTATGATAAATCAAATAAAGACCTATTTATTAATGGCTTTACTTGTAGGGTTAA
TTTATGCAATTTGTATGATGTTGCATATACATCCATTGATAGCCATAATCTTATTTAA
TTCCAAATGTTATTGCATATTATATGAGTGATAAACTTGTATTAATGAGTTACAACGCAA
40 GGATTTTAGAAGAGCATGAGATGCCTTGGTTACATCAAATGGTCGAAAGAGTTGCAAGAA
AAGCTGGACTACCAAAACCAAAAGTTGCTATAGTTCCAACGAAACCAAAATGCGTTTG
CTACGGGTAGAAATCCAGAAATGCCGTAGTGGCTGTAACCGAAGGAATATTAAATTTAC
TATCCCCAGAAGAATTAGAAGGAGTCATTGGACATGAATATCTCACATAAAACATAGAG
ACATCTTAATAAGCACTATAGTAGCCACTTTAGCTGGAGCTATAGTAATGATTGCAGAGT
45 GGATGCTATACTGGGGAGGAATTTCTTTGTTTCTGAAGAGGAGGAGAGTAATCCATTAG
AGTTAATTGGAACGAATTTGTTATTAAATATTAGC1CCAATTGCTGCTACAATAATACAGT
TTGCAATTTCAAGACAGAGAGAGTTTACGCAGATGAAGAGGGAGCTAAGCTAACACATC
CATTGTGGCTGGCTAA1GCGTTAGCTAAGTTAGAAAGAGGGGTAGAGTTATACCCATTGG
AGAGAGGAATCCAGCAACAGCTCACATGTTTATAATAAACCCATTTAGAAAAGATTTTA
50 TTGCCAAACTTTTCTCAACACACCCTCCAACCTGAAGAGAGAAATTGAAAGACTGTTAGAGA
TGTGCAAAAGAATTGGAAAAATAAAGGTGGCATTGTGGAAAAGGAATTAAGAGTAATAA
CAATAGATGAACATAAAAAATACATTAGAAATAATGAAGAGGACAAGATAGAGGAGGTTG
ATGTAGTTACATCAGCAACTTGCGGAATAATGTCTGGAACCTGCTGSAATCTTTCATATTC
CTTTAATGAAGTTTAAAGAGGGCGGAGGAAATATATTTAAATGACATTAAAGGGGTTG
55 TTGGCATCTGCCCAAATGAATTTTAGGAAAGGTTGATGCAATATTTTACGGAGAAGTAG
GATTTTTATTTAAAGATTTAGTTAAGGGCAAAGTTGTAGAAGCTAAAGCCATAAGTGAAG
GCAAAATTTACAAAAATGAGATACTATAGATGATTTACCAACTGCAAAGATGATAGGAA
CAAGAATGGCATTTAAAAACTATACTGCAATAACTAATCTATCTGATGAGGAAGTTAATA
CAATATTTTCACAGATTGCCTCTAAAAAAGGAGAGGCATCATTTCTGCTGTGGAATGC
TTAATCCATTAGAGAATATGGTTATTAAAGATGA1AAAGATGTTGTTGGAAAAAAGCTC
60 TATTAATGGTGTGAAGCTATTATCTTAGGCTTTGGAACAAGGGCATCGATAGAGAAGC
CAAATCTAATGATGTCGCAGATATGAAAGA1ATGATGCCTATTACTTGGGAGGATTTG
TAACATCAAACGGAATAGAGATTTATAATACAATAGCTGTCCCAATTAAGTTGATGAGC
ATAAAGAAGCTTTAAAAAAGCTTGATAAGGATATTACCCTACCTTTAGTTAATATATTTG
GTAGAGAGATTATAGACATTTGAAGTTATGCAGAGGTCTGGGAAACGTAGATTTAAGAC
CAAAATCTATCAAGATAATGTAAAAACTGCAGAGACTGCTTAGTTGAAAAATACTGCC
CAACTTTTGCCATAAAAAGAGAGAATGGAAAAATAAAGATAACTGAAGATTGTTTGGTT
GTGGAGTTTGCAATATTTGCCCTTATGGAGTATTTAAACAAAGCTTGGCTCTGTATGTG
GAATTTCCAATAACATGTAGGCAGTCAGATAGAAAGAGAGCTTTAAATTAGCTAAAGAGT
TAAAGAAGAAGATAGAGAGGGGAGAGTTTAAAGATATAAATTTTCAAATTTCTCAATAAA

5 TTCTTTTGGAGTTGGGACTTTTAAATGTATGTTATTGATTTTTAGATATTTATTTTCGTC
TCTTAATGATATTAAGTCCTTATCTCCAGTAATAATGATGGCTTTCGATTTCATAAGCAAC
ATTTATAAATTTATTGTCATCTTCTCTACAAACATTAAATTAGTATTTGGATTTAT
AATAACCGAAACAGAGAAAAAGCGGTGAGTATTTTTAAATTTCTATTTTCATTCCTTAA
ATATTTTCTTAATTTTGGGGATAAACATTTGAACCCAATTTCTTTTAAATTTGAAGGAGA
10 TGTATAATTAACAATCTTTTCCCTCAAAAATTAATCTAAGATTTTCCCAGGAATGCCATT
AGGGTTTATTAAAGCAGAAATAAATACATTTGTATCAATAACTACTTTAATTTTAATTTT
TTCCATTTTTTCCATTCTTTATCTACCTCATCCAACACTCTTCAATTTCTTTTTCATCA
ATTTTTATGTCCTTTTTTCTTATTTTATACTCCTCCCATATTTTTTTCATTCTTCTCTA
CTCATTTTTTTTACTTATGGCTATTTTCAGTTAGTGATTCTCTAACAGCATATCTTACAAAC
TCATCTCTACTGCTAAATACCTTCTTTAATAAGCTCATCTATTTGATTAAAGGATACTT
TTTGGAAATCTTAAGAGTTATTTCTTCTTCAATCATAGCATCACCAAATTTATTTACAACCTC
15 TCAACAATCTCCTTTATTCGATTAACAACATACTCAACCTGTTCCTCATTAATCCATAG
ACACTCATCTTAATCTCCTTGAATCTGCTCTAATCCCTCCAATTCCTCTCTCTCTC
AACTCATCATAGAAGAAAAACCTCTCCTCTTATCCTTTTTAGCTATCTCATCCAATCACT
GGTGTTCCTCAATTTAATTAATCGTGTCTTTTGGTTTAATTCCTAACTGCTTAAATCCA
ATCTTTTCAAGTTTCATCAACAACATATCTTGTTTTTTAAAGCTCTTCATCCCATTTTTTA
ACCCCTTTCAACAACATGAGGAAAGCTTGCCATTAAAGTAACATTGGCAGTCTCTACTT
20 GTGCATCCAAGCATCTCAATTTCTTTAACTGGGAATTTCTCTGATGTTTTTGTATTTTTA
TCGGAAATTCCTCACTAAATGCCAAAATACCACATGGAGCTGATGCTGCCATACCTTTA
TCCCCTGATGCAACAATAAATCAGCCTTAACCTTCCCTTTCCATTGACTGGCATTCTTCCA
ACTGTATATGCACAATTTAGTAGGAATGGGATGCCCTTTTCTTTAGCTATTTTACCAACT
TTTTTTGCATCGTTTAGGTTCCCATACTCTCCATCTACATGAGTTAATAATATCAATCCG
25 ACATTTTTTCCCTTGTCTCTAAATATCTATAACCTCCTTATAACCTCTAAGTTTATC
TTATATGTTGGATACTCCTCTTCATAGCCAACCTCTGCAACGTTTAGCTTAGCTCTTTCA
GCGGCAACATAACTTGTGTAGTGAGCATTTTTATCTAAACTACATAATCTCCTTCTTTA
CATATGGCGTGCATAACAATAAATTTTCTTCCCTTCCCTTGGCCGTGTGTAGGTCTTGCACAG
TCCATATTTAAAACTTGGCAATATCTTCCAAAAAGTCTTTATTGGTGGGCATGTAACC
30 TCATCCAATCTTCCATGGCAGTAATCGCAACGCTATAACCGTCCCAATATTCATAAACT
GCCTTCTTAGCCTCTTTTGGTAAATGCCTCCTCTCTGTATTGGATTAAAGTTAATAAAT
TCCCTTGTCAAGCTTCTTGTAAAGTTTTTGTATTTATCCAAGTTTATATCCAAAGTAATC
ACCTCAAATTTTTTAGAGTAAGGCCCTCTAATCCATTAACATCATCTGAAGTGCAT
TGCTGTAAATATCAAAACCATTCATTCTTGTAAATATCCTAATCCCCAATCTTCCAATCCT
35 ATCTAAACACTCTCAGCTGATAATAGGGTTAGGTAGGTATTCCAAGAGATAGTAGTAT
AGCCAATATTACCAAAAACTTATCTCCAATGTCTGATGCCTCAGCCATTGCAACCATACA
GGCAGTTATTGAACAGGCCAGCTAATAATGGAGTTGCTAAAGGCATTAGAGCAATTTT
ATCAATCTCATAGCTGCTTCAATTTTCTTCTATGAATTTTAGCCTCCTGCTGACCCCT
AACCATGTCTAATGATATTAAGAGCAGTAGAATTCCTCCAGCAATCTTAAATGCATCTAA
40 TGATATACCAAAAAATTTAATATCCACTCTCCAAAAAGTGCAAAAGCCAATAATATAGC
AAGTGCATAAATAACTGTTTTTCTTAGCTACTAAATCCCTTTTCTTTTTTGGATATGACTC
AGTTAATGTTATAAATACAGGAACAGCAAAATGGGTTTAAATTTAGAAATATAGATGA
AAATGCCAATATAAATATTGCAATCCATAGTCTCACATTAAATTTTTATTTTTCTTCT
AATTCCTCCCATATAAATCAATTACATTCCCATTTAAAAATGCAGTCATGGTGTATATGAC
45 TCCGGGAGGAGGATATTAACCTTCATCTCCATTTTAAACAAATACAATTTATCAAAGCT
CAGTAATCCTCCATAAATAAGTCCAGCTAATTTTGGTATGTCATCAAGCTCCTCAACAGT
TATAACCACTACAGGGTCGTCACTCTCAGCTCCTGTATATCCAATTCCTGGGATTTCTAT
TGGTTTCGTTAGAGACAGAGCAGCCAACATCATAGCCAAACTTTTCCCTATTTCCTTAAC
AAACAAAGCCATTTTCATCCACAAAGCTCTCTCCACCATAAGTGTCAAAGCTATTATTAT
50 AGCGTCTCCATATTAGATATTGATTAGCTATGGCATAGGATAAGCCCTCTCCAGCTTT
ATCTTTATCTTCAGAAATGCCTCTTAAATCATCAAAGCCCTCAGCATATTTATTTAAAC
TTCGAAATTTATTTTATTATTTTTTCAATCAAATTTTCTGGGACAAAGGATGTTATAAC
TATATCATCACCAGTTATATTTGAGATAGTTGCTTTTATACCTAATTTAGATAATCTTTT
TTTTAATTCCTTATTAATAATTCAATTAACCTTAGGATTTGTTTTTACATCATTTGTCTGA
55 TATATCAACTCCAATACTTACAATGTATTTTTTTCATTCTATCATCCTATAAAAAATGGTTG
TTGCAAAAGGTTTAAATTTTTTGTAGGGTAAATATTAATATTAACATACATAAAATATAA
ATATAAAAAATGCCCCGGGAAACCGCGGGGGATGAGCGACAGCCCGGCAAGCTGTGAGTCC
CCTTTGCTCCCCCGGGGACATTTAACTAAACAATAAATTTATCTATTTGTAAATTTCT
AAAATGTTTTAGCGATTCTATTTTCACTAATTTGCAATTTAAAGAACTCCCCCAATAC
TCTTTAAATTTTCTTATTGAGTAATTTATCGTATATATATTCGATATCTACTTTTGCTCA
60 ACCAATATCAACCTTCTGTTGGAAATGTAGGGACTCCTTCTCTATGTTTTTCATCTAAA
AGCTTATCAATCCATTCAACTGGCTTTTTTCTCTTCCAATAAATCTAAAGCTCCAAC
ATCTTTCTGACCATGTTCCATAAAAAGCTCTCTCCAATGATATCTACTGTTAAATAGAAC
TCATTTTCAGAGATTTTTATATCATAGATTGTTCTTATTGGACTTTTTTCTTTTGTCTA
TCTCTCTTTGATAGATTGTGGAAGGAATGAGTGCCAATCATCTTCTTAGCTCCTTCTTTT

-537-

5

10

15

20

25

30

35

40

45

50

55

60

ATTGCATCTACATCATAACCAATGTTGGGAGAATATATCTGTAATGTCTATACTTCACC
TTAGGAATTTTCATCAATCTCTCTATATCCTAAAACCCAGATGCCTTTATCCTTTAGCTTT
GCATTTATGTATGAGAGGATTGGCTCTTTTTTCAGCTCTACAACCTACAAAGTTGCCTAAG
5 GCAGAGACGCCCTTTATCTGTCCTTCTCCGCTGTATATAACCTCTTTTAGCTAAAAAT
CCAGTTTCTTCTAAGGCATCTAACAAAATATCACAACTGTTTGTATGTGGCTGTTGT
TGAAAGCTGTATCTCCATCGTAGGCGATTTTTGAATATACATAAAATTACCACCTTAAA
ATTAATTCATATTTGTATATTTCAAATTTACAAAATAAAAACTATTTATATGACTTTT
TTATTATTTTTAAGGTTCCACAAATTTTTGAGGTGAAATGTTGAAAGTCTCATCTCCCC
TTTAGGCGTTGGAGATACAAATACTGATGTTTATAAAAGGCAATATAAAACAGCAGAGTA
10 TAAATTTGAAGGAGATATCGATGGTATTGAAAGGCCATTGTTTTGTGCAATTTAATTGA
AAAGTTGAAGGTTGATAAAGTTATTGTTGTTGGAAGTGCAAAATCAATGTGGGAAAAATT
ATATGAATATTATGCCAAGGAAGTTGGAGAATTTGACGAAGAATATTGGATTGAAATTGG
GAAGAAAGTTGGAATGTCAAAATATGATACTATGCTCTTTGAGAAAGAAGATTTGAAGAA
AATAGAGAAGGTTATTGATAAATATTTGAAAAAATTAATCCAAATGCTGTTGGAGGTTT
15 TAAATGCAAGATTATAAAGTATGGAATTGATAAGGATGAGATTTGGGAGAATTTTGATT
ATTTATGAGTTTAAATAATGAAGTAAATGATGGAGATGAGATTTATTTGGACATAACTCA
TTCATTTAGGCTATTTCCATTATTTATGTATGTTATGTTGGACTTTATGAGGTATTTTAA
AAATGTAAAGTTAAAGGGAATCTACTATGGAATGTTAGATGTAATCCGTGAATTTGGGACA
TGCACCACTTGTGATTTAAGCCCGATATTTGAAATATCAGAGTGGATTAGAGGAATGTA
20 TGAATTCACCACTTATGGAACAGTTACTTAATCTCAAACTTTTAGAAAATGAAGATAA
AGAGATAGCCGAAAACTACAGAAAATCTCAAGATACATTGATGCTAATTTTAAAGA
GTTGAGAGAGGAACTTAAACTCTAAACCACTGTTAAATGAGAAAAAGATACGGGAAG
GTTTTTAAATATTTTCAATCCTGAGTTGCATAAATTTATTGATAAATTAATAATGAAGA
TTCAGATTTTGAGTTCCAAATATCTATGGCAAAATGGAACCTTGATAATAAAAAATACAG
25 CTCTGGCTATTTATGTTTAACTGATTCAATATTTTGGAATTTATGTGAGCTTTATAATTT
ACCGTCTGTTTATAAAATAGGGAGGTTATGAAGGGAATAATATACAATCCATCCTTGAA
TAAAAAATATTCTGCGTTTGGGTCTATTAAAGATATGCATTACAAAAGATTAAGGAACAT
AAGAAACAAAATTGCCCATGCAGATGTTAGTAAAAGGGAGATGATTCAATCCTGAAAA
TGATTTAGAGGATGTTGTCAATTTACTGAAAAATGTCAATCTACCTGATTTTGATAAGAT
30 AATCGAGGATTTACTATTAGATGTTAAAAATAACCAAAATAATAAACACTTAAATTGTT
AAAAAATATTTGAATATACAAATAATTAGAAAGATTATTAAAGCATATAATTTGAGAG
CAATGAAATATACTGGGATTTTGTAGTGTTATCTCTTAAATAAGAAATAATAATGCAA
TAATGAAAAATTAAGAGAAATCATCGAGATATTCACAAAAACATAGAGGATGCTGGTGA
ATTGGAGGAAGCATTTAATTTGTAAAAAATACAGAAGATGAGGAATTGTTGGATAGTTT
35 AGCATTACAAAATGCAATCATGCATTATGCCCTCTTCAAACCTTTCAAATGCTTATAATAT
CAAAAATAAGGAAGATAAAGAGGCAATTAATGGGTTTGTAAATCAAAATCTATGTTT
AAAGCATCCAATTTGAAGGAGATAAATAACAACCTACCACAAAATATTCAAAAATAAGGA
TAAACCTATGTCTAATGAGATACTTGAAGCATCTAAAAATATAATAAGACTGTTAAACAG
TGATTTGTGAGAAATAAAGATAGTGTTCCTCTAATTTGATAATAATCAGATATAGAAG
40 TTATAAAAATAATAGAAGGTGAAATCATGCCTAAAATGTTTTATTATTTTCTCATAAAC
TTACAGATGACCAAAATTAATGATGCAAGGAAAAATCTGAAAGTTGATGAATTTATTTACT
TACCTAAAGAACTTCAAGAGTTGTGGTCTAACATTCGCCCTGATGTTGATGATATTGATA
ATTACTTAAACCAATAAAGAGTCTTTAGAAAAACATGCTAAACCAATGATTATGTTT
45 TAATTCAGGGGATTTTGTGCTACATATAAATGGTAAATTTGCAATTGATAAAAACT
TAATTCCTATATATTCAACTACAAAACGAATCGCAAAAGATATATATAAGGACGGAAAAA
TAATTACCATTAGAAAATTTAAACATTGTAGATTAGAAAATATAATCCATATTAGTGTT
GGTTTAGAAATGTAAAGTTGGGGGATTTAGATGGGAAATTTGAATGAATACACTGCCTTA
AAAATTGGGGCTTTATTGCACGATATTGGAAAGTTTATTCAAAGAGCCAGTGATAAACA
50 AAATCTAAAGGACATGATAAATTTGGTTATGAATTTTAAAGAGAAGTTTAAAGATGGA
TTTTTAAACCATTTAGATGAAAAACAAAGGATAAAATATTGGAAATTTTAAAGAACAC
CATAACCAAAAAATTAAGATGATTTAATTGGAATTGTTAGATTGGCTGACTGGCTCAGT
AGTGGGGAAAGAGAGAACCAAAAGGAGACCCAGAAAATGTTGAGGTTTTAAATCTGAA
GAACAAAAATTACTTTCAATATTTGAAACAGTGTGATTGGAGAATTAACTGAAAACTTT
TATAAAATGGATTTAAATACTCTTTAAACCCTAAATGTCTCTGATGCTATATTTACA
55 GACAAACCATATCCAATGAAATTTATAAGAGTTATTTAGTAAATTTGAGGATGAAATT
AAGGATTTCAAAGGAGATGTTTCATTGAAAGAACTCTATCACTAATGCAAAAAATATACG
TGGTGTATTCCTTCAGTAACGATGTGGAAAAAGCTGGAAGTTTAAAGGTGGTTGCCA
GATGTTTCACTATTTGACCCTCAAAAACAACCTGTGCAATTCCTGCTGTCTCTATCAG
ATGTATGTTAAAGAAAACAAGAAGAAAAACAATATGCTAAAGAAATATATTGATGATAA
60 ACATTAGAAAACTCTTTAACAACGATAATGGCTGGAATAAAGAAATATTCTCATTAAAT
CATGGAGATTTGTCTGGAATTCAGACTTTGTATTACAAATAACAACAAGTATGCCACA
AAGICATTAAAGGGAAGAAGCTTTTATCTGGACTTTTTAACTGAATACTTTGCAAAATAC
ATTTGTAAGAATTAATCTTCAATTAACCAATATTTTATCTATGGAGGAGGGCATTTC
TACATTTTAAAGCTATAAAGTTGATGAAAACCTTGATAAATAAGTTAGAAAAAGAAATTAAT

GAAGTACTGTTCAATATGTTTGAAGCTAAAATATATATTACAATTGCAGAGGTTGGTGTA
ACCCCAATGACTTTAAAAAATCTGAAGATAAGGAGTCAAAAGAAAAACATGGGGATTT
GCTAAAAAATGGAAAGAAGTTTCTGAAAAGACAGTTGAAAAGAACTTAGAAGGTTTGAA
5 TATAAATTGCGAGGGATTATTTGAGCCATACAATAGGGGGAGTGAAAATAGGTGCTGTAATT
TGTAGGAATGAGTTTGATAAAAAATGAAAAGGTTATGCAATACGTGAAAATGAAAGTAAA
TCCGAGAGAATATGTGACTATTGTGCTTCATTGCTAGCTTTAACTGATATATTAAAAAAT
TTCCAAATGGAaaaaaCAATAAAATTTAACAAAGCATATCCAATTATTCATTTAACTAAA
AATAAGGACAATCTCTCACTTCAAAGAGAAGAAATTTAGTTTCTTAACGGTTAAGGCAATA
10 GAAAAATTAGAAAGCAATTTAGAGTTTTATCTGATGAAAATTATTTCTTAAAGAATAC
AACTCCCTCACGACTCTGGAGAATTAAATAATTCCATACAAAATCTGGGCAATTGCATTC
CCTATAATTGAAAATGAACTGAAAAAGAATATTAGATTTTGATGGATTAGCTGAAAAA
GCTTTTGAAAGAAGCTGGAACAAGAAAAATTTGAATACTAAAAATGGACGTTGATAATTTA
GGAGAAATATTACCAGTGGTTTGGGAAATGATGCAACAATCTCAAGAATGAGCACATTA
15 AGTTCTATGCTAACTTTATTTCTTCACTGGCTATATTTCTCATTTAATTAAAAATGAAGAA
TTTGAAGTTAATGGGAAAAATACAAGTTTAAAGGATAATATTTACTTAGTATATGCTGGA
GGAGATGATACTTTAATTGTTGGAGCATGGGATGCTGTTTGGGAGTTAGCTAAGAGAATT
AGAGGGGACTTTAAAAAATTCGTGTGCTATAATCCTTATATAACCTAAGTGCTGGAATA
GTGTTTGTTAATCCAAAGTTTGAAGTTTAAAAAGGCTGTAAATATGGCTGAAGAAGAAATTA
20 GAGAATGGTAAAACTATATACGAAGATGAGGAACTGAGAAAAAGTAGATAAA
AACGCTTTAACGGTCTTTAATTGTTCCAATGAAGTGGGATTTAGAAGTTGAATATAATGAA
TACTGCTGGACTAAATTAAGTCAATTTAGAAAGGAATTAATAAGAAATGGTAGAATTA
GAAAGTTTAGTTAAAAATTTAATGAGGATGATTTGGAGAAGAAATTTGAAAAAGCAATTG
AAGAGACAAATAAGAAAAGAACTTACATATAGCTCAATAACTGGAGGGAGGTTAGAGT
25 ATGTAATTAAGAAAGATGATGAGATAATTATAAACCTCCCACTATTGGAGAGTAATTT
ACTACCTACATAGAACTACAAAGGTAAAGAAATGGAGTATGTTAAATCTTAGAAGATT
ATGTTAGAGAGAAGGTTAAAAAGATGTTTTCTTCAAATGTCAAACCTCAGCTTTAATGATT
TAAAAGTTTCTGCTAAGATTGTTGAGTTGAAAAAAGAGGGGTGAAATAATGTCAAAAAT
TGGAAAATGCATCTTAAATCCTAATGAAATCAATTTAATACTAAATATTAACAGCCAGAA
30 TGCAATGAGATTATAGACATTGCTGAAAATTTAGCCAAAGAGTTTGAAGCAATTCCTGC
TACAAAGATGAGAGACTTTTATGACTACGTTCTAAGAATTGATGAAAAAATGAAAAGT
GTATAAAGAAGTGGTTTTATTAAAACCAAAATTAGCCTATAATTACGGAAAAGAGACAAA
TAGAAGAAAGAAAGAGCATTGGA AAAATTAGCTGGGACATTTAGTGAGATTATCGACAA
AATAGATAATTGATTGAATAAATTTAAAAACTTCAAGACATTTCTTTGAGGCATTGGTTGC
35 TTATCACAAAATCTATGCAAAATCACAATAAAATAAAATAAGTTGGGGGGATAAGATTG
GAAAATTAACATTTAAAGGTAAAGTTATCTTAGAGGGAATTATTGAATTAGAGACAGGG
ATGCACATTGGGGGAACAAAAGAAACATTAAAAATTTGGCGGAAGTGAACCCAGTTATT
AGGGATGCTTTTGAAGAATCCTAATTCCTGGTAGTTCAATTAAGGGAAAGATTAGGGCA
TTATTGGAGAGGAAAGATGGA AAAATATAAAGAAGACGGTAGGGGAAATTATCTACCTCAC
40 GATTGTGGAGAAATGTGAATTTGCAAAATTTTGGTCTCATGACTCAAAAATATTAA
GAACCAAGTAAGGGTTATAGTTAGAGATGCATACTTACAACCAGAGGAAATAAGAGGAT
TATGACTATTTGGAGATTAAAGTTGAGAATACAATAGATAGATTAAAGGAACTACTATA
AAAGGAGGAATTAGAAACATGGAGAGAGTTGTAGCTGGAAGTAAATTCAAATTTGAAGTT
GTATTCAACATTTACAAAGAAAGTGATAAAGAAATTAATCAAAAATTCATTGAAGGAATG
45 AAGTTGTTAGAGGATGATTATTTAGGAGGTTCAAGGAAGTAGAGGTTATGGAAAGATAAAA
TTTAGGGATATAAACTTATCTGCAAGCCAAAAGAAATATTATGAAGGAATGAAAAACAGT
AAAAAAGAGTCTGATGAAGTTGAAAGTTTAAACGAGTTAGAAAGTGAATTAGATAAAAT
TGGGGAGGGATTAAATTTTAACTAACAGTTTAAATTAATTTTAAATTTTAACTAACTTTT
TTATGGTGGGCAGAGATGAAAATGGTTGTATTGAAACCAAAAATAAACAGTAAATTTTAT
50 TTTGGGGAGGAAGTTTGGAAAGAAACAGTAAATTTTTCATTCAATAGTTTGTCTTCT
GCAATAGTGAATAATTACATTAAGCTATATGGAAGGGAAAGATTTAGAGAAAAATATAGAA
AAAATAAAGAAATATTAGATTATCATCCCTATTGTATAAAATAAAGAACATCTACCTAATT
CCAAAACCAAGAACATCCAGATTTTCTCAATAAAGGCATATAAGGAATTATTAGATAATTGAG
55 TGGATTGGAAGAATAAAATAAAGCATATTGTTGATTATCAGACAATAAATAAGAGCATT
GTTATTTCTGAAAAGGAAATTAAGAAATAAAAGAATTTTGGTATAAAAGCAGAGAAA
CTTAAACATGCAAAAATTAGCTTAATATCAAAACATTTAGAGCAAAAAGTTGCTATAGAT
AGGTTAAAAGACATTACATTAGAAAAGATGACAAAGGGCACTCTACAACATCGAATTT
ATAAACTAAATGAAAATGTTGAGTTCTATTTCTTAATTGATTACACAATGAAGATAAA
GAATTTATCAAAAATTAGAGGCATCAATAAAATTAATAGAAGATGAAGGTTTAGGGGGA
60 AAAAGAAGTATTGGAGCAGGATTTTGGAGAAGTTGAGATAGTTGATTACAGAGGAT
TTTAATGAAATATTGGATGAAAATTCAAAATACAACAATCTAGAATATAAAATGCTCTTG
GGAGTTGGAATTCCTAATAAAGATGATATAAAAAATATTGAATATTACAAATTAATTGAA
ATTGGTGGCTATATATACTCATTTGAAGTTTAAACAAAGCCAAAAGGAATATTTTAGCT
TTAACTGAGGGCTCAATTTGTGAAAAATGACTTTATAGGGGATGTTAAAGACATATCCCT

5 CAAAATGATGATGACGAGCAGAATAAGAATAATGAAAACAACAATAAACTTAATCATAAG
GTCTATACCCATGGAAAACCAATATTACTCCCATTTAATCCAAAGAGGGGATAACTATGGA
AGTTAAATGTGAATTAATAACTCCAATTTTCATTGGTTGTGGGGAGGAATACAGTCAATT
AGATTATTTTATAGAAGATGGATTAGCTCATATAATTGATTTGGAAAAAGCAGTTTCTGA
10 TTTGGATGATTTGGAAAAGGTTGATTATATAAGTTGATTAAATAGTTTCAAATATAGACAA
CAACAGGTTAAATCTAACAGCTAAAGATATTTTAGAAAGTGTGGATTAAATCCCTTATGA
TTATGTTATTAGGAAGATAGAAAGTGAGATTTTTCAGCAATAAAAAACAAGAGTTAAAAA
ATTTATTAACCAAAATAACACCTATTATATCCAGGAAGTTCAATAAAAGGGGCTATAAG
AACAGCCTATATATTCAACTATTATGATAAAACCTTCCTGAATTGCTAAAGATATTAGA
CGATAGAAATATAAACTACACGATAAAGGAAAAGAATTAGAAAAAATGCAATATCAAA
AGACATTCCAAAGGATTTCTTTAAATATCTTAAATCTCAGATAGTTAAATTTAGAAGC
15 TGAATTTAAATTCATACATACAAAAGATGGAAATTATAGAAAAAAGAAATTTGATGTTCC
AATAAATATGGAAGGGATGACAAAAGGAACATTTTCAATAAACATAAAAAATTGAAGTGA
ATTTTTTAAAAATATCAATAAAAGACTAAAAACAAATTACAATCCAAAAGATGATGAGAA
GAAATTTGACATATTAAAAAATCTCTGTAACAATTTTTCAAAAACAGTTGTTGAATTTGA
ATTAAAGAAAAACAATCCTGTTTATGTTGAAAAATCCTATGAAAAACTCTTAGCTGATAT
AAACAAGATGATGCAATCTATTTGAACTTAGGATTTGGAGGGGGCTTTTAAATAAAAC
AGTATATCCTTTTATTATGGAAAAATGACGAAATCATCTTTACTTTAGAAAAATAAGAG
20 TTTGTTTATCGCTCTAAGTGGTGGAAAAATAAGAACTTAAAAAATGCATGGTTAAAGGCCAA
TAGTTTATTTAGATTTCCCAACAACAAAAACAGTTTATGTCAAAAAATACTCTGCTATTGC
TCCATTAGGATGGATTAAAGATGACATTGGTGGAAATAATGCAAAAAATATTAATTGCTCCA
TGGGGAAATTTTCAAGTTGGAAAAAGTTATCTACTCATTTAATGGAGTTGAAAAAGAA
TCAAAAAGCTCTTTATCTGCCATTTATGATAAAATAAACCAGATAAAGTTTATATATTG
25 GTTTTAGATACTTTTATCTAATTTAGAATCAGAAAATTATGGAGATATTGTAAGAAGCTT
AAAGAAAAGACAGAGAATTTTATAAAAGAAAATTTAAACATTGATAATTACGAGGTAATT
GTATGTCTGGAGTTGGGACATTTTATAACAAAGATTTTGA AAAATACTTTAAATTTTAT
GGGAATTTGACTGATTATTATTCTTTTGGCCCTTTATGAATTGTCTAAAAGATTGGATGGA
GATTTGGAAGTTCATTTGGACTTAACACATGGATTAAATTACATGCCTGTCTTAACCTAT
30 AGAGTAATTAAGACCTCTTAGAAATTTTAGCAATAAAAAATAAGGTTAGATTAGTTGTT
TATAACTCAGACCCCTATGTTGGAAGAGAAAAAGAAATATTAACATCCACACTGTGGAA
GATGTGATTATAAAACCGTCTATGACATTAAGGTATGACTTTGGATTTTGTAGACGCA
ACCAATTTGTAGATAAAAAAGAAATAGGAAAAATAAAAAAAGAAATTAACATGAATCCA
AAGATAAAGAATTAAGAATAATGAACAAAAATATAAATGCATTTATAGCTTCTATTGTT
35 TATGCTCTACCTTTAGTTTATTCAACATCTTTGTAAAGAAAGATAAAATTGAGATTTAT
TTAAATGAACCTTATTGGAGCATTTATTTCAAATATAAAAAATTAATCCAGAAGATAAAATA
TTAAAAAGATACTTATATTTCCGAGAAGGATTTAATAGCTTGGTTAAAGCATATTTTGCT
TCAAAGATTAGCGAAATTCCTCAATTGATAAAAGACGAGCTATCTTTAGAAGAGATTGAT
40 GAATTA AAAAATACCTTATTCCAAGAAAATCCAACTCTCAATATATCAAAAATGAGATT
TCATCCCTTTATAACATAATAAACACCAAAATATAAAGAAGAAGAACTTAGTGAAATCTTA
GGAAATTTGGACTCCAATATATAAAATTAGAAGGGAGAATATTGACAAATTCAGATTAGG
AATTTCTTAGCACATGCTGGGTTTGA AAAAGTGTAACTGAAATTTATATTTCCGTAGAA
AATAAAAAATGGA AAAATGAACTTAGTGAAAAAATCTCGCTTAGATATAATAAGAACTAC
45 ATAGAAGAAAAAATGGAATCAAAAGGTTTCAATTTAAATATAAGGACAAAAATGGAAAA
GTAGAGGAGATAAATATCTTAGAAAAAATGAAGAGATTCTACTAAACAAATAAAATCTC
TTTTTAATAAAAAAGATAAATATATTTCCAATTTAATACTTTTAAATAAACTTAATAA
TAAGTTTATATAATAAACTGTTTCTTAATTATGGATTAAATTAATTTTATAGGGATAAC
CATGTTTCAAGACAGAGAGATTATAGAAACAATCAAAATGATTAAATGGAAAACTTAGA
TTTGAGAACAGTAACGTTAGGATTAAGTTTGAGAGACTGTGTTTCAAAGATTTAGACGA
50 ATTAAGGAAAAACATATACAAACAAAATAACATCTTCAGCTGAAAAATTTAGTAGAAACAGC
TGAAAGAATCTCTGAAAAGTATGGGATTTCCAATAGTTAATAAGAGAATAGCAGTTACACC
AATATCATTAGTCATCGGTGGAGCTATAAAGGATTTAGATAAAGAAGAGCAAATAAAGC
TTGTGTTGAGGTTGGAGAAGTATTAGATAAAGCTGCTAAGAAAGTTAGAGTAGATTTT
AGGAGGATATTTCAGCATTTGTTTATAAAGACGCAACAAAGGAGGATAGAGCTTTAATTGA
55 CTCTATCCCATTTATGATGGAAAAGACAGAGAGATTGCTCCTCAGTAAATGTTGCCCTC
AACAAAGACAGGAATTAATATGGACGCTGTAAAGAGAATGGGAGAGATTATTAAGAGAC
AGCATTTCAGAACAGAAAAGGCTATTGGATGTGCTAAGCTTGTAGTTTTTGCCAAATGCTCC
TGAAGACAACCCATTCATGGCTGGGGCATTTTCATGGAGTTGGGGAAGGAGATAAGGTTAT
AAACGTAGGAGTTTCAGGGCCTGGAGTTGTTAGGGCAGTTATTGAAAACTGCCAGACGC
60 TGATTTTGGAACTTTGGCAAATGAAATTA AAAAGGTAGCTTTTAAATTTACAAGAGTTGG
GGAATTGATTGCTAGAGAAGTATCTAAAGAGTTGGGAGTTAAGTTTGGAGTTGTTGATTT
GTCATTAGCTCCAATCCAGCAAGAGGAGATAGCATTGCCAACATCTTAGAAGCTATGGG
TTTGGAAAAGTGTGGAACCCATGGTTCAACAGCAGCATTGGCTTTATTAACGATGCCGT
TAAAAAAGGAGGGCTATGGCTACAAGCTATGTTGGTGGATTGAGTGGGGCATTTATTCC
AGTCAGTGAAGATAGTGAATGGTTGAGGCAGTTGAGGCTGGAGCCTTAACCTTAGAAAA

-540-

ATTAGAGGCAATGACTTGTGTTTGTCTGTAGGGATAGATATGGTTGCCATTCCAGGAGA
TACCCAGCATCAACAATCTCTGCAATAATAGCTGATGAAATGGCTATTGGAGTTATAAA
CAACAAAACAACTGCTGTAAGGATTATCCAGTTCCGGGCAAAAAGGCAGGAGAGTATGT
5 TGATTATGGTGGTTTGTAGGAAAAGCTCCAATTATGGAAGTTAATAAATACTCATCTGA
GAAGTTTATTAAGAGGAGGTAGAATCCAGCCCCATTGCAGGCATTAACATACTAAAT
ATTAATAATATCTTTAGCTCTTTAAATCTTATTCTCTCTTCTCAATCAATTTATC
AAGTATGTAATGTTGTATCTTTAAGATATCTTCCTTTTAAATTTCCATAGAAGCC
CTTTGTTGAAGCTAAAACGCCAAAGTTAATATTTAGTATTTTCATAATACCATAAAGCTT
10 TAAAATGGCATTGAGCTTATATGTCTGTTTTTACATTCAAAAATAAAGTTTTTCCAAA
AACATCAACAAATAAATCTATTTCTGTAAAAATATTTCCCTTTATAGCTAACATCCAAGTT
TCTAATAACCTTTGCATCTATGTTATTTTCTTTAAGAACTCTATGAGAGTGAATACAT
AAATAACTCAAATAGAGTCCCAGCATCTAATGAGCAGAAATCTTTAAATCCTTTTTTAT
TTCATTTAAGCTAAGAGTAAAAAGTAAATATCATTTTCTTTAATTTTTTCAGTTATTTCTT
15 AGGTTTATGGCTTTCTTTAATTTTAGGCAGCTGAAAATTTATGCTCCAACATGGCTTTCT
ATATCTTATCTTTGATAGAGTCAGATTAAAAAGTTTGTAAAGATTGTTTCCATTATCAGA
AGAGAACCCAGTAAGTTTATATTTCCCAAATTTAATCCTAACCTCTTTCTCATTTTTTAG
CTTTAATTTATTCATTTATCCATCAACTCTTCTATTGTTATTTATATTTTTGAAAATTTCTCT
TACTCTCATCCAATTTCTTCAGCTTTTATGTATAAAGGATTTAATATGAGATAAAATACC
20 TAATCGATAAGTTTTATCCTCCATAATAATTTTATTTAGAATAGATAACGCATCCCTTT
TATATAAAGCAAAGAGTGGCTCTATATATCCATTTTCATGTTTCGGAATTATACATAGAT
TGTTGTTTTTTTTCAGCTATACTAATATTAGATATTAATTTTTTAAAGCTTCTTTATTTA
TATAAGGGCAGTCACAAGGCAGAACAAACCCTTGGCATTAAAACTCTCATGCCCGC
ATAAGATACCCATTAAACGGCCCTTTACCTTCAATTAAATCAAAGGATATTAAGCATTAT
25 ATTTGGTTAAATATTTCTTTCTCCATCTCTAAATCAATAGAAATTTTTTGCAAAGACTGTAA
CAAAAGGGATATTTAACTTTTTAAATATCTGATGGATAGTTTATTAGATATTTCCCAT
TAAAACTCTGAATGGCTTTTCCCACTTCTCTCTCCCTTACCACCAGATAAAATTA
TGCCAGCAATGATGGTTACCACCTAAAACCTAAAACCTTTTTGCTAAGTTTATAAGTTATT
AACATATTTAATAATTATTACTGCAATATTATCATCACAGTTATGGGTGATAACCATGA
30 TTACAGTTAAAGTAAAAATCTAACAAAAAATACGGAGATTTTAAAGCGTTAGATAAGG
TTTCATTTGAAGCTAAGAAAGGAGAAATCTTAGGAATTGTTGGAAAAAGTGGAGCTGGGA
AATCAACATTAATAAGAATTTAAGAGGAAGTTAGATTATGATGAGGGAGAGGTTGAGA
TTTTAGGTAGAAAAGACAACCTTTAAGAGATTACAGCTATACACTTGCAAAGAACTTCG
CACTATGGGCAGAGCCAGTTATAACAACATAATTAGAAAGCTTTATGCAATAAGAAACA
35 ATGCTGATGAACAACCTTCCACTGGAAGAAGATGGGAGGAGTATGAAAAACAGCTATAG
AAATTTTAAATTAGTTGGTTTGAACATAAAAAAGATGCCTTTGCAAATATACTGAGTG
GAGGAGAAAAACAAAGGCTAATCTTAGGAAGACAGATAGCTAAAATCTATGAAAAAGGAG
AGGGAGTCTTATTATTAGATGAACCAGCAACAATGGCATGCCAGCATCAAAACAAAAGT
TATTGGATGTGATTAAAAACATCAGAGACAAGTTAGGAATAACAGTTATAATAACCTCCC
40 ATTTACCAGAAATCCACAGATACCTTTGCGATAGGTTAATTCTATTAGAAAATGAAAAAG
TAAAAATGGATGGAGATGTTGAAGAAGTTTAAATGAATTTTAAAGAAGATGAAACCCC
CATACAAAAGAACCTAATATAAAGATAACGCAATAATACAAGTTAGAAATGTTTCTA
AAAGATATTACGTTGTGCATGGGGGAGAAACATTAACTTAAGAAACGTCTCATTCGATG
TTAAAGAGGGGAGAAATCTATCAATTATTGGGCCAAGTGGTGTGGGAAAACGTGAATTA
45 TGAGATTAAATGGCTGGTTTAGAGTTACCAGATGAAGGAAAAATTTATAGTTGATGGTATTG
ATATACTAATCTGATGGGAGAGAAATAGAGCTTAGAAAGAGAAATGGAATTATGCATC
AAGAGTTCTCCCTCCCATATTACCAACAGTTGAAATCTATTAAAGTATAGATTAGGAC
TTAAAGGAGAGAAAGCTATTGCCCATGCAAAGGCAAAGGCTGAAGAACTTGGATTATCTC
CAAAGATTGTTGATGCACTCTACCAATTAATAGACGTCCAGAACTCTGAGAGAATTTCAA
50 AGCTTCAAAGATGGGATTGACAGAGGATATAATCTATAAACTCTTCCACCAGTAGTTG
AGAGCTTTGAACCAGAAGAAATCTTAGAGGCTTTAGATTTAGGAAAAGATATTTTAAAGA
AAAAAGTTATCGAACTAAGTGGAGGGCAGAAAGTTAGAGTAGCTATGGCTTTACAGCTGA
TAACAAAACCAAAATCTTGTCTTGGATGAGCCGTTTGGAGACTTAGACCCAATAACTT
TAAGAGATGTTGGCAACTACCTAAAGATAATCAATGAGAGATTGGAACTACAATAGTTT
55 TAGTTTCACTGTGTAGAGTTTATTAAGGAGATTAGTGATAGGGCTATACTCTTAGATG
AGAACAGATTAGTTATGGAAGGGAATCCAGAAGAAGTTTGTGAAGAGTTTATAAGAAGAA
GTAAACGAAGGTTTATGAAGGAAGATTGAAATGCAAAAATTAATAATTTTAAACAAT
ATCTATCGGCTAAATTTCAAAGAGGGATAATATGATTATTGGTGTCTTAGCAATTCAGGG
AGATGTTGAAGAGCATGAGGAAGCTATTAATAAAGCTGGTTATGAGGCAAGAAAGTTAA
60 AAGAGTAGAGGATTTAGAAGGAATTGATGCCTTAATAATCCAGGAGGGGAGAGCACAGC
TATAGGCAAAATTAATGAAAAAGTATGGATTATTAGAAAAAATAAAAAATTTCTAATTTGCC
AATATTGGGAACCTGTGCTGGAATGGTTTTGTTATCAAAGGGACTGGAATTAATCAAT
TCTACTGGAATTGATGGACATTACAGTTAAAGAAACGCCCTATGGAAGGCAGGTAGATAG
CTTTGAAAAAGAAATTAATTTAAAGATTTAGGAAAGGTTTATGGAGTATTTATAAGAGC
CCCAGTGGTTGATAAGATTTAAGTGATGATGTTGAGGTTATAGCAAGAGATGGAGATAA

5

10

15

20

25

30

35

40

45

50

55

60

AATTGTTGGTGTAAAGCAAGGAAATATATGGCTCTATCATTCATCCAGAGCTATCTGA
AGATGGATATAAGGTTTATAAGTATTTTGGTTGAAAACCTGTGTTAAAAAATAAAGATTAA
AAGATTATTTCTATTTTATCTCAACCTTTGCATTTAAGAAAACCTGGTCCCCTAACATCTA
TAACCTTATTTCTCCCCATTATCTGTTTAAAGCCAATTCATCAATTTTITAGGTTTATGT
CACTCAAACCTCTAACTATTGGGACTCTGAACTTAAATTCATCCACATTTGAACTAAAG
CCTCTTCAATCTTAGCTACTAATTTATAGATAATCCCATCTATGTATCTAATGTTTGTAG
AAACTCCTTCTTCCCTTAGCTTTCTTTAAATTTGGGATATACTGTTCTTTAACCCTTCAA
ACGTTGGCGGAATGCCATATATATTTCCATCATAGACATAAACCTCATTTAACACAGAAG
GACCTAAAAGCTTTTTATTTGGFTTCATTCTCAAATATTTCTACTTTAATTACTCTTCTCT
CCCCATTGAAATTGAATTCCTTTTAACTTCAACTGAACATGGGCTTTCTTATCTTTAT
TTGCTATGCATATATCAATAAGCTCATTTGCAAAGTTGTAGAATTCATCCAATATAGGAA
CTTTATCAACTCTTATCATCCCAGCTATATCTCTATCACTCAACCTGTATTCATAAAATT
GAGGATAAACCATTTGCCCTAACATCCTCATAGCCGTAAATAATCATTTGCCAACCTCTCAA
CTCCTAAGCCAAGGTTTCATAACTGGCACATCTATGTTATATTTAGCTAATGCAATGGTG
AATAAACTCCAAAGGTTGCTACTTCAATCCACTCTCCCAACTTTGGATGATAGGCATAAA
CCTCTGTTTGTAGTTTCTGGTGTATAATACTTACTCTTTTTCTCATCTGGCTTAAACTTAA
ATTTTGTAATCCAAATTGAGCCAACAATCCTTCAGCAACTACCTTTCCATCATCTACAC
TAACATCTTCACCAACAACCTACACAAGATGCAGAGTGATAACTCATTAAATGGCTTCTAT
CCTCTCTTTGCTCCCTTCTAAAACATCTATCTATAGAGAATAACTTTAAAGGCAGTTTTC
TCTTCTTTATTAATACTGCTTAGAGTTATAAACCACCCAGATGTCATGTGGCTTCTTAAAG
TTAGAGTTGTTGATTCTGGCTTCAAATCTTTAAATTCAGGAAATGCAGTTTCTAAAACCT
TCAATCCCATTTCATTACTCACATTTAAAGCTTTGGCAATCTCAAAGACTAAATCATCCC
CATCTATAGCTCCTTTTTGTATAAATGTAAAACCTTCTCTCAACCTCTCTTTTTTCTCCT
CATCTATATCTATGCCCAAATTTTTTATAATCTCAACCTTCTCATTTCTTAAACCAACAT
CTGGCCTTGGTAATCCAGCCAAGTAAAAACATCTATCTAAAACCTGCCATTGCTTCTGGTC
CAAATTGCTTATAAATCTCCATCTCATCAACGATAAAGTGGATTAAATCATCTCTTCAAATC
CCATTCTTAGATAAGCTTGTCTTAATCTCTCTATCGTCTCCATCACTGGATGTGGCTTTC
CATAGACAGGCTTAAATCTTGGATATTTATGTCAATATGTTTATCCTTTATTAATGCCC
TTGCTCTCTCCATGCCGTCTCAAATCCTTCTCTGCTAACTCTAAAACCTTTTTTATAT
CAAATCTCATTTTATCATCCCTTTTATGTTTTAATTTTCATCTAATATCTCTAATTGCT
AATAAATCTAATTTACTTTGAGGCTTAAAGATGCCTTCTCTCAATATTCACAAATAGGATG
TTTTTCTTAACAGTCCAAACAATCTCTCACTTATCTTTTCAATAAAATATCTCATCCCTA
TTTTTAAAGTTTTCAAATAGCTTAAATACTCTCTCAAATAGCTCTTTATATCATCTCC
AAGGAATATAGCAAATCCTTTAACTGCCTCTTTCTAACTCTAAGAGATTTTTTGCAGAAT
TCTTTAACATCCTCTCCTAATAGTTTTTCTTGAATTGCCTCAACCAACTTTATTGGTTTG
CCTCCAAAGTAGTGCCAAACAATATCTATCTCTTCATCATTAAGTTATGCTTCTTTAAA
AAAGCCTTTGTTGTTTTATAGTCAAAGTCATCAACTAAGTAGTATTTACACCTATCTTTT
AATGTTCTTTCGTATAAACCCCTCTCTATAAATAAATCTATCTGAACCTAGGCAGAGGACG
TGCCATAGATGTTTCTCCTTAGTTAAATCTATAAAGAAGTTAAACAACCTATAAATTA
AAGCCATTTATTTTTAAGTCCCTATTTTTTGTAGTTTCATCTATAATTAGAATTGGTTGT
TTGCCTTTCTTCTTAATATCTTCAAAAATTTTAGTTAAATATTCAAAAACATTTTCAGAA
TTTTTTGTTGATAAAAATTCATTTAAGGTATTTTAGGGACTGGAATTCAGTTAATATC
GTTGATTTAACATCAATATCTTTGGTAAATCATTAATAAAACCTTAAAGATATTTTTTA
AGCTTTTCAATAAATGTCTCCTCATAGGTATTAACAAAACCTTCAATAAATCCTCATAC
TTAGAAATAAATGCTCTCTAAGGTTTATGTAAAAACAACATACTTATCCCTATCAAGC
TTATTCTCTATAAATATGCTTTATTAATGTAGTTTTTACCAGTGTATAGGGCCATAAATA
AAATAAATCAAATTAGGCTCAAAGATAGAACTTAACTAAATAATTGATTCTTCTCTCT
CTGTCAAAGAATTCATACTATCAACCAACTTAAACCTTTAAGCTAATTAAATCTGGCCT
TGGCTTCTTAAATCTATATTTCTCTCTGCAAAATATTACAAAACCTCTTAACCTCAATATT
GATGATGTCATCACTTCCAGGCAGAACTCTAACAAATATCCAATCAGCATTTATATCATA
ACTTTTAGCCAACCTCCTCAACTTATTTAAATCTTCTCTTTAAATATCTCAACGTCATC
AACAAAAGCCCCCTAACAGTTATCATAATCCAACACAACCACCTTGAGGCAAGAT
ATCCATTTCTGAAATAAAAATCTCTTACCCAATAGCTTTATAAAAAACCTTTTCAATCTC
TTCCCTATCCTTCAAATCTTATCTTTCAATATTTTACCTTTAAAGCCTTCTCTGCCAAT
TCCTTACAAAAGTTGCATTTGCTACATAATTTATGTCATGATTTCCAATACTCAATAGCT
CCATCTAATGCCCTATTGTCCAAATAATAGAAATGCTCCAACTCTCTTGGGCAGTCCAAC
AACTCCATCAAATTAACATCCACCTTTCATTTAGATAAGCATTTATAACTCTCTTTATC
CAGCCAATTGGATGGCTCCTTCCAGATATCTTAAATATATCAACTAAACCTTTATAATAT
TTCAAATCCTCTGGTCTTATGAAGGGGCTTTTTATTATTAGCTCTTTCTTTTAAATCTT
AGGTTTATGCATTTGTGTAATAGTAATCATCCAACGCTGGGATATTCTGGGCGTTTGCA
TGTGAGAAGAAATTAATATGCTGTATTCTCATGGGACATTTGTATAGACAAGCTTCATTA
ACTAAAATCTTTAGCTTACAGCTAACATTTCTCCCTAATCTCTTGGATTATATCAAAGTGT
CTATTTATTGAACATCTAAGGTTATAGCATAAACTTCTTCTCATCCCCAAAACAGGGCT
TTATCTAAGCTATCCACTAAGGCTATGCATGAGACATTAACCTCTAATCCATTATTTTTTA

5 GCTAAATCTACCAAATAAGGGTCTGATAGGGCAACACTATCAACACCAATGTTTTTTAGT
TGGCTGAATATCCAGTTTATATAGCTAATGCCTTTTGGTGTTAAGTGCATTCCACCAATG
CAAGATGCGTTTATAACAACCTCAAACCTAACGTTATGTTTTTTGGCATAATTAACCTGT
TTAGCCAAAGTCTTCAAAATTTGGTTTATAGAGGGTTGCTCTTCCAGTTCCCTACAAACTCT
10 GGAAAGCCTACATAGACTTCAAACCTCTCCTTTTTAAGCTTTTTATTTATCTTTCTAAGT
TTGTTAATCTCATTACAAATGATTTTTAAAGATTCAAAGTCTCCGGGATGTGAGATAGAG
AACAATTAATCACCATAAAATTTGTTTAAAGTAAATTAATAAACAAATAGAAATTTAATA
CCTATTCTTCATCTTTAACATAGTTTCTTAAATCCCAATACCTTCAATCTCACACTCCA
CAACATCTCCAGCCTTTAACTCTCCAACACCTGGAGGAGTACCAGTGGAAATGATATCTC
15 CAGGATAGAGTGTCAATTATTGAAGCGACAACTCAACCAATTCAAAACATCGAAAATCA
TATTTTTTGTGTTTGATTCTGCTTTATTTCTCCATTAAACCCTACACTCAATATTTAAGT
TCATTGGGTCTATGTCTTTAACTATCTCGGTCTTATTGGGCAGAAATGTATCAAATGATT
TAGCTCTTGTCCATTGTCCATCCTTCTGCTGTAAATCTCTCGCTGTACATCATTAAAAA
TTGTATATCCCATATATAGTCATTTGGCTCATCTTTTTTGATATTTTGCATTTTTTTC
20 CAATAACTATGGCTAATCAACCTCATATCAACTCTCTTAGATATTCTTGGTCTTATTA
TGTAATCTCGTTATAGATAATTGCTGAAGTTGGCTTTAAGAATATTATTGGATACTCTG
GAATTTCCATATTAAGCTCTTTTGGGTGGTCTATGTAGTTTAAACCTACACAGATGATTT
TTGTTGGCTTAATCTCTTTTATATTCAAGCTATCACCCTAATCTTTTGGCTTTATTGAATTTA
AATTTAAATCAATATTTTATATTTTCTCCTAATTTCTCAAATGAAATAATCATCTCCC
25 TAAATGCATCTAAACCTCCCTACTGAATTCATCACCCTCATCTAAATAATCATCAACAT
AGTCTCTAAAATTATAAACAACTCTCTTAAATAATAAGTTAATGATTCATTATCAACCT
CTGTTTTTGGGAACCTTAAATCTCTTTTTTAACAGCTCCATTAATCTCTCTCAAAATC
AATATTAAGAGATAGTTCTTCAATATCAAAACCAAAGCTTATAGCCTCATCTCTAAAAGT
GTCTAAATAATACACAAATAAAAGTCCATTGTTATATAGATTAGGATTTTTCTCACAGA
30 TTGATTTTACTTCAAAGCTTTCTTTATCAGTTTTTCAAAAATGATTTTAATAGAGATT
TTAAGGACTTTTTCATATTCCCCTCCTTAATTATAAAATAACAACCTTTCCATCTACAA
CATCAATTTTAAACCAAGGTTTATCTTATATCCGGTTTTTCTTCAACTATCTTTTTTCC
CTTCTCTCTTTCAATAACGCAAATAATGTCTTTTATCTCTGCTCCAGCCCTTTTTAAAG
CATCTATTATTGCAATCATTTGTTCCCCAGTTGAGATGACATCATCTATAATAACAACCTT
35 TATCTCCCTTCTCTATTCCGTTTAGATAGAGTTGCCCTTTGCTATATCCAGTAGATTGAA
AGACAGGAATCTCTCCTGGTAATTTATATTCTCTTTTCTCATAATCACGTAAGGTATAT
CTGTGTATAAAGAGAGGGTAGTTACCAAAGGAATACCCATTGCTTCAGCTGTAACCTAAT
TGGTAGCTCCTTCAAAGTCTCCTATCTTTATTATTCTTGTGCTACCTCTCTCAAACT
TTGGCTCAACAACCTGGAACCTCCGTCACCTATTGGATGAATAAAGTAATGATACTCCCTC
40 TTTTAACAATTGGGCATGATTTTAATGTTCTTCTAATAACAATCTTCCACCTCCAAAGG
TTATAATACCTTATAAACACCAGGCTTTGGTTTGAATATGTCTCCTGATTCTTTCAACTC
AGATAAATATTTTTCTAAATCCTCTTCTGGGATGTTAATTTTTTCAGCAAGTTCTTCATA
AGTAATTTACCAACATTTTCAATAATAGCCAAATCTTATCTTTTATGACATCAGAATT
TAAATTTTCAGTATATACTTCTCCTCTAAACTCATCTCCTCATTCTCCTCTTCATAAAG
45 TTCAGCCCTCTCAATAAATATTTCTTGTCTTTTTAATTTCTAAATCTCTAAGTTTAT
CCATCTTTCTATCTCTTTCTAATAATCTCAGCCATGATATATTCTCTCCATCATAAGT
TCTTGGTCTGCCAATGACATCAACTATGTCTCCTCTTCAATATACACTGGCTTTTCTTC
AAAGTATCTGACATTAACCTCCATCCACGTAAGGATATGATGTTTCCAACGTTTATATT
CTCAACTTTTCTAAATTTCTAACTCTCCTAACTTTTCTTCCCTCAATAATTAGGGCGTT
50 ATCAACAACCTCATTATTTAAAACTCTTCTGGATAGATTTTATAAGCAACATATCTCAT
TTTTTCACTGTTTTTATATATAAGTGGGACATTAATTGGGGCTGAAAGCCCCAACTTGAT
GGGCGTCGGGTATCCCAATAAGGCGGAGCCCTATGGTAAGCTACATATCTCATTTTTTCA
CCTGAAACCTTTAGTTAGTAATTTAAATTTCTTCTACACTTAAAAATAAGCATTTTAGAT
ACTCAGTCCCTTTAGAAGTTATTGGATGGTCTGGGCTTTGAGAACCATACTTTATAATCT
55 TAGCCCATTTTTTGGCTTTAAGCAAGCGTCTATAACCAAAGCTTTAAAGCGTCTGGTT
CTAAGGGTTGAGAGCAAGAGCATGTAACCAACAACCTATCAGCTAATTTAGCTCCAAATC
TATTTAGCATGTGATATCCTTTTATAGCAGATTTTAAAGCTTTCTTTGATTGAGCAAAAG
CTGGAGGGTCTAATATAACAACATCAAACTTCTCCCCATCCTCTATAAACTCCTCCATAA
CTTTAAAGGCATTCCCCCTCAATAAATTCATATCTATCTTTTGGAAATATTGTTAACTCCA
60 TGTTTTCTTCTGCCAATTTAATGCCTTTTTTGATAAATCCACTCCTACAACCTCAGCTC
CTCTTATCGCTGCATGAACTGAAATCCACAGTGTAAACAACATATATCCAAAACCTAT
CTCCCTCTTTTATAAACTTCTCAAGCTCTAACCTATTTCTCTCTGGTCTAAGAAAAAGC
CAGTTTTCTGCCCATCAAAATGTAACCTTTAAATTTTGGCTCTCCCTCTTGAATGATAGTT
CTGTTTTCTCTCCAGCCAATATTCCTTCTACTTCTGGTAATCCAGCTCTCTTTCTATTC
TTCCAGAACTTTTTTCAATATATGTCTCAATGCCTAAATCTAAAGAGTTTCAACAACAA
CATCCTTCATCTTCTCAATACCATAGTTAAATATCTGAACTGTAGCTATGTCAATTGTATT
TATCAATAACTAAGCCATTTAACCAATCTGACTGAGTAAACCATTCTATAAGTATCTT
TAAATCCTAATTTTAGTCTATATTCAATTTGCTTTAATATCTTCTCTTATGTAGTTT
CATCCAAATCTTCTTTCTCAAAGTCATTATTCTTACTTCTTTTGGATTTTTAAACCTC

-543-

5 TCCCTAAAAATTTTCTCTCTTTGAGTAGATATCAACAACCTTCTCCAATCTCAATACTGT
CAAAGTCCTCTTTATTTAAATATTATCCCTTGGAAATGATTAAATTTCTTTTTCTATAG
CAGAATATCCTCCAAAATCAACATATAGCTTTGTAGTCATAGCTAATTCACCATTTTATT
TTTCTTCTTTTTTCATTTAGTTTGTAGTTTTCAGTATATCTACACTTTGGATAGTTAGAGC
AACCAACAACTTTCCAACTTACCTTCTCTAACAACCTAAATCTCCTCCACATTTAGGGC
ATTTTCTTACAACTTCTTTTTTATTTATTTGGTTCTGTATATTTACACTTTGGATAGTTT
AACAACCATAAAATGCTCCATAAACTCCTTTCTTTAAATTTAGCTTAGCTCCGCACCTTTG
GGCAATCCTATCTTCTTCTTTAACCTCTACTTGTTTTAAAGGACATTCTGGATTTATGC
ATATCTCTCTATCTCCTATTTTTTAAATAGGTGATTACATGCATCACAACTTTGTTTG
10 GAATTTTTATCCTACCTTATCTGGTAAGGAGTATTTTACATCACATTCAGGATAGTTAG
AGCAGCCAACAAACCTGCCCTTTTTATGCTTATTTAAATTAAGTCTCCTCCACATTTAG
GACATTTTCCAACTTTTGGCTTTTTTATTTTGTGGCATCTAAGTTTTTGATAAGGTAGA
TTCCAATATCTTCTCTTTCTTTTAAATTTCTTCCAATATTTTTCTTAATCTTTTTCTAG
CCTCATCTAAACATCATCCTTTTTAATTTTTCTAAACTGTATTTTCTCCAATTTTTCTCT
15 CTAAATCCTTGTCTATCTTTTCATCGATAATTTCTGGGCAGAATCTTTTTAATGTCTCGA
TTACTGAAATTCCTAAGTCAGTTACTTTTTAAAGAACCATCATCAATGACATAGCCCCCTT
TTATTAATTTGTCTATGATCTCTGCCCTAGTGGCTTTTGTTCAGCCCTCTTTTCTCTA
ATTCCTTAATTATGCTTGGCAACAGTATCTTTTTGGTGGTTGCGTTTCTTTCTTGTTA
TTGTTATCTTTCAACTTTAATTATGTCAATTTTCTTTAATGGGGGCAATTCATCTCAT
20 CAATTTTGGGAAGTAATAAATTTTCATGCCATCCTTCTTTTACTGTCCTTGAACAGATA
ACTTAACTTCTCTCCTTTAATGTCAATTTTACATTTAAATATTCCTCTCTGCATTAT
CCCAAAAAGCAGCTAAAGTTCTTCTTGAATTAATCATAAATCTCCTCTCTTTTTCTG
AAAGTTCTTCTTTTGGAAATATCTACAATGTGTATAGCTGGATGTGCAAGGTCTTCTTCT
TTCTTCAACTGGTTTTAAATTTCTTTTTTAAATTTCTCTCTGCCCATTTTCCATAAACTG
25 GATGATTTTTTATTATATTTAGAATATCTTCCAATACTTTCTATCTTTTGGAAAGTTTT
GGCTGGATGTTCTCGGATAGCTAATTAGAGCATTCTCATAAAGCTTTTGGGCAATTTCT
GCGTTTCTTTGGAGATATTTTAAATAACTATATGCCTCTCTCTGTAGAGTTCTTAAGT
CAAAAGGTGGAAGTGGCTTTAACTTTCTTTTTGTTTTCTTTATTTCAACAACCTTTGGCAG
ATTTTTCATCTTTTATTTTTTCAATAACATTTTTTGCCCTCTTTTCATTCCAAAATTTCT
30 CTTTCTCGTGTATTTGCCCTTAAATTTATCTTTAATAGTGCCTCAATAACCCAATACGGCT
TTGGGATAAATTTTTTAAATTTCCAATTTCTTTTCAAGTAAAAAAGCTAATGCAGGACCTT
GAACTCTTCCAACACTCATCGTTTCCATCTATTCACTGCCCTTATGGCGTTTCATCAAG
CTCTCGATAGGTTTATACCAAAATACCAATCTAAATATGCCTGCTCTCTCCTGCATCAA
35 CTAAGCCGTAATCAATCTCATCCGGATTTTCAATGCTCTAACTATCTCTTTTTTTGTTA
ATGATGAGAATCTCATCTCTTTGCCCTTTCTCTTCCACAACATATTTTAAATGCGTGAT
AACCTATTAGCTCCCCTTCAATGTCCCAATCTGTTGTATATAGAAGTCTCTGCATCTT
TTGATAGTTTTTTTAAATGCCCTTTATGTATTTTATTTACATACTCTTTTCCCTTATCAACAC
40 TTGCAGGCACCCATTTTATATCAATCAATCTGGATAAAAGCCAAATCTTTATTTCTCTTTT
CAACTAAGGTAAATAGATGCCCAACAGCACTTGCTACTATAATTTTTTCCATCTCTTT
CTAATTCATAGTATGGAAGTCCATCAATGCTTTTTTCTTAGCTTTTCTTAAAGCGTTTG
CTATCTTTTTGGCAACACTTTGGTTTTTACAGATTATTAACGCTGTCTAATTTTCAGCCA
CGCGTATCTAACTGAATATATTATAATTTATATATGATTTCTTTGTAATTAGTTGTAGTT
45 GTGGTAAATAAATATTTTTGGGGATTTATATGAGGGATGATATTTAGATATCATAACCT
TAACAACCTGACTTTGGAACATAAGAGGATATGTTGGAGCTATGAAAGGTAGAATTCTAA
ATATTTTTAAAAAGTATAATAAAGATGCAAAAATAATTGACATCTCTCATGAAATAAAC
CATTTAATATATATACGGTGCTTATGTTTTATTAACAGCTATTCCATCTTTCTCCTT
CAGTTCATGTTGCAGTTATAGACCCAACGGTTGGGAGTGAGAGAAAATCCATCGTTATTG
50 AAACAAAAGTGGGTATTATTTAGTTGGGCTGATAATGGATTATTTACCTACGTAGCTG
AAAAATTGGGGATAAAAAGGATTATTTAAATTTGATGAAGAAAGATACAAACCATCTTCAA
CATTTTCATGGAAGAGATGTTTATGCTGTTGATGAGAGCTGAGATTTTAAATCAATAATGGCT
ATGATGGGGAAGAATTGGATGAGATGGTTAAGATAGATGAAACAAAAAGAGAGTTATAC
ACATTGACAGATTTGGAATATAATAACGAACATAAAAAAGGATGAAGTTACATTAAT
ATTATGATACCATAATGATAAAGATAAGGCATAAGAATGGCATTGAAAAGATTATAAAAT
55 GTAAGTTTGTAAAGTCTATTTTGGAGAAAAGAACACTTTATATGCTTAATAAATAGTG
AAGGATTTTTAGAAATCTCCAAGTTTATGGACAATGCCTCAAAGTTATTGAATGTTGATT
ATTTAGATGAGATTGAGATTATTTATTAATGTATTTTCATGAAAGAATTTATTTTATTT
TTATACCTACATGATAATGGTAAATTTACGGATAATAAATTTTATTGGTGATATTATGAA
GATTAGGGGAATTTGCTACAGATGTGGAGCTGAAGATGAAGTTATAGATGGACTCTGCCC
60 AATTTGCTATGCTCAGGAGCATCCATTAATTGAAGTTCCAGATAGAGTTGAGATAGAAGT
TTGTCTATGTGTGGTTCTTACAAAAGAAAAATTTGGCAAACACCAAAAAGTGAAGAAGC
ATTTGAGATATTGAATGAAATTGCTTATTATGCAACAAAAGACGCTATTAAAAAGAAAAG
TGTTATGGTTGAAGTAGAGATTTATCTGAAGTTACCCAACCTTCTGGAGGGAAGAGAAG
TAAGTTAATTATCCAGTGCATATTGTAGCCAGGGGAAGATTACCGGGAGAGAAAAGAGA
CAGAACCTATGAGAAAGATATAGAAGTGCATTTAAGGATGGTTTCAAGTGTCCAAGATGTTT

-544-

AAGATTTATGTCTAACTATTATGAGGCAACCTTACAAGTTAGGGCTATGAATAGATATTT
AACTGAAGAGGAGAGAGAGGAGTTGGATAACTTTGTTAGAGAAGAGTTGGCTAAAAGATT
AAAGAAGGATAGAATGGCATTATAGCAAAATTCATTCCACAAAAGAGGGATTGGATTA
5 TCAGCTTGGTTTCAGTTGGAGCTGCAAGGAATGTAGCTCAAAGAATTAAGAGAAATATGG
TGGAAAGATTACTGAACTGCTACATTAGTTGGAGTGGATAGAGATAGTGGAAAAGAACT
TTATAGAGTTACTGTTTCTGTAAGGGTTCCTGAATATAAAGTTGGGGATGTCGTTGAGTA
TAAAGATAAATACTACTTAGTTACTGCGATAACTGAAGATAAGGTTTATATGAAATCTAT
10 TGATTATAAAAGAGAAAAAATCGGATTAGCTTGGCATATAGCAGAGAAGGAAACAAAAAT
GGCAAAAAGAAAGGATGAATTAGACACTGCAACGGTTATAGCTACAACCTCAACCATAT
GGTTATGGATGACAAAAGTTATGAGGTTTATGAATTTGATAACATTGGAGATGTGAAGAT
TAAAGAGGGTGATAAAGTTAAGATATTTAAAAAAGAGGGGTTTCTTATTGGTAAATAA
AATAGAGGGAAAAGATAAACAATAACTTTGGTGATGATATTGATTAAATTAGAGATAGAC
AGAAGGGCTTACAATTCAATAAAAAATTTTCAAGGTTAGTTTATACAAAAGCCATAAAA
AATAGAGGGGATTACCAAAAAAGAGGAAATCGTTACTTTAACTTATAATGGAAAAATTT
15 GTTGCTAAGGCTTTATATAACCCATAATCAGTAATTTTAAAAATTTTAACTACTGAAGAT
GAAGAAATTGATTATGATTTCTTCTACAAAAGAATATTTAACGCTAAAAATTTATAGAGAA
AATATTTTAAATTATAAAAACACTTACAGATGGATTTATGCTGAAGGAGATGAGTTACCA
ACAATAATATTTGATAAATACAACGAGCTCGGAGCTATGCAAGTTGATGTCAAAGCTCATT
GAAAAGGAGTATTTAAAGATATTGTTGATATTTTATTGAATTATCTGACTTAGAAACA
20 ATATATGTCAAAGAGGAAAGAAAGGGAAGAATTAGGGACAAAATCTTTGGAGATAAA
AATAAATTTGAAACAGTTATTAAAGAGGAGATGCTAAATTTAAAGTGAATGTTAGAGGG
CATAAAACAGGCTTTTCTTAGACCAGAGGGAGAATAGATTATATCTTGAGAAGTTTATA
AAAGAGGGAGATAGAGTTTATAGATATCTGCTGTTATACTGGAGGTTTCTGTTTCATGCA
GGGATAAGAGGAGCTGAAGTTGTAGGAGTAGATTTGTCCAAAAGGCATTAAATTTGGCA
25 GAAGAAAACATAGAGTTGAACAATATCCAAAGGACAGATATGAGTTTATTGAAGGGAAT
GCCTTTGAAGTTATGAAGAGATGATTGAGGATAAAGAGAAGTTTGATGTTGTTATATTA
GACCTCCAGCTTTTACACAGACAGAGGATGACATAAAAAATGCCCTAAGGGCTTATGCA
TCTTTAAATTATTTGGGGATAAAGTTAGCTAAAAGAATATTTGTCACCTTGCTCTTGCTCT
CACCATGTAGATAAAGAAATGTTTAAAAGAACAGTTATATCTTCTGCCTTTAGAGCAAAA
30 AAAGAGTTAATTATGATTGATTATAAAGGACAAGCTCCAGACCATCCAATATCTATAGGA
AATAAAATCTTGAGTATTTAAATGTATTTTCTTTTATGTTAAGAATTAAATCCTCTTA
GCATAATCTATCATGCCCTTAAACATTTTCAACCCATCATCTGAACCAAGAATCTTTTCA
CTTGCTCTCTTGCGTGTGGGCTTAATAAAACGCAGTTTGTATTTTCATTGCAAACTCCA
GCTATATTATCAATAGAACCATTGGAATTTGCTTCTTCAGTTACTTCACCAAGTTTCATCA
35 CAGTATTTAAAGACAATCATGTTATTTTATACATATAATCTAAAGTCTCATCATCTGCA
TAGAATCTTCCCTCAGCATGGGCGATAGGAATTTTAAAACCTCTCCTTTTTTATAATAT
TGAGTGAATGGTGTGTTTGTATTTTCAACCCATAATATAAACCCATTACAGATAAATTTT
GCATTTAAGTTGTTTGTCAAAGTTCCCTTTTGAAGTCCCGCTCTAAACCAATTTGAGCA
CCATTACATATTCCTAAAACCTGGCTTTCTTCTTCAACCATCTTTTTTAGACCTTTAATT
40 ATAGAGTTCTTGGCTAATTTGCTCCTGCTCTTAAATAATCCCCATAGGAAATCCTCCT
GGAATAACTGCTCCTTTATAGCTATCTAAATTTTCTTGAGTAAAGAAAACAAGTTCTGGC
TCTCCACCAGCTAATTTAACTGCATGACATACATCTAAATCACAATTAGTCCCTAAGAAT
TTTGTCACTGCTATCTTCATGCTCTCCCTTGTTACTAATCCTGATGTTATTAATCTATA
GTTCTTTTCAAATATTTTGTAAATACTAAGGCACTGATGAACCTCCTTCCTAATGGAAGG
45 AGTTCAAACTTCCTTAATAAATTTTATTCACCTTTTGAAGAACTATAATTAGATGTTA
TTACATCAACATCTCTTAATTAATTTGGCATCTTATCAGTTCTTTCACTAAGTTCCA
TAATCTTTCTCTTTAATCTTTTCATCATCACACTGTTAATATCTCTTGCTTTAATTGTTT
TTCTCCCTTCCTTTCTGCAATTTTGTCTGCAACTTCAGTTGTTATCTTTATAATTTCTT
CAAGCATATTACAGAGTTCATCAACCGCTCTGCAGAGATGTTAAAGTCTGTGTGTTGTT
50 TCATAATCCTCTTTACTGTAGCTTTTGGTAACATAAATATATACCTCCAAAATTTTGA
AATAAAAATAAATAAATAAAGATAAATAAATGTTTATTTTATTTTGTCTCTACATTTAC
AGCCCCTATTCTAATCAATGGAATTAAGGAACGCTTCAATCTCATCCAATCCACTTTT
ATCTATCAATACAACCTACTAATTTTGGGCTGCATCTCTTTCAACTGCTTTATACACTC
CTTTAAAGTGCTTCCACTTGTTACAACATCATCTATGATAACAGCTCTCTTGTAATTTAC
55 AGCTGAGAAGTTTGTGATATTGAACAGTTATCTTTTCCCTTCTTCAGATATATGCTT
CTTTGGTATGTAGATAGTTAATTTCTTTACCTAATTCGGAAGCTACCAAAGTAGCTATAGG
AACTCCACTTGTAGAGACTCCAACAACGGTATCGAATTCGATATTCCTGCTCTTTAAAT
ATCAACTATTATTGAGCTAATGTATTTAACCTATTTGCTGAGCTACCAATATTTTCCA
ATCAATGAATATATCAACATTTTCAAGCTTTATAGCTTTTCTCCTCTTTTAAACAATTT
60 CTCAGCATTTAAAACCAAAATATCTTGCTGCTCCATTGATACATTTAGTTCTCCTCAGCAAT
CTCTCCAATTGTAAGTCCATTACTTTTTAACTCTATAACCTTTTTTAATAATTTCTTATT
CATAATCTCCCTCATTCAATAATGATTTTACAGTATATGTTATAACATCCCCAAATACTT
ATGCATTTGTATTGTTAGCATAACATTATCTTCAAATACTCTCCACATGCTTCCATAAT
TTCAAACAATTTCTTTGAGAAGGAGATTTTATATTTCCATGGGGGTTACTGGTTGAAT

GCATAAAGTTATATTTTCTATATCACTCAAATCCTTTGCTATTATTTTACATCCTCTAT
ATTTGCTCTCTCCATTATAACAACCTTTGCATAAATATCAGAAATTTAAATTATACAGCTT
TTTTATTGTTTTAAGCTCATTTTTTATAGAGTTTTTCATAATCTTCATCTTTTATATACTC
5 AAAATGCTCTTTCAACTTTATATCAATGGATGCGATATCAAAATAAAAAATTCTCTCTGG
AAACATCCCATTGCTCTCTAAGAAAGTTCTGTATCCTTTATCTTTTAAATTTTCAGCGAT
TTCTTTTATTTGTTTATGGTAGAGTAATGGCTCTCCTCCTGTAAGAGATACTGCAACAA
ATCTGGTGTTTTTAGCTTATCTATAGCGTTTATTATGTCTTCAATCTCCATCTTTTGCAG
AGTTTCAAATCTCCACTCCAGGGATTTTTTCCACTCTATTAAAATATCCTTTGCTCTC
10 TTCATCGCAATAAACACAGTTTAAATGGACATCCAGCAATCTCACAATATAAACCTTCT
CCCTATATATTTTTCTTCTCCCATTTATTGAGTTAAAAATTTCCCTTATCATCTTACCCCA
TTTTATTTAATTCTCACTTTTTAAATCATCAGGTAAAGAGAAATATGCAACAATCTCTAA
AATTTGGGCAACAATTATTACAATAATCCCAACAATCACTATTAAAAGTAGTGTTCCAAT
AAAATACAGCAATCCACAAATCTAAATGAATCAACACCAGTGTAATATGAAACCTTTTC
15 ATAACCTTTCTTTATAAAGTAACCTCCAATAACTGAAAGGATATAAAACAAAATAACACC
AACTAAAAAAGATGACATTGCCGTTAGTCCATAATCTAGTGGGATAAATGAAAGAGATAC
AAAAGAAATTCCTACTGCAAAATTTACAATTAATACAGCTATTATCCATAAAACACACC
ATATAAATATTTTTTAAACACCTCATCATCTTAAAAATCTTTGAAATCTTATTTAATGC
CAGCACTATTTAAACATATCCAGCAATAGCTAAAATTTCCCAACTGCATAAGAACTAA
20 ATTTAATACCGCCCCAATACCTCCTAAATATTTAGCTTCTTTTAAITTCATTTTATCAG
CTAAAAATAAACTAAAAATAAGCCTCTTAGAATCTATAATCTAATCCCTACAACCTTTACT
TAATCCATTTTACACCATAGGGCTCTGCCCTATTGGAATATCCGGGATGCACTGCCTCG
CTAACGCTTGGCAGTGCCTCTTAAACCTTATAATCTAATACCAACAACCTTTACTTAAACC
GTTTTCCATATAAACACCATAAACACATCTGCCTTACTAACCATCTGTTCTCTATGGCT
25 TATAACTATAAATTGGCTGTCTTTAGAGGCGTTTTAATCATATCAGCAATTAAGAGAC
GTTTTTTACATCTAAAGCGGCATCAACTTCATCCAATACATAGAAATGGCGAAGGATTTAG
CCTTTGAATAGCAAATAAAAAATGCTAAAGCTGTTAATGATTTTCTCCCCCACTCATAGC
ATCTAAGCTTAAAGCTTTTTGCTCTTGGAGATGCATCTATCAAAATCCCTCCTTCAA
TGGATTCTTCTCATTCTCTAAGCTCAGCTTCCCAATACCTCCAATCTCCTTATATACTTC
30 CTCAAAGTTCTTAGCTACCTTGTTAAAAACCTCCATAAAGACTTCTTTCTTTTTATTTTC
AAGCTCTTCCATCAATTGGAGATATTTTTCTCATCTCTCTCATACTCTTTCTTTTTTC
TATCAACTCCTTGTATCTCTGCCCACATAGTTATAGTCTTCAATAGCCCTCATATTAAC
TGGTTCTAAGCTTTTTATCTCATTCTCAAGCTCTCCTATATATATCTCAAGTTCTTCAAT
GTCTTTTTTCTCCAACCTCTTACTTACATCAACTTTTTCGCATAGATAAAGCTTTCTCTC
35 CTCTTCCCTCCAACCTTACTTTTCACTCTCGCCTTTTCAACCATGAGTTTCGTTTATCTGTT
TTCAATGTCTCTAATCTTCCCTTAATATCTCTCTCTCTCTCTTTCTAAGGTTTCTATCTC
TTTTCTCAAGCTGTTCCTTTTTTTCGGTCAGCTCTTTTAGGTTTTTAGCTAATTCCTCATA
TCTCTTCCCTCTTCTCCTCAATATAGATAGATTTTTTCAATACTCTCTTTATAGAACGA
40 TATATTCTTCTCCAATATGACTTTTTTATTTATAGCTCAGAGACTTTCTTATTCAGTTC
CTCAATCTTTGGAATTAATATCTCTTTAACTAAAGTAAGCCCTTTATCAATCTCATTTT
TAATTTGGCTTTCTCTTTCTCTAAATCTTTAATTTCCCTTCAATTTCTGTTCTCTCTT
TAAGTTTTCTCACTTTTCACTCTCTCAGCTCATTAAATATCTTCTCCCTCTTTCAAT
CAACTCATTTATTTTACTCTCAATTTCAATTAATCTTATTTAAATCTCTCCCTCTTAAG
45 ATTCAACTCTCCAACCTCTTAAATATCTTTATTTTTCAACTCCAACCTCTTTTATCTT
TATAGTGTCTTTTTCAGCAATCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT
TGTATTTTCAATCTCCATTTTTTGGCAGAACTTCTCTTTACTATCTTACTTAATCTCTC
AATTTCTTCTTTTATCTTCTCTCAACTCACTCTCAATGGCTATAATTTCAATCAGCTATCTT
ATTCAGCTTACTTAAATCAACATCAACCTTTATCTTTGCCCTTACTTTTAAAGTCCCTCC
AATCATCGCCCCACTCGGCTCTATAACATCTCCATCTAATGTTACAAACCTCACCTTTCT
50 GTATTTTTAGCCAACTCCTTAGCTATATCAATATTTTCAACAACCTACAGTGTTCCTCAA
CACATACTCAAAACTCTCCTATATTTTTTCACTCAAACTCCACTAAATCAATAGCTCTACC
AATAACTCCATCTTCAATATAATAACGCTCTCTGCCCTCAATTCTATCCAATGGCAA
AAACGTGGCTCTTCCAAGCTTTCTCTTTTTTAAATACTTTATAGCTCTAAGTGCATCATC
CATTCTCTTAAACAATATAGATTGAGCTTATTTCCAGCTGCTACTTCTATAGCTGTTTT
55 ATACTCAATTTTTGTCTTTTCTTAAATTACCAACAATGTGATAATTTCCGGTAAGTTGGC
ATTCAATATCTCTCAATTTGCCCTATCCATAGATAGCTCTTCCATCTCCTTTAAAGCCTT
GATTCTTGCATTCTCTTAACTACTCAGCATGTAACCTCATCAATTTAGCTTGTAGTTC
TTTTCTTTTTTCTCAAGTTCTTTAATCCCTCTTTGAAAACCTCAATCTCAACGTTTAA
ATTTTCAAGCTCTAAATACAATGGCTTAGTATCAACGCTTTCAACAGTTTCAAGTCTCTC
60 CTTTAACTTTTTAATCATCTCATTGTTTTTTTCAATTTCAAAATCTTTCTGTTTATCAA
ATTATCTAAATCATTTAATCTTTTTTTAGCCTATAGAGTTCGTTCTGGTTTTTAGCTAT
TTCATCAGCTATCTCCATCTCAGATTCTTTTAAAGTGTGATGATGCTCTCGCTTTCAGC
AATAGCCTCTTTAATCTCTCTTTTTCATAGTTGAGATTCTTGATTTCTCTTCAATTTTC
TTTTATCTGCTGTGTTCTTTCTCAATAATGCTGTCTCTATTTTCAATAATCTTCTTTGAGT
TTCTTTAATCTCCTTCTTATTTTCAATTTCAACTTCAACCTTTTTTAGCTCATTTAT

-546-

5 TGAGCTAICTAAAACCTTCTTATCGTTCTCAATCTCTACTTCAAGCTCTTTAATTGATT
ATGAAGCTCTAAAACCTTCTTCATTGCCCTTCTCGTTGAGTTCATTTATGATGTTGTTAA
TCTAAGCTTTAAATTCTCAATCTCTACATCAATTTCTCTAACCTTGCTTAAAAATTCATT
TTTAAGCTCTTCCAAATTTTAAATGTCATTTTGGATGTTCTCTAAAAGAACATTTAGGTA
10 GCTAACTTTTTTAAATATCAAAGCATACTTAGCAGCTTTTAGCTCTTCATTTAATTTTAT
ATATTTTCTGCATCTTCTTCTCTTTTTTAAGCTTCTTTAAATGTTTTCAACCTCACT
AATCCTTATATCAATCATCTCAATTAACCTCTCTGGCTTTTTTAACTCCTCCTCTGCCTT
CTTCTTTTTTTCATCAAACCTCTGCTATTCCACTAATCTCATCGATAATCTTCTCTCTC
AATTGGTGAGATATTGATAATTTCAACAAATCTCCTTGTGAAATAACATTATCTCCTAA
15 AAGCCCCAATCTTCTAAATAAATCAATAATTTTCATGCTTAGTCATCTTCTTCTCTCTC
CTTATCGTTCTCTTCCAACTAAATAATAGTCTGTCTCTCCACTACTCTTTATCCTTCT
TAAATTTCTACTTTATCAGCATTAACATTGAAGGCATTATTCTCATTTGTAAATATAA
ACAACTTCAGCAAAATCTGCCCTCTTCCGTTGTGGTAGGTTATCAAACCGCTGAATCT
ATTTGCTCTCAATTTTTAGCAGAGGTTTTTCCAAGCACAAATAATATAGCATCGACTAT
20 GTTAGATTTTCCACTACCATTAGGCCCACTATGGCTGTAAATCCCTTTGGAATATCTAA
AGATAATTTTTTAAATGATTAAAGTTTTTGTAGTCTATTTTTTCCAAAGTAACCATTAC
AATCACCAGATGATGCAAAACAATTTTCACTTTTTTTATATCAACTAATCTAACTTCAA
ATTGGCAGAATTTATTTCCCAATCCCCAGCAATGAGTTTTCTATTATGTAACACTTTTTAT
TAAATACATTTTCTATGTAACCTGCCAAAACCTGCCCTCAAAATGACATAAGGGCTTTC
25 CAACACTTCAGCAAAATCCAGAACAGCTTATACAATCATATATTCTAATCTTTATAGGATTT
CACTAACCATTTCATTTCTTCCAAGTTTATACTCTTTATAGAAGTTACTTAATCTTTAA
AATTCTTAAATTCAGATTTTACTAAGTTCTTTACCAAAATAATACATTAACATTTTCAT
TGTCATACCAATATATTTCTCCTCAAATTCATAAATCTTAAATTTCTAAAAATAGACACAT
CTACATTTCTCCCAAGTTCTTCCATTCTCCACTACGGGAGTATTTAGGAATTTTAACTGA
30 TCTTCTCTCCACCTAAAGGGTGGAGGTTCCAACACGGAACACCCCTGCTACTTATCGTCGC
CGATAGGTCACAGGGCAGGTGGTGTCTCGGGCAGAGTCAGAGCTACCCTCAATAAAGC
ATTATACTAATTTCAAGTATATAAACTAATGTTTGTCTCGCCGCTCCCTATCTTCCGAG
CGTAGCAAGGAGGTTAATGAAATTCGAAGGATTTCTATCTGAATCCTCTCCGAGCTAAAG
CTTGGAGCTTCTTAGCAACAATAATGGTGAGTTTATAAAATATATACTTAACTATTT
35 ATATGAAGCTTAAGTATAATAATTCATAAAATATGAATTTATGGGATAATATGTTGAGAG
GTAAAGAAGCTACCTTAGCTGGGATAATAAGGGTCATCATTTGAAGAAGAGCCAGAGACAC
AAGATGAAATTGCTGAAAAGCTTGAATAAGTAGGAGGTATGTTGCTAAGCTTTTAAAGC
CATTGATTGATGAAAAGATCGTTAGGCATCCATATATTGTAGATAGTAATTTGCATA
AGATAAATTTAGAGTTTGACGAATATATCTTAATGAAAGAAAATAAAACTACCTTAGAAA
40 AAATGGAAAAACACTTTTAAATAACTTGGATTTGGTTTATACGGCTTTAAAAATAGTG
ATAAGAAATTGGCTGAGGATATAATCATTAAAGACTATGCACTGAATAAGATGGAGGAAG
AGGTTAGGATACTCTTAAGTATGAATGCTTTAAATATTTGCCTGGAGCTTATGCCAATG
CTTTGGCTACAATAGCATCAAATCTTGAGAGGTTGGGGGATTATATAGCAAAACATTGCTG
AAGAAGTTTTCATGGACTTAAATTAGATAAAGACATTGAAAATGAAGTTAATATGATAT
45 TCACCCTTGTCAAAGAGATGCTAACTGAAGCTATAGACGTTGTTAAAGTAAGAAAAGG
AGACAAAATTCATGAGCTTGAGGAAAAGTTGCATAAAAACCTTGAGTTATTGCTAAACA
AAGTTTTAGAAAATAAGAGGGAGGATTTAACTTCTATGTTCAAGTTTGGTATGTTTTTAA
AGGACATTGAGAGATTTGGAGATAGATGTGTGAATATTGTAGATATTGCGTTAGAGTTAT
ATCACAAACATACCAAGAAATCCAATTCCTGAGAGGTTGAAAAGGGGAATGTTATAAGGGA
50 ATTTTTAATTTACACCTCTGAGCATAAGCGAAGAGGTGTTAGCTTTGATGAAATGGAAAG
CTTTGCTTTTCCAGCTACAAATCCGTTAGGATTTGTTAACTTTATTAAAGTTTCGGAGGG
ATGTTATGAGAGAATTTATATTCAAAGCAAATAAAACCATAACCTCCTCAGATATAAAT
TAAAGGATTTACCTGGGAGTTGTGGAAGGTTGGATTTGTTATGCAGATGTGTGAGTGACG
CTTTCTTTTTATCCCATGATATAAGGAGGGACGTTGTTTTCTATGCTGTTCTTTATGGAC
55 AGCCAAATCCTCCTGTTTGCATAAAATTTGTTGGTAGTGAGTTAAAAAGGTTTCTCCAG
ATGAAAGGAATATAGCAATATTTATAAAAAAGCCCTTAAAAAATTTGAAGAACTTGATG
AAGAGCAAAGAAAGGATTGGAATCAATCAACTCCTGGAATTTACGTTAGAAGATTGGGAT
TTAGGAATTTAGTTTTGGAAAAGTTGGAAGAAGGAAAGAAATATTTATTATTACATATGA
ATGGAGAAGATGTTGAGAAGCTTGATATAGAAAATCCAGTTTTTATAATTGGAGACCATA
60 TTGGTATTGGAGAGGAGGATGAAAGGTTTTTAGATGAGATTAAAGCTAAAAGAACTCCC
TATCTCCATTAGAATTGCATGCAATCATTGTATTACTATAATACACAATGTTTTAGATA
AGAAAAGAAATATGTGAGATTTAATATGTTGTTAATTTGTTAAATATCTAATTTCAAAGTTA
TTCTCTCAATATTTTAAATCTATAGTTGTTTTACCATTTATAACCAGAGTTCCACTGT
TTATGACTAACTTGTATCATCAATCTTCAATATTTGGTGTATTAGATTAGAGTTA
TGATAGAATCATCTTTTAGTTTTAAGTCTTATTTCAATAATATTAATGTTATCTCCATTTT
CCTTCTTTCTCGTAATTCATTAATTAAGCCTCCTAATTTTGTAATTTCAGAATTTCTTT
CATCTATTTTTTGTGATCCAACACATTATCTACTACTATATCTCCACTGGAATTTTCAA
GATTTACTTTAATATTATATGGAGAATCTTGTCTAATGGTTCAAAGAAAGGTCTGTATT
TTGCTGGTATATAGAGACAAATCCCCACCAAGCGTAAACCAAAATACATAATACTGT

-547-

CTCCCTTAATAACAAAAATACACAATCCCACCTCTTTAATATAGTCATTAGTATTATATAT
TGACATATTAGTATAATCAAAAAAGAAGAAATATATTAACTTACGTAATTACATATAAC
AATTTTTGAGGGTTAAGTTATGAATTTTGAAAAATTTATAGAGGAAAAAGTAAATCAAAA
5 ACTCAAAGAATTGAGGCTAAAAAACTCCTTAGAAATTTTAGAGAAATTAGATATTAAATAC
AGAGCTTAAGAGAAGCTTTAAATCCACGCTTTTAAAGAGATTAAATGGAGAGAAAGAGTT
TTATAAAATTTCCATTGATAAAAAGCCAAAGGCAGTTGTTGCATTTAGTGGAGGAGTTGA
TAGCTCTACATCTGCAATAATAGCAAAGCAGATTTTTGATGTTAAGGCAGTTCTTGCTA
10 TTCAAATATATAATGACAGATGAGATGAGAGAAAATGCCAAAACATAGCTAAGAAGAT
TGGAAATAAGTTTGAATTTGTGAGTATTGATTTAGAGGAAGTTTATAAAGGAGTTGTTAA
TGGTAAATTTTATCCCTGCGGTAGATGCCATAAAGTTATCGAAAATGCAGTTATAGATTA
TGCCAAAAAATAGATGCTGAGTTTGTATATTTGCTGATTTATTAGCTTTTGATATTT
AGCTTTATATAGGGAGGATGAGATTTTAGATTTAATCTACCTCTTTTTTTGCCCTAAC
15 AAAGGATGAAGAGAGGGAGATATTAAAAACAATGGCATTGAGCTAAAAATGAGTTATGG
CTGCCCATTTGTTAAAAATTTACCATAAACATAATAAGGGATATAAATTTACAATTCAAAG
GATTTTGAAGGAAGTTAGGGGAAGGGTAGTTAATGAAGAAGAAGGATTCAAAAATATAGT
TGAGATTTTAAATCAGCAATAAAAAACCTTCCAGGGAATATATAAGATGTTACCTTCAA
CTTTAACTCATCACCAGATAATTATGCCCTTAGAAGCTTTAACCTCTCCATACTCTTTA
20 AAACCTGTTTTGATGATTTTGGCTAAGCCAACCTCGATAACAATCTTCTCCATATATG
GAGAGATTAAAAATAAATCAGCTCCTCTTTTTTTGGTTCATACTTAGGCTATATCCTT
TCTTTTTTACAAAATAAGTATAGATAAAACGCTACAACATCTTCTAATAAAGAGCCATAAC
AAACATCATCTATCACAACCTCCCATTTTATGCCATAATGCTGTCTTTATAGGAAGTGGGA
GGAATTTTATCTTTTGGGATTTTCTAACCTTTTTGTCCATTGAACCATAAGGATAGATTT
25 TAAATAACAATTCACACTTTTCTAAGACATCAACTAAATTTATCAAAGTTCTTTTTGCGA
TTTCAAGGGTATTGCTAAACTTTTATAGCTGTATCTCTCTCCCTTTGGATTGGCTAATA
GATATAGCAATTTAAAGGCTTTATCTAACGTTTCCATGTCAAATCTTTCACCTCTCTAA
CATCCTTATAAATAATCCTCTCTAACATTTGTATAGATTTATTATAAACTTCCAATTCAT
CATCTTCCAAAGCAAAGGGTAAAGAACCAATCCTTAAATATTTTTTAACTCTTCTCTA
30 AGATTTGGGAATAAACTTTGGCATACACTTTTTGAAGTTGTCTAAGTTGTTATTTAAAA
TTACCTCTTCAAATAGGCTTTCAATCTTGATTTTTTTGTTAAATATAAATATCTCTAA
AAGTCATTGGATAAATAGGTTTATGCAATGCCCTCCTTGCCAAATCTGGACTTTCTCTAA
GCTTTAAAGCAGATGAACCAGTATTTATAAAAAATATTGGTGGTGTCTAGAGGTTTT
TTAAACCATAATCCCAATGCCTTTCTACTGAATTTTCACTCAAGCAATAGGATTTCTCT
35 CTTCTGATAGATTGATACCAAGATTTCTGAATAAGCTTTTTAAAGCATCCATTAATTTGA
TGTCGTTAAGTTTTAACTCATCCATTGAAAAGTATAAACTCTATTAGGCTCTATCTTTA
ATCTTGCATAGTGATAGATTTGAGATAAAAGTGTAGTTTTTCCCAAGCCTCTAAGTCCAT
ACAAGAGGATTAACCTTTTTTATCATTCTCAATGTATTTATCAACCTTTCTTTTTAAAA
TATCATAATCAAATCTCTCTCTCTTTGTTGTATCTTGAGAGTATTAAAGGAGTTTTTG
40 CAATGTGGTTTTAAATATAGTCATTCAACTGAACCATAATACCACCAGTATAGCCATTG
ATTGAACCAATATATAAAGGTATGGGAAAACTAAAAAGCTCTAATCATTTTAATACCTA
AAAAATAGCAAAATATTAGATAATTAAATTAAAAAAGTTTTTATAACTCTGTCCAG
CCTAATGATTTTTTAAAGGACTTCTGCATTGACCTTTCCAGCTCTATAGACTTTTCCAGTT
GTCATATCGTTAATTACAACCACAGCTGGAGCAAACATTCCTTTGTCAATCTTGTAGAAG
45 TCGTAATCAGCAGCTTTAAACACTTCCATGAATGGTTTTCCATAATCTTTGAAGCACAA
GATGGGAGAGCTTTGCATAAGCTTTCAATGTCATCGTTTTTCACTCTTAATGTAGTAG
TAGGTTATCCCAACATACAATACCATACGTTTGTAGCTCCCATCATTTGCCAAATCATCC
CCTATTATTGGAGCAATTGGAGCTAAACCTGCCGCATATTTAACTTTATTAACATCAAAC
TCTAAAACCTTCTAACATCTTGTATGTTCCGTTCTCAACGACTCTTCCACTAATCTGGATT
50 GAACCAACTAATGAAGCAGTTGGAGCAACTAACAAATAAACGTTTTCTACTTCAACACCA
CATTCTTTAGCTACATATTGAGCAACTTCTTCATTTGGCAATTTTGAAGCCTCTAAACAT
AAAACAGCAACATCAGCATCATCTTCATAGCCAATCTCTTCATAGGTCTTTTTTGGCTTT
TTAGCTAAAGCCCTTGCAGGTCTGAACCCATAGCAAAGTATTTTCCAACTTTAACTGCC
CATCTGCCCTTTGAGCTCCCAATGTAGCAATTGCTGGATGTGATGCTTTATCTTAACA
55 TAAGGTAAGGTTATGCCTTTTACACTCACATGGTGATAAGGAGATGCCAATGAGCTAAA
CCTCCCAACAAATCTTTGTGAATAACTTTCCAGCTTTCCAGCTTCCAGGGACATTAAC
CCACAGTCCAAACAGTAGCTCCATTTTCTAATTTTATGACGTCAATATTTATCTCTCT
TTATTTTCTATCATTTTATTACAATTTCTAATGCCTTTTTTATTTAACTCAGCATCTTA
60 TCACCAATGGAACATGTAGCTTTATATGGGGTTCTCCCAACATGGTCAATTATAGATATT
TAGGCAATTTTCAATAAAAATTTTCCGTTATAATCTACTATATAAATCAGTTGGGATTG
GGTGTCTCAGTTTCCCAAGGAAACCTCTACCCCTGTCGTGGTAACCCCGAGCCACCC
ATAATCTCTTTAATATTCCCTAAACCTCTTTTAAAAATATTATAGCAACCAACTAAGT
CTATTAAAGAGTTTAAACAATTAGAGCAATAAACAACCTGTCTTCTTGGGACTCCATT
CTACTCCCGCATATAGGACAGATTGTTGATGTGTAGGCAGGATTAACCAAAATAACAATT
GTTTTATAACTTATTTTTCAATTAGGCCATTCCAATTTACTCTATCTATTTTTCTATTG
AAGTATTTGCTTTTATACATTCTCTTTTATTTAAATCCTCAAAAACAAAATTGCATCT

-548-

GGAAATAATCGAGATAGTTGAATAGTTAGTTTATGTAAGAAATCCTTAACCCCTATTTCTT
CTTCTTTCGAACAACCTATTTATCTTTCTCATAGCTCTCAAAGGAACTTTTAAAGTAAT
TTTTTAAGAAAATCAATTTTTCTATCATAAACCTCCTTAATTCGATGTAATTCAGTTAAA
TCTACTCTAGTCCAACCTTCTATCGGATGAAATAAGTCAAGAGACCTTAGATTGCTATCC
5 ACTCCAACGATCATCCCTTTATCTGAATAGTTTAGGTTATCTTTGAAAGTTAAAAATGTT
TCCTTTTCTTTTAAAAATAATTTCTCCAATGGTTAAATTTTTAACCTTATCAAAAAACCAC
TCATTTTTTAATATTTTAGAATTAGGTAGTCCTTTCTTGGTTTATCGTTATCCGTATCTCT
10 CCTTTTTCTTTATCGTATTTTATTAGGGTTGTCTTAACTCTAACGAATAGCCTTTTTGCT
ATCGCTTTTGTTTTAGTTCTATAGCCCTTTTGTAGTTAGACGCCCACTTTGCAGGATA
GAATAGGAGGTTTTTATAATCCCATCGATGTAGTGAGAAGCATAATCCAGTTCTCTAAG
AGTTTGTCTTAACTCTCTTTTAAATTCGTTTGATTGTTGGTAATTTGGATTATCTTTT
TTAGTGATTTGATATTATCCAAATCATGTCTATGCATTCGTTAATTTGTTCTTACAC
15 TCAATTAATAAAAGCTTTAAGTGGGTAGTTATGGCTAACTTTGTAGGATAGAAGCACTTGG
TAGAGCAATCTTTATTATCCTTTAATTTTGTGTTTTATTTGACATATTAATCGTTAATGTA
TTTTGTATGATATTATACTGTTATATACTCAAAAAAGTTTCTCTATGTTACATTTGTT
TATAGATTAACAGTTTTGGAAGGTAGATAAATATATCTTATATAACTTGATTTGTATT
CTTTTATAGTTTATGATTTAGGTTGATTTAAGCAGAGTAATCAAATAACTAAATGTGAT
AATATGGACATGAAGGAGTGGGAAATATTTTACAATAAAATTTAGGAGGATTTTGGATT
20 GATAAAGACAAAGATGTTGAAAGTGCAGTAATCCTTAATAACATTTTAGAGAAATGCCAAT
ACAATACCTGTTGATAAGCTTAAGATATTATTGAAGGTAGAGAAGTTTTATCTTTGGT
GCAGGTCCATCAATAAAAAACATATCAACATTTTAAAGAATTAAGGGAAATAAACTAT
AAGAATCCTATAATAGTGGCTGATGGTGCATGTAAGCATTTTTAGAAGAAAATATAATT
CCAGACATTATTGCTCTGACTTAGATGGAGATTTAGAGGCGTTATTGAGTGCAATAGA
AAGGGTTCTATAATTGTAGTTCATGCACATGGAGATAATATTGAAAAAATTAAAAAGTAT
25 GTCCCAAACTAAAAATGTCGTTGGAAGTTGTCAAATACCAAATTATAAGGAGTTAAAT
TTGAGAAATGTAATCAATTTTGGCGGATTTACAGATGGAGATAGGTGTTGCTTTTTAGCC
TATCATTTTTAAAGCTAAAAAGTTAATCTTGGGAGGAATGGATTTTGAATTTATATAACT
AAATATTCCAGACCTAATATAAAAGAGGACATAGCAATAGGGGATGAAATAAAAAATTA
AAGTTGGAATATGCTAAACATTAATAAATTATTTAAAGGATAAAATAGAGATTGAATTT
30 TTAATAAATTTAGGAAGGTTTATATACCATTCTAAATAAGTAATAGAAGATATGCCAAT
GTAAGTGTGACGATTATAAAAGAACTAATTTATACATTAATAACCAAATATTACACGTGA
TGAATATGATAACCGTAATAGGTTTTGGTTCTTTTGGTAGAAAAGTTGTAAATTTTATTA
AAAATAAAGAACCAATTACGATTATTGATAAAAAATATTGATGATGCTGATGATTTAGTAA
AAGAAGGAGTAATCTGAATTTGGAGATGCCACTCAAGATGAAGTGTGAAAAAAGCTA
35 AAATTGAGAATGCAGATATTGTATTAAATATTAACAAATGAACCAAGTAAATAGAAGGA
TAGCTGAAAGAGTTTGTGAGCTAAGTCCAACTCATACAAAATTGCAAGAGCCATTCCAA
GATATCCAGAACTTTATATGGGGCTAAATATAGATAAGATTATAAACATCTTAGAGAGTG
GAGCTAAAGACATTGCAAAGGAAGTTGAAGATGCAAAATTAAGAGAAAAATTAATGCAAT
TAAATCTGTGTTAATAGAAGGAAAGAAAGATGCATGAAGTTGGAAAAACAGAAGAAG
40 AAAAAAAGCTCCTCTCTAACTTAAACACATATAAACCCAGACCCTGATGCTATAGCAA
GTGCCATGGCTTTTAAACACTTGTGAAAGATGGGGAGTTGATTACAGACATTGCATATG
GGGGAATATTGGTTATGATGAAAATAAGGCAATGATAAATTTGTTAGGGATAAACTTT
TAAATGTTGAAGATATTGACTTAGATAATTACTGTGTCATTGCAGTCATAGATACATCAA
CATCAAAACAACCTACCTATTGAACCTCCAAACATTGATATAATTATAGACCATCACACA
45 ACACCGATTTAACTGCCAAATATATGGATGTTAGACCAGAAGTTGGAGCCACTGCTTCCA
TTTTAACACAATATCTTATGGAATTGGATATAGAGCCATCAAGAACTTAGCCACTGCCT
TATTTTATGGAATCCAATCAGATACTGACTACTTTTAAAGAGAAAACGTCAAAATTTGGATT
TTGAAGCAGCAGCATACCTTCAAAGCTATATAGATGCTTCTATCTTAAATATGATAGAGA
ATCCAGAAATTTCAACAGAGGTTATGGAAGTTTTGGCTAAGGCAGTAATGAATAGAAGAG
50 TAGTTAAAGGTAATATTGCCCTTAGCTTATGTTGGGGAAATAAGTAATAGAGATGCTCTAC
CAAAAGCAGCTGATTTCTTATTAAAGATGGAAGGGATTTCAACAACATTCGTATTTGGTA
TTGTTGGAGATGAAATTCACATATCTGCAAGAACTAAGGATTTAAGGTTAAACCTTGGAG
AGATATTAAATAAGGCATTTGGTGGAGGAGGACATCAAACAGCTGCAGCTGCCAAATTC
CTTTAGGAATATTAAAGGCAGTGTCTGATAAAGAAGCTTTAAGAAAATTAGTTGAAGAGG
55 CAATTAGGGCTAAGATATTGGAAGTTATTGGTATAAAGAAGAGGAGAAATAATTAAAT
AAATAATTTAAATAATAACTTTCTTAGATTTTTTATGTCTTTTAAATCTAAGGAGCAAG
ATACGTTAGAGAGATATTTAAGGCTATTTCTTTTGCTTTTAAATATTTTATCTTCATCAG
GTTTTTCAGCATTCAAATTTGTTGTATATTTTACATATCCTGTAATCTATAAGGTAAT
60 CCCAATTGCTTAAAACTTAGCTATTTTTCAATTTCTATCAATCAACAATATTTGGAA
TTAAGACAGTATCTATTTCAACCTTAAATTTGAATTCATCCCTATATTTCCCTATATAAC
TTATACAATCCAAACTTTTTTGTAGAGCATGAAGTTAAATATATATGTTTATTTTCAT
CATAAGCCTTTAAATCAATATGTATCTCATCAACTTCAAGCTTATCAAGCATATCTTTTA
AATAATATCCATTTGTAGATAGCATAAGATAAAAACCTCATCTTTTAAACAGCTTTGTTA
GTTCAAGACAAGTCATTTTGTAAAGTTGGCTCTCCACCAGCAATTAAGATTTTATCTAATT

TATAGTTCTCACTAACTTCTAAAATTTATTTAAAAATCTCATCTACACTATATTTTTTAC
 AGGATAATGGTTTAAAGAAGCAGTATTTACATTTAAAGTTGCATCCATAAGTTAAGAGCG
 TTATCTTATCACTTAAAGATATATGGGAAATTAGCATTAATCACCAAAAATTTTACTTA
 5 TACAACCTTCTCAGCATACTCCTTAGCCATTCTCTCAGCATCAAAGTATTCAACAATATGA
 TTAACGCAGTTACAAGCTTTTCATCCACCATCTTTCAGTATCATACATGTCAGCAACTTCT
 TCTAATAAATTGTATATGCAGTTAGCCACATAGGCATCATCATCCCTAACTCCATCGCCA
 ATTGTAAAGCTATCATCCGGATACATTTTAGCCCATTCTACATGCCATCCATCTAAGGTA
 CTCATGTGAATAGAAGCGTTCATAGAGGCGGTCATTCCAGATGTTCCAGATGCCTCATGA
 10 TTTAGTTTGGTGTGTTAAGCCAAATATCTGAACCCTGCTTTAACATCTTACTCAGCTTT
 AGTTCATAACCAGTTAGTATAGTAGCTCCTTTTCATATCTCTTGTCTTTGATACAATCCAA
 TTAAGTAGCTATCATGTTGTGGTCATTGGATGGGGTTTCCAGCCCAATAACCTGT
 ATTCTTTTCTTTTTCAACAACCAAGTAATCTCATCTCATCATGAAGCAATATATAGCGT
 CTTTTATAAGCTGTGAATCTTCTTGCCCAAAACAACAGTTAGTCTATCTTTTTAAAAATC
 15 TTCCAGTTTGGTCTGCTACTTCTCAAATAGAATTTCTTTTAGTTCATTTTTCTCTCT
 CTCAACATATCAATATCATATTTTTTTGCCGCTCTCTAATAACAGGGTCTTGCCAGTAG
 TATTTATCTTGAGCGTTAGTTATAGCTACTATTTACATCTATCCTTAACCCAGCTCCAC
 ATTCTATCGCAAACCTCTTTATGCTTTTTAGAGACAGCATTGGCTCTTTACAAACTCTT
 AATGCACAAACTGTATAGTTAATGGATTTCCTCCTAATTTTTTCAGCTAATTTTACATCA
 20 ACATTTCCAAAGAATCCCATGGATTTAATAAGTTAATGTCTTGGGTTTCATTTCCCTCT
 GGTAAAGGTGTGTGAGTTGTGAAAACAGTATGTTCTCTTGTGTATTCAAGCCCATATTCT
 TCTATCAGCTTAAAGACTAAAGGTAAAGGATGAGGCTCATTATGTGGAAGAGCTTTACA
 TTTTCACACTCTTTGATAACTTTATATCCTCCAATTCCTAAACAATCTGTTGTGCTATA
 TGAAGTATATTGTTGGCATCATACAAGTTGTGAGTTATAGTTCTTGAGAAATCATCATTT
 25 TCTGGAATATCTGTTGTGTAGAAAATAAATAGGGCATGTTCCAAAAACATCTTCTCTAAT
 TTATAAGCTTTAACCCAAACAGTGTGTTGTTTATTGTAAGTGGGACTTTTAAATG
 TCTTCCAAAAAATCATAGTATTTTCTTATATATTCAACTTTCATCTTCCCTTCTCTGCT
 CTTAATTGGTCATAATATCCATAGCTCCATAATATTGAAACTCCTACAAGAGGTTGATTC
 AATCTTTTAGCCGCTCTAAAATGAGAACCAGCTAAAAATCCTAATCCTCCAGCATAAGTT
 30 TTTAATGGTTGGTGAATTGCAAATTCATACAGAAGTAGGCAGTTGGTTTCATTATCTC
 CCCCATTATTTTTTTTAGGATTATTCATAATAAATTTTTATTAAATTGAAAGACGCCAA
 AATAGATTCTTTATTTTTTAAGTAATGCCTTAAAAATAATATGAACCTAATGAAATCAA
 TCTCTTTGCCATACTGTTTATTTAATATAATCCAGCCAACAATCCATAGTATGATTATTA
 AATATATTACGAAAAATAAACTACGACTAACTAATTAACATTACAATCCCTCAGAAAT
 35 ATTCAGTGTGATGAATTAATATCTATTTTATTTATGTGGTTTATTTTTTATGTTTATT
 CCTTATATTCCTTAAGTTTTATTAGTTGTAAATATTTGGATATTCAATTTATATATGGCA
 AAGGCTTATACTTAGTTGAAAATAAATAAGTAAAGGAAAATTATCAAATTTAAAAAT
 ATTTAAGTATGTGATTGTTATGGTTTCATGTTGCATGCTCCGAAAATATGAAAAAGTATTT
 TGAACAACATTGTTGATGAAGTTAAAAAAATTTACAGAATAGCTGAAGAGTGTAGAAAAAA
 40 AGSTTTTGACCCAACCTGATGAAGTTGAGATTCCCTTAGCTGCTGATATGGCTGATAGAGT
 TGAGGGATTGCTTGGGCCGAAAGGAGTAGCAGAGAGAATTAGAGAATTGGTTAAAGAGTT
 AGGTAAAGAACCAGCTGCATTGGAGATAGCTAAAGAAATTGTTGAAGGAAAATTTGAAA
 CTTTGATAAGGAAAAAAGGCAGAACAGGCAGTTAGAAGTGCATTAGCTGTATTAAGTGA
 AGGAATTGTTGCTGCTCCATTAGAGGGAATTGCAGATGTTAAAAATCAAAAAAACCAGA
 45 CGGAAGTGAATATTAGCTATCTATTATGCAGGACCTATAAGAAGTGTGGGGAACTGC
 TCAAGCTCTATCTGTCTTAGTTGGAGATTTCGTAAGAAAGGCAATGGGTTAGATAGATA
 CAAACCAACAGAGGATGAGATTGAGAGATATGTTGAGGAGGTTGAGCTTTACCAATCAGA
 AGTTGGGAGTTTTCAATACAACCCAACAGCAGATGAGATTAGAACAGCTATAAGAAACAT
 CCTATAGAGATTACTGGAGAAGCTACAGATGATGTGGAAGTTTCAGGGCATAGGGATT
 50 GCCAAGGGTAGAGACAAACCAACTGAGGGGAGGGGCTTTATTAGTTTTGTTGAGGGAGT
 TTTATTAAGCTCCTAAAATATTGAGGCACGTTGATAAATTAGGAATAGAGGGATGGGA
 CTGGCTTAAAGATTTGATGAGTAAAAAAGAAGAAAAGAGGAGGAAAAGGATGAAAAAGT
 AGATGATGAAGAAATAGATGAAGAGGAAGAAGAAATTAGCGGATACTGGAGAGATGTTAA
 AATAGAGGCAACAAAAAGTTTATAAGCGAAGTTATTGCTGGAAGGCCTGTTTTTGCCCA
 55 TCCATCAAAGGTTGGTGGATTTAGGTTGAGATATGGAAGGAGTAGAAACACTGGTTTTGC
 TACTCAAGGATTTTCATCCTGCCTTAATGTATTGTTGATGAGTTTATGGCTGTTGGAAC
 CCAGCTAAAAACTGAAAGGCCGGGAAAAGCTACATGTTGTGCGGTTGATAGCATTGA
 ACCACCAATTGTCAGCTAAAAAATGGAGATGTTATTAGAGTTGATACAATAGAGAAAGC
 TATGGATGTTAGAAATAGGGTTGAGGAAATTTTATTCTTAGGAGATGTTTTGGTTAATTA
 60 TGGGGATTTCTTAGAGAATAATCACCATTATTGCCAAGTTGTTGGTGTGAGGAGTGGTA
 TGAGAAGATATTGATAGCTAATAATATAGAGTATGATAAGGATTTTATAAAGAACCCAAA
 GCCAGAGGAAGCTGTTAAGTTTGCTTTAGAAACAAAACTCCACTACATCCAAGATTCAC
 CTATCACTGGCATGATGTTAGTAAGGAAGATAAATCCTATTAAAGAAATTGGTTGTTGAA
 AGGAAAAGAAGATAGCCTTGAAGGAAAAAAGTTGGATTGTTGATTATAGAGATAGAGGA
 AGATAAAAAAGCTAAAAAGATCTTAGAATTAATTGGCTGCTGCCACTTAGTTAGAAATAA

AAAGGTTATAATTGAGGAGTATTACCCTCTACTCTACTCACTGGGCTTTGATGTTGAAAA
TAAAAAGGATTTAGTTGAAAATATAGAGAAAATCTTAGAGTCAGCCAAAAATAGTATGCA
TCTTATAAACTTATTAGCTCCGTTTGAAGTTAGAAGAAACACTTATGTATATGTTGGAGC
AAGGATGGGAAGGCCAGAGAAAGCAGCACCAAGAAAGATGAAACCTCCAGTTAATGGTTT
5 ATTCCCAATAGGTAATGCTGGAGGGCAAGTGAGATTGATAAACCAAGGCAGTTGAGGAAAA
CAATACAGATGATGTTGATGTTTCTTACACAAGATGTCCAAATTGTGGAAAAATTTTCATT
ATATAGAGTTTGCCCATTTCTGTGGAACCTAAGGTAGAGTTAGATAACTTTGGAAGAATTAA
AGCTCCATTAAAAGATTATTGGTATGCCGCTTTAAAGAGATTGGGTATAAACCAAGCCAGG
10 AGATGTTAAGTGTATTAAAGGGATGACATCCAAGCAGAAGATTGTTGAACCATTAGAAAA
AGCTATATTGAGGGCGATAAATGAGGTTTATGTCTTTAAAGACGGAACCTACAAGGTTTGA
TTGCACAGATGTGCCAGTAACCCACTTTAAACCAAATGAGATAAACGTTACTGTTGAAAA
ATTGAGAGAGCTTGGCTATGATAAAGATATTTATGGCAATGAGTTAGTTGATGGGGAGCA
GGTCGTTGAGCTAAAACCACAAGATGTTATCATCCCAGAGAGTTCTGCAGAGTATTTTGT
15 TAAGGTAGCTAAATTTTATAGATGATTTATTGGAGAAGTTTATAAAGTTGAAAGGTTTTA
CAACGTAAGAAAAAAGAGGATTTAATTGGGCATTTAGTCATTGGAATGGCTCCCCACAC
ATCTGCTGGAATGGTTGGAAGAATAATTGGTTATACAAAAGCAAATGTTGGTTATGCTCA
TCCTTATTTCCATGCTGCAAAGAGAAGAACTGTGACGGGGACGAAGATTCTTTCTTTT
GCTATTAGACGCGTTTTTGAACCTCTCOAAAAAATTCCTACCAGATAAGAGAGGAGGACA
20 GATGGATGCCCCATTAGTCTTAACAACCATATTAGACCCAAAGGAAGTTGATGGAGAAGT
TCATAATATGGATACAATGTGGAGCTTATCCATTAGAGTTTATGAAAAAACCTTAGAAAT
GCCTTCACCGAAAGAAGTTAAGGAGTTTATGGAGACAGTTGAAGATAGATTAGGAAAGCC
AGAGCAGTATGAAGGTATTGGCTATACTCACGAAACATCAAGAATTGACTTAGGGCCGAA
GGTTTGTGCTTATAAAACATTAGGTTCAATGTTAGAAAAAACCACTTCCCAATTATCAGT
25 TGCTAAGAAAATTAGGGCTACAGATGAAAGAGATGTTGCTGAGAAGGTTATTCAATCCCA
CTTCATCCCAGATTTAATTGGGAATTTAAGGGCTTTCTCAAGGCAGGCAGTTAGATGTAA
ATGTGGAGCTAAGTATAGAAGAATACCTTTGAAAGGGAAGTGTCCAAATGTGGCTCTAA
TTTAATATTAACGTCTCAAAGGGAGCTGTTGAGAAGTATATGGATGTTGCAGAGAAGAT
GGCTGAGGAATATAATGTAAATGATTATATAAAACAAAGATTAAAGATTATTAAAGAGGG
30 GATTAATTTCAATATTGAAAATGAAAAAGCAGACAGGTTAAGTTGAGTGACTTCTTTAA
GATAGGATAAATTTTAAATTTTCTAAAAAAGTGGTGAACCTATGAAAGTCATTCCCTT
AGCTTCTGAAAGCTTGGGGGTTAGGTCTTTAGCAACCTATGTTAAACAAAGGATGTGGG
GATTTTAATAGACCCAGGAGTTGCCTTAGCTCCAGATAGATATGCTTTAAAGCCAAATGA
35 TATAGATTTGAAAAATTGAGAGAGATGAGAAATAAAATCAACGACTATGCGAAAAAATC
TAATGTTATACTATCTCCATTACCATACGACCACTACACTCCATTTTGTATGATAT
ATACTTGGAAATCAAAGGATTATGCTAAAGAACTATACAAAGACAAAATCTATTATAAA
ACATCCAACCTGAGTTTATAAATAAAAGTCAGATGAATAGGGCAAAAAAATCTTAGAGAG
CGTTAAAGATATTGCAAAAAAGATTGAATTTGCTGACAACAAACATTTAAATTTGGGAA
40 GACAGAAATAAAATTTTCCCTCCATTCCACATGGTAGGGATGATAAATTGGGATATGT
CTTAATAACAACAGTTAAAGAGGGGAAGTTTAAATTTATGCACACCTCTGATACTCAGGG
AATAATTTTGTATGATATTAGAGATTACATAATTAAAGAAAAACCTAATCTAATACTTAT
GGGAGGCCCGCCAACATATTTGATGCATAGATATGGAAGAAAAAGAAATTTAGAAAAGACAAA
CGAAACTTAAAAATATAGTTGAAAATACTGGGGCTGAACCTTATAATTGACCACCATT
45 ATTTAGGGGATAAAAAGTTTAGAGAAAAGATTAATGTTGATTTTAAACAGTTGCTGAATT
TTTAGGAGAAAAGAAATTTATTGTTAGAGGCATATAGAAAAGAGATTAAAGCAAGGAAAAGA
TATTAATGAGTTGTTGGATAATACATCAAGAATAAGAATAAAGTTATTACCGTATAACT
ACCAAAATATTTAACCTCGATGATGAAAGTTACCCCCACTGACCTTTTTGGGATGAAGAA
ATCGGCCTGTCTGAGAGGTATTATTTATTAAGAAATTTTAAAGAGGCATCATCGAGCGTA
50 GCGAGATGATGCATCCCTGGGTATACCAATAGGGCGGTAGCCCTATGGTTCCGGCACTGT
CTGAGAGGCGTTATTTATTAATCTTTAAATTTTATTATCTTTATAATTAAAAATTATTA
GGGATTTTATGTTTGTAGATGAGGTTATAAACAATTTAAAGGAAATGAATTTCTAAAC
ACCACTCTTTAACTAAAAGTAATAAAAAATAAGCTATATTATGCAGTAAAACAGCCAGAT
GGTAATATAAAAGTAGTTCTTCCCTTTGTTTTGAAAATAAAATTTTTTAAACTTTCT
55 GAATATAAGGATGGAATAGAAGGAGCTACACAAAGAGTTATTGAAGAGATAAAGCAGGAA
ATAATTAAGAAAAAGAGATTTCTTCCTTTAGCTGGATATTTTGGTGAATATATAAAGCT
CTTTATGAACCTTTAACAGTAGTCAATTGTAATTTAAATTTGGGTATGACTTGTGGAAA
GTTGATAAATACACTACATCGAAGGAGATAAAATTTATTTAATGCTTAGAATGATTTTT
AAAGAAAAAGACAGTAAAGAAATTTGTTAAACAAATCAATGAACCTTGTAAATGACTTAGAT
AAGTTCATTAAAAAAATTTCAATTTGATTATTAATTTGATGAAGCTAAAAATATAATAAT
60 CAAAAATACCTTAGGGACAAGTTGGATGAGCTTGGTTTAGTTTGTCTTATAGCAAAATAT
TCAAAGCCGGCAAGGAAATACACTGAAGTTAGAAGGCATTATAGGATAGCAGGGCCTAAA
GATGTAAATATTCTTTTGAATGTCCAGAAGAACTTGAACCTATAGAGATAGAGCTTAAA
TATGTTAAAAAAGTTAAAGGATTAGGGATAAAAAAGAAGGAGATTTATAATAACCGGA
AGAAATGCTCAGGGAAAAACAACCTTCTGCAGGCAATAGATAGTGGGAGAGACGACCAT
TTAATTTGAGATGGGAGGGAATTTATAATAACCACTAAAAGTTTATCTAAGGCATCAACT

5 GGGAGTATGGAAATGAGTGGGCAGGATATAAGCCTATTTTCCAAAACTCCCTCCAGGA
ATTAAAGGAAGCCCTAAAGCAGTTTATGGAAGTGCCTCTGGCTCAATGTATATGGCTTAT
CAGATACAAAGAGCTATAAAAAATAAACTAAGCTTATTTAATAGATGAGGATAATTCA
10 GCGGTAAATTTATTAGTTAGTGGTGTCTTAAGTAAGTGGTTTGAAGGAGTTAAATCGTTG
CCTGAGATAATTATGGAAGATAGAGAAAAATTAGGAGATAGCTCTTTTATTATAGTTACA
AGTTCGTTGGATTTATTAAGTCTTTGGGAGATAGGGCTATTTACTTAGAAGACCATAAA
GCTAAATATCTTGACTTAAGTTATTTTAGGGAGGAGTTGGGGAGATATTATTTAGAGTTG
GCATCTAAGTTTATTGGAGTAAAAATACGGGAATGAATTTTGTCTAGAAACACATTTA
15 TTTTAAATAATGAAGTAAATATTAATTTTGTATCGTTATCAACATTTAACATTTAATTCT
GATTGGGATAATTATGAGCAAAGAGAGCAAAATAACTCTAATTGGTAGTAAATTAGCAAAA
GACGGGAGGAGAGTTTATATACTTAGGCGAGATTGAAGAGTGTAAAAATTGCAAGTTTAA
AAGACTATGCCATGGAAATTTGGAAGTAGGAAGGAAATATAAGATAGTCTCAGTTAGGTC
AGCAATCATCCTTGTATAGTTTATGAGGGAGGAGTTAAGGTTGTTGAAGTAGTGTATAGC
TGATTGACAATTATGATTGAGTCAAAAAGGCACCTGAAGGAGTTGTTTTAAATCATGA
20 ACCAATAACTTGTGATAACTTTGATTGCGAGTATTATAGTTTTTGCAATTCGAGGGGAAT
AAAAGAAGGGGAAAAATACAAATAAAACAGGTTTTAAATGAGAAAAATAACTGTCCATT
TGGAACTCATTAAAAAAGTTATAGTTGAGTTAGTTGAAAAATAAATAATTATTTTTTAA
CTATTTGCGATCCCCGGGAGGAAGTCTCAAAATATCTTCATCATCAATTCGGTAAT
CTTTAAATATCTCTTTTAACTCTTTAACAACCTTTCCCTTCTCTTATTGTAAGGTTTTA
25 ATAAAACCCACTTAATAAACTCTTTTGTAAAGTTTTTGGAGGTGCTGTTGTTATTTTTA
CATCTCCATCGTATTCAATAACTCCAACACCTAATTCTAAAGGTGATTTCTATAATAAT
GCCCTCTCTCTCTAATTACAAATGCCCTCTTTTTAAATATTCCCACTCTCAGCTGTTT
TTGATATCTGCTCTGGCTTAACCCAGTAGGTATCTATAGCCCCATATCCAAGCTTCCAAG
30 CCTTGAATGAGAGACGGAGAATTAGCAACCTCTCCAATGTCTCTTCATCAACCTCTT
TACCTTGAGTTTTTATAACTGTGAATGGAGCCCTTGGATATCTGCGTGGAATACAATAT
CATCTTTATCAGTATATTTTTGATAATAATCTCGTTTGTATTGCATCTTTTCCAGCAA
TAACTAAGAATCCATTAATAACAGTCCATTTAAATTTCTCATACCCTTTCTTCTCTTCC
TAATTTTTTCTTCATCTGCATGGATTCTTTTTCTTCAACTCTTCTCTCTCTCTCTTTT
35 TAAGCTCTTCTATCTCTTTTTAGTTAGTCAATAGCATTTTCTATTCTTCAATTTTAT
TTCTCAACTTTTAGCCTTTTCATAGTAGCTTTCAGCATTTTCAAATGCATTTTTCTTA
TATCTAAAGAACTCTTTCTTATAACTTTATCATCAACCTCAGATTTAATCTAATAA
TTATCTCTCAATATTTTCAATTTATTTTCAATCAATCTAAATTTGGATGCTCTTTAT
TTTCTCTAATTAATCTTTTTTATTCTTGCCCAATCCATTTTTCTCTGCTGCTTATAG
40 CATTCAGCAATTCTTCAACAATTTGATAGTTTGATAAATTAATCCCTTTAATTTGGT
TTTTCTCTGCATCTTCTTTATACCTCTCAATGTCTCTAACTGCCTTCTCAATATATTTT
CTTGTCTCTCAATTTCTTTCTCAATTTTGTATTTTCTTTTTTAACTACAACCTTTTGTTA
AAAATTTGGCAAAGTAGTCATCAACAGCCTCTAAAAAGCTGTTATAGTACTTTTTCTCTA
AACCTTTGTATTTTTTTAAATCAATAGGCACACGTCAAAGTATTCATTATCCTTTAAAA
45 CAATCTGTGGCTTTCTATTGTTAAAAATTTTCAATCAATAGATTTTGAAGCTTCAAAGA
GCTTTTTAATTTCTTCTCACTTAAATCTCTTTTTTCTTGTCTATTTAGCTCTTTTAC
AAATCTCTTCAAGCGTAAAGTCTTCAATACCAAGACTCTTGATATTAATCTAACGCATT
CAACCCCTTTATTATTCAAGAAATAATCTTTAAAAACCTCATAGGCGATAGAAAACCTTA
AATTATATGATTTTAGTGGCTTTTGTGGAGGGAATTTGTATTTTCTTGGGACTATAT
50 TTCTCGTACTCCATCTCTCAACCTAAGCGGAGCTATAATTGTATCCTCATTATTTAAAA
ATATGATATTTCCATCCCCAACAGCTCAGCAACCAATTTATAAATCCCATCTCTGTTT
CAAAGTGGAAATAACTACTCTATCAAAATTTACCTGCTCAATTTTTATTAATTTGGCAT
TTTTTAAATATTTTCTTAATAACATGGCAAAGAGGGTGAAGTTTTGGTTTTTCCCTCT
CATAATTTGTTAAAGTTATATACTTATATTTACCAATGCTTATAACAAGCTCTCTACTCC
55 CGCCCTCAGGAACATGGATTTTTAATATCAACTCTCTGTTTTGCTCATTATCAATCAAAA
ACGCTTTTATCTAATCTACCGTTAATGAGGTTTTGTAAATTCATCCACAACACAGCACAT
CAACATTAGTTATCTCACTCTTCAATCTCACCAGAAAATATTATATTTTTCTTTAGGA
TATTTTATTATTGTGATAATATGGAGAGGGAAGAGTTTTTAAAGTATTTAAGACAGGGA
AATATGATAAATTAGCTAAGTTAATTAATAGTTATTCAGATATTTTAAAGTTTTTAGATG
60 AGTTATTTACATCTAACAAAAAGATGATGTAAGAAGAGCATTGTTGGTTTTAAAAAGGT
TAGATAACGAGGTAATTGAGAGATATCTATATTATATCCTCTTAAATTTAAATGAAAAAA
GAATTTATAGCCAAAGAGCGGAAGAAATATTAAAGAAAAATAACCAACAAAGAGAGTGTG
AAGAGGCAATACTTGAAATTGCAAAAAACCTTTGGATGAAAAATAGTTTATTTATTC
TACAAAATATGAAAGAAGGAATATTTTCTTTAGAGCCATCCTTGAACATACAAAAAGTA
AAAACATGGAAGAAAGTATAAAATCTTATTAATAAATTTAATTCAGAGATGATATTAA
AAATCTTAGCTAATAAGTTATTTCTCAGAAAAAGATGAGAGGGAACCTACAATAAATA
TATTGTTGAATATAGTTGATTCTTTAACTGACGAACAAAAAATATCCTAAGGGGTCATT
TAAGTGTCTCTTATTGGGGATGAAGATAAGAAGCTATATAGAAAAATTAACAGCTAT
TTGAAAAAATGGATATTCAGCTGAGTTATCAGATGAGCAATAAAATCACTACTAAAT
CTCATGGAAAACTACCCTAAATATAATTTTAAAGAGAAATATCAAACCTTCTGCTAAGT

-552-

5 TTTACAATAGAGAGTTTTTTAAAAGACTTTTTATATACTGGGGATGAAGAGAAGCAGTTTG
TTGGAGTTAAATTAATATCATTAAAAAAGATTCAAAAAAGAAGGTTGATTTATTATTTA
GATTTTTTAAATTATGGATATGGGAAAGCAAAACCGCTGCCATAAGAGAACTTAAGAAGA
TAGCTCAAAATAATAATGAGTTAAAAAATATATAGAAAAATAAACATTGATGTATGCAA
10 AAAAGATGAATTTAGGATTAATAATATCATCTCTAAGAATATTAAAAGAATTTGCAAAAA
AAGAGCATTTAGAAATTTTAATTAATGAACATAAGCGATTGAAAGAGTTAGTTTATAAAT
TAGAAGAAGAGAAATTTATGGGAGGATTTAGACATTTGTTAATGATGGAAGAGGAAATAA
GGAAATGCAATGTTGCCATGAGATTGATAGAGGAGATTGTAGCAGAGATTTGTTTTAAAAA
ATGATATCCATTATAATGATTTAAAGATATCTGAAAAACTTGGTTATGAATTTTATAGAA
CAATGGAATTAATAGGGGTTAAAAATCTAAACCTAATAGATATTCATGAGTTTTTAGAAG
ATGTTAAAAGAGATGGAGAACTTATAACTTATTTGTCTGGGATTGTGATTAACAACAATA
AAATAGATGATAATTTAGCTAAGAAAATTTGGAGGTAAGTAAAAGGCAGAGATGGAAAG
ATAAGATGTATTAATGCAAAACAAAATTATGATTATGCATCTTTAAATAGAGTTGATA
15 AGATTGGAGAGATTATAAATATGGCGGAAGGTTATTATTCAAAATTAGCTTTTATCAATG
GGTTTAAAAGTTTATTGATGAGAAATTTAGATGAAGAAAAATAAATTTATTAATTC
CAAAGATTGCTGAAATGATATACTCAACAAAGAAATTAAGACTAATGGCTTTGGAATTTT
TTAAAACTACCCAAATGAGCTTGTTCTTCCATATTGATTAATGAAATTGGTAATTATA
GGGGAGAGGATAAATTAATGATAGATGTTATATCAAAACGTTATATTTAAATATCCGAATA
20 ACATACATAGTATTAGGGAGTTGTTGAATACAGATAAGAGAACTCTGCTTTAAAAATAC
TGCTTAAAGTTAGTGAGAAAAGACCAGAGCTTTTAGAAGATTTTATATATTGCTTGCTG
GAATGTATAGTTCTGCAATGAAGAGGATAAAAAAGCTAATAAAGAAGATTTGAAAAATA
TTACTACTGAAGAACAAAAATTAATCTTAAACCGATAATTGGGGATTTATAACTTCCGT
TACCTTCATAGGCATAATTAAGAGGCCTGCCGAGCGTAGCGAGGTAGTGCATCCGTTTT
GATCAACCTTTTAGTAAAAGGTTGGATGGCTATGAGAAGGGATGAATACTTTGAAAAATT
25 ATTAGAAGTTATTGAGGAGTTAAAGATTGAAGCAGAGGAAAAACCAATTATTGTTGAAGG
AAAGAGAGATGTTGAAAGCTTAGAGAAGTTAGGAGTTGAAGGAACTTTATTATAATAGC
TAAACTCTCTATTTATTTAATAGCTGATGAACCTTGTAAGGAAAAGAGTTAAAGAAGTTAT
TCTATTAAGTACTTTGATAGAAGAGGCAGAATGTTGGCTAAAGCCATAATAGAGGAGTT
30 TAGACATAGAGGAATTAAGTAAATACAAAAATTAGGCATGAGATATTTATCTATACAAA
TAGTGGTATTAGAGATATTGAAAGCCTATTCTCATATGTGAATAAACGATTATTCTGATA
AATAAGGAAACCGCTAAATTAGTTTTGATCAACCTTTTTCTAAAAAGGTTGATAGAAA
GCTTATTTCGTATGAATAAAAGGTTATTTAATAAAGAGCAATAGATTAATTAGTT
TAAAGTAATCTTAATAACTTTTTCTTTAATTTCTTAACCATGTTTCATGCTCTATT
35 TTTTCATGAGTTTTTTGTAAATCTCCTTTATGTTATCAATATAAATAAATTTGGTTTC
CCACTTACAGACTTTATAATCCCTCTTCTCTAATTTGTTTAGTATGTGGTAAAGCTTA
GTTTGAGACAAGTTTCGTTAATTGCAATAACTCTTTAGCTGTTAGCTGTTTATTAATTAGA
TTAACAATTACTTCTATCTCATCATCTTCAAAATTGAAATTTTTAACTCTTCTCTCCAG
TTTATATTACTACTTTGCGATAATTCAAATATAACTCCAGTAAATGATAAATTATTGTGG
AATCTATTATAAGTCCTTTGCTATGGTTTCGCCATAACTTAGCCAGCCAATGCAATTGTCC
40 TCTATAACATACTCTTCAACTTTTTTACCTGCTTTATAGAAATTTAGGAAATATTTAAGA
ATATCTTCTTCAAACTCCCTAAACATTGAGTTTTTTAGCACTTCTCTCCATAACATTCA
TTTATAAATATTAGTGGATTTTCAAAATCTTCAGCCTTTTTTAGTTCATCAACAATTGAT
TTTACCTGCTTTTTCAATATCCGTTTTTCATTAATACAAGGAACTTCCCTCTAATATATCC
45 CTCTAAATACTAAAGTATTTCTTCAACTCTTTCCAAGAAAGCAGTGATATAATTCCCA
TTAATGTCCATAAATCCAAGAGGATGCACTAAGTAAAAATCTAAACGCCTTAAATCTCTG
TAGAAATATTTTTTAATAATATCCATTGGTAGTTTTGTATATTCTGAGAGCATCTCTAAA
TATCTTTGATAAGCTGGCTTTCCATCTAATTCATAAACTACTTTCCCTCAGCTTTAGTA
ACCTTGATATATATCTGTTGGCTCATATCCATGTCCATAAATTAATCGAATTTAAT
50 TTTCTTCCAACAACCTCCAAATACACAGCAATCTTTAACAACCTCCCTTTGTAAATTTGG
AAAACTTATCAATGAACCATCATCTGCAGCAGTCCCTCCGATAATTGGGATTGTAAGT
TCTCTCCCTAAAACATCTAATATCTCCTGCTCACTATCTACATTCCAATCAAAAAACAG
AATCTTAAAAAATTATCATCTATATCCAATTTGGATATTTATCTCTGATACAGGTTTTT
ATTTTATCGGCTATCTTCTTACCTACATATTCAGCCTCCCTATCTACTTTTTTCAAGAT
55 ATTGCACTTTTGTAACTCATCAAAAGCTAATATTTAAACCCCATCTTCTTTTATGTAA
TCTTTTCCGCTAAATGTTCTCCTGTAGAACATCCAATGAGATTATCCAATGGAATATGT
TGTTTTCATTCATCAAATACCTGTTTTAGTTTTATCTCTCTAATATTGACGTTATAAAT
ATTATTAAGATGCTCTTCCACATTTCTTTTTATTCTTCTCCAATTTCAATTCATCT
60 TTTATAGGATTTTTTATTTTTTTGTGAATGTATATCATTATAATCCCCAGATATATTTAG
CTTTTTCTTAGAAATTAAGAAAATAAATACTAAAAAATATTGACTTAGCTTAATAAGGAC
GTAATAACTTAGTGGTAGCTACTATTAATAAATATATTACTATTAAATATTTATGTATTA
TAGTATAAATCTTGAGACATGTGTTTATAATTTAATAAACCAGTAGTTCTCATTACACAT
TTAAATGTTTTTATTCATTTATTGATTCTTTTATGTTGTATGTTGTAAGCGATTGTGAAG
AGTAAAGCTTAGCACTTAAACCTTTCTTGCTTACAGCTCGGATGTGCCTTGGGAATGAC
TCTGCCAATTTGGATAAGTTGTTTCGATTGCCTTTCTTAATTTATTTCAGCTCTTATAT

-553-

TTTTAGCTTCCTTCATTGCGGTTTTATCATGTTTTTCTTTTATTGGGATGAAATAAACG
CCTCCGAGTTTAAATAGATTTTGGAGACCTTTATCAATATAGCCCTTATCTCCGATTATT
ACACAGTTTTTGAAGTCCCTAATGATTTCTTTATAATTTTCTCTATAAATATCCTTATCG
5 IGCTGATTTGCTGGATTATATAACAGTAACATTAAATACTTCCCATCGGTAATGAAAGTT
GCTTTATATCCAAAATACCAACATTTTTTCGATGGATTGTAACCAATACTACTGTTTTTT
TAATAAGCTTTGAAATTCCTATCCTCTCATGTGCGAGTTTTCTCACAAGCTCTTTGTTT
TAATTGGCATTGCATCGATGAACAACATTTTGGGAATCGGAGCGAAGCGAAGCAACGA
AATCACAAAGTGATTTTCGTCTAATAATTGTAAATATTCAATTAAAAACTCATATCCACAT
10 TTATACACTCCTGCAAAATATATCATGCATAAAACCGAAAAGATTATTAAGTCGATTAGA
GAGATTATCTCTAAGGATATAGGGTGATTTATACTTTGCAACTATCGGATAAACTTA
GCTCGCATAGCTTTATTAAACGCTTAACCTCTCGGAATTTTTGATTTTTTGATAACGCTA
TCACCTCCACTATTTTTTATCGATATATTAAAGTTAAGAGTTTATATATTATCTATTG
ATGGGAATAAGGTTATAACGATTTTGATAATTTTGTTAGCTCCATTATTGCGAGTTT
15 TATATAAATAATCAAGGACAATTTATGGACATTTAGATTTAGTTGTTAATGTTTTAGTAA
TTTTAATAATTGGATATATAATGGATATCATCTCTAATGGCATATTGGGCTTTCAAAATC
AGAAATATTTTGGAAACAATAAAATTTTGTTAAATTTCTTAATTTTGGTTTTATCTGCAG
TATTTATCTATATTTATCTATATTTTGGGGTGATGATGTTTTGTTCCAACGTATGCA
TACACGTTAGTCCAGTTTTAATGATTTTAATTTATGAATACATATTTATCAAAAGGATTT
20 TCCAGATTTCTTTAGAGAGAAATTTTTATTTTCAAAAATTAATTAGGGATTTATTTCT
TTATGGATTACCCGTTATGATGGGTAGTCTGGAAGTTTGGTTTTAGGATATATTGATGG
AATTTACTTAACCTTACTTTACAGGTTTTAAATGCTGTTGCTGATTATAGGAATGTTGCTA
TGCCAACTGTTAATATTTCTAAGTTATTTTGCTTTTCTGTTGAAGCTGTTTTATCCCAA
TGAGTTCTGAGTTATGGGAGAAGGGTTATAGAGAGGCCCTGGGTTATGGTGTGAGAAAA
25 TTTGCCTATATTTCTTTTGTTTTAGTTCTACCAATAGCAATATTGATGGCTTAGTTTCCAG
AAGTTATTATAAATTTATTTCTTTAATGCTTTAATATTACATAGCCAAGTTTTTAAATTT
CTTCCTTCTAAATACCTTTTCTAAGCTTTAATTTAATTTTAACTTTCTTTGTTTTTCCAATA
AATTTAGCTCCATCTTTAACAACAACCATCAACCCACTATCTGGAAGATAGCCAATAGCA
TCTCTTTTATTTCTAAAGTGCTCTCTGATATTATAACCTCTAAAACCTCTTCCAATATAT
30 TTTTCTTTATCTCTAAATTTATTTTATTGGCTGTTTCCCTAATTAGTAGAGAAATTTTC
GTAATATTTGGTTTAAAGTTTTGAAATGCAGACATTGGAAGGGGTCTAAATTTATAGACG
GTTATTTTATCAATATAATTTTAACTTTATGCATAAAATTAACCTGTGTTTTTGTCTGTC
TCTTCATTTCTCTGGAATCCATAGATAAAATAAACCTGTGCCTTTAAATTTGATTTT
TTTGTATCTTTACAGCTTTTAAACATCATCTGGTGTGCTAGGTCTTCTAATAGTTTG
35 CAGTGATTTTATCCCCACTCTCACAACCAATATAAATTTGGGGTTTTAGATATTTGCTA
AATATCTCTGCCACTTTCTCATTAAACAAATTTGCTTTTATATTCTCAATTAATACGTTT
GCGTTATATTTATCAGCTAAATCTTTACACTTTGATAATAAAGATTCAATTGCTTCATAA
TTTGGTTCTGGAAAATAAGGGTTTATTAATTTCTCTCTCTTTTATAATCTAAAAAATCT
40 GGGGCTGATAAAACAATTTCTATTGACTCCTTCTTTAATAATGCCTCAACTTCTTTTAAAT
ATATCTTCCTCATCCCTACTTCTTGATATCCAAAGACAGAAGGGACAGAGCAGAAACCA
CATCCCGGATTTATATTTAAAGGGCATTTAATGTTCCATTTTTCACATAGGTTACATTTT
TTGTTAGTGCATAATAATAGAGTCTTTTAAATTTGCTGCAACCTCTAACAACCTCAACA
TAAACTCTCGCAGAGAAGTAGTTTTATAATCTTTAATTTCAAGTTGAGGGAGTTATTAGC
45 TTTAAATCAGTTAAATTTCCCTTAGGGGATTTATTTTAACTCATCTCATTATAATCC
CAATATGTTGTTTCTTTTAACTTCTTACGATCAAAATCCTTTTTTATTAATCCCTTATT
GTTATCTCTCCCTCTCCAATATATCTTACTGTCTGTTTTTAAATCTAATTTCTTCT
TCGTTAGCTATAGGGCTCCAACAATTATCTTACTGTCTGTTTTTAAATCTAATTTCTTCT
ACTAATTTTTTAAACACATTTAAAGTCAGAGGTCATTGCACTAATAAAATTAGGTTGTAT
50 TTTTTTATATCTTTAATATCTAAGTCTCTACTGGTGTATCTTAGCTTCATACCTTCA
CTTTGCAAAATACCTTTAACTGTTCTTGGGCCAGCTCCAATAACGTCCCTTGCTAAAATT
CTTTTCCCATCACCAGAGGCTAAACAATCAATAATTAATGCTTTTCTCACTTAAAC
CCATAAATATCTAACTAACAATAATTTTAGGATGATATTTAAATTTGGGTGGAAATT
TATGGAAATTATACATTTAAGTGAATTTGATTCAACAACGACTATGCCAAAGAGTTAGC
55 AAAAGAAGGGAAAAGGAATTTTATTGTTGGCTGATAAACAATAATGGGAAAGGAAG
ATGGGGAAGAGTTTGGTATTCTGATGAGGGAGGATTATATTTCTCAATGGTCTTAGATTCT
TAACTATATAATCCAAAGTTATCAATTTATTAGTCCCTATTTGTATTATTGAGGTATT
AAAAACTATGTAGATAAAGAACTTGGTTTAAAGTTTCCAATGATATAATGGTTAAAGT
AATGATAAATTATAAAAGCTTGGGGGAATATTAAGTGAACCTGATGATTACATGAT
60 TATAGGAATTGGAATAAATGTAATAACAGATAAAGAAATGAGATTAGAGAAATAGCAAT
CTCTTTAAAGAAATTTAGTGGAAAGAACTTGATAAGGTAGAGACTTAGCAATTTCT
AAAAACCTTTGAAAGCTACTTAGAAAACTTAAAAATAAGAAATAGATGACTACGAAAT
ATTAATAAATAATAAATAATCAATAACCATTTGGAAGCAGGTAAAAATCCTCTTATC
AAACAATGAAATTATTACAGGAAAAGTTTATGATATAGACTTTGATGGCATTGTCTTAGG
AACTGAAAAAGGCATTGAAAGAATCCCTTCTGGAATTTGCATCCATGTAAGATAAAATTT
TTGGTTGATAACCATGAAAATAAATAAACTGAATATGACAAAATTAAGCCTTATATTA

-554-

CTAAAGATGGCTCAATAATTAGAGAATTACTGCATCCAAACATCTATAAAGGTGTAAAC
AAAGTTTAGCAGAAGCTATAGTTCCAGTCGGCTCTAAACTTTATTACATAAACATTACA
CATCTGAAGAGATATATTATATCTTAGAAGGAAGAGGGTTAATGACTTTAGATAATGAAA
AATTTGAAGTTAAAAAAGGAGATACTATATATATCCCTCCAAAACTCCCCATAGATTG
5 AAAATATAGGTAATGTCCCTTTAAAGATATTGTGCTGTAGTTATCCTCCATATTCTCATG
AAGATACAGAAATATTAGAATGAATTTACTTATTATTTTATTCTTATCCCAAAAGCAAA
AAAAACATCCAGATAATCATCAATATTGCTATTAAATACAGATAGAATCATCAAACCAGGA
GAATTCCTCAAGACAATTGGTATAGGTCCTATCATTACAATTCCAGAATATTCCACACTA
CTTTCAGTTTTTTCAGTTTCTGGTTTTTCGTAATTTTCTTGAGAACTTGGTAGAATCATT
10 CCTAAAGTTATCATAAAAAATCCAATAAACATTAAAATAATCCCTAAAAATATTAATATT
GGCTTCATAATCATCCCTTTTTTAAAAATTAATAATAAAATTTAGATTTATTTACCCAGT
GGATAATTCCGAGCTTCGTTAGTTATAATTATATCCTGAGGATGACTTTCAACTTGCCCA
CTTGGTGTATTATTACGAATCTTGCCTTTTCTTGCAATTTCTTTTAGGTTTTTAGCTCCA
CAGTATCCCATTTGAAGCTCTCAAACCACCAATTAAATTGGAATACTACTTCACTTCACTT
15 CCTTTATAAGGAACAGCTCCCTCAACACCCTCAGGAATAATTTTACATGTTTCATGTGG
CTTTTTGCTGGTGTGCTTGGAGATATCTATCAGCCCCAGCTCCAACCTCCTCTGTCAATTGCT
CCTAATGACCCCATTTCTCTATACTGCTTGTAATTCCTTCCATTGATAACCATTAACCTGC
CCAGGAGCTTCATCAGTTCCAGCTAACAGTGAGCCAAGCATAACCGCATCTGCTCCAGCT
GCTATAGCTTTGGCAATATCTCCACTGTATCTTATTCTCCATCTGCTATAATTGGAACG
20 TTATGTCTTTTGAACACATCCAGCACTTCAGCAACGGCTGTTAATTGAGGAACCTCTACT
CCAGCAACAACTCTTGTGTGCGATTGAACCTGGCCCTATTCCAACCTTTAAAAACGTCT
GCTCCAGCTTTAATTAAATCCTCTGCCGCTTCTTTAGTTGCTATATTTCCCAACTATTAAT
TTTTATGTCAGTCCCTTCTAACATCTCTTAAATTTCTTTACATTTTCAACAACCCCTCATG
TTGTGGGCATGAGCACAGTCAATGGCAATGGCATCAACCTCTGCTTCAATCAATGCCTTA
25 GCCCTCTCAAAGTCATGTGGTCCGCAGGCAGCAGCAACTAACAACTACCTTTTTTATCC
CTTGCACTTTGAGGATACTTTCTTCTCTTTAAATATCTCTCAAGSTTATAATACCAATT
AGTCTATTTTTCATCATCAACTATAGGTAATCTTTCAACCTTATTGTCATACATCAACTCT
AAAGCTTCTCTTCTTCAACATCTTCTTAGCACAAACGACATCTTTAGTCATTACATCT
TTAACCTTCTTTGTTTTATCTTCAATGGCTTTAACATCTCTGTGTGTTATAATCCCACT
30 AATTATCTTCAATTATCAACAACCTGGTAATCCGCTGATGGAGTATGTTCCATTACATTT
ATTGCCCTCTCCAACAGTATCATCTGGAGATACGGTGATAACATCCTTAATAACTACTTCA
TCAGCTTTTTTAACCTGCCTGAACCTTGATGAACCTGTTCTCTATGGACATGTTTCTATGT
ATAACTCTTAAACCTCCTAATCTTGCTAAAGCAATAGCCATCTCTTTTCTGTTACTGTA
TCCATTGCCGCAGAACTATAGGGATGTTTAACTTTAAACCCGCTAAGTCTGTAGAAACA
35 TCAGTATCCTTTGGCTCTACCCATGAGGCATTTGGAATAATAAAACATCATCAAAGTA
TATGCCCTTCTTTGCCTCAATTAGTTTTTTTAAAAACAAAGTCTCACCTTTATAACCTTTT
TAACTATATTTAGAAGAGGGGTATTTATACTTTTTATATGATGCCCTTGAGTATATGATT
ATTTAAATAGTTTATGAACCTAACATTAATTCAATAAAAAATAAAATAAAGTTAATATAT
GGGGGCATCAATAATATAAAATTTGATTGACAAAAATAAAATAATTATCTAGTTCTGCA
40 ATATTCTATGAAAGTTAGGTGATGGGATGATAGACAAATCCTCAGAAATTGCAAGATTTT
CAGGTAAAGGGATATTAATTACCCCAAAAACCTTTAGAAAAACCATTGTTAAAGTGGGAAA
AACTGGAATAATACTTTATAAAGATAAAATTTGATTTGAATTTGTAGATAAGACAATTG
AAGTGGGGGTAGAAGATATTGAAGACGTGGGGGCAGAGTTACCAAAAAAGTCATTGATA
TTGCTAAATCCACATTGGAAGACATCACTTACCACTCATCAATATCATCAAATCTAAAG
45 AGTTTGGTAATGTAATGGTGGGGTTTGACCAGAGACATCAATCTATGGAAGGCTCCTA
TAGACAATTTCTTAAGAAAACTGTCTATATCTCTGTTAAATAAAAAAGAAGTAAAGATAT
TGTATAACGCTGGAGAAAAATAGTGAATACTAAATGGGAGAAATGGATTTTTAACATTTA
TTAAAAAACGTATTAAGGATGGGTAGTAACAAAGATAGAATACAGATTAGTTGTTGAGA
TATTAGACAATGAGGATTCTAAAATATACGATATATTTAGCAATATAAAAGATGTTGAAA
50 TAGAAGAAAAAGATGTGGATGGAGAAATAGAACCTGTGTTAAAGATACTGCAGGTAAAAG
ATGGAAGATATAATATCCTACCTCTACACTAAGGATAAAAAAGGTGAGATTATTTATAC
TTAGATACATGGTAATACTGCTGGATTACAAATATATTGGAATTTTACGTTATCTTCAGG
AAACGGTGGAATAGATGAAACTGGGAGTATCAACAAGTTTTATTTTAGATACTGATAAAA
ACTTATCTGATGCTCTTGAATTTTAGAGGAGAGGGTTAAATATGTTGAATTAGGATGCG
55 ATGGAATTTTAAATGTAATGTCTGACGGAAATATTGAATTAGCTCAATCTTATGATTTAA
AATATACTCTACACTGCCCTATAACTGATTTAAATTTATCTTCTTATAGAGAGAGGATAA
GAAAGGTAGCTTAGATTTTCTTAGAGATGTCTTAGAAGTGGCTATAAAAGTTGATGCCA
AATTAATAGTCTTACATCCTGGTTATTGTGTTTTTAAATATGATTATGAAAAGGCATTAA
ACTCATTAATAAGAGCTTAAACGATTTAAACAACATCCAAGAAGAATTTGGCGTTCAGA
60 TAACTATTGAAAATATGCCATCTTACGATATGTTTCATGTTTCAAGAACCCAGATAAAGAGA
TTATTGAAAATTTAGGGGAGTTGAAAATTACATTAGATATTGGACACTCTTTTTTAAACA
AAAATATTGAGAATTTTTTAAAAATCTCTGATAAAATAGCTCATATCCACATTTCATGATA
ACAACGGAGAGTTTCATGAACATCTATGCATTGGCAAAGGAAAAATTAACCTTTAATAATT
TTAAAAAGATTTAAAAAGATTAATGCCATAAAGATGATAGAGTTGCAGAATAAAGCA

TTGATGATTTAGACTTATGTATAGATAATTTAAAAGAGATTTTGAGGTAATAGCATGATA
GAAAAAGTTTTAGAGATGGATGACTGGAAAGCATACAAAATTCCTCATACAGTAGAGATT
GATGGCATGGTTGAGGAAACAAAACATTAATAATTGAGTTTAAAAATAAAAGGAAGGTT
5 TTATCAACAAGAGAAGGATTTAAAGAGGTTAAATATGTAGGAAATCACTCAATCCCTGTT
CCATTTTGGGACAAAGTTCATAACTACAAGGACTATGAAAATCAGGTTTTAAATAAAATT
GGTATTTAAAAAGGAAGATATAGCATTGTATCAACTGGAGCGAATATGGATAACTTGGCA
GTTGCAAAGGAAGAGTTTGATGAATTCTATGTCGTTGCTTTTACAACCTGCAGGAGCTAAG
CATAACGCTATAAGATTAGGAGATGAAGAAGCTGATTATATTGAAAAGGATTTCAAAACC
10 TACAAAATAGTTGATGGAAAGATTGTGCCTAAGGAAGAGATAGGGACAGTTAATATCATT
TTAATAACAAACGCTAATCTAACCAGTGGAGCTATGGCAAGGGCAATAATAACAATAACT
GAAGCTAAAACCTAACGCTTTCCAAGAGCTAAATATAAGAAGCACAAAACATCCAGAAGCTT
CAAGCTACTGGAACTGGAAACAGATAATATAGTTGTTGTTAAAGGGTTTGGTAGTGGAGTA
GATTACACCGGAGGACATACAAAGATGGGTGAGATGATAGCAAAGGCAGTTAAAGGAGT
15 GTGATTGAGGCATTAATAAAACAGGATAAGATAAAAATTTAATTAAAGAGATTTTTAAGCA
CCAAATTTCTCATTCTTCCAGTTAAGTCCAATAATATTTTTCATTACATGCTCTCCCTTA
ATCCAATGTAAAGCTCCTTTAGCACATGCAAATTCGTTAAACTCTGTAACATCATCAACT
CTGACACTCTTTCCCCAGATAACTATTGGAATAGGGTCTGCTGAGTGGTCTTTTCATCTCT
ATTGGTGTTGAATGGTCTCCAGTCAAAACAAAATAAACCTCATCCTTATTTATGTGCTCA
20 AATACATAGGCAAGCATCTCATCTATTTTCTCCAAACTCTTTTAAAGTTTCACTTAA
CCATCATGGCTTGCTTCATCAGCACCTTTAACATTCACTAAAACAAAATCATACTCCTTT
AAAGCCTCAACTAAAGCTTTAGCTTTGCCCATGAAGTTGTCTCGGTGTTCCAGTAGCT
CCCTCAACCTCTATAACATCCAAACCAATCATCTTAGCCATTCCCTTTATTAATCCAGTT
CCACAGATACAAGCCCCCTTCATGTTGTATTTTTCAGAGAACTTCTCTATCTTTGGAACA
25 ACTCCAGCTCCTCTTGGCAGTATTATGTTAGCTGGAGGTAAGCCCTTCTTTCTCCTCTCC
TCATTTTATGGGTGGTGTGTTAACTTTTCATAAACAATCTTTAATAATTTATTTAAATC
TCTGCTGTTCTCTTTGCCTCTTCTGAATCATCCAAATGGCTTTATCTCGCTAACCTTAACT
CCCTCTTCATGTGGGTCCCCATCGCTAACTCTGCATGATAAGCCTTCTCCTCTCAAACT
AAAGCTCCTCTATATCCCTTAGAAGATTTAAAGATAACTTTAACACCATCAATCTCTAAA
30 CCATCAATCTCCTTCTCTAACTCTTCAGCTCTTCAGGGCTTATTCTCCAGCCCTCCTA
TCTAAAACAACAAAGTTCTCATCAACAGTGGCAAAATTACATCTAAATGCTATATCTCCC
TCCTTTAAATCTAAGCCAACACCAAAAGCTTCTAAAGGTCTCTACCAGTATAAACCTCG
TAAGGGTTGTAGCCTAAGATAGCTAAGTGGGCTGTGTCACTTCTGGCCTTATACCAATA
TCTATGGCATTCATTAACCGCAAATCCCTTCTTGGCAATTTTATCCATTGTTGGGGTC
35 TTTGCCTCCTTTAGAGGGGTTAAACCCCTTCTCATTTGGTCTGTCTCCTAATCCATCTATA
ATAAAAATTACACACTTTCCCTTTTTCATCTTTCTCCCTCATGCAATTATAAATCCTTCA
TCTCTTTTCATATCTTTTATTCTTTTACCCTCTTCATCCTCAATATAAATACTTTCTGTT
TTATCATCTTTTGCAACTATAATATTTGTATTTATTAAACTTTCCTTTTACTTTCATCA
40 TCCTTTTCATATTTGCTTTTGTCCATCTTCCGTCTATTATTTTATCAAATTCGGATTTA
GCTAACAAATCTTTTATATAATATTCAAATCATATAAAATGTTTAAATAACTTGCATAG
GCATCAAATGGAGTGTCAAATGGCTGAAATAGTTATGAACACTCATATCACTAAGCCCC
TTAATGGATTGATAATAAAGATTATCGCTTGTCTGTAAGACCTTATACATCTTATATATT
TCATCAAATTTATTAAGTTTTTTAATTTGTTTGAGTTCTCTTTTATAAATTTACCAATA
TCTTTTAGTTTTTCAAACGATATCTTTGCATCTTATCCCTAACCATGCACTTACATCC
45 CTCTCAGTGTACAGCCATGATATCGTGGCAAATTCATGCACGTAAATCTCTCCTCTTGGC
TCTAATCTATCAACAACCTCACTGACATTAACAACCTCTAAATGTTTCATGCTTAGCTATC
TCTATAGGCAAATATCTCAAAACTCAAATATTCCAGTTCTTTCCAGTGATGTTTCTCCA
AATGTCTCATAGTCCATATATATGTTTATAACTTCCCCAGGAGTTGAAGCTAACCAAATA
GCATATTTATCAGCTGTTAATGGATATTGGTCCCAATCTCTTGTGAAAATCTAAAGCCA
50 ATGTCATCACTCAACCTATAATTCCTTAACAGAATTTTCATACCATCTGGTGATTGGTAA
AGATAGTTTGGAGACCTCCAGCCTAAGATTTTCTCAATTCCTCAGTAAATATCGCTTTA
AACCTTAATCTTTTGTATCTTTTGAATTTCTGTTGTTGTATATTAGCTCAGTATTTCTA
AACACCTTGGCTTTTAAACCAAATATTTCTTTGTACATCTTTCTATGCATCTCAATATCT
TCAATAAACTCATCTTCAGTTTCAAATAGACTTGTAGTGAGTGATGATATGTTTCAGCT
55 ATCAACTCAACATTGCCAGTTTTTACCAAATCCTTAAATAAATCCAACACGTAATCATTA
AATTCCAAAGCTTGCTCTACAAAAACCCAGTAATTGAATAATTAACCTTTAAATCATAT
TCATCAATAAGCTCCAATATCAACTCATTTGTAGGAATGTAGCATTTATTAGCCACTTTA
TTAAAACTCTTTATTTAATTTTGTATCTACATACTTTTCCCATAAAGTATTTCCGTTT
TGGTTTATCTCCTTATTTAGCCTATGTGGTTGATGCACCTCAAATTAACGTTATTAAC
60 ATACTCTCATCTCAAAATTTATTTATGGTATTATGACCTTATCATTCTCATACACATAA
ATGAGGAACATTGCATTGCTCCAGCCTAAAGGCATAGCGGACATTGGCACACCTAATTCT
TTATGAATTTGCTCTGGAACAGCCCATCAAAGCTGTATTTTCATCACCCTAATTAACAC
TTCTTAGATTTTGTAGATAAATATCTGCCCCATTATCATCTTTTCTTTTAAACCTTG
TATAACCTTCTATAATACAAAGAAAGCCATAATGTGGTTATAATCCATGGATTGCCTCCA
AAGTAAATGTCTTCTGGATATCTCCAATCCCTCCAACCTTATATTTGAAAGCTTTTTCA

-556-

ATTGCTTCGGCTGTTTTATCATTCTCTCATCATCAACATCAATCAAATTGAAAGGGTAA
CTTAAACCCAATATGCTTGTGTCTATCGTCTGTCTAAAGGATTTATTGATTTAGCAAAT
CTTTCTCATCTTCCAAATAAAATCTCTTTGGAACCTCATGTTTTAAAAATCTATGGTT
5 TTTCCCAATCCTTAACTTTATCCCTTTTATTTCACTGCCTTACTCATGCTGTATGCACAT
TTCAATCCAGCGTAAGTAGCTCCCATTGTATAAGCAAATACTCCAAACCTCTCTTCCCAC
AAATCGAAGCATGGAGTAAAGTTTAAAGCTACCAACCTTAAATAATTAGCAGCTTTCTCT
ATAGTGTTCCAGTATCTCTCAACGAACTTTCTATCCCCAGTTAATCTGTAATGCACATCC
ATTGCCCATAAATATGGAACCAATTTGGTCAGTCTGTATTGCAGTTAATCGTGGTTTTCCA
10 TTAACATAATAATTTTGTAGCCATGAACCGTCTGCATTTTGTATCTTAGACATGAATTCA
AAAAATCTGTCTGGAATGTTCCCTTATGCCAAATAAGTCCAAAGCAATTGAGATATAACTT
CCATCTCTTCCCCACACGTATCTATAATCTGGATGTAGAGATGGAGCCGCTATAATCCCT
CCTTCCCTATCACATAACATTAAAGTGTCATTAAAGCCCTTTTAGTTATAGAATAAATC
TTATTATTTTGCCTAAGCTCAGGATGTATAAATCTATTTATCTCCCTATAATATGTTTC
15 CAATAATTCATTGAGAGATTTTTAATGTTTTTCACTGTTATTTCATTATAATCTTTAGTTTC
TCAGTTATTATTGAAAAATCTCCATCGAATCTTTGTGGAAGTATGTAGATGTTGAATGCC
AAACTCTTTTTTTCATCAATCTTTATATTCCATGATATTGCACATCGGTTAATAATCCA
GAACTCTCTTTATGCTCCTTCAATATCCCATTTTCTATGTCTATGTAAGCACTTGTTTTA
CTGTATCTATTTCCACACTGAAATGAATCTATTCTTTTATCACTTCCAATGCAAAAAATA
20 TATTTTCCATTATATTTAAGGATACAACCATCTTCTAAGAATTTAACTGTATTTGTTATT
GGGTTTTACCAATTTCTCAATTTTCGTAAAAAAGAGCTTAAATTTAATTTTTATCG
AGTTTATTTTTATATACACTCTTCTATAAGCACGTTGTGAGATACTGGCACAAAATCT
TTAATGGTTAATATAATCTTATCATCTTCTAAGATAGTTTTAAATATGTCGTTTCTCA
ATGTAATTTTTGGGTTATATCCCAATCATCATCCCAATGCCACTTTACTTTTTATCATAA
25 ACTGCCAATGCAGAGTCAAAGAAATGAGTTTCATAACCAACTTGGGGATAAAAAAGGTAT
TCAATTTCCCATAATCTCCAATTTTGGCTAATAAACTATTGTTTCCAACGATTCCACCC
ATATAAATCACACGATATATTTTTTAAATATTCTATTGCCCTTTGCGAAAAACCTACAAT
ATTCTTTTTATAGCCTTCACAGCCATAGGGCTTCGCCCTATTGGTACAGGATTTTACAG
CTCTTATACATATAAGGAATTTTGTAGCCAAAGGCATCTTTATTCGTATAGAATTTTAT
30 TTCTGTGAAAGTCTTGGGATACCCACTAACACCTCTTCGCTTACGCTTGGAGGTGAATT
TTATTTACAATAATCTCTTATAGCATTCCAGATTAAGGCTCTGCGGTTTTAAATTC
CTTCAATAGGATTTAAAAATAATATATTTTTCTTAACTAAATACACATAAATGGCTTTG
CTACTTCACTATCAATTTTCAAACTATCCTTAAATAATTTAATGCTTTAACAATAT
CTTCTTTTTTAAATCAATAACTTCATCTCCAACCTTCAACCTTTGGCTTTATATAATCCA
35 AGTCATTTAAGAAATCTTCAACTTTTGGAGTGGCATCTTTAAGCATAAAGTCCAAAATAT
CATTTAAATTTTCAATCTTAACTTATCAATAACTTTTATTATCAAAACTGGTTTTCCCC
CTACATAACTATATATCAACTCTTTTTCATCCTTAGGGAGTTTTTTATTTAAATTTCTT
TAGCTAAAAATCTATAAACTTTAAAGCCGTTTGTGTTGTCAAAGTCATCCACTAAAATAT
AATCAGCTCTTCCCTCTAATTTCTCCAGTCTTATAAACATATTCATAAATAAACTATCAG
AATTTAAGCAGAAAACATGGCATAAATGTTGGACTTTAGTTAAGGCAACTAAGAATTGGA
40 AATAAATCCATAAATACTTCCATTTTCCGTTTAAAGTTATCTCTTTAATCATTTGCAACT
CATCAATATTTAAATTTGGTTTTTACCTTTTTTTCGTTAATTTTGCAATAAATATTCTA
TATATTGATAAACATCCGCTGATTTATCCTTTTTTATTAATAATCTTATCAAAAAATGGTT
TTGGTATTTTAAATGGGCATGCCCAATAGTATTTGCTAATCTCTTCACTACCTTTAACCA
ACAAATCAGCTAATGATTTGGCATATTCCCTAAAATCGTCTATTTCTGATTTTTCATCCA
45 CTTCAATAAACAATTAATAAAATTTATCAACGTTTAAATATTTCTTGTCTTAAATCAA
TAAAAACGGAATATACTTAGATATGTCTAATCTATTAACTACTATTTCCCTCATTAGAG
TTGATTTTCCACTGTTTAAAGAACCATAGATAAAATAAATATTATTTGTTCTCCCTCAA
TAATAGATAGGATTTTATTAATTTCTTTTTCTCTATTGAAGAATTTTCAATTTCCACAA
AAAAATATTTAAATTTATATTATTAATTTACTTCACTTCACTTAAATTTTATCATC
50 TTTTAAACAAATATTTTATCTTCTTGGCAGCCATCCAATAGCCATCTTTACAATATT
TGAGTTATAACCCCTTTTTCTTAAAGATTTTCTCTATCTGGGAGAGGGATTTTTCCCTCC
TTCTAATAAATGGTAGATTTTTCCAGCAGTTTCTCTATTTTTTCCCACATGTCTTCCAT
GTTATCCCCCCCCAAAAGGTCTTAAATAAATATCGTCCCATCATCTCCATAGCTATTT
55 TATAACATTTACTGTCTCTTTAGCTATATTATCCCAACTATATTTTTTATACACATCTT
TTTTGGCATTATTGACTATATATTCTCTAAATCCCCAATCCGATAGAACCCTATCCACAC
CCCAGGCAATTGAATCGGGATTTTTTGGATAGACCCAAATCCATTGACCTCATGCTTTA
TAATTTCCATTAAAGCCCCCAACTGAGCTAACAACCTACTGGTGTGCCAGCAGCCATTGCC
CTAAAGCAACTATACCAATGGCTCATAACTGATGGAATTACAACAACATCCGCAGATT
TATAGAGTTTTTTTAAAGTATCTCCATTAAACAAATCTTAAACAACTACCTTATGCCTAA
60 CACCAAGCTGATAGCACAAATCTTCCAAATAATCCCTCATATCTCCAGAACCTGCAATAA
CTAATTTTGCATTATGTCTTTCAAGAATTTTGGCATTGCTCTTATTAAATACTCTATT
CCTTTTGATATGTTAATCTTCCAACAAATAAAATCATTTTTTTCATCATCTTGAACCTCTA
TACTCCTTCTAAAGTTTATCTTCTCCTCCCAACTTAAATTAATATCAAATTTCCATGGAT
TTATTCATTTAGATAACTTTAACTTTATCTTCCGGAGTATTAAATATAGAGCAAACTT

-557-

CTTCCTTTAAAGATTACTTACGGTTATTACTTGACAGGATTCGTAAGTTGAAAGGTATT
CCATTGCATGAATAGCTTTTGAGTCATCTGAATAAAGCCCCCACACCTTCCAATTTTCAG
TGCTGTGTATTGATTGAACATACGGCATTCTGCAGATATGTTTCAAATTAGCTCCAACAA
5 AGTGCGTCATCCAATCATGACAATGAATAACCTCATATTTATCTACTCCTAAAATTCCTA
ACTTTTTTCCATCTCTTTCAGCCATAAACATAGCCCAAGTTAAAAAATGTGGATGAGATA
TTGGTCTTACTCTATAAACATTACCCCATTTATGTTCTCATACTCAGGCAAGTCATAGC
CAACTGTTATAACATCTACTTCATGCCCATTCCTAACCAATCCCTCAGCTAAGCCCTTAC
AATGAATTGCCAGCCCTCCAACAATTCTTGGGGGATATTCCCAAGTTACCATAGCAATTT
10 TCATAATATCATCATTTAGATTTTTAAATATAGTATAAATCCTTAGAAAGGTATAAAAACT
ATCTAATAGATACTTTAAATTAGATAATATAAAAAACATTGTGATATATGTACATCATAAT
ATAATATTTATTGTTAAATCTGAAATTGAAATTGCTTTAAAGGGGTAATTATGAAAATA
GTCATCCTTGCTCCAACAATAACCCCTATTGTCTCTTATGGAGGATTAGGGGATGTAATG
AGAGACTTGCCAAAATTTTTAAAAAAGGTAATGAAGTAGTTGTTCTAACTCTAAACCAT
15 TATAATAGGTATTTTACTCTTCCCTATGAAGATATCAAAAAATAACTGTTATCTATAAA
GGACCTAAAATTACATTGATGTTTTAAGAACAAGCATCCAACGACAGGAGTAGATTTA
ATTGTATTTAGTAATGAAAGTGTCAATAACTTAAATGTTTGGGACCCATTAAAGTATGAA
ATTTTGTCTGATTTGGTTATTACATATTTAGATGAGGTTAAAGATATTGATGTAGTGTCT
GGGCATGATTGGATGTGTGGTTTAGCTATAGCCAAATGCAACGATATTTAGATTTACCA
20 ACAACCTTAACCATACATAATGAGGCATTTAAAGGAGAGATGATTGAGTATAAAGGGGAA
GTTATGACATTTTTGGAGTTAGGAATTAAGTATGCAGATGCCGTTAATACAGTAAGCCCT
TCTCATGCTGAGGAAATAAAAACTACCCTTATATAAAAAAATACTTAAATAATAAGCCA
TTCTGTGGGATTTAAATGGAATTGATATTGATGAATACGACCCCATGAAGATAATAGAA
AGGATGTGCAACCTCTCAAACAACAACTTGACCCAGAAATATGCTTATATCTCTCCC
25 TATTGAGCTGAAGATTCCCATAATATAAAACCAAAAAATAAATATTTCATGGTTTTATAGA
GGAGGAGTTTATGAATATGTGGAAGATTGGAATAAGATTGATAAAGGAATATCAGCTACT
GATGTTGAGGTCCATGGTGGGGTAGATGGAGATATAGAACTCCATTAAATGGTTTTGTT
GGAAGGGCGACACATCAAAAAGGTTTTAACACCATGTTTGAAGCAATTCAGAACTTTTA
GAAAAACATGATATAAGATTTGTATTTTTAACAAAGGGGGATAGAGATATTGAAGAGAGA
30 CTAAAAAATCTTGCAAATGAACATGATGGAAGAATCTTGGCATTGATAGGCTATTCCCTC
CCACTCTCATCTTTAGTATTTGCTGGGAGTGATTGGATAATTATGCCCTCATACTGGGAA
CCGTGTGGTTTAGTGCAAATGGAAGCTATGGCATACTGCACTCCAGTCATAGCTACAGAA
ACTGGAGGTTTAAAGATACCATAAATCTCTCTCATCCAAATCCTTATGAACATCCAAAT
TTTGATAAGGCAACGGGTGTTTTATTAAAGTTCCAGATAAAGTGGGGTTTATGTGGGGG
35 GTTGAGCACGCATTAAATTGGACATTCTATAAATTAATGAAATATGTATGTTTATGCAG
TATATAAGATATAAATGCCCTAACATCCTTATGATGAGAACTCCCCATTATCTATGATG
ATGAAAACTGCTACTATCACGTGTTAGAACTTAAGCTGGCAGAACTCCCCATCTATA
AGAAAGTATAAGGGCTTATTGGAGGAGCAATTTATAATCACTATCTACAACCATAACTT
TCCACTTTATGTAATAAAAGATTGGGGGGAAATATGCTAAGTTATGATTACGAAAACGC
40 TTTAAAGTTGGAGAAATAAGCCTTGAAGATATCAATAAAGTAGATTTTGCAAATGCATA
TTCAAACCTTGATGGAGAAATTGGATAATGGAGTTGTAGGATTTAGAGATGTTTATTGTA
TGAGAACTTAGATAAATATAAATCTTTAAATGGATATGAAATGTTGTAGTTATTGGAAAT
GGGAGGCTCCATATTGGGAACAATGGCTATTTATTATGCAATTTCAACATTTAACAATAA
TGCTATTTTTATAGACAACGCGACCTGAAAAAACCTCTCAATACTAAAAAAGTTGA
45 TTTAAACGAATCTATAATTTATATTATAGTAAATCTGGCAACACATTGGAACCTTGGT
TAATTATTATCTAATTAAAAAAAGAATTGAAAAATTAAATTCATTTAAAGGAAAACTTGT
TTTTATTACTAATGGTGGGAAATTAAGAGAGAGGCAGAGAAAAATAACTATGATATATT
TTCAATTCCTGAAATGTCCCTGGAAGGTTTTCACTCTTACTGCTGTTGGTTTAGCTCC
TTTATATTCTTTAGGAGTTGATATATCAAAAAATATTAGAAGGAGCAAGAGAGATGGACAA
50 AATCTGTCAAAATGAAGATATTTAAAAATCCTGCACTTTTAAATGGGGTTATACACTA
CCTATATGATAAGAGAGGAAAGACATCTCAGTTATTATGAGTTATGTTGAAAGCTTAAA
ATATTTTGGAGATTGGTATAAACAATTTTGGAGAAAGTTTGGGAAAAATAAGCATGG
AATAACTCCTTTATTATCAATTGGAGCCAAAGACCAACATTCTTTATTGCAGTTGTATAT
GGATGGGAAGAAAGACAAGATTATAACATTCATGGTTGCTAAAAATATAGGTTAGATGA
55 AGAAATAGAATTTGAAGACATAAATGATGAGAAAATTTCTTGCAGATATTCAGATATAAT
TAGGAGCCAACAAAAGCTACAGAGATAGCTTTAACAATAATGGAGTCCCAAATGTAAG
AATAACCTTGATGAAATAAATGAGATGGCTATGGGGGCTTTACTATACATGTATGAGAT
GCAAGTTGGTTTTATGGGGGAGCTTACAATAATAACGCCTACAATCAACCAGCAGTTGA
AGAGGAGAAAAAATTTGCTGGAGATTGATTAAACAATAAATAATTTCTAATTCTTTT
60 TCTTTATTAGTAGATATCTTAAATGTGTGATATTATGGAAATAAAAAAATTTTAGAGA
CAATAAAGGAACCTAAGCTTTTACAGCATATAATACAAATGTAGATGCAATAAATATT
TAAAGACGAAGATGTACAAAAATTTGGTAGATGAATTTAACCATAAAGATATAATAGAAA
GAATGGAAGAATATCCAAGAATTATTGAAGAACCGTTAGATTTGCTTCCAAGGTTAGTTC
ATAGTATAAAGACGGGAAACCGGCAGAGGTTCCAATAAAGGATGATAAAGTTACATG
AGTGGTTTGATAGAAATTAATATGATGAGGAAAGATGGGAGGACAGGCAGGGATTCTTT

CTAATTTAATGGCTACCCTGCAGATAGATAAAATAATTGTTTATACTCCATTTTTATCAA
AAAAACAGGCAGAGATGTTTGTGATTATGATAATTTGCTTTATCCATTAGTTGAAAATG
GAAATCTTGTATTAAAAAAGTTAGAGAGGCATATAGAGATGACCCAATAAAGATAAACA
5 GGATATTTCGAATTCAAAAAAGGGTTAAAGTTTAAAGTTAAATGGAGAGGAAATAACTGCTA
AGCAATCTACAAGATTTATTGTTGCCTCAAGACCTGAAGCTTTGAGGATTGAGATAAAAG
ATGATGTTAGGAAATTTCTGCCGAAGATTGGAGAGGCTGTGGATTGTGCATTTTTATCTG
10 GTTATCAGGCAATTAAAGAGGAATATAGAGATGGGAAAACAGCAAAATATTACTTTGAGA
GGGCTGAAGAGGATATAAAATTATTAATAAAGAATAAAAAACATCAAAACCCACTTGGAA
TTGCCTCCATATCAAATATAGAGATTAGAAAGATGGTTGTTGATTATATTTTAAGTAACG
TGGAAAGCGTAGGAATGGATGAAACAGAGATAGCTAATGTTTTGCATATCTTGGGCTATG
ATGAGTTAAGCAATAATATTTTAAAGACAGTTTATTGAGGATGTGATTGAAGGGGCTA
AGATATTACTGGATAAATTTAAAAACTTGGAGGTTGTTCAAGTTCATACAATATATTATA
15 TTTTGTGTTTGTAGGGCTGATAATCCACTATCTAAAGAAGAACTTGAAGATGTTTAG
AATTTCTCTACTATCTTGGCATCAACAAGGCAAAACCTTGGAAATATAAGGGCAATAG
ATTTACATGAAGGTTTAAAAATCCCTCACAATAAATATGGGGATTTATTAAAGGAGATTG
CTGAGAAATTTAACGATAATAATTATAAAATAGCTTTATCTCCATCAAGATATGTTGAAA
AACCAAAATCTACAGTAGGTTTAGGAGATACAAATCAAGTGGGGCGTTTGTATTATG
TATCTCTATTAAATAAAAAAAGAATGAGCTAAAACTAATTTTTTATTTTTTAAAGTGT
20 TTACTCCTTTTTTAGTTCCAACATAAACCTTATCTACCTTTGTAAAGATACCATTTTCAA
CTACTCCAGGAATGTTATTATTTCTTCTCAAGTCTATAGCGTCATCTATGTTCTATAA
ATACATCAATAATCATATTTCCGTTGTCTGTTATAACAGGTCCTCTTTTCTGTCTCCTA
ATCTAATTACTGCCTCTCCTCCCATTTCTGATAAAGCTCTTATTACAACCCCTATAAGCTG
AAGGAATAACTTCCACAGGGATTGGGAACCTTTCCCTAATTTTTTAACTAATTTACTTT
25 CATCAACTAAAACAACAAATTCATTTGCGTTGTAATCAACTATTTTTTCTGAGTATGGC
AGCCTCCACCTCCTTTTATTAAAAAGAGAGTTGTTTCTCAACTTCATCAGCTCCATCAA
AGGCAATATCAACATCGTACTCATCTAATGTAACATAATGGAATTTTACTGTCATAGCCA
GCATTTTAGCTTCAAATGATGTTGGAATTCGGAAGACTTTAGCTCCTCTCTCTAATTC
TATTTCCAAGTCTCTGATGAATAAAGCTGCTGTTGAACCGGTTCTAATCCAATAACCA
TTCCATCTTTAACTAATCTCACTGCTTCTTAGCTACTTTTAAATTTTAACTCTCATTTG
30 AACTATATCCCTCTTTTCTGGCTTTGTGGTTGTTATTGAAATATTACAGGACTTTCACA
GAGGATAAGATATTATTTAATGTAAAAAGATGCCTTTGGCATCAAAATCCAAACTCAAT
ATATAGACTGTGAAAGTCTGTATTAAAGATGTTATAAAAAGTTTTTGTAAATTTATAGAT
TTAAATATATAAATAAATGAAGAAAAAGAAATAATATTATTTTGTGTTTATCCCGA
35 ATTGGTCTGATTTTAAATTATAGGGATTATGGTTGGAGTTTCGATGATTATATTACAATTA
TTCCATTCCGAAACGGTCTTATTTTAAATTTTTGTATCGATGATTGGGATTATTAAAT
GATTGCGATTTCCATTCCGAAACGGTCTTATTTTAAATAATGTCCATTTACTGATACTTC
TACCTTATCAATATGTGATTTCCATTCCGAAACGGTCTGATTTTAAATTTTACAAGAAAA
AATATTCAAGATTATCTAAGCTTAATTTAAATTTCCATTCCGAAACGGTCTTATTTTAAAT
AAGAAAGGACAAATAGTGTTTTTTGGGGTGAAAACATTTCCATTCCGAAACGGTCTTATT
40 TTAATTTCTTCAAAATACATTACAAATTTAAAAAATGAAAATCCCTCCAATTTCCATTCCG
AAACGGTCTTATTTTAAATGAGGTTCAATTTAAATGAAGCAGATAAACATCTGCTGAAATAT
CATTTCCATTCCGAAACGGTCTTATTTTAAATATTAAGATTAATGGTAGCTGTTTGTGCAG
ACGGTAGTTTATTTCCATTCCGAAACGGTCTTATTTTAAATAACTTCATGTCGTCATAGTT
AAATACTTCATAAGGAATTTCCATTCCGAAACGGTCTTATTTTAAATCTAATAAATTTCTT
45 ATGAATAAATGCATCTCTCAACATCTTTATTTCCATTCCGAAACGGTCTTATTTTAAATC
TGCCAAAGCATCAATCTCTGACTTATTTTCCCAATTTCCATTCCGAAACGGTCTTATTT
TAATAAACTGTGTTTTTGTGCAATAAAGACGAACCATTTACGATTTCCATTCCGAAACGG
TCTTATTTTAAATAGGGCAATCATTCAACAATAATATACTTCAACTCTCCCAATATTTAA
GCTTTTCTATACCATATTTTTCTAAGGGTAAGTAACTACTCCATAATATAAACCCCTTTAG
50 TATTTAAATCTTTCTTTCCATAATAAAACAGAGTATTTTTATCTTTTAAATCCAAAAAT
TTAACTTATTTGTTAGAGAAATTTTATTTACTTGCCTAATTAATCCTAATTTTTTAAAAAT
CTGAATAAATCAATAAACTCAATATTCTAAATAATCAACCAGCTAACCCCTTAGAAAT
AAATTTAAACCTCTAAATAAATAAATAATTTCTAAATACTCTCATTTCTAAATTTCCAAA
55 CTTATACAACAAGACAATCAATAAATCAATTAACAAAATTGAAAATCCCATAAAAACCTT
AATAGTAAAATTTCTAAATATAATATCTACGGAACCCATATAAATATGTAACACAAAAAA
TTAAATTTATTTTTTAGTAGAATGTAGATATGGATTAAATCACTTAAATAGCTGAAGCT
GTTTCTATAGGTCCAGCTCCTCTTCCAACAACCTACAACCTCTTTTGCCTAATCAGTTTCA
AACATTGCAACGTTTAAAGTTCCCTTGACATTTAATGGGCTGTCTATTGGAACAAGCATT
60 GGCTCAACAATTAATAGCCATCTTTAATCTGTCCAATTAATTTTATTGTGTATCCTCTT
TTATTAGCTAAAAATAGAGCTTCTGGAGTTATTCTACTTATTCCTTAACCTTTTACATCT
TTTATTGTTTTATTTCATGCCATAATTGAGTTTGCTAAGATAACAATCTTTGCTGCAGTG
TCTAAACCCCTCAATATCTGAGTTGGGTCTGTTTCAGCTATTCCAAGCTCTTTAGCCTCT
TTTAAATGCAGTTTCAAAATCTAAACCCCTCTTTCTCCATTTTGTAGTATGTAGTTGGTT
GTTCCATTTAAATTTCCCTTATTGATAAAATTTCAATTTCTGCTAATGTCTCTTTAGCC

AAGTTTATTATTGGCATTGCCCTCCAACCTGAAGCCTCATGTCTGAAAATAACTCCATGT
TTTTTGCCTCTTCAATCAACTCCTTATAACATAAAGCTAACGGTCCTTTATTAGCTGTT
ACAACGTGTTTTTATTFTTTAAAGCTTTCTAATATATGAGTTTTAGCTGGGTCTCCTGTT
5 TCTAAGTTTGATGGTGTTACTTCAACAACAACATCCGCATCAACTCTTTTATAACATCT
ATTGAACCTCATCTCTCTTCCCTTCTCTGGATAATTTTTAATCTTCCAGTTTTTCTTTA
ACTTCTATTGCTTTTAGTAAATCTAAGCCATCTTCATCTATTGCAGCTCCAGAGCTATCT
GTTATAGCAACAACCTTAAATTCCTCATAGTTCTTTTTTAAATAATCTTTTTTATCATAC
AAGACCTTAGCAATTCCTTTTCTATAGCTCCAAATCCTACTATAATTATATCCATCCTC
10 TCACCAAAATTTTATTTAAATATGGATTTTATGAATAACAATCCTTTTTCTTTTTCTAA
CTCTTCAATAAGTAAAAAGCTCCTCTATCTTATCCTCATCAACGATAATTCTCATCAT
TGCTGATGATTCTTTATCTGGATGGGCATAATCAAATCTAAATCTTCAACAAGTCCCTAT
CTCATTTATTCTGTCTATTGTGTCTCTCACGTTGGTATCAACAACGTGCCCTATAACAAC
AACATCTAAATAAACCTTCTTATCTTTTCCATCTATTTTTTAAATTATAGCTCCCTCTTT
15 TTCTAAATCTTCTAAATCTTTTTTAAATTTATCTTTATCATCAACATCAATAACAATCCT
TACAGGAACCTTCCCTCCTCTTTTTTCTCTCTGAGTGAATAATGCTTATTACATTAGC
CCCGTATTTGAAATTTGGAGTTAAACTCTCAACAATCTCCAGGTTTGTCTTTAACTC
AATATCTATTGTAATCATATTTTACCACCACACATCTTAAATGCCTAATTTATAGGCAAT
TATGTTTCCAAGTAGATGAACAAGACAGTAAATAAACAGATTATAATTATCATCTCATA
20 GGGTATTGGAGCAACAATATAACCAATGCTAAAGCTCCTATAACAAGTCAAGTTGGTC
TAATAACGGAGCTGGCTTTCTCTTTCAATATTTAACCTTCTTTTTTATAAGCTACCTAC
TGCATCACCACAATAGCCCCGACTGATAAAAAGAAAGCCAATATAACATGGTCTAAAC
AGTGCCATAAAAATCTAAGCTATTAAAAATATTAAATCTACTAAAAATCCCTGAATTAA
TCCAACCTAACGTTCCACATAAAATTCGAAAATGCAACCTCTATATGTTACTCCATTACC
25 TATTAATCTCCTTCCATCAATAAAATTTTTTCCCAATCTACTGGAGTACCTCCGCCAAA
TATACATGCTGATGCATTGTGAACATAAGCTGGCAATATATACCAAGTGATGCAACAA
CAACCTATAAAACATCTGTCTCCCTTACATTAATTTAACTCTATGGTAGTTAAATTATC
CTTTATATATAAAATATTATTCTGTGAGACCATGAAATGTTCAATCTGTGTTTATACCT
CAAAAACAAAAAGATAATTAATCTATGAAGGGAAGCCAATATGTGTAGATTGTTTAAACAA
30 TGTTAAATATCTTCCAACTTTGAGAAGATGAAAAAGAGGTTGAAGAAATTTTATATA
ATTTAAAAAAGAGGAGGAAAATATCATTGCATTTTAGCATTTTCTGGTGGAAAAGATA
GTGTTTTAGCATTAAATTTTAAAGAGAAATTTAAATTAATCCATTATGTGTTATGG
TTGATAATAAGTATATGGCTAAAGAAGCCATAGAAAACGCTTTAAATGTAACAAACATT
ATCAAGTAGATTTAATGATATTAATAGAGATTACACAGATTTATTTGAAGATGCAATTA
35 AAAGAGGAGAAAGTCTTGTAGGAGATGCTCAAGGCTTATATTGAGAGAGGTTTGGAGAG
TTACTAAATTTGTTGGGATTGAAGTATATAATTACTGGGCATGAGTTACCTTTCCGGACCT
CTGCAATAAGGGAGATGAAGGAAGGCATAAAATGATAAGGTTATTAGCACCTATAAAT
TTAAGAAGAGGAGAAATATAAAATGTTAGAAGATTACCTTGGAAAAAACCAGATTTGG
GTGGTTATACAACAACTGCTTAGTTTTAGGAGTTGCATTAGAGAGATTTTATGATAAAT
40 ATGGGTTTAGCTTTGAGATTGATAGGATTGCTACACTTGTAGGTTGGGTTTGTATCTA
AAGAAAAAGCTAAGAAGGAATTGGAACCACTAAAGTTCTTAAGGAGATTTATGAAGAGT
TGAGAAGAAGAGGATTGAAGATATAAAAAAGAGGGATACTTATGAGCATAATAGCAATAA
ATGAAATGGCTTCTTAGATAAAATTAAGGAAGAAATCCTTTATTTACTTGTGTAATTT
CATCAATAGAACTACCTTATCAATTTCAATATCTGGAGTGCATAGGGATGTTATTAAT
45 ACACACCTCTGTCAGATGTTGAGCTGTTTTTATGGAATCTCTAACTTTAAAACTC
CTCCAATAGATGCCACTGGCTCACCAACCTGCAACCATAACGAGGCGATGTTGTTGAGC
TAAAGAAATATAAAAAACCTCCACATAGATGCGGGAGCTTTTGTAAAGCCAAAGATTCCCT
TTATAGAGATAGATGAAAAGCCAATGGGAGAATAGAAGAAGGTAAAGCAATGAATAACT
CAAAGGAATTATATATGAAGGTTATCTCTTAGGTAAAACTTAGATGCTGAATTATTAA
50 TTGTTGGGGAGAGTGTTCTGGTGGGACAACAACAGCATTAGGGGTTTTATTAGGATTAG
GATATGATGCCGAGGGAAGGTTAGCTCTGGCTCTATAAATAACCCCATGAGTTAAAAA
TAAAGGTTGTTAGAGAGGGTTTAAAGAAAGCTGGCATTAAATGAAAAATCATCTGCTTTG
ATGTTTTAAATGCCGTTGGAGATAAGATGATGCCTGTTGTTGCTGGTTTGGCTATAAGTT
TTGCTGAAAGAAATAAGCCAGTTATTTTAGCTGGAGGAACACAGATGAGTGCTGCTTAG
55 CAGTTATAAAGAGATTAACAAAAAGGTTTTAGATAAAAACTTAATAGCCATAGGAACAA
CTGAATTTGTTTTAAATGATAAAAAAGGAGATTTAAAGGGAATAGTTGAGCAGATAGGAA
ATGTTCCAGTTTTAGCATCTAAGTTTTATTTGAAAAAGCAAGATTGAGGGATTAAAAA
ATTATTGCAAGGTTTCAAGTAAAGAGAGTAGGGGCTGGAGGAATAGCAGTTTATAGTA
TAGTTAATGATTTGGAACCAACGAAAATAAGGGAGTTTATAGAAAATAAGTTTTATGAGT
60 GGTATAAAGAATAAAGCAATTTATTTTTTAAATTTTCAAAATAAATAATTATTATTGTAA
TGCTATTTTCAATAATTTCTATTTTTTCAAGGATTTCCGTTTAACTAAAAATTCGTATCTG
AAAATGGTATTTTCGTGTTTCCATTCCGAATCGGTCTGATTTTAAACCACAAAAGAGAGTA
TGAAGTTTTAAACGAGTTGTTCCAGTTTCCATACCGAATCGGTCTTATTTTAAATTGCAAA
AATTTTGGTTTGGCATTGGAGGGTTTATTTATTTTCAATTTCCATCCTCCAGAGGTCTGA
TTTTAACTCTTAAAAACAGCCACAAGTTAAACATTGGTTTATTTTCGTTTCCATCCTCCAA

-560-

5 GAGGTCTGATTTTAACTTATTGTGTTATTGTCAATTTCCATATTCCCCACCAAAAAATTT
CCATCCTCCAAGAGGTCTGATTTTAAACAGAAAAATGAAGTAAAGAGCTAAAAAGTGCTT
ATGTTTCCATCCTCCAAGAGGTCTGATTTTAAACGGTCTGATTTTAAAGAAAAAAATTAAG
ATAATAAAAAACATTTCCATCCTCCAAGAGGTCTGATTTTAACTAGGTTAAAAATTCGTAC
10 TTTTCTAGTCCAGATGTGCTTACAGCATTTCCTATCCTCCAAGAGGTCTGATTTTAAACAGG
GCAATCATTACACAACATAATATACTTCATCACTCTTAATATTTAAGCTTTTCTATACCAT
ATTTTCTAAGGATAAATAACCATCTTACAATAATAAACCTTTTAGTATTTAAAAATTTAT
CTCTTTACTAAAACTAAGCATTTTTATCTTTTAAATCCAAAAATTTAACTTGTCTGTTA
GAGAAATCTTATTTCCTTTCTTAATTAATCTTAATTTTTAAAAATCTGAATAATTCAATA
15 AACTCAAAATATTCTAATAATCAAACCAGCAAACCCTTAGAAATTAAATAAAAAATCCTTT
GAACATAATTAATAACTTCTAATACTCTTATTTCAAATTTCAAACATATTCAACAAGAC
AATCCATTAAACCAACAACAAAAATCAAAAATCCTAAAACCCAAATAATAAAATCTAAAA
TATAATATCTACGAaCTCATATAAATATATAATGACGCAAAAAATAAATTTATTTAGCAT
ATTAATAGAACTCTTAGATATTTAAATCCATCTCCCTCATCAAACTGTAATGAATAGTGC
20 TGTACTCCTTAGCAATTCCTTAAACATCCTCTCTAACTTTCTCTGGTTTTCTTTATCAA
TAGCTATCCTTTTCATAAATTCAGCTATTTCTTCCATCTCTTTTTCTTTTCATTCTCTAATC
TTGTACATCTTGTGTTCTTAACCTAATACCACTTGGATTGTCTGAGTTATTAACATCAT
CCCATGGCAATAAGTTTTTATTTAAATGATATTTGCCTCTTCATACATCTTAGCTAACT
CACTTGCTGAAAACCTCTATGCTGGAGAATCTCTATATCAATAATTACTTGATGGCTTT
25 CTGTAAAGTCTTGTGCTCACATAAAACATTAATCCTCTCTCATACAGAGCCTGAGCTA
ATGCCCTTGCATTCTTAATAACTTGTCTAGCATAAGCTTCTCCAACTCCAACATCTCAG
CTAAGGCAATGGCTAAACAGCCTTATGATGTAATGATGGTACTAACAACCCCTGGGA
ATACATGGCTGTCTATCTTGTGAGCTTTCTTTTGTGTTAATAAATCTCTCTCTGAG
GACCAAGAATGTTTTATGAGTGCTACCCATTAAATACTCCGCCCTTCTCTCAATGGGT
30 CTTGGAAGTCTTTCCAGCTATTAATCCCAAAACATGAGCTCCATCATAGGCAATTTTAG
CACCACCTTCTTGAGCAGCTTCATAGGCATCAGCTACTGGATGAGGGAATGGGAATAAAG
AACCTCCAAACAATATTAGCTTTGGCTTCTCTCTAAGATTTTTTAAACCATTCATCAG
CATCAATATTCTCTCTTCTGGCTCGAATGGATGGTTTATAACTTTTAACTCTCTAATTC
CAGCAGCACTTACTTTCCAATGGCTTATATGCCACCCTCTGGAACACTTAAAGCCATTA
35 ATTTATCCCCTGGCTTTGTTTCAGCAAAGAAAACAGCTAAATTAGCAACGACACCCTTG
TTGGCTGAACGTTTGGCTGTTTCAGCTTTAAATAATTTCTTTAGACAACCTCTATACAGAGTG
TTTCAACTTCATCTATATATTACATCCTTGGTATAATCTTTTCTTGGTAATCCCTCAG
CATATCTAGATAAAATCTGTTGCACAGCCTCTCTAAGTCTAACTGTTATATTCT
CACTTGCAATTAATTTTATGCTCTCTCTCATCCACTCGTGCTGTTTTATTGAAACGTCCC
40 TAATAAACTTTGGAACATCCGAATATTCCATTTTTATCCCTCTTATTAACGTTTAATAGA
AATAGAAACAATAAATATACCGTATTAATACTTAAAAATATCTTTAACTATACTGTCTT
CAAAATTAATTAAGTTTTATTAATAAATATTTGACAATAAATATTTAAATGCCTTCCTTT
GGAAGGTGTTCTAAGCTACTGGTTACTTCAAAATGTTTTGAAAGACACTATATAAAAA
AGTTTTTGGTGCTGTCTATGATGAAGGTGTGTTTATAGAAGGGATGGAATAGGAAAAG
45 AAGTGATTCCAGAGGCCATnAAAAATTAATGAGTTGGGAGAGTTGAAATAATAAAG
GAGAGGCAGGATTAGAATGTTTAAAAAAATATGGTAATGCACCTCCAGAGGATACAATAG
AAAAAGCTAAAGAGGCAGATATTATTTGTTTGGGGCTATAACCTCACCAAGCCAGGGG
AAGTTCAAAATTATAAAAGCCCTATAATAACGTTGAGGAAGATGTTTCATTTATATGCAA
ATGTAAGACCAATAAACAACCTTTGGAATTGGACAATTAATTGGGAAAATTGCAGATTATG
50 AATCTTAAATGCTAAGAATATTGATATAGTTATTATAAGAGAGAATACGGAAGATTTAT
ATGTTGGTAGAGAGAGATTAGAAAATGATACAGCAATAGCTGAGAGGGTTATAACAAGAA
AGGGTAGCGAGAGAATAATAAGATTTGCATTTGAATATGCTATAAAAAATAATAGGAAAA
AGGTATCTTGCATCCATAAAGCTAATGTTTTAAGAATAACTGATGGTTTATTCTTAGAGG
TTTTTAATGAAATAAAAAAACATTATAATATAGAGGCAGATGATTATTTAGTTGATTCAA
55 CAGCTATGAACCTTAATAAAACATCCTGAAAAATTTGATGTTATTGTTACAACAACATGT
TTGGGGATATTTTATCAGATGAGGCATCTGCATTAATTGGAGGACTTGGTTTAGCTCCTT
CAGCAATATAGGAGATGATAAAGCATTATTTGAGCCAGTTTCATGGTTCAGCTCCAGATA
TAGCTGGGAAAGGTATAGCAAAATCCAATGGCATCTATATTAAGTATTGCTATGCTTTTTG
ATTATATTGGAGAGAAAGAAAAGGGAGATTTGATTAGAGAGGCAGTGAAATACTGCTTAA
60 TAAACAAAAAAGTTACTCCTGACTTGGGAGGGGATTTAAAGACAAAAGATGTTGGAGACG
AAATTCTAAATTACATTAGAAAGAAGTTAAAGGGATATTGATGAAAATAAAGATAACTAA
ATCCACAATATTGTTGATAATTAGCTTTTTTATTTATTTTAGCAATAATGGCATATATTGG
CTTAGATAAAATAATAAAGTTCTTATCAATACAAACCCAGAATATGTAATTTCTTGCTTT
TATACTTCAAACTAGGTTTCTGTAATCTCTCAGCAAGATGGAAATTTATAATTAAGAT
TTTAGGTTATTCTGCAAAATTTTAAAAATATCTTTTACTCGTTTAAATGGGATTGTTTAT
TAACAATATAACTCCATCTATGAGAGGGGGAGGAGAGGCATTTAGAGCTTATTATTTATC
AAAACCTTGAAGAGATTCCAAAAGGTTTGGCATTTTCTACAGTTGTAGTTGAAAGAGTTT
AGATACAGCGATATTTTATTTTTCACATTATTTGTTATTGGATACTTTGTAGTTACTGG
ATTTAAGTATCTTGAGTATCTTATACTATCTTGATTTTTTATTTTCTCTAACTGCAAT

5

10

15

20

25

30

35

40

45

50

55

60

AATTATCTATTTAATTGCAAATAAAGGACTTCTAATTAAGACGGTTACCAAAATATCAAA
GTTTATCTGTAAATATTGCTCATATAATTATGATGAGACAAAAATCCTACAATCTATTGA
AGAGTTTTACAACAGTATGAAATTTTTAAAAATAAGAGAGGATGGGAGGTTGTTGTAGC
CATATTTTTATCAGTTATGCGGTATATCTTCGATATTTTAAATTTATGGCTGTTATTTTT
GTCTCTCTCTTATGTTGTCTCAGTTATTTGTGTATCTGCAGTATATTTAATAACCCCTCCT
CTCTGGTGTATCTATACTCCAAGTGGCTTTGGAACAGCAGACACAGTTATGATACT
TTCTTTCTCTGCTTTTAAATATCTCCTTCAGTCGCTGCAGCAGTTACTTTATTAGACAG
ACTTGTCTTACATACTCCCTACAATCCTTGTTTATATTGCTATGTTAATTATAAAAAG
AGAGATTGATAAGAAAAAGGAAAAATAATTTAATATAATATCTATTAATTATATTTTTATT
TAATATACTTTTAAATCTCTCAAAATCCCTTTTCTCTATACAAAATATCTGCCTTCTCTT
TAAAAATTGGCTTAGCACAAAAAGCTATCTTCAACCAGCTTTTTTAAACATACTTATGT
CATTAGCTCCATCTCCTACAGCAACAGTATCCTCCAAATTTATCCCTCAACTTTAGCTA
TCTTTTCCAAATTTCTCCCTTAGCATTTTCTTTTAAAACTCTCCCTCAACATCTCCAG
TTAGTTTTCCATCTTTAAACAATCAATCTATTTGCAAAAGCATAATCTAATCCCAATTTTT
CTTTAATTTTTATTAACAGCAATATCAAAACCTCCACTAACACAGCAACAACATAACCTC
TATTTTTTAACTCTTTAATAGTCTCTTCAGCTCCCTCTGTTGGTGTATTCTTTTAAATAG
CTTTTTCAACCTTTTCAATTGGAAGGCTTTTAAATAAACTAACTCTTTTTCTTAAAGATT
GCTCAAAATTTAATTTCCCTTCCATTGCTTCTTTAGTAATTTTTTAACTTCTTCCCTCAA
CTCCCGCCTCTCTTGAATCTCATCAATTTGCTCATTATTAACCAATGTGCTATCAAAAT
CAAATAAAATAAGCTTTTTCTTCTTCTCCATTCAATCACCAACTTTAAAAATTTTAAAT
TAAGTAAATTTAATAAAAAAGTTTAAATAAAATTAATTATTCAATTTTCTCGACTTTTAT
CTCATAATCATGAATAACAGGGTTTGCTAAGAGCTTTTTACACATTTCTTCAACTTCCCTC
TTTAACTTTTTCTTCATTTTCTCCTTCCATTATTATATCAATCATCTGTATGTTTGGAC
TTCTTTAACATTATTAAATCCTAAAAAGTTTAAAGCTCTCTGTATTGTCTTCTCTCTGG
ATTTAGAACTCCTTTTTTAACTTTATTATACTGTTGCTTATACATAATTTACCTTTA
TTGCTTTATAATAATCCCAATCTCTCAGCGACAATTCTGTATTTTGAATAAACATCCCT
AAATCCTTTCTAAATACATCCTTATCTAAGACATCTCGTGTCTCCTTATCCACAATCTC
ATAGTATCTGGGCTTATCTCATCTGCAACTAATAAATTGCTTCCCTATCTTTACCAATT
TCAATTTTGAAATCAACTAATATAATGCCCTTCTCATCAACCAATTTCTTTAATACTTCA
TTAACCTTTTAAAGCAATTTCTTAAATTTTATTAGCTCCTCTCTGTAGCTAAACCTAAA
GCTACAGCAATATCTTCATTTAGCATTGGGTCTCCATACTCATCATTTTATAGTCAAAAT
TGAACAATTGGAATGGCAATTTCTTCCCTTCTTCAAAAGGATATCTTCTACACAACCTT
CCAGCAGCTATATTTCTAACTATAACCTCAATTGGAATTATCTCAACTTTTTTAGCTATC
ATGTATCTTGGTTCTATATACTTTATATAGTGGGTTTTGACTCCATTTTCTCTAAAGCC
TCAAATAACTTTGATGAGATTAGAGCATTTAAGTAACTTTTCTTGTGTTGACATCATGC
TTAGCTCCATTTCCAGCTGTTATATCATCTCTAACTCTATCAAAACTTTATCATCATCA
ATCTCATAGATTGACTTTGCTTTCCACTGTATAATGGCTGTTTTTTTAGAATTTCTTCT
AATTTTATCTCCATACTTTACCTTAGCTATAACTTTAAATTTTAAATTTTAAACTCTC
ATTTAATTTTTAATCTTTATACTTACAATGTAATATAAAAAATTTATAGTTCTTTTCAAA
TGTTAATAAAGTTTATTAATTAAGTTTGAACCTCCTTCTAATGGAAGGAGTTTCATCAGT
GCCTTAGTTATTACAAAATATTTTAAAAAGAACTATAGTCAAAACAGTGAAATAAAAAAT
AAAAATATATCAAAGATTTGATGTGCTCCCTTAAAGGGTTCCGGCACATCGTAAGAACG
TTATAAAAACTGCCAGCAGGTTAATAGCATATATGTTTGTATTTAAATTTCAAT
AACTTTAACATCCTTACTTTAAACTGCTTTACCTTCACTTTTTTCACTCTTCCAAC
TTCAAAAGCATAGCATTTAGCTTTTTTCAACTCATCAATTAATTTATCTTTATCTTCT
TTTTGCTGATATTAATAAGCCACCAGCAGTTCTGCACCATAACCATCCAATAAAGCATG
TCCAATAATCTGCTTAACTCTGGAGTCTTTTTATACAAGGCAGTAAATTTATTTCTAT
TAAACATTGCTATTCTTAGCCATTTCAATTTGAATGCCCAATATTCCAATCCAGTTAT
GTCAGTTAAAGCATTTGCTATTTTATCTCCAATCTTTCTTCAAGCTTTCTTAGAGCTTT
TAATGCATATCTGTTTGTATGTAGTCAATTTAACTCCTTAACTCCTTGGGATTCTTGATAACGCCAT
TTCTTCTTCACTTATGCTAATTTAACTCCTTAACTCCTTGGGATTCTTGATAACGCCAT
CGCTGTTTGAAGTTCTTAATGTTTGTAAATTTAAACATCTCCTACCTTAACTCCAGC
CTTTGTTAAACCTCCTCCTCTCTTCCAACACCAGTAACTGCTCCTCCAATTAAGGGCCA
TGGATTTAGTATTGTATGACCACCAACTATTGTTGTTTTGTTCTCTCTGCAGAAGTCTTG
AAAGCCCTTTAACATCTCTCAACTACGTGATTGGAAGCTTCTCTGGAATACCAACAAT
TGCTAAAACTCCTACTATATCAATAGTCCCATAGCATAGATGTGCTTGTGAGTTGCA
AGCTGCTATTTTTCCCTGTATGTATGGGTCACTCACTATTGGTGTAAGACATCAACTGT
CTTTGCTATAACTAACCCATTCTCTTAATTTATGATGCATCATCTCTAAACCAACCAA
GATATTTTTGTCCAATAAGTCATCATCAGTAACTATTCTTTAACTAAAACTCTAECT
GGTGCTGGGCAGTTTGCAAGCTCATCCGTGGAGTTTAACTAATTCACTTAGTTTATTTT
TTCATTACCTCTTTCCATACTCTCACCTAAAAGTTATAAATTTATAAACATACCAACAA
CTACAATTATTAGTAAATTTGATAGCTTAATAGGACTTATACAGATAATATTTTATTTA
TTGAATAATGATGCCCAAGGGCCAAAATTAATACTAAAATTCCTAATATGAAACCAA
TAACTGGACTGTGAGTTTGCTTTAACTCAGTCTCTTTATATATAAAGTAGTTATTA

-562-

5
10
15
20
25
30
35
40
45
50
55
60

GGCCCAATAAATATACCAACAACAGTTAAACAGGAAAAGCTTTTGAACTAGTGCCATT
CCTAATGTAGTCCCAATAAATGATTAATAATCCAATTTACTAAATCCCTTGTGTGACAT
GCTATACAGATACCAATAAGCTGGTGGAGGGAACACTTTAAACAGTGCTTGCAATATTGCA
GCAGTGAAACCACCTATCAACCCTGCTATTAGTGGAGAAATTCTCATCGTTTTCCATCAT
TTTAGATTTTTTAAATATGGTTTTTGATAGATGCTAACATTTATTTAAATTTCTAATTA
TAAAAAGTTTTTGCAAAAGAATCTAATAATTATTTAGCTATTAGAAAAATTAATTAGGT
GATTTAAATAGGACTTTCACAGTTTTTATTATTGATAAGGCATTTAGGAATCAACTTTC
CTTATAAAAGTCTATTTCCTGCGAAAGCCCTATTAAATAAACTTTAAACAATAAAAAAGAG
ATACCAACAACCTATTACAATTAAGATATCTCATAAACAATTAATGTAAAGTAGC
TAACTTTGCCCCGATTTTTCCAAATATTGAGAGCTGTATTGGTAAATACTTTCTCAAATA
AAGAACAACCTCTATTAAAAACCTGCGAGAAATAAGAAAAAGAGAACTTCATTTGGAGAC
AGTATATTTTCATCTAAAAGTCCAGATGCAATACCTATAGCCCCGAAATTGTAGCTAAC
CCTGTAAGCACTATAACTAAAATAGTAGGAGATAAATTTAAAGCATTTAATAAAGAACCA
GCAAAATCCTCAACAATATCCAATAAACCATGCTCAATAAGATAAGTTATTATCAAAACA
GATGGGACAAATGATGTTAAACTCTAAAATACTGCTTAAACGTATCTCTTATAGCTCCA
TATAAACCTTCTGACTTAGATTTAAATTCAATATCAATATTGTATTTCTTTTTTAAAGC
ATTAAACACTTATAATCAATAATTGCATGTTACCAAAAATTTTATTAGCATATAGATG
CCTCCAACATACCAACCCAACTTGTAGCCATTGGTATAGCATAAAATAAAATTTATGTGG
ATTTCCAAATACAAACATCCCTAAAAAGTAAATTGGCAAAAGATTTTCTTCTGAAATTTCA
CCTTTTTTAAATAAATTTTTTAAATAAAGCTACCTGATGTTGAACATAACAAAAAGACA
GCAATTATTGGGAAGTATTTATTTTTTATATATTTTTGAAGTTTGTATAAGATATTTAAA
TGACACATAAGATTTGCTAAAAGAATTCCAAAAACATTATTGGAAGTATCTTTATAAAT
ATCTGCAATGCCATCATCATGTTCTCAACTAATAGTTTTTGCAAAAACTATTAACT
TCTTTCATTTTTCTTTGCTTTCTTTTTTAAAGGTAATAATTACCTAAAAATCCGGAACT
ATTGGAAGGGGAGTTAATATATAAATAAATCCTCCAAAACTCCTAAATCTTTTTATAA
AGTTTTATTGAATCAATTGTATTATCTCTATCCTAAAAATTAAGATTTTATTAACCTC
TTTTCTGACGTATAGACAACCTTATAACTCCATAATATTGCTTGATACAAAGGTGTTGGC
TTTCTTCATAAGTCGTTCTTTTTTAACTATTGCTTATACAAATCATCAGCTGAATTT
CCCTCAAATAATGTATAGGCATTCCCTACCATCCTCGCTATGTGAGCATCACTCCCTCCA
ATAAATGCAAAAGGCTTTTTTGGGTAGTTCCTTTATAACCTTATTTAATGCTATATTATT
AACTATTCATCCCTATGGTAGGCATTAATAACCTCAACTCCATCCAAATCTAAGTCAAA
TATTCGGTCTCCAAGTGCTTTACAGATGGGGCTGTAGGGATGGGGAGCTATAGCTAATCC
TCCTTGTTCTTTAAATTTTTCTATAGTTTCTCTGGAGATAAACCTTTAGGTATATCTTC
ATTTAAAAATAAACCAATTATTTCCCTTCGGTAGTCATAATCTCGCTACCTATAACAAAC
TTCAACTCCAACTCTTTCTCAATTTTTTGTCTCAACCCCTCCCTAATTGTATTATG
GTCAGTTATTGCTACAACCTCAATGCCTTTTTTCTTAGCTACTTTCAATATATTCTTGG
CTCTTCAACAGAATCAGGGAATTTAAGTTTCCAAAAATTTACCAATTCAGAAATATTTTGT
GTGTATGTGCAATCTGCCTTCATAATCCCTCCTATTATTTGTCTTTAAATATTTTTCT
TGAATAAATAATTTAATAGTTTCATTGAAAGATTTTTAAGACATTAGGGATTTTTCAAT
CAAATCTAATGGGGTATAATAAATACCTTTCTCTTTTAACAGCAAATCTCCAGCATAGCC
GTTTATAAAAGCTCCACAACATGCTGATAAAAAATGCCTCATTAAACAGCAAATAAAGCCCC
AATTAACCAGCTAAAACATCTCCAGTTCTCCCTTTGTCAAACCAGCATTTCCAGTTTT
GTTTATTTTAGATTGTTGGCATTAAATATTATATCATATTTCCCTTTTAAACACAATCGT
TGATTTTATATTTTCAATGTTATCTAAATCAATCCCCATATATTCAAACTCTCTTTTGTG
AGGAGTGAAAATATAATTCTCAGAGAATTCAAAGTTATTATAATCAATAACTTTAATTGC
ATCAGCATCAATAACCACTTTCCATCATATTTTGTCTAAGAACTCATTAAAAATGCTTT
AGTTCTATTGTTGGCTCCTAAGCCATTACCAAGAACAACAACATCATACTTTTGAAGAA
TTCTAGAGTATAATCAACATGTTGAGAGCTTAAATAATCCCTTCAACCCCTATACATAAT
AACTCTGGATGATTTACTTTATCTATAACCTTACCGACTGACAAAATCCCCACCAATC
AACAAATTTTAAATGCTGCCAAACCAGCCAATATTGGAGCTCCATAAAAAATCTTTACTACC
TCCAATAATCAAACTTTTCCATTTTGCCCTTTGTGGCTATTGCTATCTCTCTCTCTTAG
AGCTTTTAAATCTCCCAAGCAACTATGATTCTGCCTCCTTAGGAATGCCAATCTTTTT
TACAATGGCGTTGTCTTTGTTTATAGTCTTTCTCTTGTGGAAAGTTATAGTTAAATCGCT
TTCTAAATGCCCTGTCTCAACATCTACACTTATAACAAAGATATTTTTGTTTATTTGCTT
TAACTCGTTTATTTTATCAACTATGGTTTTAAATGGCTCTCTTAGCTCTCTTTAACACC
AGTTCCAATCATTCATCTATAATAACTGCCTTTTTATTTTTTAGCCTTCAAATATATC
ATTAACCTTCCCTCAGCCCATTTAATTTCTCTAATCCTTATATTTCCAACTCTGCCAAATT
TTTTAGTATCTTAAAGTTTTCTCTTGCTCGTAGGTTTTTATCTCTGACTCTTTTCTAT
TAATATAACATCTCCCTTTCCAAGATGCTTGCTACAACAAACCCATCTCTCCGTTATT
TCCAGTTCCACAGAAAATGATAAATTTCTCAGCATCAATATCCTTAATCTCTTCATAAAC
TGCCCTTTCCAGCATTCTCCATTAATAATATTTTTTGAATTTCCAAAACTCTGCATTATC
ATCAATAATTGCCATTTCTTTGGTGTTATAACCTCTTTTTCTTTAATTTTTTGTTTTAA
TATTTCAAATAACTCCATTTCTCTCACCAAATAGGAAATTATTAATATCCCTTCTCACATA
ACTATTTTTGTAGTTAGTTTCATATATTTATTGTGGGATTTTTATGATAAAGAGGTTAA

5

10

15

20

25

30

35

40

45

50

55

60

AAAAGAGAGATGTAAAAGTGCCACTAACAGTTCCAGAAGACAGAAAAGAAGATACATAA
AAAAC TACTTAGAATTAACAAAAGAACTGGAATGTAAATGCTATTCGCTGGAGACCAGA
AGATTGAACATTTAAATGACGACTTCTTTGGGGAGGGGATAGCTAAGGATGACGCATCTC
CAGAACATCTGTTTAAATATAGCAAGTAAAGGAAAATCTGCCGATTGCAACACAACCTCG
GATTAATAGCAAGATATGGAATGGATTATAAAAAAATTCCTATATTGTGAGAGCTAACT
CAAAAAC TCACTCTTGTAAAACAAGAGACCCAATAAGTAGGGCTTTAGTCATGTTAAAG
ATGTTGTGATTTAAAGAAAAC TCTGGATTAAAAATATTGGGGGTTGGTTATACAATCT
ATCCTGGAAGTGAGTATGAACATATAATGTTTGAAGAGGCATCAAGGTTATATTAGAAG
CTCACAAGCATGGCTTAATAGCAATAATCTGGAGCTATCCAAGAGGGAAGAATGTTAAAG
ATGAGAAAAGACCTCACTTAATTGCTGGAGCTGCTGGAGTTGCCGCATGCTTAGGGGCTG
ATTTTGTAAAGTTAATTATCCAAAGTGTGATAATCCAGCAGAGAGGTTTAAAGAGGCTG
TCTTAGCCGCTGGAAGAACTGGAGTTCTATGTGCTGGAGGTTAAAGTATAGAGCCAGAAA
AATTTTAAACAGATTTGGGAGCAAATTAATATTAGTGGGGCAAGAGGAAATGCAACTG
GAAGAAATATCCACCAAAAGCCTTTAGATGCCGCTATAAGGATGTGTAATGCAATATATG
CGATAACCATTTGAAGGAAGAGTTTGGAGGAGGCTTTAAAGATATACTATGGAGATAGGA
AATAAGTTGATGGAGATGAAAAATGATATTAGTAAATGGAACTCATAAAAACATTATAC
AAAGTTTAAAACTTAAATGTTGGTATGATGATGAAAATTACGCTTGGAGTGGAGGTTTA
TCTGCTTATGCTGATGGATTGAGGTTGCTGTCAAAGTTGATTGTTAAGATTGAAAGT
GAATATTGTAGGTCAGTAACTCGAAATTTAAGGAATTTAAAGCAAGTGTGTAATCTT
AATGCAGTAGATGAGGATGAGTTAATAGAAACGCTATATAGGGTGTACGTCAAAGTTGT
ATTATGAATATAGATGATAATATTGGAGAAAGTTTGGAAAAAAGGTATATGCAAGTGG
TTAAGGTTATTAAGTAAATTAGGTTTATTTGAAATTGAAAGTGAGCAAGGAGATTATATA
ATTGGAAAATTCAGAAATTTAATTTATATCTTTGGACAATCCAACCTTTCTGAAAAATA
TTTTTATATCAATTATTGGTGTTCATTGTAAAGCGTCAATTTTGTCAATGAAATTTTAT
TTCTATAAATTTTATGTATTTTACAGTGTATTTTCCAATAGGGTTTGGTCTGTAGGGAG
AACGGGTAGCAAAAACCTCTTTTAAATGGGTTATTTATATCCCTCTTGGATGAACCTTTA
AAATTTTTCGTTTTTCTTCACTGTCTGTTTTTATGAAACCAAAACCAAAACAATAATGTAAT
CTCCCTCTTTAAACCATCTAACCCCTCTACAACTCATCAATATATTTAGGACTGTAT
AGTTCTCATTTTGTCTTCAACTCCAATGGGTTTAAATAATACATTACAATCTCCTCTT
AAAGAATTTACATGTGTTTTTGTAAATGACATCTTTACCTCTTCAACTTCCATCTCTTT
AATCTTTGCTATCTCCTCAATAACCAATTTAACATTCTTTGGTTCAATTTTAGTTCTCTT
GATTGGAGATAGATAAGGGCTGTCTAGTCTCAGTAGTTAAATACTCTAAATCTAAGCTTTC
AACAACTTTTATGATGTTCTGAAAAGCACACCAATGTTGAAATTGATATTAAATGCCC
TTCTTTTCCAATCTCCTTAGCTAATCTACATCGCCACTATAGCAATGGAACATAATATC
AACCTTATCTTTGGCTATATCAATATCTTTCTCTCAATCCTCTTGCATGAACAACCTAT
TGGTTTGTAAAGCTCTTCAGCTAAGGACAAAAATTTTTAAATATTTCTTCTTGCCTCTT
ATAGTTTTCATCTTTGATGTCCATTCCAATCTCTCCAATAGCCAAAAATCTCATACTCAT
ATTTTAAATTAGGTTATAAACCTTCTCTATAAATTTATCATCTGCTTTAACTCTCGAAGG
ATGATAGCCAAGGGTTAGATAAATATATATTTCTTTCTAAGCTCTAAAGCTCTCAAACA
ACCTCCTAAGCTTGCTCCACTTGTACTATTATAACGCTCTCTTTCTTAGCCCTCTCAAT
GACCTCATCTCTGTTTTTGTGAATGCTTTATCTTCTATATGGCAGTGAGCATCAACATA
TTTCACATCTCTCAAACTATTCACCTTCATTATCCTCAATTAGCTTCTTTAAATGGCC
ATTCTCACTGGAATTCATAAAACTCTGCTTAAATACTTTGCTTGAGGTAAATCATCA
ACATCATATCAATTTCACTCAACTCTTGGAATGGATGCATAATTATAAATCTTTCTCT
TCGACATACTCTCTCTTATCTTATAGCTACCTTTAACCTTTTATATTCTGTTAGGCTCT
GGAAACCTCTCCTTCTGGATTCTTGTACATATAGAACATCTATATCATCATCTAAATCA
TCCAACTTTCTTTTCAATAAAATTTTATATTTTATAGCTTTTAAATCTTCAATAATATCT
TTTGGTAGTCTCAATCTTTTGGAGATACAAATACATCTCAACATTTTCAATAAGGAT
AGGGCATAGACCAAGGAATGAACTGTCTTCCATACTTCAATCTCCAACAAACGCTATC
TTTATCCCATCTATCCTGCCAATCTCTCTATTATTGTGTATAAATCCAAAAGAGTTTGA
GTAGGATGCTGATTACTCCCATCCCCAGCATTATAAATTGGAACCTTGAGAAATATCACT
GCCAATCTTGAGCTCCTTCACTTGAGTGCCTTAAACAATTAATATCAGCATATCCACTA
ATTACTCTAATTGTATCTATTAACTCTCTCCCTTTGCAACAGAAGAGCTTTTTAAATCA
GTCATTGTTATTACTTCTCCACCTAACCTCTTCATTGCCGTTTCAAACTCAATCTTGTC
CTTGTGATGGTTCAAAAAACAGTTGCTAATATTTTCCCTTCCAATAACTTTAAAGGT
CTTTTTGTATTTAAAGCTCTTCCATCTTCTTGCTTCACTATAAATCTCTAAATCTCC
TCTTTTCCAATATCCTTCAATTGATATTAGATGCTTCATAATTATCCCTATTAAAGCATAT
ATATGAGGTTTGATAGAGTATTTATAAAAAAGATTTATAAAAAATTTGGAGAAAAATTG
TGTGCTTTCAAGATAATAATTTGCTAATTTACACCTCCGGGCATAGCGAGGAGGTGTTA
GGGTATCACAGGACTTTACAGAAATFAAAATTTTATGATTGAATAAAGATGCCTTTGGCA
TCAAAATTCCTTATATGGTATAAAAAAGCTGTAAAGTCTTTGTCAATAGGGTTTTCCCAT
GCTTATAAAAAATTTGGAGGAAAACTTATGGAATAATCCAAATAGTTGGGGTTATATT
TGCAATGTTTGCCTTGTCAAGGTTGTGTTGCAGTTAAAGAAGAAGTATAAGCTTTAA
TGAGGGATTATTTGGATTTTGTCTGGGGTTTCTGTTGAATATTTTAGTATCCAGA

GT TTTT TGGATATGTTGCAGAAGTTTGGGGGTTGGTAGGGGAGTTGATGCACTTATATA
TATATCGATAGTTGCTTATTCTATTTAATTTATAGGTTGTATGCCAAAATAAACAACTT
AGAAAGGCAGATAACACATATAGTTAGAGAAATAGCTATAAGGGATAGATATGAACCAAA
5 GAAAAGAGATTGAATTGTTGATGTTTGATGTTTGCCTTATATGGCAAATATGGAGTTT
TTAAAGAGCTTTTAGAAAGTGTTAATAGCTTAGAAGAGCTTGAACAGAAAGTTAGAGAGT
TGTTAGAGAAAGAAACCGACATTACTAAAAAACTGATTTAAAGATACTGCTTGAAAAAA
TAGAGGAGAGAAAAAATAAGTAAAAAATAAAAAATAAAAAATTTCTTACTTCTTTTTCCTG
10 TATTCATGTTCAAAATCTTTATCAAAAGTCAGAATGAACTTTTCAAAAAAGTTTCATCA
AAATTTTTTATGGCTTTTCTATATTCATGCTCAAAATCTTATCGTAGAGTTTAGAGTA
TGCATAATACTTTGGATTAAAACCTCTCCAACAATTATTAGTGCAGTTTTTTTTAATTCC
CTCTTTTTTTACCTTTTCAGCTATATCCTTTAAAGTCCCTCTAACTATTTTTTCATCATC
CCATGAAGCGTGATAAACAACAGCCACTGGAGTTTCTTCTATAGCCACCTTCAATTAG
CTCTTTAACAACCTTGTCATCATTTGAAACGCCATAAAAAATAGCCATTGTTGATTGATG
15 CTTAGCTAAATCCCTCACTTTTCTTTTCTGGCATTGGAGTCCTTCCCTCTGGTGTG
GATAATAACTGTCTGAGAAACCTCTGGGAGAGTTAGCTCACTTTAATGAAGCAGTTGC
TGCAATAAAGGAGCTAACTCCTGGAATTATCTCTACATCTATTCCATATTTAGATAGCTC
ATCAATCTGCTCCTTTATAGCTCCGTAAATAGAAGGGTCTCCTGTGTGTAATCTAACGAC
TTTCTTTCCTTGATTAACTGCTTTAACCATCACATCAATTATTTCTCTAAGTTTCTGTT
20 TGCATGTTGTAAATTCAGCATTTTTTTGTTTACTCTAAGAGCTTTTCATTGACTAA
TGAACCAAGCATAGATAATTACATCCGCTCTTCTATAGCTTTTTTACCTTTGATTGTTAT
TAGCTCAGGGTCTCCAGGACCTGCTCCAACAATTATACTTTTCTATTATTATCCATTAT
TTCTCCTCTTGTTTTTGTTTTATAGTAGGTCTTTCAAAATTAATAAAATTTACTTATGA
AAATTATCTCGCTCCTCCTCCCCGCCACCAAGCCTCCTCCTGCTCCAAATCCTCCGCC
25 AGAGCCTGTTGTTGATGAATATACACTATCTACAGAGTTTTTCATTGAATCATAGTTTGA
GTGAATTATTACATAGTCAGCAACCAATTCAGAGAGGTTTAAACGATTTTCATCGCCTCAAC
GACTTTATCTCCAACCTCTAAAGCTGTTCCATAAATAAGCCAATCCTTCCAAATTGATAT
ATCCTCCGGAGAAATATTTTTTAATCATCGCTAAGTTGGATAAAAAAGTTTTTAAACGCATC
CCACTCCAATTTTTCTTTATAATAATTGGCTTTCCACCTTCCAAACAGAGATGTAGGGGT
30 TAATGCCAAAATAATATTTTGGACAACAAATACTATTGAGAGGTAAAATACCTCATTTAA
TGTTTGGGAAATATTTGGGTATGAAATATAGGAATACTGCAAGTAATATAGATATTACTAA
AAGTGCTATAATTATCTTCTTCTCTGTTTCTAAGAAAGCATTACCACCTTTTGATGA
ATATCTTGGATACTCCATAATTTTATCTAATCATCTTTTAACTTCTTAAGTTTATCCTT
AGAAGATTTTATATTTCTGAGCAAGGGATTTTATATACTCAGGGTCAAAATACATTGTTTTT
35 TGAATACTTCATCAAAAACCTTCAACATCTGATTCATATAACATCCAAATTTTCTAAATC
TGTTTTTAAATCTCTATTTTTCCACCGTTCATTATTTTTATATAGCCCCCTGTTATGTAA
GTCCAATAAAGTGGCATAAAATCCCTCTTTATCAAAAAATCCGGCATCTCCAGCAAATAT
GAGATTAACAATCCATGGTTTTCTATTTTTATTGGAACATAGCTTAAATATCTGGAAC
TACATAAACTTCTCCTTTCCAAATTTTAAATATATGATATAAGCTATCAATGGAAATAA
40 CAAATTTATTGCCATTAGGAGATATTTTAAAGTCATTACAATGTTACTTACAAAAGTATA
TTTTTTATAGGCAGATATTGTTTTCCCTCTACATTATAAACATATCTGTGAAATCCATT
AACTGAATTTGGTTTTAACAACTTTCAACTTCAATTGGGTCATTCTTTGGACTACTTCC
TTCAATAGTATAACCAAAATATGTTTTATAAACCTTGAATGTTGAAGGATAGACGAACAA
ATCTAATATACTGTTATTTTCGTCTATAACATTAATTTTAACTTTTGTAAAGGAGGTG
45 TTCTATCTGCAAGCTTTAAATTTATATGATAAAATACATTGTCTGGTCTCAATTGGAGGATA
TATGACAACTTATAACTTGTGTATAAATCCGGGATTGCGTATGTAAAGAGGGTTATA
GAATCCAACCTTCGTTTTCTTATATAATTTTATCTACAATCTCTTCAATATTTCTTTTTAT
CCAGTCTCATCACTAAATACAAAATGTCTCCTTTATAATCAACAACATATCCAACCAT
GTCTTTTGATGAGGTAGAGAGGTTTAAACCTTTTACATAAGGGGTATTTAACTGCCATT
50 ATAGACCAATGGAGCTTTCCAATCTCTATATAGCATCCTGTACTTCTACCTTCTAAGAC
CTCATAACTGTAAATTTCTTCTAATGTTAAATCTTCCCAATATACAAATTTGCCTCATA
GTCTTTAATATATAGAAAGTGATTTTCATTCCGTTAAATGATGTGGTCAAAAAAATTC
AACAACCTCCACATAAAATGAGAAGACAGACAATGATAATTTCTTCTCCTCCCTCAT
AAAAATCCCTAAAAAATTAATAATTAATAATTAAGCTAATCTTAGGTCTTTCATATATC
55 TCCTCTTCAAACTGCAGATAATCCATCTTCTTAAATCCAAATAAATTTGCTACAATATTT
GAAGGGAAATGTATCTATTTTTGTGTTGAACCTTGGACTATATTATTAGGTGTATCTA
TGCCTTGCAATCTCATCTCTATCTCCTTTATTGCATCCATCAACTCTTAACTGTCTCG
GAGGTTTTTAACTCTGGATAATTTTCAACAGCTACTAAAATATTTCTTAAGATGTTCTT
GACTCTCTTCAATATTTTGAATTTCTTCAAGCTGTGTTTGTCTTCAATACGCTACTCCTC
60 AGCTCAGTTATTTTGTAAATTTCTTCAAGCTTGCATAGCTTTTAACTGCCTCA
ACAAGCTGGTTAATCATGTCCAATCTCTTTTAAAGCAACCCTTATCTGCCCAAGTT
GCCTCAGCTCCATTTTTTAAATGTTTGGAACTCTGTTATATATTGAGACAATATAAATCACA
ATACCTAAAACAATCAATGCAAGTATTAATCCAACAATAATTAACAATAACATTAAACATA
ATTTACCACAAAAAGAATTTGAATTTTGGATAGTTTAGTATGTTGATATCAACTT
ATATAAATTTTATTATTAGTTATTCAAATTTGTAACCACAACTTTACAAAAGTTTTTCA

5

10

15

20

25

30

35

40

45

50

55

60

AAATCTCATTTCATATTCTGTATGAGCAACTTCAGGGTGGAACTGAACTCCATAAATCG
GCTTTGTTTTATGTTTCATTGCTTCAACCTGACATATATCTGAATGAGCTAAAATCTCAA
AACCTTCTGGAACTTTTTAAACCTCATCCTTATGTGAAGCCCATGCATTGAACTCTCTTG
GAACGTTTTTAAATAAAATCGTTTTCTTTATCTACATAGACCTTTGTTAGTGCGTATTCTT
CTGCCCTCAGCCCTTCCAACCTCTCCACCATAAGCCAAGGCAATTAAATGATGTCTTAAAC
AAATCCCCAAAATAGGGAGTTTAGCATTTAAAGCAATATCTATACAATTTTAGCTTTTT
CAATATCAGGCCCTCCACTTAGTATAATACCTTAACTTCTTTATTGCTTTCAATCTCTT
CCAATGGTGTGTATTGGAACATCTTTGAGCTAACTCCAATATACTTTAAACTTCTGT
GTATTCTATGAACATACTGCCCTCCGTTGTCTAAGATAACAATCATTTTATCACCTTATA
TTTTATTAGTATCTTTCAAAAACATTTTGAAAGAACCTTTTAGTAAAAGGTTTCATCAAAA
ATCTAACACCTCCTCGCTTACGCTCGGAGGTGCAACTCAGAAGGATTGGGTATACCAAT
AGGCGAAGCCCTATGGTTTCTGGAATAACTAAGGCATTAAATGAACACCTCCCTATAGGAG
AGCGTTCAAATATCCATTATTAATATTAATTTTAAACAACCTTGAAAGACACTATATTTA
AAATTTCTTTTATTATGATTATCCTCCAAATTTATTGAAGTCAGTTTATAATCATATTT
CCTTTTATGGATATTATAGAGCGGTAGCTTATGGTTATTTAAATTTTAAATGATTTCAAC
AGTTTACCCAAATATTAATATCCAAGATTACAAATCTATTTAGCATTAATCATTAAAAAT
TTATTTCCCAAGTATAAATAACGTTTATGGAAAAGATTCAATAGAAGATGATTGTCATGGA
AGATGTATTTAAAGGCATTGAAAAAGAAATTATAAGATTTACAAAATCCCAGAGAGGAA
AGGGAGATTCTCCAACCTTCAAATTTAAAAATAAAGAGATTAAATGAGCTAAATGATGCTT
AGGATTTAAATTATATTTACATCAAGTTAAGGCTTTAAAGTATCTCTACAATAAAAAAGA
TGTGGTTGTTACAACATCAACAGCAAGTGGAAAGAGTGAGATTTTATGATTGGCTATATT
TGACAACTCTTGTCAAATCCTGACGATAGGTATCTGCTTATTTATCCAACAAGGGCATT
GATAAACAACCAATATGAAAAATTTCTATGGAGAATGAGCTATTTTATAAAATAACTAA
CAAGAGAGTTAAAGCAGAGATATTAACTGGAGATGTGGGCTTAGAGAAAAGAAGGGAGAT
TTTGAAGGATAAGCCAAATGTATTATTTACAACCTCCAGATATGCTTCACTATCAAATATT
AAAAAACCAACAACCTATTTATGGCTTTTAAAGAATTTAAAGCTCTTAGTTGTTGATGA
ACTCCACGTTTATAGGGGAGTCTTTGGAACAAACATGGTTTATGTTTTTAAAGAGATTGTT
AAAGCTTTTGAAGAGATTTAAATAACAATTTGCAGATACTCTGCCTCTCTGCAACTTTAAA
AAACCCAAAAGAGTTTGTAAATTTGTTGTTTAAATAGAGATTTTGAAGTTGTTGATAAAAG
CTACAATCCTTTCATCAAGGAAGTATTTAGCAATCTTAGAGCCAAAGAATTTGGACAATAA
ACAGTTGTTGAGAAGATTGATAGAGAATTTAGTAGATAACAATATAAAAACCTCTGTATT
CTTTGATACAAGGAAGAGACAGAGAAGTTGATGAGATTTTATTAATTTCTAAGGTTTT
TTATAAACTCTCAACCTATAAAGGCACTCTGCCAAAGTATGTCAGGGAGGAGATAGAGGA
GAAGTTTAAAAATGGGAGATATTAGCTTTATTAACAACCAATGCTTTAGAGCTTGGAAAT
TGATATTGGAGATTTAGATGCAGTTATAAACTATGGTATTCACCAGATGGCATATTTTC
ATTAATTCAGAGGTTTGGTAGGGCTGGGAGGAGAGATAAAGAAGCTTTAAACATCATAGT
TCTAAGGAAGGACGTTTATGAAATACATGCCAGTAAATATAAAAAATAGATTGTTACTAA
GAAGCACTTGCAATTATTTAATCTCTGAGTTAAAAATAGTGGATTTTGATGAACTTAATGA
CTTTGAGAAGGAGATAGTTAAAGAACTTGAGAGAGAAGGGAAGATAAAGATTTATAAAAA
CCCAATAACCAACAAGACAGAGATAAGGAATGTAACACAGCCTATTTATTCATCAATAAG
AACTGCAAGTGATGAGAGCTATTTTAACTCTTAGATAAACCATGGATTAAATCTAAATT
GTTAAATAAAACCCAAAGTGAGATTTTGAAGTTTATAAATTTGGCTTAAGATTAAAGGGCTA
TGTTATTGAAGAGGTTGATAAAGATGAGTATTACCGCTCTCTAATTACTGGAATGCCCTA
TTTTTCAAGAGGGAAGCTGTTTATAGCCAAGGACAAGATAGGTATTAGGAAATTTCAATT
TATATTGCCCAGTATGATTGGATATGTTTGGGATGTTGAAGCACTGCAGAAGAAAGAGGA
AGAGATTGACATCTTAGATATTTATGATAAAAAGAGCTATAAGGATATAGACATCTATTA
TGAAGATTGAGAGTTAGGAAGATTTATGAGGGATTTATTGTTAGAGGAGTTGATGTTGA
TAAATACTATCAAGAGCTTTTAGCTCTAAAAGATAATGGCATCTTAGATGCAGAGATTGA
TTTATTTAAGGATTTCTTTGGCTTGAACCTTTATAAGTGTAAAGTTTAAACAAAAGATTAT
TAGAGACTTTGAGACAGATGGAATATGGTTATGTTATTTCCAGATTATATTAGGGATGTT
AACCAAATGAAGAGTTCTTTGAGTTTCTTGATAAGATAGAAGAGGATGATTTAGCTATC
TCAATCTATAGAGATAGAAAACCTCAGCAGAAAAGAGCTATTTCCAATTTACTTGGGAGCT
ACAACCTCACTTACATAAAGAATGTTATTAATAAATAGAGTTAAAAAGCACTTAAACGTTAA
AAAAGACACTAAAAAGGTTGAAGAGCTAACCTATAAGATAAAAAAGCTTATTGATAGCAA
AGACGGCATTGCTGGGGTTTGCATGCTATAGAGCATAATATTATAAAGATAACTCCAAT
CTTTACCTATATAGACAGCAGAGAGATTGGTGGCTACAGCTATGAGAGATTCAACAGAAA
TCTGTTTAAGGATAAAGCAGTTATCTTCATCTATGACGGAAATGAGGGAGGCTTTGGATT
GGCGGAGATTCTATATGAAAATGCTGAAAACTGCTAAATAAAAGCTTAGAGCAATTTGAA
AACTGTAACGTGCCAGACGGATGTCTCTCTGCATATACTCAACAAAGTGTGGAACATT
TAACGAATTTTATGATAAATGGCAAGCAATAAGAATTTTATGAGAAGCTACTTTCTTAATA
TTTTTGAATAAATTTGAAATAATATTGACTGCTTCATCTAATGTAACCTGGTATTTCAAT
TATATTATAACCCATATTCTTCAATTTAATAAAAAGCTTAGATATCTCAGGAACATCTAA
ATTTAACTCATCCAATTTAGTGAAAAATAATCCTTTACTTTTCTTCGAATATAACCTT

-566-

TTTGTTTAATACGTAGCATCTATCTGCCAAGCAAGCCAAATTTAAATCATGAGTAACTAA
AACCACAGTTTTTCCACACTCTTTAAATGATTTTATTAAATTCATAATTTTCAGCCCTACT
TTTTGGGTCTAATGCAGATGTAGGTTTCATCCATTAAATAACCTCTGGTTCAACAGACAA
TATACACGATATTGAAACCTTTTCTTCTCTCCACCCTTAGATTATAAGGATGCCTATC
5 CTTTAAATGATAAATTTTCATGTCTTTTAATGTTTGTGCGGTAACCTTCAATAGCCTTTTC
TTTTGAGTAAAGGTGGAGAGGAGAAAAAGCCACTTCATCCCAAACAGTTGGATTGAATAG
CATGACATCAGGATTTTGAAAAACGAATCCAACCTTTTCTTCTGAATCTTTTCATCAGTTC
TTTGTCTCTTAATATTTCTGTCAGTTAATTTTTTACCTTCAAAATAAACTTCTCCTTTATC
10 TGGAAATACTAATCCATCTAAAATTTTTAATAATGTGGTTTTTCTGCTCCATTTGGTCC
TAAATAGCTACTACCTCATTTTGTATATATTTAGATTTACATTATCCAAAGCAATAGA
ACCATTAGGATATTTATATGAAACATCAACAAGTCTATATATTTCTTTTCATAGTATCCCT
CTATCAAATAATACAAGTAAAGCTGTTATGATTATTGAAAAATAAAAAATGCGATATCT
TTAATTTTAATTTCTTCTCTGTAGATGTGCTTTATTTCTCCATTATATCCTCTTGAAAGC
15 ATTGACATCAGGATTTGKGTCTTCCCCATTTGATAAGTTTTTATAAATAATGCTCCAATGGCT
TTTCTGCTCTTTTCCAACCTCTCCACCATTCCCAATTTATTAACGACTCTTGATTTTCTT
GAATACATCATGTCCAATACAAAATTTAAAAGTAAAAATATATACCTATAGGCAAGGTTT
GTTATAGTGATAACAACCTCAGGAACCTCAATTTATGTATGGCAGAGGTAACCTTTATTC
CATTGTGTTGTTATAGGGATGAGGACTGCAATGATACACATGTTGCTACTCTCAAAGTA
AATGTTATAGCATATATAAGCCCTCATAAGTTATAGAGATGTGGGGGTTATTTAAATA
20 ACAAACATCTTTTCCAGGATCTATAAAGTTAAACATTACTGGAATGGCAATTATTTCCA
GCAAAATTTGGAATAAATACATAAACTCTTTTTAAATATGTAATAGGGGTATATTAGAT
AAATATGCAAGAATTAATGCAATTGAGTTAAATATGATTAAAGTTAAATATGCTTGGAT
AGAACCTTTCCAACAAGAAATATACTAAGGATATTATCTTTATCCTACTTTCTATATTC
TGTAAGGCCCTGATATTCTTGTGTATTTTTCAAAAAATATGTTCTCATTTAAATACTTT
25 ATTACATGCTCTATTGTTTTATCAAATACTTATTGTTTCATATTTTCACGAATAATTCGT
CTTTTTATATTATATTTTAAACAATCAAAATAATTACATTACAATTTTTATAATTATT
CAATAAAATTTATCAAAATCTTTAAATTTATATATTAATACTCACTCCAAAAATAATAGA
AGATGAATATAGAAATTAAAAAAGTAAAAAATTATCCTGCCGCTGCTTTTGGATTTACA
ATCTTTATAAGTGCGTAGTATGCCCCAACGCATAGTATTACTCCAACCTATTGCAGATATT
30 ATGTATCCTATAGATGCATGAAATGGGTATCCCATCCTGGAATATCATAGTCTGGAAGA
GGAGCATAGCTCCAAATATCCGCTAAATGTAGTAATCCGCTAACTTTATCTTCCCCAACT
TTTTTCAGCAACATCTTCTGGTCCCCATTCTCCCCACGCATCTCCATAATTCCAAACCTAAC
AATATTCCAAGAGGACAGAGAATTACCATAGCTACAATTAATAGAGAACTTTTTAACT
AAGGGGTCTTGCCAAATTCATGCATTCACCCCACTAACTTGTCTTTTGTGATGTGAATA
35 AATCAGGTCTTACTTTCTTTACATACCAACAACCTATTGCAGTTACTACCGCTGCTGCAG
GTCCTGCTGTTATCAAGTGAGCAAAATGCCATTGCTGGAACCTGAGACGGTGAAAGGGTATG
GACAATAACCTGGCTCTATAAATGGCTGTAATCCAAACTCAAAGCCTGCAACAATTGCTG
CTGCAACAATTCCAACATAAGCCCCAATACCCTTGCAATTACTTCTCCAACCTTATCTC
TTAAGAAATTTATAACATAATAACCAACAACGGTAACACAACACCCATATTGAAGCAGT
40 TTGCTCCAATACAAATTTATTTCCCTATCTCCAAAGAATATTGCCTGTATAATTAAACAA
TAGATATTGCTATCGTCGCAACCCATGGATTATCCATCAATATTGCTATCAATGTCCCTC
CAACCATGTGAGCTGTTGTTCCATCTGGAACCTGGAAGGTTGAACATCATAACTAAGAAAG
AGAAAGCTGTTAAAACTCCCAACAATGGCAACTTTCTTGGGTCTAACTTTTTAAGCTCTT
TAATACTCTTATACCAATTTGGTATCATTATCAAATAGAAGAAAGCACATGTTATTGGGC
45 CAAGGTAGCCATCTGGTATGTGCATAGTTTCAACCTTTTGGTATTATTTAATTGTGTTAT
CATCATATCTAATGTTGATAATACTATTTAACTTTTTGTTTAAAGTTTATTAATAATG
TCTTGAGCTAATATAAAAAAATGTTACATAAAATTAATAATTGACAAAATTGAGATACATA
ATATTATTTAATGGAATTTTAAATATAGTATTTGAAAAATATAAGATTCAAGTGATATCA
50 TGCACCTGGATTGAAAAATATCTGAAAATATTACAATGTCCATACTGTAGAGGAGATTTAT
ACTTAACAAAAATAAAAAATAAGTTGATATGTAATAATGTAATAGGGTTTATGATATAG
TTGAAGGTATCCCTATACTGCTAAGATACTGAGGGATAGGATGAGGCTGTTTTTGGCTAT
AGACATCCAGAAAATATAAAGGAAGAGATAGCCAAATTTCAAGAACAGTTTAAATGAA
AGGGATAAAGTTAGTTGAGAAAGAGAATTACATATAACCGTTAAATCTTAGGAGAAGT
55 TGATGAAGAAAAATTAAGAAGAAATATTGAATTTAGATTATCAATTGAGCCAAATAAAAT
AAAGCTAAAAATATATTGGAACATTTCCCAACTCTAACTATATAAGGGTTATATGGATTGG
AGCTTACAATAATAATCTTGTAGAAATCTTTAAAGAAATTGATGAAAACTATCAAACCTT
AGGATTTAAAAAAGAAAGAGAGTATGTTCTCACTTAACAATTGGTAGAGTTAAATTCAT
TGATAACAAGAAAAATTAAGATAGAAATTTGAAAAATATAAGATGTAGATTTTGGAGA
60 GTTTGAAGCAAAACACATAAAGCTTTATAAATCAACTTTAACTCCAAACGGTCCCTATATA
TGAGGTTATAAAGAGTGGTAGCAATGAGAAATGAGAAATCAGCAGAAGTTACATTATATA
AACCTATTGACAAATGGAATAAAGAGATGGGTTAAACAGACAGTTTATTTGCTCTT
ATATATTATTTTATAAATTAGATGTCTTTAAAGGTTATGACTATGCCCCAACTCCGTTT
ATGTGGGAAGATGAAATAAATTCATAAATATCTCTTATGAAGCAATAAATGATTTAAAT
TATCTCTTGGATAACAATTATTTAAATGAGATTTTACTATCAGTCAGAGGTTAAATGAG

-567-

5

10

15

20

25

30

35

40

45

50

55

60

TTTATTGTTGGATATAGTATTGGAAAAAGATAGATTACAACCTTCAACCAGAAAGATAAA
GAGACAATTGATAAAACATTATTGGAAAAATGGGAGACTAAAAGAAATCCAAATAACAAAG
AATGGAATAATAATAAAATCTAAAAATGAAAAATTAGAAATAGAGATTACAAAGATTGAT
5 AAAATTAGCTATAAATCAAAAAGCTACATAATGAAGGTATCATTATGGGATTCAAATATT
TAAAAATAAAAAATCCAAAGGTAATCTTAACTGAATGGATTCCCTTTTGGAAAGAATTATA
TGACTGAGTTTATAGATAGGATTACATTAAAAGAGTATCAAAGAAAAAGAATTAAATCACT
TTACCGCATCAGAAAGGAGAGATATAAGGTATAAAGCAGTTTTTGAACATCTGAATATC
AAACAACAGTAAATATTATTGAATTTATTCCAGAAACATCTGTAAATTTACAGCTGAAA
TTATAGGGGAAAGGAAAAAGACGTTTTTATATATGTTGATTATCTTGGAAAGATGTATCT
10 ACTCCTCTGAAATAACAAAAGCTGGAGATGAAGAGGAGATTGTAAGCTTAGATAATCTTT
CTTTCTGATTCTTGACTTAATCTTGGACTCTTCAAGAATTATGAGCCATTTAATATCTC
CACCACAAAGATATTTACTTGAACCTCTCTATGGAGAGATAAAGGTATATAAGCAGCTTA
CTGTTTTAACAGAAACAGTTGTTAATATAGATGAAATAACAATATTGGAGATTAGTCAAG
TTATTGGAGCAGTTAAGAATATAATTGAGATAGATGATGGGTAAATAATCTTTGGAGACT
15 TTGGAATATTATCTCACATAAAAAATCCAGAGAAGTTTGAAAAATTTATCTACTACTATC
CTTTTATAAGGAGTATTACTGGCGTTTCAAGGGATTTGTTTTTAAATTAATAATATTG
CCTCTAAATTGGAAGTTATAAGTAACACACTTGCATCAGGAGTTGATTTAGAGGATATAA
CTGAAATTAGGGGAGAGTTAAGTAGAATAGACAGAGAGTTGGCAGTAATAGAAATTTGTCT
20 CCGGTTATCTAAAAGAAATAGTTGAGTTTTTAACTCCTCTTATCCTCCAAACTTTGGGG
ACTTTGATTTAATGATTTTAGAGAAAGTTGAGGCAGAAAGAAACTAAGAAGATTAATTT
ATAGGATTGCAGAGATAGAAAACATTTTAAAAAGTAATGATAGCTTAGCAACAAGTTTAA
CAAGGTATTAACTACAATATCCGAAGATTTAGAGAGAAAGATAGCTAATCAATTGGCTG
AAAATACCAAATACCAAGTAGCTATTGCGAGGGCGATGGAAGTTTAGAAATTGGGATTT
25 TTGGTGTCTATGCCCTTAGAAGCAGCTCATATTTGTTATTAACCTCTCGAAAAGACGAA
TACTTCATCACATTAAAAATACTTGGATTTCCATTGGAGTCTGGATAATATTAGTCGTTA
CAATCCTTGGAGTTTATGTTGGGAAAATGTCTATTGAGTATAGAAAAAAGAAAGTTTTAG
GAGAATAAATCATCATCTCCAAAGGCATTTTCTCAATATCATCTGTTTTTAAACGTTCA
GTATTTATAAAGTCCTTTTCCCATAAATCAACAAGATTTAAATCCTCTCCTCCATATCTT
30 CCGTCAAATTTATCTACCTTAACAATTTGCTGGCAGCTTTTATACAGGTCCTAAAATTATC
GCCTCAACATGTTTAAAGCTTGTTAATTGTTTAACTAAATCTTCACTCAAATTTTCAGAA
GCCATTGGAGCATGTTTTTGGTCTGTTGGTTCAATAAGCTTAGATATTATTAGATTAGAG
CATTGAGATAAAGTTTCAGCATCTAATGTTTTAGGTCTCTGTGAACTAAGCATAAACCA
ACACCAAACCTTTCTTCCCTCTCTTGCTATCCTGCTTAGATAATGCTTAGCCCTTGTTTT
35 CTATGTTGTGGAGCTATTAAATGTGCTCTTCAAAAATCATAAATATTGGTTTTGCAAG
TCTCTTCCCTTATCAATAATAATCCTCTTCCCTATCATCCAAAACCTGCTTTAGCTATATAA
GAAACAACAATATCCACAGCATTCTCATCCAATTTCTCCATTGGAATTATGTTGATATAA
TGTTCCCTAATATCATTATTGGATTATAGTGAAGAGTTATAATATTCTTTCTAAACTGC
AACCATCTTCCCAATCTAAATATGGCTGTTTGAATACTACTTTTATCTTTTTTATAATTA
40 TCATTTGATTTGTATTCTTCCAATTTCCCAATTTATGCAATTATATAATCATCACTGTG
CTGAAATCATGTTCTTTACGTTCTTCTTTAATTTCTTTTATCGCCTTTCTTATATATGGT
CTTTGCTTTGTTGCTTGGGCATCTACGCCAGCCAAATCACACAAATCATCATCATTTATC
CTATAGATATTTATTTTCGGCTCAATTATATGAACCTTTAGCTTTTCACTTTTCGAGTAA
ATATCTTTATATTCTCCATGCATATCAAAAACATAAAGCGTTGCTTTAAGCTTATTCAAC
45 TCTCTTAACAAAACAGCTACAGTATTGACTTTCCCATCCAGTCATTGCCAATATAGCC
AAATGTCTTGAACATAAATTTATTTGCGTCTAATTTAACTCCACATCTTCCCTGTAACT
AAATGCCCTATTTTAAATGCCATTACCAAAAACCTTTTTTAAATACTCATCATCTGCT
CTGTAAATTGGTATTCTGCTTTGGTGGAACTCTCGGCAACTTTAAAGCTCCATCTTTA
TTTAAATCTCTAATATCTCCTAATACCTTTATCTTTCTTAAATGTAGTAGGATGAGTTA
50 TCTTCAAACCTCCCTAATTTTCTCTAATGTCTCAATGTTTAAATATCCTCTAAAGCCATG
TTTCTTGGATTGTGCTTTCAACCATTCCCAATAATTCAGAGTCGTCAATTTATTTTA
ACATAATCCCAACTTTTGGGGCTTCTTTAGCCAAAAATGTTAATTCATCAATCCTTGTT
TCTCCTATTGTGTAGCCAATAATCTCATTTATTGTCCATCTAATCACCAGGATGAATTATCA
ATTACCTTTATTTTAAATTTATTTCTTCTTTATGTCCTTCTTTAATCTCTTCACTATCT
55 TCTTTTCTTCTTCTTCTTCTAATTCATCTTCGTTAATTATAACTCCTCCTTTAGTTCTT
GGGGCGATGTCTTTAATTATCTTCATAATATCCTCATTTTCATCAGCCAAGATTTTAAACA
AATATCCCAACATGTGTGCTATATCAAAATTCACGGCCCTACATAAGCTGCCTGTTTTA
TTTAAATAAAATTTTGTGCGTTCTCTGTCAATCTTTCTCTAAAACCATCCTTGCAGCA
TCTAATATTGACTGACTCCTTAAAGTTCCCTTAACTTCTCTACACTCTTAGTTTTCTCT
60 TCCCATCTCCAAACTCATTATCTTTCTCAATAAATGTTAATTTTGCCTTTGGAAATAG
TTTAAAGATAGCTTTTTTAACTTTATATTATCTTCAGTTGGCTTCACCTTAGCTTTAATA
ATCACTTCCATAATATCACCATTTAAATTTTTTGTATAGTTTATATAAGGTATAAAG
GATTATAAACTTCTTGAGAGTATGTTTTTATGATTACACATGAAATTCATTATGTTCTA
TAAAAACATTCTGATATTAGTATTTTCTTTATTTTCAAGTTTTTCAATTTTAGCT
ATTTTAGTTATAAATTTAAATATTTATTCTAATTAATTTTAGTAAATTTATATACCTTC

-568-

CCATTAATTACATTTTATTCAGTTAGTTCAAAAAATTTTGAACAATATGAACGGGTGAGA
CTATGGCAGATTGCTATATTACAAAAATAAACTAAAAATAAATAAAGATGGCACGCT
5 AAAATTCTATCTAAAAACAGTTAAAAAGATTACAAAGTGATAATAATGGAAGAAGCAAAA
AAATTAATTATTGAGTTGTTTTTCAGAACTTGCAAAGATTCATGGGTTGAATAAATCAGTA
GGGGCAGTGTATGCCATCCTTTACTTATCTGATAAGCCATTAACAATCTCAGACATTATG
GAAGAGTTAAAGATTAGTAAAGGAAACGTTAGCATGTCTCTAAAAAAGCTTGAAGAGTTA
10 GGATTTGTAAAGGAAAGTATGGATTAAAGGAGAGAGAAAAAATCTATTATGAAGCTGTTGAT
GGCTTTTCATCAATTAAAGATATTGCTAAGAGAAAAACATGATTTAATTGCAAAAACTTAT
GAAGATTTAAAAAATTAGAAGAAAAATGCAATGAAGAAGAGAAAGAGTTCATAAAACAA
AAAATTAAAGGAATTGAGAGAATGAAAAAATTTTCAGAGAAGATTTTGGAGCTCTCAAT
GACTTAGATAATTAATTTCTTATAATGGTGGTATGATGCTTAGAGAAATATTAAAAAA
15 AGTTGCTCATTTCTCCGAACAAAAACCATTCTAATGCTTCTAATTATCTTAATTATAAC
TGTATTTGCTGGAATATCAGCAACCAATGTTAAATCTCAAACCTGCCTTTGAAAGATGCT
TCCTCAAGACAATCCAATTATAAAAAACCTTATGAAGTCAGGGATGAATTTGGAGGAAC
TGATGTCATAACTATCTGTATAAAGCTAAAACCTCAGATAGCAGTGATAAAGTTGTTGA
TATAAGAGACCCGAGAGTTTAAAGCAATTAAAGAATTGGAGGATAATTTAAGATATGT
AGATGGGATAACAAGCGTAAGCTCTCCAGTAGATATAATCAATCAAAAAAATACGGTAT
20 TGTGCCAAATGACATTCATACGGTTAAAGATATCCTAAATAAACTCCCAGAGATAAGAG
AAAGAGAATATTCAACTCAGACTATTCAATGACAGTTGTTAATGCATATCTGACGCTGG
TGGAGACCAGAAAAAGCTAATGAGAGTAATGGATGATGTAAATGAAGAATTGAAGAAAC
TCCATTTCTCCAGGAGTTGAAGTTATAGCAACAGGGACTCCACCAATGAGGAAGTTGAT
GGATGAGTTAATGAAAGAGAGCCAAAGCTTTACAACAACAGTAGGTCTAATTGGGATTTT
AATAATATTGATTATCTACTTCAGAAAGCCGTTATCCTCTATAATGCCTCTCTTACCAGT
25 GCTTATAGCAGTTATATGGACTGGAGGAGCTATGGGGCTTTTAGACATTCCTTGGATAT
GGCAACCGCTGGAATAGGCTCTCTGATACTGGGGTTGGGTATTGATTACCGAATACATTT
GATGCATAGGTATGATGAAGAAAGAGGAAAGGGATGCCAATAGATAAGGCAATAGAAAC
AGCTGTAGTTGAAACAGGAACCTGCAGTTATGGCTACAACAGCAACAACAGTAGTTGGTTT
CTTAGCTTTGGTTTTAGCTCCATTACCAATGATGGCAAACCTTAGGAAAGGTCTGTGCTTT
30 AGGGATTTCCCTTCTGTATGGTGGTGGTTTTAACCTTACTACCAGCTTTAATTGTTATTGA
AGAGAGGCATATAATGCCACTTATTAAGAGATTGAAAGGTGATACTCAATGATAACCAAT
AAAATAAAAAATATTCCTAATATCATTAATCTTTATTTTCAGGAGTTTATGCTTTTCAGGTA
GATGCTCCTCAGTATCAGCCGAATGTTATTCATCCTGGGGATGATGTTGATTGTTGGATT
AAAATAAATAATGATAATTATGATAATGAAGTTAAAAACATAGTTGTTGAGGTTTCTCCA
35 CACTATCCATTTGAGTTAAGGCAGGTTAATCCAATTAAGGGGAAAGCAACAATCAGCCAT
TTAAATCCTGGAGAATCAGACACTGTATATTTCAAACCTACATGTTGATGAAAATGCCCCA
TCAAGAGACTATGAAATAGATGTAAGGTAAGTTATGATGAAATTAATAAAGAAGATGGG
AAAGAAACAATCCACCCTATGAAATAACTAAATCTATTACCTACATGTTTATGGAATA
GCAAGCTTTGAAATTAATGGGAATTTTAGCCTAATTCATCAAAAACTCAAACAGTTCCA
40 ATTGAAATTATAAACACAGGAACAGGTAAGGAAGTTAATCTGTATATTGGATAT
TCTTTAACTCTGTAAATGCTGGTTCTGAGTCAGTTGAAGTATCTGCCTATGGGACAACC
AAAACCCAGAAAAAACTATTTACTACCCAACAGCTGTTCCTATATCTAATCTACCAATT
TCACCAGTTGGAGAAACAAAATTCTACTTAGGAGCTTTAAAGCCAGATAATAGCAGAGTA
ATTAATTTAAAGTTATACACTGCAAGCAATTTAGTTGAGGGCTGTTATCAAATCCCTGCA
45 GTAATTACATGGATAGATGAAGACGGAACATAAAGGGCAGAGCAGATAACCATTGGAGCT
TATGTAAAGGAGATATTTATTGGGAATATCTAATGTGGTAACCTGACCCTAAGGAGATA
AAGCCAGGAACAACCTTATGTGAGAATTGATGTAACAATAACCAACAATGGACATGCAGAG
GCGAAGGATGTTAAATTAATAAACAATAAACCATTAAAGATAGCTGGAGTAAC
TGCAATATAAAGATGTTGGCAACTTATTGCCCCGAGTTTCAAAGACAGTATCTTTCTAT
50 GTGGATGTAGATAAATATGCCTCTGCTAAGCATTATAAGCTTCCAATTGAAATTAGTTAT
TTAGATACTGCCAATAACAAATACAAAACCTGAAAAATTCATAGACATCTATGTTAAACCA
AAGCCATTATTTGAGATTATAACAAAAGAAGTTAATGTAACCTGCTGGAAGAAACACC
GTCTATATAACAATAAAGAACGTTGGTAGTGAAAAGGCAGAGAGTTAAGATTTCAGCA
ATTAGAACTCTGGACAACCATTTGATTACCCAATTAAGAGTGACACTATTGGAACCTCT
55 TACCCTAACCAACAGGAACCTGGAGTTATAGTTATAGATGTTGATAAAAAATGCTGAATCA
AAGCCTTATATAATAACTATTGAAATAAGATGTGCAGGAGATAGTGATGAGGGAGATAAT
AACGTGTATGCTTATCAAGAACCGTTAAAGTGGTAGTGAATAATTCAAATTCAAAAAGT
TATTGGATATTGGGAATAATAGTGGTTATTGCCATTGTATTGGTTGTAGGATATGATTTT
AAAAGAAAAATAGCAAAGATAAAGAATAAAACACTCTATTTATTTTTGTTTTTGAATT
60 TTTCTATTTTCATTTTTTATTTTAACTTTTAGGTGGTTTTATGGGAAATTAGAGAA
AAATGTTTTGTATTGTTGATTACTACCTTTACAACCTATGCTTGGTGTGTTTTATAGC
ACCAATTATGGCAATATACGCCCCAACACTGGGAGCTACAAATTTAGAAATTGGTTAAT
ATTTGGTTCAATTTGCATTAGCGAGAACAGTAGCTCAAATTCCTGTTGGAGTTTTATCTGA
TATATATGGAAGAAGTTTTTTATTTGTCTGTGGAACATTTTTTTATGGAGTCTCTACCTT
AATGTATAATTTGTTAGCACAGTTTTAGGTTTTTAATTGTGAGAATTTTACTGGAAT

CTTTTCAGCTTTTGTAAACACCAGTAGCTGGGTCTTATATCGCGGCTATAGCCCCAAAAAC
AAGATTAGGAGAATATATGGGAATTTTAAATTCAGCAATTACATTGGGGCTTTGGCATAGG
ACCTTTTATAGGGGAATTTCTTGCTGATATGTATGGAATTAAATGCCATTCTACTTTTG
TGGATTTTATAGGAATTTTGGCGGCAATTATAAGCTATATGAAATTGGAGGATATTGTTTT
5 TAATAAAAAATAAGAAAAATAGATGTTAAAAAAATATCTACTTTTATTCTCATTTGAATT
TTTGAAAAATAGGAATTTTTCATCCTCTTTTATTATCAATGTATCTAATGTTATGATAAA
TGCTGGGATATATGCGTATTTGGCATTGTATGCAATTAACATACTATAACTATAAGTCA
AGTAGGTTTATGATTGCTTTAACAAATATCTTAATGGCTTTACTTCAAAGAAGTTTGG
10 AAACTCTACGATAAATTTGGGAATATAATGATAATCATTGGAATTTTATAATATCCTT
TGGAATGTATTTGCTCTCAACCTCTACAACCTTTTTTGACTATATTGGCTTCTTTAACAAT
TATAGCAGTTGGTAGTTCAATATCTTCCACCGCCACAACATCTCTCGCAGTTAAAGACAT
CCCAACACATAAGAAAAGGCGAAGCTATGGGGCTTTTTACAACAAGCATAAATTTGGGA
TGTTTTATTGGTGCAGTGTCTGTTGGATTCTTAGCTGATATTTTAGGAATAGCAAATATGT
15 ATAAATTTTCAGCAATATTTTCAATTGTTGTAGGGATTATCAGCTATTTAAGAATAGAAA
GATAAAGATAATTATTTTAACTCTGCCAATATTTTATTTAATATTCTTCAAACAATTTTC
TCCCTATTTCAATAGTTAAAGTATATAGCTCTCCTTTATCTTTAAATTTATTTACCCAA
TTCTGTGTAGTGTGGCTAATAACGGTTTATCACTTTTAAACCTCATCAACAACCTTCA
GAAAACCTTTCTACTCTTAAATTCATAGCTCCAAGTTCATCTATAATTATAATATCAGCA
20 TCTTCAAAGCCCTTTTTATTGCCTCAACTCCAACGTTATCTAAATTTCTATAAAAAACA
GCATATTTACCAACTTTTTATTTTCCATCTCCAACATAGGCTAATATTGTTTCTTCATTG
GTATCTAAGGTTATTATTTTAAATCCCACTCTTTTTCCCTCCATCTCTAATCTCCTTAGTT
ATAAAACCTCCAACCTTTATAGCCTAACTCCTTCAACTCTCAGCTATCTTTAAGCTAAT
GTAGTTTTTCCAACCTCCGGGCTATCCCGTTATAAATATCCTCATAGTTTACCACAACCC
25 TTAATTTGATGTATGTAATGTTTAAAGTTATAAATCATAACTCACTAATCAAATTTAAAG
AGGAGAGAAGATGAGTAGAGTTGTAGTTTCAGTTATTGGGCAGGATAGAACAGGAATAGT
TGCGGGAATCTCAAAGTATTGGCTGAGAATAATGCAAACATCTTAGATATAAGCCAAAC
TATTATGGATAATCTATTTGCCATGATTATGCTCGTTGATATATCAAACGCTAAAGTAGA
TTTTGCAACACTAAAAAAGAACTTGAAAAAGCTGGAGAAGAATTGGGTGTTCAAGTCAT
30 TGTCCAGCATGnAGATATATTTAAATACATGCATAGAATTTAATCAAATCCTTTCAAATT
TAGCATCTACAACAACATGCCAAACGCTGGAGCGTATTTTTAATCTTTCTCACTTCAT
AATCTATCAATTTATAGCCATTTTTTTCAGCATAGAATTTAATCTCTCTATTGGTCTTT
CATACATAATCTTTTCAGCTACTGTTTCATGATAATGTATAACTCCCTATCTTTAAAA
ATTCAAAGTCTTATCTAAAAATTTGTGTGTTTTATGTACATAGCCCATGATAACTCTAT
35 CTGCGACATCTTTTAACTCAACGCTCTTATTATCTGCTAAAATTGGGATGACATTATTTA
GTTTTATTTAATTTGATGTTTTACATAGATAATGATAAGCTGTAGGATTTTTTTCGATTG
CATAGACCAACTTTGGTTTTGAGTATTTAGCTAATGGAATTGTGAAATAACCAATACCAG
CAAACATATCAACAACCTACCTCATTCTATTGCTTATAAATGCCATTCTTTTCCTTTCT
40 CAATATTTCCCTGACTCCACATAATCTTAGCAACATCTAACTTAAACAACAGCCATATT
CTTTATGGATTGTTTCTGTTTCTTTCCCATATAGGATTTTACATGTGGAGTTCTAAATT
CACCGGTTATTTGGGTTGTGTATAGCAAGATAGCTTTACATTTAGTTCTTTTACAATCT
CTCTAATTTTCATCCTCACTTAATTTCTTTTAAACGATAACAACATCTCCAATCTTTTGAT
ATTTTATACCCATAATCTCACAATATTAAAGTTATTATCACAACAACGAGTnATCAAA
45 ATTCTAACTAATGTAGATATCATCAAAATTAACCAATCTTTAAATCCATATATGCCT
ATATAATATGGAGCTAAAAATCTCAACGCTGGAATGCTTGATAATATAGAGCCAAGAAGT
AAAGCTCTTACAACCTCAATCTCATCTAAAATTTCCCTATTTAAAAACTCTCCAGCTAAG
ACAAAAGCTCCTATGTAGTTTATTGGTTGGGTAAGTCCACAGTAATTTCTTCAACTGAA
AGTGGTAGATAATAAGCTTTATTTTTTATAATCTCAGTTATATAGTCAAAAAATCCAAAT
TCAATCAAAAAATGAGGTTATAATGGAGGCTATTGTTATATCCCTTATTATTGGAATTCCA
50 TACTTTATAGTGTTTTTAAAGCTGTATAAACAACATCTTTATTAGTTTTATCTTTTTTG
TCTGTGTATCTTCTTTTATACTCCCTATTTTTTAAATGTTATCTTTCCAATAGCCATAAAA
ATGAGTGTTTGAATAAATCCAAATCAAAACTAAGATTATAAAATAGATTATTCCAAGAAT
CCTAAGGTGGCAAGCAAAATTTGGCAATAAAGAATCCAGTGCCTAAGCATTGCCGGAAAT
GCATCTATTAAAGATGAGATATAGAGTTCTTTTTTGTATTATAATCCCTTTTTTATAAAAA
55 TCTACAAGCATTATGTTTGCCATTCTTGGTTCAATAAAAGATGTTGTTATAGCTATCCCA
CACTCCTCTGGAAGATTTGCCAATCTTGTAATATCTTTCCAATAAAATAGATTTTTTTG
ATGATATTACTCTCTATGAGAAATTTGAGAGATAAATAAACCAACAATAAGCATTGGAATG
CTGTAATAACAAAAAGTAAATGTCAATGTAAGTgTTTGaATTATCTTATCCATCATAATA
ATCTTATTAAATTTCTCATTAAAAAGTATTTAAAAATTATGGAGTTAATCTCTGCCATCT
60 CTTGGGAATAAAACACACTCTCTAATGTTCTCTTGCTGAGTTAATACCATGGTAAATCTA
TCCGCTCCTAATCCCATCCTGCATGTGGAGGCATTCCATACTTAAATGCCTCTAAGTAA
TATGTAATCCATCAGGGTTTAAAGCCCTTCTTTTTAATATTCTCAACTAATAAATCATAT
AAGTGAATCCTTTGAGCTCCTGAAGAAATCTCTAAATCTTTATACATTAAATCAAATGCC
TTACAATATTTGGATTTTTCTCATCTGGCATTGTATAGAACGGCCTAATTTCAGAAGGC
CAGTCAGTTATAAAGTAGAGTCTTCCATCTCCTCTCCAATAGCCTTCTGCTCTCTA

-570-

CTCAAATCTTCTCCCCAGCTAATTTCAACACCTTTTGCATTTGCAATGTCAATAGCTTCA
 TCGTAAGTGATTCTATCAAACCTTCTCTGGTGGCAACTCAAACCTCTATTCTAAAGTTTCA
 ATCTCCTTCTTTCTATTCTCATAAACATCTACAAATGCGTTATAAACAACCTTTCTCCAAT
 5 ATATCCATAGCATCCTTATCATCAGCAAATGCCATTTCAATGTCTATTGATGTAGCTTCA
 TTTAAATGTCTCCTTGTATTATGCTCCTCAGCCCTAAATATTGGAGCTATTTCAAAAACT
 CTATCCCAACCCAGTTGCCATTAAACATCTGCTTATACAACCTGAGGACTCTGCCCTAAAAAT
 GCCTCTCTCTCAAAGTATGAGATTGGGAAGAGTTCAGTTCCCTCCCTCAGTGCAACTTGCT
 10 ACCAATTTTGGTGTATTTACCTCAATAAAGCCCTCATTATAGAGTGTGTTTCTTACAGAT
 TTTAGCATTTCACTTCTAATTTTAAATATTGCCTGAACCTTTTGGTCTTCTTAAATCTAAG
 AATCTATTTTCTAATCTTGTATCTAACTCTGCTGGGACTTTTTTCAGCTGGGTCTAAAGGA
 AGAGGTCTTTTAGCGGTGTTTATAACCTCCAACCTCTAATGGTAATATTTCAAAACCATT
 GGTGCTTTTTCATTTGCTATAACTTTTCCCTTAACTGCTATAACATCCTCTGCTCCAAGT
 15 TTTTATTTGGCTAAACAACCTCTCCAACCTTTTTGTTTTGGTGTCTACAATTTGCACT
 GTCCCTTCTCTATCTCTTAAATAACAAATATAATTTTCCCTAAAGCTCTAATTGAATGA
 ACCCATCCCATTATAATAACTTCTTGTCCATCCATTCTGGTTTAAATATCTGCTGAGTAG
 TGTGTTCTTCTCCACTTCATTTTATTCACCATCTACATCATGTGTTTCCCAATCACTAA
 AAACCTTTTTAAGGTTAATAATTGTGTAAATGGTTTTTATAGTTTCCTAAGCTTTTGTGTA
 TCTATATATTTAATTTTATAGGTTAAATTTGTCAAAAATAAAAAATAATTAAAAAATTAA
 20 ATTTATTTAAACCCATAGCCATAAGGCAGATAGTTTTCAAACCTCAATTTTTTAACTAAT
 TGCCAGTTATTTTTCATCTTAAATGTGCATCTCTGAAAGTGAGAAGCTGTATAGATAATTG
 TTTATAAATAAAGCCCTCAAAACATTTGTTTTATGCTCATCGTCTTAACCATTTCTATC
 TTATTGCTCTCAACTTTAAACACATAAGCATGATTATAAGCAGGTAGAAAGAGATTTTA
 TACTTTTTCATCCCATAGAATGCGTGATAGTCCCTAAACGCTGGACTCCACCAACATTT
 25 AATTTATATTTATCAACTTCTTCCGATTATTCAAATCAGAAATATTAAATAGTGAGATT
 TTTAATTTTCCATCGTCATCTTTACCAATACCAATAAATAAATTATTACCTATTGGATGT
 AAGTAAGTGGAATATCTTGGAATCTTTAACTCTCCTAAGACCTTTGGATTTTTTGGATTT
 TTTAAATCAATAACCAATAACGGGTCTGTCTCTTTGTAAAGTTACTATATAGGCTTTATCT
 CCCATGAATCTTACTGCATAAATCTCTCTCTCTTTTCTAATCCAGTTAGCTTACCAACA
 30 ACATTTAAATCACTATCTAAGATGTAGATGTTATTGGTCATTTTATCTCTGAATCTCCAG
 TCCCTTATTGTTGTTGCCACTCTTAAATAGCCGTTGTATTCTCATAGCAAGTTGTTT
 AAGAGATGACCACTAACCTTTCCACTTTTAACTTCAAAGCTGTCTAAGTTAATTTTAGCT
 ATCCAGTGATTCAAACCTCTCCAGTGTTCTTCTAAATAGTTCTCAAAGTCATTCTGC
 AACTTTTTCATTAGGTTGTCTCTTCTCAGAAGGAAGGGAGCTTAAATATCTTTCAATA
 35 GTTTCAGTTATCTCAACGAACCTTGGCATTGTCTCCAAAGTCTTCATTTTCAATAACTCTC
 TTTATTTTATCTGCCACTTCTGTTGGGAAGTATTTATCTGCACTTTTCAATTTAAAAAGTTA
 AGCATTAAATTTCTTCTCATTAAATTTTATAGATTATAGGCAAAGTATAAGTTGTTCTTTGAC
 ATGTATAGGGTTGTTTTATAATTTCCAACAATTGCAATTGAGTTTTCAACTTTTCCACTT
 TTTATATTTATCTGCTAATAATATATGTTGTATCAAAGTCCATACTGTATATTGGGGGA
 40 AGTTCTGGAATGTAGTATTATCATAGCCAATTTTATAATTGTTCCATACAATTGGGCAA
 TCTATAGAGTTTTTCTAACTATAAATAACGTTCCATTATACAACCTTGAATCAACA
 TAACTTCCATTTAAATCCATTGCCAAATTATTTTGGCATTCTGGATTGAGACATTA
 TAGGAGGTTATTTTATCCAACCTATAACTATTAGTGTATTGTTTGTAAAGTAAAGATAA
 CCACATTTCAGATATGTTTTTCTATTATTTAGCATATTTGGAGGAAGGGGCTTAATTTAAA
 45 TAAATCTTATTTGAGAGAAGGCAATAATGTTCCCATTTGTTTTTAAATATATCTGCTTCA
 TCAACTCCTTTAACTTGAACATTGGTTTTTGAAATCTTCTGGCTCAGTTGAGGTTTCT
 ACATTAGAAGATTAAACAGTTGAGGTTATCTGCACTTCTCTACTTGCATAACTATGTCCA
 ACGTAGATGTAGTTTCCCTATTGAATTTTCAACGGTATTTTAAATTTCTCAAAATTTGAT
 TTGGAATTAACAGGAATTAATTTGAAATCATTACTTCTCTTTTATAGGCTTTTCAATTT
 50 TCAACGCATCCAGAAAATAATGATATAATCATTAAATAATGATAAAAAATATTGCAACTGCC
 TTAATTTTCATTATATCACCTAAGAATATTTAAAAAGCTAATTCATTTATATATCTAAAA
 AAGATACTATATAATGATTTCTAAATCGTTCGGTTATCTCCGAATAATTTTATAAACTAA
 ATAAACTATAAAGATTATTAATAAAGTAGAGATAATTAATAAATAAATAAATAGCGGCTC
 TTTCTGAAAAGTTGTTGAACCTTTGTAACTGTATAAATACCCCTTTCAACAACCTGTTT
 55 TGATAAAACAACCTCTCTGCTTGGTATTTTATTTGTTTGAATATATAGTAGATCCACAA
 ACCAATTAGTGCAAAAATACTGCTGACCATTAAATCAATGCTTCTAAGTCTCTAAAAC
 CTTCTTTCTTTGTTTGTATTTTATAATAAACCCTTCTGCTATAGTTTTCTTTATCAAC
 CAAACCCATTTATATAAAGCGTTTAAATGCTCACTTATCGTTGATTTTGATTTTCTCTAA
 AATTTTGTATAATTCAGAGATAGTATAATTCCTTTCAATCAATTTTTTAAAAATTTCAAT
 60 CTTTGTCTTTGAAAAATAGAAATTTCAATCCCAAAAATAAATAAATTAATCTCAAT
 TGGCTTAAATTTATAACCATAAGTTTATAACTCCATCATCTCCATCTTCTTAAATCTTCT
 AAATACTGCCCTCAACTTGCATGCCTATATAAACATCTTCTGGCTTGCAATCTACAATTTG
 TCCTGTAAATCTCGCTCCTTCTCTAACTCAATGATTGCTATCACATAAGGAGCTTGTTT
 TTCAAAATCCTTTGGAGCTACATGGACAACCTGAGTATGTATAAACCTTTCTTTTCCACT
 TAATTTTATCTCTTCAACTCTGTTTTCTTCTACACTTTGGACATATCTCTCTTGAAGG

5 GAAATAAACAGTTCCGCAATTTTACATCTAACTCCAATTAGACAGTATCTTTCTTTAAT
ATGTCCTCCAACCTTCTGACAACCATTTTATCCCTCAATAAATATTTTATTCCTCATCAACCT
TTTCTAAAAAGGTTGATCAAAATGGATGCATCACCTCGCTACGCTCGGTGATGCCTCTTA
GCTTAGCTACTATTAAATAGGAAGGCATTTCCGAATTTATCCCTCTATAAAATATCTTAT
10 TCTCATTCAAATCAATCTTTTAAATCTCTCCAACAATCTTTTATCACCAAAATAAAT
CAATGGCTATAACTTTATCTCCTTTTCTCAACAATCATAACATCTCCATAACCAACT
CTCCATTAAAGTAGAGATTGCAACTACACATATTTTACCATTAACTCGCTTCATCCTC
ATCTACATCTTCAACTTCCAAGGTTCCATTTTCATACCCATAAAGCTCATAAATTTTGA
TGATATGTAGAGGTCAATGAGCATAATTAGCCTACACTCTCCCCAACCCACATTACACA
15 CTTATCTTTTTTGCAAATATCTTAAATAATGGGCAGAACTTATCCATTTAGCTCATCCT
TCTATTTTTTATTAAATGGTAGGATAGATAAGGGATATTTAGTTTGTCTATATATT
ATAAACCTTATTACAAACAAACAAAGCAAAATATTATTGCAGAAATCAACAAAATACAGTT
AATCCATCAAATAGATAATACCAAAATAATAAATCCAATACCACAAATCCAATGCTTCCA
ATTACTATAGTAAGCACTTCTTTTTAATTTTATCCATAAATATCCTCTAATTATCTCTT
ATCAGACAATATATGGATGCATACAGTCCCTCCAGTCCCTCCGACATTTACAGTAATTCC
ATAGCCATTTTTAATCTCTACCTGCCTATCTTTAACCTCCTTATCCTGCTTTAACTGCCA
20 GTAAATCTCTCCAACCTGCCTTATACCGGTAGCCCCAATGCATGTCCAGCAGCTTTCAG
CCCTCCACTTGGATTACTGCTGGGAAGCCATCATAATCAATAGCTATCTTTTTATCATA
AACTATCTTTCCAGCCTCTCCCTTTTTACAGAAACCAAGTTCCTCCATCAATATTAACC
ATTTATAGCAAAGCAGTCATGAACCTCAGCGACATCCACATCCTTTGGTTCTATATTGCT
CATTTTATATGCTTTTCACTTGCAACTTTAGCAGCTTTAAGCTTGTATGCTCTCTCT
GCTGTGTAATGCAATTGTATCTGATGCTTGAACACTTGTCTTGATGTAGATGATATCATC
TTTATTTACAAATCTTTAGCCTTTTCTGCTTCACATACTATAAGGGCAGCAGCACCATC
25 TGAACCTGGTGAGCAATGTAGTAATCTTAAAGGCTCAGCAACTGGTGAGGAGTTGAGAAC
CTGCTCCAATGTAACCTTAAATGGGAATTGTGCATATCTATTTTTTGAGGCGTTTTCATG
CATGATAACGCTCCACATTGATAACTCCTCTAAAGTTAAGCCATACTCATACATATACCT
CTGAGCCATCATAGCATACAGTGAAGGAAAAGTAGCTCCAAACAAAGCCTCCCATCTTG
GTCTGAAGCTGATGATATTGCAGAGGTTGCATCAACAACATCAGTCATCTTTTCTACTCC
ACCAACTAAAACAACATCACTTGCCCCGCTCGCTACATTTAAACAGCTTGCTTTAAAGC
30 TAAGCTACCAAGTGCACAAGCAGCTTCAACCCCTGTTGAAGGAATTGGGTTTAAACCAGC
ATGCTCAGCTATTAAAGAGGCTATATGCTCCTGTCCAACAACAAACCAGCACTCATGTT
TCCAACATACATCTCATCTATATCCTTCCCATCTATACCTGCAGCTTCAACTGCCTTAAC
ACCAGCCTCAACAATCAAGCTTCTAAAACCTTCTTTCCCATAGCTCGCCAAACTTTGTCTG
TCCATAGCCGATAATGGCAACATCTCTCATTCTTCCACCTTTTCATAGAATTCAATGAGT
35 TTAATTATTATCAGATGAAATGCTTCGCATTTTATTACTCGCATACTTTCGTATGCGATT
TCATAGAGTTTCATCAATCTTTTTTAAACCTTCTTTTACAACCTTCTAAGTTAATTTATCG
TATTTATGGACAATAGCGTTTCTAAGCCTGTTATATTGTTTGTATATCATCTTCAACATTC
TTTGTAAATAACATCATGCTTCAAAAGTTTCTTAATGTTTGTATAATCATCTTCAACATTC
40 AACCCAATGTCTTTAACGAGCATTGCTACAACGTCATAGTAATATCAACACATCTGA
AGAGAAATATAATAAGCCCTTTTGTAAATCTCATCCCTTATTTTCATGTTCTTTTGTGA
GTAATATTCTTCCCAAACCTTTTCAAGCTTATCCAAGTATCTCTTCTTTTGCATTTAA
ATCTCCTCCTCAACATAACCTTTTCTTAACACTGTTGAAGTATTTTCTCTAATCCTCT
TTTCCATATCCCTCCAAATCTTTCTAAATTTGTAGAAATGCTCTGAAAGTTCTAATTCAT
45 CTCCAAAATTTACTTTATGATTTTATAATCTCCATTTTATATACAAAGGAAGTTCTT
CAAAGATTTTATGTATATTTATTTCCCAATTTTCTAAGATTTCTAAGTATGTATTCT
TATCAACCCCTACTAAGCATATATCAATATCACTCCTTTTGTGTATTCTATTCTTTGCAT
AAGAACCATATAGCAGAATTCCAAAACCTTTGCTCACATCTTAATTTTCTTTCTAAATTT
GGCATATATTGCATAGTCGATATATTCTTTCTCTCTAAGTAATAGGCTGTTTTTGGAGC
50 TTTGTCTTTGACTTTATTTATCTATCAGTTACTGTTATGTGGAAGGCATCACTTCCAGC
CCCACCTTCCATAGGAGACTGCTAAAATCTCTCTCCACCTTCACAATTATCTAAGACATT
TGATAACCCCTAAAGGAACAGCTCCTGAGTAAGTGTTCCTAATATAAGGGGTTAATAGCCC
TATTTTATATTGCTCTTCTTAAAGCCCAAAATCTTAGCTACCCTAATATAGAATTTTCC
GTTTGGTTGGTGAATACGCAGTAATCATAATCTCTGGCTTTGTTCCCATTTTTTCCAT
55 CAATCCTTTAGCAGCATTAATTACATGTCTAAAGTATGCTGGCTCTCCTGTAAATCTTCC
TCCATGTCTTGGATATGGCTTTCTCTCTCTCCAGAAGTCTGGGGTGTCTGTTGTGTA
TGAATAAGTGCCGTTGAATTCAGCTATAACGTTTGATTTTCTTATTATATAGGCAGCTCC
TCCAGCTGCTGCGGTGATTCCAAAGCATCTCCTGGAGCTCCTTGGGCAGTATCTGCCCC
AATAGCTAATCCGTATTTGATTAAAGCCGCTCTCAACCAATCCCATACACATCTGAATTC
60 TGCTGTTCCAGCTTTGCAAGCAAACCTTAAATCCGCTGCAGTTAAGTCTGGAGTTGCATC
TATAGCCTCAGCAACTATTGTAGCAGTTGGTTTAACTGCATAAGGGTGGCTTTCACTCCC
AACATAAACAGCTCCAATGTCTTTTGGGTCTATTTTCAAGCTCTTTTAAATGCATTTCTTGC
TGCTTCAACTGCAATAGTTGCAGTGTCTTCATCCAAGCTTGGAACTGCTTTCTCATATAC
CAAAAGTCCCTTTTTTATTGATTCCGGGTCTTTGTTCCATACTCTTGCTATTTCTTCAAC
TTTTATCCTATATTTTGGGATGTATGCTCCATAACCAACAATACCCGCCATAATTTCCCC

-572-

5 CTTATTTTATCTCATTAGTCTTTTTATAAGTCTTTAGTATCTAAATGGGTTGTTATTA
GTGGGATGTTATCAATCTCAGCTAATTTTAAAGCTAAGCTGTCTATCTTGTCTTTATTTA
TTCCCTGCAAAACAACAACCTCTTGGCTTCATTATGCTGACTCTAACAGCAACCATTGGGC
TTCTTCCAGTAGAGACGTTTGTGAATATTAAAGCTCTTTCAGTAGTCCATCCGTATAAAT
10 GATAGAAATCATCTCCTGTCTATCTCTAATATTGCCTTTATACTATCAACAACGTATGCC
CATATATTGGAGTGTCTGAGTTATCTCCAACGGCAATTTCTCCATCAATAATATTACAA
ATTCAAAGGGTTATTGGGTTTTTCACTACTCTTTATTGATAAAATTGCCCTTCATTGAAG
GGCTTTTATCTAAATTTCTTTTTAATGCTTTTATTGTTTGTCTCCCTTCTCCTTATCTA
15 TTTCTATTAATGCCAAAACATACTTTTTTATAATATTCCTCCTGGGTTTTTCTCTCTC
CAACTTCATAATCACTTATAACGGATGGAGAAACGTTTAAGTATTTAGCTAACTCAATCT
GCTGGATGTTGAATAAATTTCTCCATTTTTTTAGAGCTTTTCCAGTATTTTCAGCTAAAA
CAATATCTCCTATAATGTATATTGCTACTTTCTCCATATTAATCACAAAATAAAAAATAA
ATGTCATATTTATAAAGTTTTGATTTTGTGAAATGCATTATGTTTATTGTCTGGATA
20 TGTAAAGAGGATTAAATTAATTTTGTCTAATATATTAGACATAAAAAATTAAGAGTG
TCAAGTATGATAGACAAAAGATACTATTTGAAGAAGTTATATTAGACAACCTAGAGATT
GCAAAGAAAGCAAAGGTAATTAATAGAGATATTGAAATAAACTCATCCCTAACAAAATA
AAGGTTATCTATGGTGTGAGGAGAGGAGGAAAGACATATTTCTTATTTCAAATTATAAAC
AAGCATTTTAAGGATGATTTTCATCTATATAAATTTTGAGGATGAAAGATTAATAAATATA
25 GCTTTAGATGAGTTAAATGAACCTCTTAAGATTGCATTGTCTATAAAAAACACAAAAAC
CTATTTTTTGATGAGATTGAGAGTGTGATAATTGGGATAAATTTGTTAGAAGGCTAAAT
GATAGTGGTTTCAACATTTTTATAACTGGTTCATCTCTAAATTATTATCAAAAGAAATT
GCCACTTCTTTGAGAGGAAGAAATTTAAAACTGAAATATTACCATTAAACTTTAAGGAA
TTTTTGAAATTTAAGAATTTTAAATGTTAAGAAGAGGTATTCACAAATTGAAAAGGCAGAG
30 TTGCTGAAGTATCTAAACGAATTCATTAAATTTGGTGGTTTTCCAGAAATAACTTTAATA
GATGATGAAAACATTAAAAAGAAATTTCTAAAGAATATTTGGACGGCATATTTTATAGG
GATGTTGTTGAGAGGCATAGCATTAGAAATATAAAGGAAATTAAGTTTTAAGGAACATT
TTAATAAATTTATTTGCTAATGAGATTTCTATTAAAAAGATTGCCAATTTACTCAAAGAA
TTTAATACAAAAATAAGTAGAGAGTGCATTTACAACATTTAGAGTATTTTAGTGATGCC
35 TATCTAATATTTTATTAAATAATTTCTCTTATAAGACTAAGACAATATCCTACTCAAAA
CTCTATGTTATTGACGGAATGTGGAACCTCTCCTTAAGTTTTAGCAAAAAATAAGGAAGA
ATTTTGGAACCTTGTATTTTTGGAGTTGAGAAGGAGAGGTTTTGTTGAGAATGAGAAT
CTGTTTTATGTCAAAGGAAAAACTATGAGGTTGATTTTTTAATATTTGGAGAAAAATAAG
GAGTTAATCAAGTATGCTATGAATTAATGAGACCAATAAAGAAAGAGAAATCAAAGCT
40 TATGAAAAGGCAATAAAGATTTAAACTTTGATAATGTCAATTTAAAAATTATCACTAC
AACGATGAAGGATTCGAAAAATAACAGTTGATGATAAAGAACATCTGATAGAGATTGTT
CCATTCTGGAAGTGGAGTTTAACCTATTGATATTTTAATAATGTAAAGACATTTTAA
TTAATAAATAAAAAAGAGATTAAAAATTATCCTTCTCCAAGCCACACATCTTTCTTAA
CTCTTTTCCAACCTTCTCAATTAATGCTCTTCTCTAATCTTCTTAAAGCATTCAAGTG
45 TGGGAAGCCAGCTTCTCTTTCAAGCTCCATCTTTTGCAAACTCTCCATCTGTATCTC
TTTTAAATCTCTTTTATTGCTTTCTTGACTCCTCATTTATAACTCTTGCCCTTCTGT
TAAACCTCCATATTTCAGCAGTGTGAGACGTTCTCCACATTCCCTGTAATCCCTTTTG
ATAGATTAAATCAACTATTAGCTTTAACTCATGGCATGTTTCAAAGTATGCCATCTCTGG
AGCGTAACCAGCTTCAACTAATGTTTCAAACGAGCTTTAATTAACCTCGGTAACCTCCTCC
50 ACACAAAACCTTGTCTCTCAAAATAAATCTGTTTCTGTTTCTCTCTAAAAGTTGTTTG
TATTACTCCAACCTTTGTTAATCCAATACCTTTAGCCATTCCCAAAGCAATTTGTAAAGC
ATCTCCTGTATAATCTCTCTCAACAGCAACCAATCCTGGAACCTCAAATCCTTCTTCATA
TGTTTTCTAACCATTGCCCCCTGGTGATTTGGAGCTACCATTTGTTATTTAACATTCTC
TGGAGGCTCTATAAATCCATAGTGGATGTTGTATCCATGTGAGAAGCTTATTGTTTTTCC
55 TTCTGTTAAGTAAGGCTCAATCTGCTTTTTATAAACTGCTGGCTGGACTTCATCTGGGAT
TAATATGTGGATGATATCTGCTTTCTCTGCTGCTTCCCTCAATTGTCATAACTTTGTGTCC
ATCTTTAATTGCCTTGTTCATGATGCTCCATTTGGTCTCAAACCAACTATAACATTTAA
ACCACTATCCTTCATATTTAAAGCTTGAGCTCTTCTTGACTTCCATAACCAATAAAGTGC
TATTGTTTTGTCTTTAACTGCGTCAAAGGTTACATCCTTATCGTAGAATATTTTAACCAT
60 TTCTATCACCATAAAGACTCTTTTTATTAAATACTCGCTACCTTTATTAGCCATAAATACT
ATTTTAAGGTTTTCGGTTTAATTTGATATTCAGAAATCGATACTATAAAAAACCATATAAT
AATAACATAGAATTTAAATACCATTAGAACACAATAAATTATAGTGAAATAAATTTAAA
ACATAAATGTTGGTTATAAACGATATTTAGCAATTACACGGAGAGCATTATCCTAAAATT
AAATAGTATGGTGAAATTTATGAAAATAAACTCAATAGCCGCTAAGAATTTACTATCATT
TGATGATTTTAAAAAATCAATTTGAGGATGGGGATGTTGTTACAATCTTCGGCCCCATAA
TGTAGGAAAAACAACCTTTATTAGGTTTTTAAATTAATAAGAAACATTATAAATGAGAA
AATATCAGCAGTAGATTTGGAAATATATTTACACAATAAAAAATTTAAAGCGGCAAGAT
AGAGGTAGATGTGATATTTGACAAGAGTGATAAAGAGGTTATTGCCAAATTTCTTAAAT
TTTCTTCAAAATAAATGCTCCAGATTTGATAAGACTATGTAACAACCTAAAGCTGAACAT
TATCAATAGTATTATTGATTATTTTTTCAAGGAGTATATTTTGGGAGTGCTCTGAATT

-573-

5

10

15

20

25

30

35

40

45

50

55

60

AAGGTGCTATAGACCATATTTTATGCTTAGATTGAGAAGTTTAGAAGAAGATATTGAAAA
AATAAAATATACTTGAAAGAACGTGAATTATCAGAGATTACACCAGATTTAATTGACCA
TAGTAAGGTTATACATGAGTTGGACAGAAATGTTGAGATTATAGAAGTTACAAATGATTT
AAAAACATTATAACATCATCTGTAAATGCATTAATTACAATTTATGAAAAAATGAGAA
ATTATTCTTTAGCACATTAATTGATGGTAAGGAGAATATCACAAACAAGAAATTGGAGATTGG
AAATATAGAAAAATATTGTTGAAATCTCAATGAAAGATTTTACAAAAGACATTGAGAAATA
TGAAGATTGTTTTAAAGATTAACAATGGATAAAAACATATTGAGAGCATTGTTGTATT
ATTGGCTTTGGATAAACTCTTAGCCAATAAAATGTCAATATATGTTAAGAAGGTTTTAGA
ATATTCAAAAAGAAAATCCATGGGACAAAGAAATTATTGAAGATTTAAAATATATTGTAAG
ATTTTGTGGATTGATTATAGGGACATATATGAAATTAGTGATATCTCACTAAATGATAT
TTTATTAATAATATATGAAAACAGTCTAATATTTTATGAGGATTATTTACCAATGAAGG
CAAAGTAATGATTCCAGATTATATGATAGTTGAATTACTTGCTGGTTTAAAGAATAACAG
TTTAGAAAAAATGTGAAATCTAAAAATTTGGAATTATTCAAAACATCCACAACAAAAGA
CGATTTATATTTAGGTATATTAAGCATGCCATCTGAAAAATGGATACCCAGTTATTTGTT
TTACTTAAAGAATAATGCAAACTCTAAAGCTAAGAAAAAGATATATGAAAATTAAGAGAT
GTTTGAATATATATTTAATAGTGGAAGTCTTAGTTTTGATGTAATTTTAGCTAATAATAA
ACCAGATATTTGTAGTATATTGAGAAGACATTGAGATACCTCTGAACATGGTAGGACTTGG
TGTGAAAAAATCTTAGAAATTTCTAATTTAGTATTTGGGTATGAGTCAAAGGTTATTTT
ACTTGATACTCCATTTAATCAACTTTACCCAAAATATCAAAAGAGATTTTCAAAGATTCT
TAAAGATACTGAGAATATTGACTCACAGGTATTTATAATCTTACATTCTCCATATTTTCAT
AAACAATGAAAATATATTCAATACATTTAGATTTTATAAACCTAAAAATCCACCAAATA
CATATGTATTGGGAGTATAATCAAAGACTTGGAAAAACGTTTGGGACAGTAATTTTAGA
TAGAACTACCAGAAAGATATTACTATCTGACGCTGTAATTTCTTTAAGCTCTGCTTTAAG
GGCATTCCATTATTCGACTTAGCTGAATACGAAGATATACCAATAGACGAATATAATAT
CGAAGTTATTTCGCCCGCAAAACACTTTAAGTTTTGGAAAAATATTATGCTCTACTCTCAATA
TACTTCCATCCCATATATTCTTATGCTTAGAAGTTGGTACTTTATACTTATATGAAGA
AATAAAAGATGGTGAAGGAAAAGTTAGATACAACTATTAGAAAAAGGAAAGTATCATAA
AATAGTAGAGGAACGCCCTTAATTTCTTTAAAAATAGACATCCATTTTGGATTTCTAAAGA
AGAGTTCGATAAAGTTATAAATATTTATATTTAAACCTTTGGAAGCTCATAGGGAAAACT
TATTGAGTTAGGATACATATATCTCTCATCTAAGAAGAAGTAGTTAAATACTGTATAGA
ACCATTAAAGAAAGCAGTTAGAGGATATCTTAAGAAAGAAGTTGTTTATATTTACCGTCCC
TACAGATTTCTAATCGAACCACAAGACTTGAAAAACATTGAGATTGAGAAAGATAAATA
TATCGTTCACTATATTGGTTACAGAAAAGATGTATTAAGGAATTCAAAGAATTCTT
TGATTACTTTGTTAAATCCACAATTTACAGTAATACAAGGTGAAACAGTGATATTGATA
AAAAATGTATTTGTAATGGGAAGAGACAGGATATACTAATTGAAGGAAATAAATAAAAA
AAGATTGGAGAGGTTAAAAAAGAAGAAATAGAGAATGCTGAAATTATAGATGGAAGAAG
AAGATAGCAATCCCTGGGTTGATAAATACTCACACCCACATACCAATGACATTATTCAGA
GGATTGCTGTGATTTACCTTTAATGGAGTGGTTAAACAACCTACATCTGGCCTATGGAG
GCAAGTTAAATGAAGAAATTGTTTATTGGGGAACACTATTAGGATGTATTGAGATGATT
AGAAGTGGAACTACTACTTTTAAACGATATGTATTTCTTTTGGGAAGGGATTGCTAAGGCA
GTTGATGAAAGTGAATGAGGGCAGTTTTAGCCTACGGAATGATTGATTATTTGATGAG
GAGAGAAGGGAGAGAGAGCTTAAAAATGCTGAGAAGTATATAAACTACATAAACAGCTTA
AATAATAGTAGAATAATGCCAGCTCTTGGCCCTCATGCTCCATACACTTGCTCCAAAGAG
CTTTTAAATGGAAAGTTAATAACTTAGCTAAAAAATACAACGTCCTTATACATATACATCTA
AATGAAACCTTAGATGAGATTAAATGTTTAAAGAGAAAAACGGGTATGGAGCCGTTTATT
TATTTAACTCCTTTGGTTTCTTTGATGATGTTAGAGCTATAGCCGCTCACTGCGTGCAT
TTAACAGATGAAGAAATCAAATAATGAAACAAAAAACATAAACGCTCTCTATAACCCA
ATTAGCAACTTAAATTAGCTTCTGGAGTAGCTCCAATTCAAAACCTTTGGCTGAGGGA
ATAAACGTTACCTTAGGAAGTGTGGATGTGGAAGTAACAACAACTTAACTTATTTGAG
GAGATAAAGGTCTCTGCAATCTTACATAAGGGAGTTAATTTAAATCCAACCTGTTGTTAAA
GCTGAAGAGGCGTTTAACTTTGCCACTAAAAATGGGGCTAAAGCATTGAATATAAAGCT
GGAGAAATAAGAGAAGGATATTTAGCAGATATTGTTTTAATAAACTTGGATAAACCTTAC
TTGTATCCAAAAGAGAATATAATGTCCCATTTAGTTTATGCGTTTAAATGGCTTTGTAGAT
GATGTCATCATAGATGGAATATAGTTATGAGGGATGGAGAGATTTAACTGTTGATGAA
GAGAAAGTCTATGAAAAGCTGAAGAAATGTATGAGATTTTGAGAAGCTAATTTTTGAAT
TCATTTAACATTTTATCAAAGCTAATTTGTGAGTAATTTTATATTTTTTAGAAATATT
CCTCCTCTTGATCATAACCAACAATTAACCTCCTTACCTTTATATTTCAAAAATAAAA
GTTTTCTTATTATTAATACTAAATTTTACGCTATTTTTGAAGCCTCTGATAAAAAATCTTT
AAATCCTCAATTTTTTCTAAGAACTTTTTAACTTCTTATTCGCTGATTTTGAAGAAACA
GCTTCCATAATTTCTTTTAAATGTTTTATATTCTCAATATTAATGTGATATAATCTCTA
CTAATCCCTAAAGAAAAAATATTCGTTAATGCTATTTCTAACTACCATTTTTTATCAAT
CTCTGAAACAAAAATAAATAGTTGAGTTCTTTAAGCAAAGTCCCACTTATTTTTATCCTT
TTTCTCTTTCTTTAATGGGATAATTTTTAAGCCTACTTCTCCATCAATGGTCAATTTGTT
AAATACAATTTTAACTCGCTTCCACTACCTTCTAAGATTTTTGCTAATTTTTCAATATC

-574-

TACATTTAATTTAGGTAATTTATCTTTAACCTCATCGATAAGTTTTAACATTTCTTCTAT
TTTTTCTTTTGACACCATTTCTTTTTTATCTTTTAAACTATTTAAAAAACTTGTTATCTT
CTCTATTTTATCAGCAATTTCTTTAGGAATCTCAACTTTTATTTCTTTAACTTCTTTTTT
5 TTCTGACATATCTATCCCCACAATTTTGTGTAGTATTCTGCGTTTATATCTTATATCTT
TGGAGATATTTAAAGGTATCCATCTGTTCAATAGCTATTGAGTAAATCTTTAAATTCCTT
TAATACCTTATCAGCATCAACCTCTTCCATCTTTTTTATTTTCTTTAAAAATTCCTTTCT
TAATCTTACAACCTCTTTAATTTTATCTTTTATCTAATTTTTTATAGATTTTATATATCTACT
10 TACAATTTTCTGTCTCCTTATCAATTTTATCAGAAATATTGTTGTTTTTATTTTATT
TTCCTCTAAAACATAAAATTTAGGAATTCCTTACTTTTTTCAATTAATTTTTTAGCTAT
TTCATTAATAATCAATGCTTTTTGTTGTATCTATTATTAATAATGGCTCATCCCATTATA
TTCTTCCCTCTCTCAATATTTCTTCTAATTAATAACATCTAAAGAAGCTTTTAAATATATTAT
GGCATAGTTTTTGTGTATTTTTTGGCTATATTTATTAATCTCTCCTCATTGAGTTATA
15 ATAGTTGGTGTATCAACAATAACCCAATAGTTTTTTAAAGCAGAGTCTATTAAGCGGTA
TGTTGATTTTTTAATAAACTCCTCATATTTCTCCTTCCATACTGGAAAACTCTCCCTAAT
CAATCACTTCCCTAAAACATGACATCAATGTTGTTTTTACTCAAAATTTTTGCTAAAT
CTTTGAAAACGTTGATTTCCCAACCCCTGGCAGCCCTGTTAAATGATTAACATGATATC
CCCCAACTTATTTTTAATAGGACTTTCCGAGAGATAAAAAATTTTTAAGGAAGCTGATGC
CTAAAGGCATCCAACCTGCATTATGAAATATATGAAGTGGGAAAGTCCATTTAGGGTAAA
20 ATATAAATATGAGGAGGTCAATAATAGTGTATAGATGTGGCACAATCAAGGTGATCCTAT
GAGCTTATCAATGAATTTAAATTTATGTAATTATCACAACCTGTAATTGCAATATTGGAGA
GGAGTATTATAACCACACTTACCTCAATTTTGAATAGGATTATTGAGAAGTATAAGCT
CAATAAAATAATTTCTTATGACTTCACTTCCCTGCTTATTATAGATTTGTGGGAATGGT
TGCAGATTTTTATTTCAAAAAATATCACAACAGGACCTTGCCTATTACACCAAAGGAAAT
25 TAGAAAGCTCAACCTAATATAGATTTTGAAGAAGTTAAGAAGATGTTTTAAGACATCC
AACATTTGAAGATTATGTATCAGTGGCTATTGAGACAAATAAGGGATATAAAAAACCACAT
AATAATTGAACCTTACGAATATGCAAAACTTGTGAATATAAGACAAACATACCTTTTGA
AGAGGCATTAAAAATTAATAAACTCAGTGCAAGAAGCTTTAAAAAATACTACAAAAAGAA
AGTTAAGGCAAAATATTATCTAACGCATAAAAAATCATTGATAGAAGGTTGAGAGAAGT
30 TTGTAATGAGCATTATAAATATTACTTAGAAAATGCAATATTTCAAAGAAAGGAAAAGA
AATAATAAAAAACAATCCTGAAGAATCAACTTGGTTGAGGATTAAAGTTTCAATTCCTTCC
AGAAGCAATAAATAAAGATGACTCTACAATAGTTGAGCCAGTTTCAAGTATTGAGGGGAT
GTATTAGCTAAACAAATTCAGAAGTTAGTGGAAATGTTGTTAGAAGTCTTCAACTTT
35 AAACCTTAAACCAATTATGAATGAAGGAAATGAGAACGAGATATTTACTTAAACAATGA
TATAGAGAAGGAAATAAAAAAACTAACCTATAGAACAAGAACAAAGTGGGGATGCTCATT
GTATCACAACCTTTTATCTCTAATTTCTCCGATATGTTGCAACAAAAATTGCGAAGAGTG
TTTAGAAATCTTTATAAATAAAATTAATAATTTAAAAATGGGGTGAAAAATGATTCAGG
ACACAATAATTATTGGTGCTGGACCTGGAGGATTAACAGCTGGCATATATGCAATGAGGG
40 GAAAGTTAAATGCTCTATGTATAGAAAAAGAAAATGCTGGAGGTAGGATAGCTGAAGCTG
GTATTGTAGAAAACCTACCCTGGATTTGAAGAGATTAGAGGATATGAATTAGCTGAAAAAT
TTAAGAATCATGCTGAAAAGTTTAAATTACCTATAATCTACGATGAAGTCATTAAAAATAG
AACTAAAGAGAGACCATTAAAGTTATAACAAAAAATCTGAGTATTTAACTAAACCTA
TAGTTATAGCAACTGGGACAAAACCTAAAAAATTAGGTTTAAACGAAGATAAATTTATCG
45 GAAGAGGAATTAGTTACTGTACAATGTGTGATGCCTCTTCTATTTGAATAAAGAGGTTA
TAGTGTATTGGGAGGATACACCAGCAATCATGAGTGCTATAAATTTAAAAGACATTGCTA
AAAAAGTTATTGTAAATTACTGATAAGTCAGAGTTAAAGGCTGCTGAGTCAATAATGTTAG
ATAAGCTTAAAGAAGCCAAACAATGTTGAATAATATACAATGCCAAACCATTTGGAAATTG
TTGGAGAAGAAAGAGCTGAAGGAGTTAAATATCAGTTAATGGAAAGGAAGAGATAATAA
50 AAGCAGATGGGATATTTATAAGCTTGGGACATGTTCCAAACACTGAATTTTTAAAGGATA
GTGGTATAGAGTTAGATAAAAAGGGATTTATCAAACAGATGAAAACCTGTAGAACAAATA
TAGATGGAATTTATGCTGTAGGGGATGTTAGGGGAGGGGTTATGCAAGTAGCTAAAGCTG
TAGGAGATGGGTGTGTGGCTATGGCAAATATTATTAATACTTGCAAAAAATTATAAAAAAT
TAAAAATTTTTAGAGAATTACTAAATTTTAAATTTTAAATTTTGTGTTAATGGGATGTC
55 ATAAACGATATTTCCCATTTTTAAATCTAATCTTAGATTTTCTATACTATCTGGTTGT
GAATATCCAATATCCCGCAATCTCTTGATTAATCCAATTTCTATTTTCAATCAAGTCTCC
AATTTTCCAATATTTTTTATCTCCAGAAATTAACACACTCCTATAGGAGCAAATTCATA
TGTTGTCAGGATTTAAGTTTTTAGCTACAAAACTAAATACTTTTTCAATCTGTC
AGTTTGATTGTTATAAATTTATAATATCCATATTTTACAGTGAATTTATCCCCAC
60 AACATCCCTAAATTTCTCTATATTAGTTTTATTGAGTTTTCAATGATTTCTTTTTCAAA
TATTTCTTTCAATTTCTTCTCAGAATATCTTCAATTGTTCCATAGGTTGTTTTGATAA
ATTCACATTATCATTTTTAAATGTCAATACAAATTTTGCATTTTTATAAAAGCCTTTAAT
TTTTGGCAATTCAATCTCATAGTAATATCCAGCTTTTAAGGGAAGTTCATTAATGTAGTA
TGTTTTATTAAACAATAATCCACTATCGTCAAAATATCTTCAATACAACCTTTCCATTACT
TACCCTTGCTAAACTACCGTTCTCATAGCTAAAGCAAAGTGAATTTTGTTTTGTTC

-575-

5 TTCTTTGACAATATACATATATTTTATTTCTTTTATTTTAGCTAATTGATTTTTTTCAGT
TTTTTGAATTAACTTTCATTTTCTAAGGTTTTGTTTCGTTTCAATCTTATTTATATTTAT
TTCATTATTTTACATTTGTTGTTTTATTGCTTGTGCATCCACACAGCAATACAATAAGCAT
AACAAAAATAAAGAACAGCCTTTTCATACTATCACCATAAACAACAAAAATATAAAAA
TTAAAAATAAAAAAGAAAAGTTAAGTTAATTTACTCTTTAATGCTGGAATAACCTTCTT
ACCAATTAATTTAATTGCTGTTTCTTTGTTTGGTCCAATTGGGGAACCAGCAACGATTTG
AGTAACCTCCCATCTCAGCTAATTTTTTACACTTCTCAACAACATCTTCTGGTGTCCGTA
GATTGAGAATGCCTCTAACATTGTGTCAACATTCTTGAATGCTTCTGGGAAGTTTCC
10 TGATTTTAAAGCGTTTCTTATTGCCTCAACTTTCTCCATGTCAATTCCATGTCTCTCTAA
GACAACCTGGTGGAGAACCTGCTGCGATGAATGCAACAACCTGGAACCTGCTGCCTGCTTAGC
TTTATCTGCATTCTTATCAACTGACATACATGCGTAGGCAGCGACATCAATCTCGTCCAT
GCTTCTTCCAGCAGCTTCGGCACCTTTCTTAATTAATGGGATTGCTGCTTCGAAGCTTTT
TGGGTTTGATGCATTAATTAACCTCCATCAGCAATCATACCAGCTGTTTCTAACATCTT
15 TGGTCCCTGAGCTCCCATATAAACAGGAACCTGCTTTTGGATTGGTTAACTGCTAAAGC
AGCTCCTGCAATCTTGACAACCTTTCTTTCATAAGAACTCTCTCTCCAGCTAACAACTT
TCTTATAACTTCAATTGATTCTTTTAAATGTTGTAACCTGGCTTAACCCACTCAATTCCTAA
TGACATCAAAAGTAGCCTTATCTCCTGGACCGATACCTAAACAGCTCTTCTCCTGATAA
CTCGTCCAATGTTGCAATAGCTGAAGCTGTTATTGCTGGGCTTCTAACGTATGGGTTTG
AATCCTGGTCTCAACTTAATTTTGTGTTGTTTCATTGCGATAGCTGTTAAAGCCATATA
20 GACATTTCTGTTGTTGTAGTGGTCTGTAATCCAACAGTATTCAATCCGTTGTCTTCAGC
TAACCTAACATAGTAACAGAGCTTTTGTATTGGCTCGTTTGAACAATTCGATACCAAA
TTTCACAATCTCACCTCAATTTTGTATTTAACAACAATTATTATATTATCAATTTATG
GTAGTAATTAAGTTTTCTATTTACCGCAAATCGAAAAATATTTATAGGAGTAAAGATTTT
25 TGATGGGGGTATTAATTTATCTAAAAAATATTTAATTTCAAGAAAAACGTTTAAATGC
CAATCATTATAATAATAATAATAATTAAGGAAGTTTATCACAATATTGTAATTTCTT
CAATCATTATCTTAAATTTCTAACATATATAAGTTTAAATTTGAAGGTGACATTTATGA
ATCTTGAGAGAGGAAAAAGTTAGAAACAAATCTATTGATGAATTAGATTTAATTGGAA
AAAAAGTTTGTGTCGATACCTGTGTCGTTATAGATGGTAGAATAACAGAGCTAATTGAGA
30 GAGGTAAGCTTAAAGATGCTACAATAATAATTCCTGAAGCTGTGGTTTCTGAATTAGAGT
ATCAGGCAAAACATGGGTAGAGATAGGATATAAAGGGATAGAAGAGCTTAGAAAACTAA
TAGAAAAAGCAAGTGAGCATAACATTAAGTTGAATACTATGGAGAAAGACCTACAAGAG
AGGAGATATTTTTAGCAAAAAGTGGAGAAATTGATGCAATGATTAGAAAAGTAGCTAAAG
AAACAACTCTATATTATTAACAAGTGATTGGATTCAATACAACCTAGCTAAGGCACAAG
GTATTGAAGCATACTTCTTAGAGCTGCAGAAGAGGAAGTTGAACCTGTATTGGATAAAT
35 ACTTCGATGAAGAAACAATGTCTGTGCATTTAAAGAGGGATGTTTGCCTTATGCTAAAA
AAGGTAAGCCTGGAGAAGTTAAGCTTGTTCCAATAGGGGATAAAGAACTGACTAAAGAAG
AGATGGAAGATATAATTGATAATATTATAAAGTATGCAGAACAGAATAATGGATTCTTG
AAATTCAAAGAAAAGGAGCTACAGTTATCCAATTAGGAAATATTAGAATTTCAATGCAA
40 GACCGCCATTTTCTGAGGCTTTAGAGGTTACAGCAGTTAGACCAGTAGTTAAAGCTTCAT
TAGAGGATTATGAATTGTCAGATAAGTTGATGGAGAGATTAAAGGAGAGGGCAGAGGGTA
TCTTTGTTTCTGGTCCCTCCAGGAAGTGGAAAATCAACGTTTGTAGCGGCTTTGGCAGAGT
TCTATAGAAGCCAAGGAAAAATAGTTAAGACAATGGAAAGTCCAAGAGATTGCAAGTTA
45 GCAAGGAGATAACTCAATATGCACCAATTAGAGGGAGATATGGAGAAGACATGTGATATCC
TATTATTGGTTAGACCTGATTACCAATCTATGACGAAAGTTAGAAAGACAAGAGCTTTG
AGATATTTGCAGACATGAGAATGGCTGGAGTTGGAAATGGTTGGGGTTGTTTCATGCTCAA
AACCAATAGATGCTATCCAAGGTTGATTGGAAGGGTTGAGCTTGGAGTTATCCACAAG
TTGTAGATACTGTAATCTTTATAAAGATGGAAAGATACAGAAGGTTTATGAGATTGACT
TCACAGTTAAAGTGCCCTTATGGAATGGTTGAAGAAGATTTAGCAAGGCCTGTTATTGAAG
50 TTAAGGACTTTGAGACTGGAAGAGTTGAGTATGAAATCTACACCTATGGAGAACAAGTTG
TGGTTATGCCAATTAAAGAAGAAGGTGGAAAAAAGCCCCAATATATGGATATGCTGAAG
AGAAGTTGGAGGAGATATTGAAAAAAGCTTCTACCAAGGAAAGCTAAGCCTATGGTAAAGG
TTACTGGAGACAACTCAATTGATTTAATTGTTCCAGAGAAGTATATAGGAGCTATTATAG
GAAAGGGTGGAAAAGAGATATCAAATTTGGAAGATATGCTTGGATTAAAAATTTCAAGTTA
55 AAGAAAAGGAGAAAGAAGAAGAAAAGACATGGAAAGGATATATAGAAAGTATGAATATG
TAAATGAGCTTGAATCAACAAGAATTTATGAGACAGATAAATATGTGGTTCGTTGGATGTTG
GAGAGGACTTTGACAGGAGAAACATAAGGATATACATAGATGGGAAGTTATTAACAACAG
TAACGTGTAGAAATGACGGGACAGTGAGGATAAACAACAAAAAAGGTAGGAAAAAGAGA
TTTTAGAAGCAATTGATGAAGGAAGAGACATATATGTTGATTTGCAATAAAAAATCCTAT
60 CTTAATTTTAACTATCTCTAACGCCTTTTAAATCAATTAACCTTTATATAGTGCTG
AACCATAACAACCTCCATAAATACCAAGTTCTTTTAAAGCTTTTATGTCTTCTAAGGTTG
TAATTCACCAGAGTAGATGATAGGAATATCAGTCTTTTCAATTAACCTTTAATTATAT
CAACATTTATCTCTTTAATAAGCCCTCAACATCTACATTTGTAATAATATATAGCCAA
CCTTATCTTCAAATTCCTTAATAACTTCTATTGGAGTTTATCTACTTTTCTCTCCATC
CTTTAATAACAACCTTTCCCTCTTTACATTCTACAGCTAAACCTATCTTATCTTTCCAA

-576-

5 TCTCTTTATTTAAATCATCTATGAATTTTGGTTCATAAATTGCCTTAGTTCCTCACTATAA
CTCTATCAACTCCCAAGCTAATTAATTCCTTTGCTATCTCTAAATTTCTAATTCCTCCTC
CAACCTCAACTGGAACATTAACTCTTTTATAATGTTCTTAATAACGTCTCTATTATTTTC
CTGTTCCAAATGCGGCATCTAAATCGATTATATGTAGATACTCAGCCCCCTCATCTACAA
10 ATTTTTAGCAACTTCTACTGGATTGTTTAGTTCCAAATGCTTTTTATTGGGTCTCCTT
GAATTAGCTGAACGCACCTTTTTATCTTTTAAATCAACTGCAGGGATTATTATCATTTAA
TCACCTATATGAATAAGTAATGATATTGTTTAGGTTTTACTCTTATTTTTCCAGTTAGT
AGTAGATTCAATTATTTCTTTTTTGCTTTTCTATTTGTTCTTTTTCTTTCTTTTTATT
15 TCTATTAAATCATCAATGGCTTTTAAATCTTTAGCTATTGCTTTTTGTTCTCTAATGGT
GGGAGGGGGATTTTTTATACTTTCTAAATCTTTTATAGTTATTGCTTTGAATACTGCACCT
CCTCCTAAATATTCTATTTTGGCTTTATATACTCAAATAATAAAATACAAAGAAATTA
TCTACTTTTTCTTTATTTGATTTTATCTGCTAATCCTCTACCGATACAAAGTTTAAAC
GGTGTATATTTACATCTCCAACCTGGAGCCCTAATGAAATTAATAATCTTCATCATCA
20 ACGACTTTTAAAGGTTTATTTGTGTATAATACTGGATTAGGATAAATATTTCCAAATTC
GCTTTTCCTTGTAATAATGGAACCTTCACCTCTTTTATTATAGGATGATGATGGTGGT
GATTTGTCCCATTATAATTTGAAATATTTTCATTTCCTAACTCAACAACCTCCCAATCC
TCTGGAATCTCCCCAATTTAGATTTTTTTAAACTTTTATGCTCAAAAACCTCCTTTAGTA
AATAATTTTTTCATCATCCCTTTTTTGCTTATTTAATACTTCAATCTGCTTATTTATT
25 GTTCTTATAGGTTATCAAGTCACTTAATATTTTGTCTATTGTTTCTGTTCTTCTAAG
GGAGGGAGGGGGATTTTTTAAATGTTTTAGTTGTGTTGATTATTGATGATTGATTAACT
GCTCTTTTTGCTATATATTTAAATATATTTTTTGTTTAAATGCCTCAATAAATATAAT
AAATAATAAGGCTCAATTTGTTTTGTAGGTCTAAGAAGTAGTAAATTCATTCCATGA
AGTAAAAATTCGGGTTTCCCTTCATAAATTGCTACTTTTCCAATATGTTCTCTCACTATT
30 ATATGACTGAATAAAATATCCCGATAATTAATCTATATTTAGCAATATCCTCTTGTTTA
ATATCTTCAACATACCCTAATTTTGTATGTCTATTTTACTATCAGAAATCGTTTCAAT
CTTGTTATTGGATAACCTATTTTATCTTTATTTTGTGTTAGCAGTTAGTCCATTTCTGATA
ACCTCTAAAATGTCTTTTAAATCCCTAACCTCCCAATCCTCTGGAATCTCTCCAATCTCT
GTTTTTTTAAATTTCTCCTCTTTATAAAATTGCAATAGAATCACCACAACGTTATTATTA
35 ATGGCCCTTTAGCATTTGGTTCTTTTTTATCATCAATATGGCGTCTTCCCATCTTCAT
AGTATTTTGAAGAAGCTTCTATCTCTATAACCCATCCTATAATAAAATCTTCTCGCCA
GGACATTTGAAACCCTAACCTCCAAAACCTATGTAGTTACAGTTAGCTATATTGAAATAAT
AGTTTTCAAGTGTTTTTAGTAAAGCTGTTCCAATTTCAAGCCCTCTACATTCTTTTTTTA
CAGCCAATGAGATAATGTGCCATTTCCCAATCCATACTTCCCAAAATATACCCAACAA
40 CCTCCCATCAATCTCTGCCACATAAAAACAGTTTGGATACATTGACCAAAATCCTAAAA
TTAAGCTGGTTGGATAAGGGGTTTTAAATGCCTCTCTCTCAATTTCTTCAACAGCATCTA
AATCTTTAGATGAGAAATTTCTTATTATCATGTTCTCACTTAACCTTTAGTAAAGCCTTT
GAATAATTTTAAATCAATGAATGTTGTGTAATTTATTAAATTTCTATTTTAAATTTTAGTATT
45 ATTTTAAATCTTTTTATAGAGTCTTTTAAACATTTTGAATACTAAGGACCAATAAAC
ACCCCTTTTATGAAAGCGTTCAAAATTCATTAATAGACTTTATTAAATTTGAAAGACACC
ATATTTAATCTTTCTCTCTCTAAGATAAATTTTTCTTGTCTAATCCATAGGAATACCT
CCCAATGAATTTTGAACAACCTCTGTGACATGGAATTATTAAAGGTAAGGGATTTCTT
TTTAAAGCCATTCCAACAGCTCTTGGTGAAGTGTGTTAGTTTTTGAACAATATCTCCATAA
50 GTTAAGGTTTTCCCAATTTCTATGTCTTTAACAATATCTAAACCTTTTTTGTAAATTTCT
GGAACCTTCAATTTATAACTTATTAATTCCTTCACTTTTTTATCATCAATTTCTGCAAAA
TATAATTTTAAATATAATTTAGTACTTTTAAATGTTTCTGATTGCTAACAACCT
TCCCATCCATGAAATTAATATCTCTTCCCTTCTTAAAGGGATTGTATTCTTAACCAAT
TGATTACCTTTAAATATCATCCCTATAAAATACTCTTCTATCTGAATAATCATGCTCTCA
CGGTGAAAGCCTATGTTGATAGTAATTAATATAAAACATACAATGAAAGTATAGGAAAT
55 AGAGGTTTAGAGATAGCTAAATTTGCTGAGAAAGTTAGTGAAGAAAGTGGAATTACAATA
GGAGTAGCTCCTCAATTTGTAGATTTAAGGATGATTGTTGAAAATGTCAATATTCCAGTT
TATGCTCAACATATAGATAATATAAACCTGGAAGTCATACTGGACATATATTGGCTGAA
GCTATTAAAGATTGTGGTTGTAAAGGAACCTAATAAACCATTCGGAGAAGAGAATGCTG
TTGGCTGATATTGAAGCAGTTATAAATAAATGCAAAAATTTAGGATTAGAAACAAATTGTC
60 TGCACAAATAATATAAACACTTCTAAGGCAGTTGCAGCCCTAAGCCCTGATTATATTGCT
GTTGAACCACAGAGCTTATAGGAAGTGAATTCAGTATCAAAGGCAATCCAGAGGTT
GTTGAGGGAACTGTTAGGGCAGTTAAAGAGATAAACAAGGATGTCAAAGTTTTATGTGGA
GCTGGAATTTCTAAAGGAGAAGATGTTAAAGCAGCCCTTGATTTGGGAGCTGAGGGTGT
TTATTAGCTTCTGGAGTAGTTAAAGCAAGAATGTAGAAGAGGCTATAAGAGAATTAATA
AAGTTCATCTAAGTTATAATTTTATTTTCAAACTTAATAAGATTCTAAGGAACTTTGA
ACATTTATCTTATAAGTAAGGTGTTTCAATTAAGTATCATTTATTCCAAATATTTTGA
GCTATCTCTTAAATTTTTTGGTGAGATTGATGGCTTTGGGATTGGATAGGAATATGGAGG
GAGTTTTATGCTATTTGTTATTTTGGATTAGTGGATTGATATTTTTGTTGTAGAGAGGG
AAGATGATTTTATTAGATTTTACGCTATGCAGTCATTTATAACCTTTTTAAGTTTAAAT
TAATTGCCATAATTTGATCTGCAATTTCAATAATTTGGATGGGTAGCTTCCACTTTAATAA

ACATAGCCATAATTATCCTATGGATTGTTGGGATGATTAAAGCCTACAATGGGGAAAGAT
ATAAATTTCCAGTGTGTTGGAGATATAGCAGAGAGATATTACAGAGAATTTTGGAAATAAA
ATAATTTTAAGGATTATTATGTGGTTCAAAAAAGGATTATAATAAAAGAGACAAATATA
5 CTCTAAAGSTTGATGATAAAGGCTATTTTAAAAAGCGGAGGAGATTATTTTAAAAAAT
AGATTAGAGTTAGAGAGGTATATATTAAAAAATCCCTATTTTAAACATCATATTTTCCA
GTTGATGTAGAAGATGATGCCCCAGAAATCGTAAGATTAAATGGCTATAGCTGGAGAAATT
GCCAATGTAGGACCCATGGCAAGTGTGCTGGTGAATAGCTGAGATGTTAATTAATAAT
CTCAATGCCAAAAACATCATTTGCTGAAAATGGTGGAGATATCTGCTTAAGGGCTAAAAAA
10 GACGTTATTATTGGCCTATATGCTGGAAATTCAAAGATTACTGGAGAAGTTGGATTTAGA
TTAAAAAAGAGAAGATTAAAAATATCTATGGTGTGCTTCTTCAAGCACTGTAGGT
CATTAGTAAGCTTTGGAGAGGCTGATGCTGTTACTGTCTTTGCTAAGAGCTCTGCTATA
GCGGACGCTGCAGCAACAGCTATATGTAATGCTTCAAGAGGAAGAGATGAAGAAGAGATG
ATAACAATGCATTAGAAAAAGCGGATGAAATAAAAAAATAGATGGAATTTTGTGTT
15 GTAAAAGATAAGGTAGGAATTAAAGGAAAAATCCAGAGTTAGTCAAGACAGATAAAAGA
ATAACCTTGGGAGAGCTGTTGATATTTTAACTCATCAAAGTTTAAAAAGTTTATTTT
AGATAATCAGTTCCATAATCTACCTTATAAATCTTAAATCCTGGCTGAATGCCAAAGTCT
GTTGGGCTTATTGTAGCTTTAACCAGCTTTATATGCTTTAATCCATAACCATCTAAGAAG
TGTAATTTAGCGTAGATACTATCTTCTAAGTTTCTTGTGCTAACCAGGCATACCTCTCT
20 CCATCTGCTTCTATTCTAATAAACTCTGATAACTGTCCATCTTTATTTAATCAGTTTCC
TTAACTCCCAAGGTGTTTAAATATACAACCTGTGTATCTTAAATGTTCCAATGATTTT
GCTTGTCCATTTATTTTTGAACAATTGCTGTTGAAATGTTAGTACTATTTATTAATGTG
ACATAACTATATGTATAGACATTTACATTTGCTAAGATTGTTCCATTTCCTAATAGTAG
GCAGTTCCTTTAAAGAAGCTCCTTTTTCCCTCTTGTCATTTGGAGTGTGTTGGTGGTAGA
25 GAGAAATCCAGAATCCAAACATACTCCAACTGGGGCAATATCTGTCATTCTGTTGTAT
GTTATTAATAATCTGGATTGGATGTTCTGGATGGGTTGCATTTAGAACTAATTTTGCT
TTTTTATCACTCAACCCGATTTTTTGTAGTTAATATATCATAAGCTTTACTTCTATCTACT
GGCAATATTTCAATCAATATCTTAACTGTCTTGGAGACATTGTTGTGAGTGAAGTTCATT
AGAACACTGCCTTTTTTAAATGCTTCATCTCCACTTGTGCTAACATCCTAATTATTCCG
30 ATAGATAGATTTTTCGTTTGATGTGCGAAAAGCTCTTCCCTACCCAGTAAGCTCTTGGAGAG
TTTTGACTACCTCCATCAATGTTACCATTCTTCTTGCTCATAAGTGTAGATGTGCCCCG
TTATCCCAACAGGTTATAACTGAGTTGTTGGAGTATTTGCCTTTATCCAATCTAAA
CCTTCTTTCCATCCGTTGTTGAAGGTTGGGGCAACAGAAAATGGAAGTACGCCAGATAAT
GGAGGTATAACGACTCCAATGCAAAGTAGTAATGTAGAACTTTTATTATTGTTTCTTTT
35 TTGTCATTTAATGTTGAGATTATATCAGATATTTTGTAGATAGCTAATAGGGCTAAGACA
ATTAAAAATCCATAGGCAATTATAGGAACATAAGTCGTTGGTAATAGTATTTGAGAGATT
TTTGAGAGTATTTTGAAGTATTAATAATCCAAATATTCAGCAGGGATGCCAATACCA
AATATTGCAATATCGCTTTTCATTTTTAAGAATCTCTTAACTGCCCAACAAATATCCCT
AAACCAATTGCCAATGGAGGAGTTGCTAAAGCTGCAACCTAATTCCCTTTTGTGCTGCA
40 TATAAGTTACTGCTAACCAATAGCCAATAATATAGAATATTTTATATCCAACCTAAT
TTTTCATATCTTAAAGATAAGAATGATAAAGTATCCCAAGTATCCAACAATTGCTATT
GTATCTGAACCAATGGCATTGTAAATATCTCACTCCATGAGCTTGTTTTGCAAGCTCT
GCAACGGTTGTATAAACGTTAGGCCAACAGTTGTTGAGTGAAGTTGAAAGTATTTGG
TTATAACCCAGAGGTGAAGTAATTGGTGAAATGCTATCCCCATACCATATATTGCTACC
45 AATAATACAAATGACCAATATGTAATAATGGATAGATAGACAATGTTTTAAGGTTT
CCAATATTAATAAACTCTTTTATTTTACCTGTGATTTAATAATGCTAAGGCGATGATA
TATATTACTAAGAAAGCGGTTATTACATCGAATCCATACCACCAAGCTCCCCACATTTT
GGAGACACAGCTGTTAATATTACAGCCAATAAAGCAAATAATTCAAACCTCTAATTCATTA
CCTTTCAATTTTTTAATTCCGCTATTATTAAACCTGCTAAAATAAATGCTAAAGATACT
50 GTATAAAATAATATTGAAGCGATAACTACACTTTCTCCTGAAGCGATATTTAAGTAAGCT
CCAATTATTAACCTGATTATTAATGCAGCGATTACGAATAAAGAAATAGGATCTTTTAAA
TCCTTTTTTAAATAATGCAGTTTTTCTGGCTGTGTATTGACTCAAGAAATAACCAAACT
ATAAAGAGTATTGGTAGAAGTTCAAATATTGGTGTGTCTGCAATCCAGCACATGTTTGG
TATAATAAACCCAGGAGCCGATATTAGGGCTATAGCCCCAGCTATCCCTCCAATGTTACTA
55 TTTGTAACCTCTCCTAACCACGAAATAAATTGGTATTTCCCAACAACATCCCCAACACTGCT
GGAACCCAGAAGGCAGCATTTCATAATGGTTACAGTCAAATCAATAGAATGCCATATATAG
TAGATAGCTAATGTTGCTAAACAGATAACTGGTGGTTCCCAAGGCAGTGGATGTCCTGGA
GGAGCGTATTGATATAAATCATAAGGTGTTTCTTTCCATCAACAACCTTTATTGTATCC
CCACAGTGTCCGTTATTGTAGAGATTTTCACTTAATCTTAAGTAGTAGTAAGGGTCTAAC
60 GCTAAAAGATACATCCTTCCATGTTTCATCTGAAAACATATCTTTTAAAAATTCGTTATCT
TGGGCAAAATTTTATATCCGCTGTTTGGGCCCTCAACTGAAAACCTTACAAACATCAACATC
AAAATAATTAATAAATACCTTTATCCAGCTTTTCTCTTTGAAAAAATGTTTATTTTTCT
AATGCATTACTCATAAGTTTACCTTTATATACATGACAGTCAGTTATTATTATCAATCC
GTTATTTTTTATAACTTCATATAACTTAGGTAAAACCTATTTATATTTTCTTCAATATC
AACACATTCAATAATCACTGGGAGATTTACAGATAGCCTAAATATGTCAAACCTCAGCTAC

-578-

TCCTCTAACTCCATAACCACATATTCCTTTATAGACAGTAGCCCCACTTATCCCCTCCCT
TTTTAGTATTTTCATAATATGTTTATACATCAACTCTCCTTCAAATTTATCTCCTTCCCT
TAAATAAATTTTTAAGATTTTTGCCTTTATCATTATTTACCTACCTAAAGATAGCTAAA
5 GCTAAAACCCCTACCAAAATAAACCATATCAAAACAGCCAACTACATTGATTAATATATTT
AGTAGAGCTTTAAATAATAATCCTTCATCAACTAAGACAAAGGTTTCATAAGAAAATGTT
GAAAAGGTTTGTGCTGCCACAAAATCCAGTTCCAATGAATAATTTATATTAGTTGGT
ATTGGAGCGAATAAAGAGCAGTATAACAAAATCCTAAGATAAAACTACCTATTTAAATTA
ACTGCTAATGTCCTGTTGGTAATCCAACTTTACTGGAACAATCCCGCTGATTAAATAT
10 CTAAAAATAGCTCCAAAAATCCTCCAACACCTATTAATAATAGTTCCCTAATCATCCTC
TCCTCTCCAACCTTTTAGTAAAAGGTTGATCAAACTTAAAGTATCATTAACTGTCTCA
CTCAAATCTCTCGTCTCCCTCATAAACACAACTGTTAAATAAGAGAAATCTCCATTAG
CTATTTCTTTTAAAGATTTTAAAGCTAATTTTTTCATTTTCATAAGTTAGATTTCTAAAA
GCAAATTTTTGTGCTGGATTATACCATTATTTATTAATAAAGTTCGCATCCTCTTCA
AATTGTTTGGTAAGAAGATAACTTTCTCATGATTTTTTATCAAATTTAAAGCTTTTCC
15 TATTTCTTCTTTTCCGTGGAGTGTTATTATATAATAATCTTCCAGGAGATTTTTAATT
TTGCAGCTGCTATTGTATAGATGAAATTCAGAGATAGCTTCAATATCTTCTTTTTTAG
CTCCAATCTTTAATAATGTTTTTAAATAATCCACTAAAACATGGGTCTCCAGTTGATAATA
TGGCAATCTTTTATTTTTTATATTTTCATTTTTTATTAGCTCTTTTAACTCTCCAATTA
AGTTTTTGTAGAGTTATTTTTATCTTCATCTATATTAATAATTCTAAAGCCCTT
20 TACTACCAACAACCAATCAGCATTTTCAACAATTTTTATTGCTTTTAAAGTTAAATATT
CTCTATCTCCTGGTCCAATTCCAACTATATAAATCATAGTTTACATTCAAATAATTTAT
TACTATTATGTTTTTAAATATCAATAAAATTAAGATAAGGTAAAGATATCAGAATAA
GAATATAAAATAAGAAATATAAAATATAAGTTAAATTTGAATTAATAATTTAAATTTG
AAATTAGGAGGTTGAGGTCTTTCTTTTCAATAATATATTTGCTAATGGTTTTGCCCATGA
25 GGCTTCCAAGACAACACTGACTATTATGTGCATAAAGGTTGCTACTAATATAGTTCCAGC
GAGTTCTGTGTGGAGGCATTAAGCTTGCTATATTTTTTGAAGTATGTTGGATGTTCAI
AATCTCTGTATAAACCATTGCTGCTAACGTTGCTGGAAGTACCCCTCTCGGCCCTTCTAA
AGCTAAATATATCCTTTCAGTAAGTGGTCTAATGGTGGAAATAGCTGTAGCTATCAAAAC
ACCAACAGGTCCTTGCTAAAAGTATAGAACCCTAATGCACATAAAATGCAGGGAGTGATA
30 TTTTTCTAATAATGGGATTGAGATACTTGCCCCCTAATAATACGAAGATTAAATTTCTGAT
AAATATGGAGAGTTTATCCATAAACACTGCAACCTTTCCATATCTTTTTTATGTTCTTT
TTTTTGCACTATGACGTTTCCAATATATAATCCATTATAGCCACTGCCATAAATCCACT
AATTTCTAGCCAGTTATTGATGGGAAAATTCCTCAGCAAAATACCAAAAGGCAATAGC
CAATCCTAAAGTAAATGGAGCAATATAGTCTCAAACCTAATTTTTTGAGATAATAATTC
35 ATAGAAGTTCCTGCTATAACCCCCAATATTATCCCAACACAGCTAATGAGAAAAATTC
AAGAATTGGATTCTCAGCTTTAGCTAAACCAAGGGCTGATAAACATATAAGTGTACAAC
AATCCCTAATGGGTCGTTAAAAACACTCTCTGCTTCTAAGGTTATTGCTACTTCTGGnTC
AATATCCATGCTTGAGAATATTGGTATTAATGTAGCAGGGTCAGTAGCCGAAACGATAGC
CCCAATAGCAATCCAATCAATGATAAGATTGGAAGATGAAAGACAAAGTTAAATACTAT
40 TCCAGATATAATCCAAACAATTAATAAAGCCAGTATATCGAGTTTTATTATAACATCCAA
TACTCTCTCATAATGTTCCATTCCATTCAATGAACCAATAACAACAATATAATTAA
TCCAAAGTTTCCAATAAAATCAAAGGAGCTTTCAACAATATTTTTTGGGATTACATTTAG
TATAGAAAGTATGAGACCAATATTAGTAATAGAGGAATATCAGGTATGCCAATCTTTTT
AGCAATTTTTGCTATTATGGCACCTCCAGCAAAAAGAATAGATAAATAGCCGAGAAATAA
45 TACAATATTACAAATCCCACCAATCTTTAGTTTTAATATCTGGATATACAGACACTAA
ACTTTACATTTAGAAAGCATATAAATTTTTTGGTGGTAATGTGAATAGAAACGATTACGA
TGTTGTGATTATCGGTGGAGGGCCGTTGGCTGTATAACTGGAGAGTATATAAAAAATGG
TAGGGTTTTGATTGTTGAAGAGCATCAATCTATAGGTGTTCTTTGCAGTGTGCTGGCTT
AATTAGCAAAAATGGGGTTAAGGAGCTTGTTAATCCTAAAGGAGTAGTTAATAAAGTTAG
50 AGGAGCTTATATATATTCCAAAAATAGCATGGTAAAAATAGGCAATGAGGGAATTAGAGC
TTACATTTTTGAGAGAAAGGTTATGGATAAAGATATAGCCATTAGAGCGGCAAAAAATG
CGATTTTTTATTAAAGCTTATGGAAAAATTGAGAAAGATAAAAAATGGTTATAAAGTGGA
AATAACCCACTTAGGAGAAAAAATAACCTAAATCCAAAAATTATTGTTGGTGTGCTGATGG
AGCTAAAACAATAACTGGCAAAAAATGGGCTTAGTAAATAACAAAAATAGAGAGATTTT
55 ATCAAGCTGTCAATTTGAATGGTCAATGCTGAGGTAGATGATGATTTTGTATATTTT
CTTGGATAGAAAATATTACAGAGAGATTTTACATGGATTATTCCAATGGGAAGGATAG
GGTTAGGGTTGGTTGATAGATAGAGGAACTGCTACAACAAGCTTATAAGATTTATAAA
TGAAAAATAAATAGCTAAGGAGATTTAAAAATGCTACAATAACAGATTTTCTACTGG
CTCTTTACCAATTGGTTATTTAGATAAAACCTTTAAAGATAATGTTTTATTAGTTGGAGA
60 TGCTGCCTGTCTATGTAAAGCCTCTAAGTGGGGGAGGTTGTATTTTGGAGCAATGGGTGG
AAAGATAGCAGGTGAGGTTATTAGTAAATATTTAAATGAGGATATAGAGAATTTAGAGCT
TTATGATAAAAGATGGAAGAAACATTTGGAAGTGAATAAAAAATGGTTGAGAGTTAG
AAAAATGTTTTTAAAGCTGGGAACGATACTTTAGATAAAATCATTGAGAAATATCAAA
AAGTGATTTGATTGATTATATAAATAAGCATGGAGATATGGATAGGCAGGCATCTTTATC

5 TATAAAGGTTTTAAATCATTAGATATTGGATTAGGATTTAGAATTTAAGGGATTGTT
ATAAAGAATAAATCATATGTCATTTTTAGAGTTTAAGAAATTTGTTGCAGAGTTTTT
ACTTTTTCCAATACTTGACTATTATTTTTTAAATCCTCAGATGTTGAAATAATTAACC
10 TTGTCCTCCCAACTTAGTATTTTTTCATTAATTTCTGAGAGTTAATTATCTCAAATCCATTT
TGTTTATATATGGGTTCTTTTTCTTCTTTCTGTCTTTTTCTATACATTTTCATTTCTAAC
ATACCATAATGTTCCCAAGAATTTGTTCTATTTTTTATATTTAATTTGAAGTCAGGAAGA
ACTCCAATTTTTAAATATTCTGATAGTAGTTCATAAATATATTCTATTCCTACCTCATGG
AAGAGATTTGCCAATACACATTTCTGCCAACTTCTAACTTTTTCCCATTTATTGTTATA
15 ATTTGCTCTATTTCAATATAAGGAATAAATATGAAATGTTAAATTTCAAGGAGATTA
GTTTTCTCCTTGCTAAGTCAGAAATATTTGTTTCTAAGAAGTTTTAAGCTCTTCTTCA
ACAATAACATAACAATCTTTTTTAGCTCTTGTTATTGCAGTATATAGCATTTCTTTTGAG
ACAAATTTGTTCAATCCTTTTGGAAATTATTAAGATGACATTTTCAAATCCCATACCTTGA
CTTTTATGAATTGTTATTGCATAGGCATGTTCCATTTCTTTTTCATCTGTATATGCTTCT
ATTTTTGGATAGTAGAACCTTATAATGGTTTTATTTTCATATTTTTCTGGTATTTGTTT
20 CATTTTTTGAAAGTGTAGCGGAAACCCATCATTCCATTAAATACGCCATGTTCTTTTACC
CATTTCTCTTTTTCAGTATCATAAACCCATTTTTTGTAAATTTGTTCTAATTTGTATAACT
TTATCTGCACTTTTACCATCTCCAAAAACCAATTTCTCCAACATTTATTTTTTATATTG
TCTGGAATAAACTTTTGAATTCCTGTTTTATGAATAAATTAATCATATATGAACCAATTTCT
CCCTTAGTTTTTGTGGAATAAAATTTGTAAATTTATCATTAATAAACTGCAAGGCAAAAG
25 AATCTTCTGTATTATTTCTTTTAGTATGGTTTCTATAGCATTTCTTAACGATTTTTTA
ATGTTTCCATCTTTAACAACCTTCTATTGTTATTATTTCTTTTCTATGCCACCAATATTC
TCTTTAATCCTATAGATTTTCATTATCTCTAAAGTTCTTTATTTTTTAAACATTTTCATTC
AAAATTTTTATCTTTCTTCTTTATCAATATCTAAAAACAATTTTGAAAGTTCACAACATC
TTCTTAGAGTCAGCCCTTAAGACAATTTCCAATTTACATATTGATTGTGGATTAACTTTT
30 TCTAAATAGTTATAAATGTCTATAGAAAGTTTTCCAGCACCAACTGGTGGCAATTTGGTTA
ATGTTCTCCAACAAATATTAAATACCTTCAAATTTATCCAATTTTATTGTTCCCAATAATCTT
CCCATTTGTTTCAATATCTACCATTGATGATTCATCTATAAATAAGCATCAATTTCTTTC
TTGTCATTACCAGTTATTTTATCCAATCTAAGGATGAAATAATTATCTCCCTCAAATAA
TCTTTAAATTCCTCTGCAATATATCTATGTATTGTTTTGCGATTGCTAAATTTATTTAAT
35 TTTTCATTAAACGACCATTTGCTGACTTTCCAGTTGGTGTAAATATGTAGATTTTATTTAAT
CCAAGCACTTCCTTCATTAAATCCATAATTTGTTTTATGACCGTTGTTTTTCCAGTGCCT
GCTGGTCTGTTAATATTCCAACCTCTATTTTTAAGTAGATTTACAACCTGCCTCAGTTTGC
ATATCTAAAGCTTTTTCATATTCTTCATTATCAACTCCCGCTGGTTTTTTATTTTCGTTT
TTTATCTTAATTTTTCTCTAATTTCTAATGGATTCAAATCAATATTTGGAGCTTTTCGAC
40 TTTAAGAGATAATTTATGGTATTTTCAATTATCTCCTCATATTCTCTAATTTCTTTTAGG
GTAAATAATTCATAAATTTCTTTATTTTCATTATTTTTAACTTCTTTTTTGACTATTTCA
ACTTTTTTCAGATATTATGCTTTTATATTCCTCAATTATCCTTAAAAATTCATCAAAAGTT
ATCTTTACAATGTCTTTATCCATTTTTTCAAAGAAATCTTTAAGGTCTTTTGTGAAATT
GTAGTGTTCCTGAACCTTAAATGCCTTTTTAGAATTTCAACCAATAAGCTCTCAACTCTA
45 TATGGACTGTAAGGATTAATTTATCCCCAATCTTCTTCTTTCCCATGAGTCAAGCTCT
TCAATATTATCTTTTCAAACCTATCATTTTTCTTTTAAATCCTCAACCAAAATGTATGGA
TTTTTTATTATGTTATCTAAATTAATAAATTTCTTTTTCATATTGTTCTTAAATTTTTTCA
AGTTTAAATGTCAGATAACTCATAATAAACAGCATAATTTTTTAAAACTCTCTAAACTCT
TCCTTCTGTGCTATAAATTTGCTATAACCTTTTTTGTAAATTCAAACTCTAAATTTCTCT
50 TTTCTATTTTCTAACTTTCAATTAATGCAATTATAAAGTTTCTCTTCTCTCTTTCTCCT
TCATTTTTCAAAGTTCAATATATCTTGAGTAAGCATCTTCCATTCTAAGAAATAAAGA
ACTCCAGGAAGTCCAGGATATTATATTTACTACCTTCAAGTTCTGCAATAACCTTTTTT
ATATTTTCAGCGAATTCATCAAACCTTTTTTCAACATGAGGTCTAAATGCTATATTCTCA
TCAGTTAAGTATTTATCAAAGTCTGATTTTCTTCTCTAAATTTATTGAATTCCTCAACA
55 ATTTCAAGCCCTTTTTTAAAGATTTGGACTGCCACCTCATCGGATATAAAGTTAGACATG
CCTTTAAAGTATCTTTCAAAGTCCCCAACTTCAAAAAATTAATTAATTTCTTTTAAAGT
TCTTCAATTTCTTTATTTTTATTTTTGTCAGTATTCTAAGAGTTCTTGATAAGGTAAAGCA
AATATTACATCATTCTCTACATCAAAAACAATGCCTCTTCTACTCTATTAGGACTCTGT
TTTTTCTAATGTAATCCTTGCTACCATCTATTATTTCTTTTATTTTAAACATCCGACT
60 ATTACTCTATTTTCAGATAAAGGATTTTCTCTAACAATAAAGTATTGCGTATTTTCCGTTA
ATCATTTCTTAATTTGTTCTTCAATTTCTTTTTTATCATTTTTTATTTTCATGTTCAATTTCTG
TTTTTTCTATCAACATAAAATATTGCTGGAAATCTTATGTTATGCTCCTGTACTTTCCCT
TTACAAATACTATTGCTTCACTACATGCTCTTTCTCTTGAATTTCTTAAATTAGCATCT
GGATTATTTACACAAAATTCATACTTTCTCTTTCTTATCACATATCCAAAGCTCTCACAA
TATTTATTTTCTTTTGATTTTCTACAAACTCTACCATTCCATCCAGAATCATGCCACGCT
ATCAAAGATATTAAATTTCTCATGATACCACCTCAGCTTTATTTTTAATATTAAGTAGAAG
TAATATTTATATTTTTTAACTTTTATTTATTAAGTATTTTACAATCTTATATCTATAT
AAACAAACCTAATAATTATCAAAGAACATATCATTAACCCCAATTTCTCAAATCATG
TAGAGTTATATTATTAGCCTCACTTAATTTCTTTTCCATCTCTCTTAGCTCTTCAACAAA

-580-

CTCCTTCAACCTCTTCATATTATTATAAAACACATCCTTTTTTGGATTCTCTAACAATTCC
TCTAATAATCTTTATTAACCTCCTTATCAAAGTATCTAACATCTATCTTAGATGATTTAGG
TAAATTTTCCCTAATATTCAACAATGTCTCAATAATATCATACTCTTTAACTTTAAACC
TCCATTTCTCAAAATTTTGAAAATTACATGGTTAAACATCTCTTTACTACCATCTTTCTC
5 CAATCTTTTGTATAATCATATAGCAAACACATAGCGGTATATTTTTTATAAACTTAAA
CTCATATTCTCCAATGTTATCAATAAAGTCATAATACCAATCAAAATATAGATATTTCTAT
TAAATTTTAAATTTTCATCTGCCAATTTTCTCTTTCTTTTATCTTTTGTATAAATATAA
ATTATAAACTTTGATAGGCAAATAATCAATACTCTTTGCTCATTTTCTCTCATACTTAA
10 TATATCACTCTTAATTTTCTCAATGTAGGCGTTTATTATGTTTAACTACGAATAATGTC
ATCTGGAAGATTGTTATTAGCTATAATCCTTCTATAGCTATTAATATCTTCTAACTTCT
ATTAAGTGAATTGTAAGTAATTTCTAAGGACTTTATCAGTTAACACCACTAATTCATGCAG
TTTTTTAATAATTTCTAATTTCTTGTCTATGCTTTCCGTTCTTAGTATTTCCGTTAGA
TACTACCTTAAATATTATCTCAACTGCATTATAAACTCTCTCTTTGATTGTTAAAGACTC
15 ATCATCAATTGTGTAAATATTATATTCTAAATCATCCAGAATTTTGTAAATTTCAAATAT
ATTTCCACTTTTTAATTCATGATAAGATTTTTAATATTTTTAGAAACATTTTCACTCAA
ATCATGTATTTTGTAGTGAATCTGGAATGAAAATTATGCGAAGGAATAGTTTGTCTAT
GTATCTATCTACACTGTCTGATTTCTGCTTTCACGAGGTTTTGAACCAAGATTATACTAAG
CAATTCAGCCCACTTTTCTTTTTCTTTTCAATAGTTGGATTAGATTTTTTACTTTTACC
20 AATTTTACTACCATCTTTTGTCTTTATATTTTCTCTTCTATTAAAGCACTCTCCACT
GAAATATCCAGAAATTTCTGGCTTTTCAAACCTCAACATGCCCAACTTCCATTATATTT
TTATTAACATCAATATCCCTAACTAACCACCCACTAAACCACTCATCATCACAACCAACC
CTCTTCCCTAAATCAAAAACCTCTCCACCATCTAAGATGTTATCTAACCTCTCATTAACC
ACATCCCCCATCAATATAAAAGTATAAACTTCCCTTACCATTTAAAGTTGTCTTAAATATC
25 ATCTCATTTCTAATTTCTACTTGCCAACTCAAATTTTTTAGCCATTTTATAAACTCATCA
AACTTTGGCTTTAACTCTTTAGGAATTACTAAAGAACTCCAATATTCATCCAATCTCTC
AATCTATTCCCTAACTTTATCTCTCATCTCTTAAATTATATCTATTACCAGCAAACCAA
TTTACTACTTCCAATAACCACTCTTTAGCATGATTTCTTGTGTCCAACTCCCAATTTTATT
CTTGCAACACCATCAATAAACTCATCATTAGTTAAATTTCTATTATGATAATAATTAAAG
30 ACATCATCAAATATCTCTACCTTATAATCCCTCTTTTTGTATATTCTGTCAAATAATACT
ACAATCTCATTCAACGTTTCAATTCATGGCACTCTCTCACAGCCAACTTCAACAACCT
TCCCTATCTTTAATCCTCTCACTCCACAAATTCATAAGCTTCACCATTTTACTTCACCAA
TTCCTTAGAGATGTAATAGCCCATAAACATAGGAAATATCAGAAATCCAATAAGAATCAG
CAATTCAGAAAGAAATATGACAAGGAGTAGTAGTGTGGATGTTGTTGTTAGACACTTCT
35 TTTGTCTTTAAATATAAGGCGTGGTAGAATTACTGGCACTCCAATGATTCCATATAACGG
CCATAATGGAGCTATAGAATACAACACCAACGTCGCAAAAACCAGCAAAAATTTCTTAA
CATTATTTTTAGAAATCCCATCTGCCACCGAATATTCAGTCTTTAAGAAATCGAACAG
CATACCCAACATAGTAAAAACCATCAATAATGCAAATACCGTTACCACAAGTGCAAATAC
TCCCATTCTACCTCTCCAAAGTTAGAGGAGATTAAATCCATCAATTATCATCCCAATACA
40 CAAGACTGAAAACATTATCCCTCTTATAATAAAGAAAATACACGCTATCAGGAATATTAT
AACCATTACACTTATTATGAGTTCAATTAATCAATATCATCAAAATCTCTCCAAATAA
TTAAAAATTAATCATCTTTGCTGAAGATTATTGAATAAAGTTGGGCATTGTAATCCTTTG
CTGACTTGTAGGCATCATAAATGCTATAAATCCATGGTATAATAAGCCAGCATGTTAATA
ACAATATTATTCCCTTTCCAACCTTCCAAGATACATTGCCCCGTCTCTGGAATTATGA
45 AGCTAAGCAATACGCAATACCGACACTCTTTTTCTTCTGCTCATAATACACAATTCGTT
GATTTTTATCCATGTCTTTTACAAAATCTTTAATTTGCATTAGTCTATTTCATTTCATCG
CCATCACTCAATTTCTATTATTAAATTAACATCATAATTATCCTATTCTCTCCATCTAA
ATCCTTTAAGCCTTTTATCAATCTCTACCTCTTTTCTGGTTTAGTATAAAATGTTGCCT
CTAAATCATCCCAATTGACAGTGTCTCTACTATCTTGTCTGATATATCCCTTATCCAACA
50 AACTTCTAATCCCAATTCTCACAACGGAAGCATCATGTCTTATATTTCTGGATAAATACT
CAAGATTTTCAATTATTTTCTTTAAACTGACTCTATGGGGACTTTCTCTAAGGATTTTTA
AGATTTTCAATTCCAATCTGTCAATCTCTTATTAGAGTAAATCATTTCCCATTTTTTAA
ACACCATAAGTTCTCCATTTTCAAAGACTTCCAATCTTCATTAGTTAGAGGATTTGTAG
CTATAATAAACCTTCTTCTCTCACACTTTTAAACATCTCCTAAGTTTATAATATAATCCT
55 CATCCTCCAATCTAATTTCTCCATAAGGTGGCTTTCTCTTTAGGAAATGCAACTCTCTCC
TCCCTCTATAATCTTTATAGGCAATAAATACTCTCCATCGGAGAATAAGCAATTAAGAG
CTCCATAGTAATTAATATCAAGCAGTATATCCAACATCTCATCAAAACCTCTTTATTCC
ACTCAATCTCCCTCTTTTCAATTTGAGATAATAAATAGCAGAATACATACTCCGAATCCG
TCTCTCCAATTGGATAATAGCCATCAAGCTCTAATCCTCATATCCAAGTAGAGTTCCAT
60 TGTGAGCAAAATGCTATTTCTTCTTCTAATTTTCTAACAATGGATGGGTATTTACGT
AAGATTCACTTCCAGCACTTTGCTTTCTTATGTGGGCAATGAATATATTTGATTTTATCT
TAGTCCATCTGACACATTGAGCTAATAAAGCTTCATTCAATTTTAAATCGGCTCTTTTATTA
CCCTAACAACCCATCTGGATAAATGCAATCCCCCAACCATTTGGATGATCTTCACTCC
TATGCTTAAAGCTATTTAATGATAACTCAACATTAACCTTCTTATTAAAGCAATTCCAA
GCAACTCACACATGCTTATCCCTATAATCCTTATAATCTCCAGATTCTACCAGAATTC

ACAAGATTCTGGATAAAAAATAAGCCAAGCCTCTATCTCCTTTCCAGAATCTAAAATTAT
CGAAACTTTCTTTCTTCTATAATAATCAGGATGTCCTTCAAGGCAGTCAATTCTTTTTTAA
CGTTTTTTCATCAACCTCATAAACTTCCCCAACGATATGAGAGATTTTTTCATTTTCAAC
AACATAGGGGATGATATTGACATACATAGCGTATTTTTCCTTAGTTTTTCCCTTTCCCAAT
5 GAATTTAGAGTTTTTTAAATATGGTTCATGATTCCAGAAGCCCTTTCTTAACTCCCAT
AACAAACACATACTCCATAGTATCACAACTTTGGTTTTGTAATGCTCATGAATAATTAA
TATGAGAGAGTATAAATAACTTACTATCTTAGTAACCTTAATGTAGTTACTGTCCCTTA
CTAAAGGTGAGTAAATGACAAATGATTTAGAGAAAATAAGAGGTGGAGTTCATATAGCA
10 GTTCAAGTTATGAAGTAGATAGAATTACAGAAGTTCCAATAATGAGGAGGGCTGAAAAA
GTTTTATTAATTTGCAAACCTGGAAATAATGATTCAAACGAGGAAAAGCATTAAAAAAT
GTTATTATTAATAAAGTTTGAAGAAAAGCGGCTTAATTATGAGATTGTAGAGGCAGATTG
TTTGATTTAGATGATATTGTTAAAGATGAAGTTAATTATAGCTCATGAGAGAAAAGAA
TTTGGAGATGTTAAATTCTATATTAACGTATCTTCTGGCTCTACAATTGGGTGTATTGCT
GGCATAACCTGTGCAATGATATTAAATAAGGAAAATTCAAGGATTATCCCATATTATGTA
15 ATGCCAGAGAAATCTTTAGATGGCCTCTCTGAAAAAGAAAAGGAAGAATAAAAAAGAA
TATGAAAGTAAATATAACTGCCCTTATTTGCCAAGAAGTTTTGGCGTAGAGGTGTTAAG
CTAATCTATCCATTTGAAGTAACCTTGCCAAGGGAAGAGTTGCTAATAFTTTGAAGTTC
ATTGGCAGGGCTGGAAATAGAGGATTAACATATAAAGAAGTATTTTAAACAAAAGAA
GAGTTTTTAAACGTGGATTAAATGATAATGAGAGTATAAAGAGTTAATTAAAGCAGTG
20 GAGAGAAAAGGAATCTGTTAGCAACTCATCTGTTAAAAAATGAAGAATTTAGTTAGAGAG
TTAAAGGAGGTGCTTGGGAGTGATGTTGATGATTTGAAGAAGATTATTACTTGGAGGAAA
AAGTCTAGGACTTCAGTTAGTTCTACTGGGCAGAGTGATTGGTTGGGTTAATAAAAAAT
GTTGTTGAAAACTCTTAGAATTGGAATTGATAGAAAACCAGAAAAAATAGGTAAGTCA
AAATATATAAGAATAAGTGAAGGAAAATGCTACTGAACTACGTTGGATAATTCACT
25 ATCTTATACTCAAAATCTCCTCATGTAAAGCTTTTAGCACTTCTATGTAATCAACTTCT
CATTTTCAATCTTATCCATAATCTCCTCCAACCTCCCTGTTCTCTCTTCAGATATTAAGT
GAGGATAATTGTTTATCAAATAATTATAGACTTCAATTCCCAGCTTTGTTGGGATTAAC
TATTCTTATCTTTACTTTTAACTACGTATCCCCTATCTAACAGCTTTTTAATAATTTGGG
CATAGGTTGAAGGTCTTCCAATACCCCTCTCTTTTCATCAACTTAACAACCTCTCCCTCAT
30 CATACAATGGAACCTTTTGAATCTTTCTAAGTTTTTGTCTAAAACCTTTTAACTGCTCT
TTTCAATCCTTGGAAAGCTTTTAAATTTAGATTATAAATCTACTCCAACCTCAAACT
TTATATCAACATATCCCTCAACCTTCTCATCTAAATCTTTTATATAAATCTCTTCAATT
CAACAACAGCCTCTTTCATCTGAGAGGCTATAAATCTTCTAAATATCAAATCATAAACTT
TTATATGATTTTTAGTTAGCTTTATGTTATTTTCTTTAAAACTCTATTAACCTCATCGG
35 TATTCATTGGTTTTGTTGGTCTTATACATTCATGAGCTCCTTCCATAAAGTATTCTCTAT
TTTTTAAATAATCCTCTAAATTTGTTTAGTTTTAGATACTCTCTTGCTACTCTCATCCCAT
CCAATGAACTCTTGTGAAGAGGTTCTGTGATATGTGCAATTGTGTGAGATAACTCCAT
TTGATATAAAGTTTTGGTTATGTTTAAATGCTTAAATCATAGACATATCCATCATAAGGAA
40 TATTTTCTACTTTTTTAACTCTAACAAGGATATATCTCCATTAACAATCTTTCTAAAA
ACTCTTTATGTTCTGAATTATTTGCATATCTTAGCACTGTCTTTAATTTTTCTCTTGGGA
TGTTATTTGTTTTCTCTTTATACCAATTTCAATGTGATTTTGTCTATCTTTAGAATTT
CCTTTCTTCCCTTTTCAAATGTTAATTTCTTAAATACCTCTTTTACTGGCAATAAATCAC
ATTCAAATCTTTCTCATGCTCCTTCTTATATGTTTTATAACCATTTATAAATGCCTCTT
45 TTCTAATCTTTAAATATTTTCGAACTTTTCTTAAAGGTTTCTAAGGACTTATTGCTTA
TTATTAAGGAATAAACTTCTCTACTTTTGTGTAAGTATTTAGAATACCAATTGAGTTTA
GATAAATGCCTATCTTTTCTAAACATCTCTTCTTTTGTATGTTAAACCATTCTTAAAT
TATGTTTTTTGCCTTTTTATCATAAAGTAGGGAGAAGCATCCATCTGTATCAAAATATC
CAGCAATTAATGCATTTATATAACTTTCTGGGAGAGAGAAGATAATTCCGTTTAAATTTT
50 CATTTCTCATTCCTAATTTTTCCAAAATTTTCAGCAATAATTGGATTTGAAATAATCACTT
GGTTACCAGAAATCCAATTGTGAAGAAATGGGAATGTCTCATCCAATATGCTTTTAACAT
CCTTTAATGGTGTGTTGTGCAATTTCTAATTTTGCTATCTTGAATGCTTCCATCTCCCAATA
CCAAACCTGCAAAATACCAAACTCTCATCTAACTTAAACAATGGAATTTTTTTAGTTT
CTGCAACGCTTTTATATATGATTTTGCCTCTTTCTCAATCTCATCCAAATCAAATTTCC
ACTCAATTAGATATTTTTAACGGGACTCTTCTATTTCTTAGATATTGTATTTTGTGCTTG
55 TTTAATATTGTTTCTAATATATTTCAGCTATTTTTTCAAATATTGTGGAGTTTTTCATCAA
ACTCTATTAATACATCAGTAATATCCAAATATTTTCAAGAGATTTAATAGGGAGATTGGCT
TTCTTTCAACTTTTATAGTTAAATGGCATTGCAATGTAATCAATTTCTTAAATATCTTTTG
CAGGAATCCATTTTAGTTGATTGTCTCTTAAACCAATAAGCAATGGTCTGGAGTTGCC
TTAGCTCATAATTGTTGAAAGAGTAATTTTACTTAGGTTTCCATTATATCTCAATTTCC
60 AGAATTTAATGGCTGTATCTATTTTTATTGATAAATTATCTAAATCTAATGATAAAACAT
TTCTTTCTTAGCATTAACAATGTCTTCAATTTGTTCAATTTCTCCATCCCCTAACACAA
CATAGGTATCTGGAGTTAAACATAACCCTAACTCAAAAGCTCTTGAGCTATAGACATTA
TTTCATCGGTGCTTAATCCAAATCTCTTTGTAGCTTCTTCAACAATGTGTCTGTTGTGA
ATGGAGGTAATGGAGGAATCTCCTTCTATAAACTTTAACTTCAACTTCAACCTCATCCT

-582-

5 TATCAAACCTCATCTTCCCAAATCTTTCCAATATATATGTCATTTTCCAATTTTAGAGATA
GATAAGGGACTTTTATTTATGTTTCATTGTATCTCTCAATAATCCATCCTAACACTGGTG
TTTGAACCTCTACCAGCTGAGAGGTAGTTTTTATTAAATACCTCCCAAAGCTTTTGACTCA
ACCTAAATCCAAATCCATCTATCTTCTATCCTTCTAACTACCTGTCTTTAACTTTATTTT
CATCTAAGCTAAGTTCTTCTCCTTTTTTAAATGATTCAACTGCCTTTAATATTGCCCTCT
10 TTGTAATCTCATTAAATCCTACTCTGTAGATATTTCTATTGAATGGGAGGGCATTATGG
CTATGTCATATCCTATCTTCTCTCCCTCTGTATCGATATCGGTTGCTATGAATATTGCAT
CAACCTCATCGGCTATCTCCCTAATAATCTCTATGTTCTCCTTAGCATCCATTGCATTTA
CTCTCTCTCCTTTCTCCATTAAGTCTTTATCAACTCCTCCAAATCCTTTTGGTCGGTAA
ATTGCTCTCCATTCACTTTTTTAAATTGATGTATATATTGGAATATACAAGTTATTTTCTA
TTTTAACCCCATAGAAACCTCTTTTGTAAACCAATCAAATACATGCCCTCCACTCGCAG
TTATAATCAAGTTTAAATCTCCAATACAAACCTCATAGACATTTCTGTTGTTTATCTTTT
15 TAACAGAGGGCTTTCCAAAGAAGTTTGTATAGTTCTTGCCTTATTAGGGCTTTCTACAA
CCATTAAAGACAGATTTTAGCAAATCTGGGACTTTTCTTTGGCTCTTCCAACCTTTATTT
TCTCCCTATCTTCATCAATCTTTTTAATTAGCTCCTCTAAGTTTACCTCATCTATTCTTT
TAAATTCACCTCTCATACATAAAGAGCATATACTTTTTGAGGGCTTCAAAAATCTCTTTCT
CATCCACCAATACAATACCTTGCCCTTTAGTCAAACCAACTCTGTCTATCCTTGAAGTTC
TTCCAGATGCTTGGATATAGGTTTTTACATCTGGAATTAACAATAGATATTCAATCATCT
CCTTCCCTTAGAGAGAAGTTCTTTATCTTTAATTTCTCAGTTATTATCTGCCTAATTTCT
20 CCTCAGTCTTTCTCTATGTTAATATCTTCTTTAACTCTCCCTTCTCCTTTAAGCTGT
TTATATACTCCTTTAATCTAATTTTAACTTCGGAATGCCATAAAAGATAGCATATCTAA
CCCTTTCCGGCATGTCTAAACCTCTAACCAGACACCATAGTATGATGCCACTCCAATCA
AAACATCAATCTTTCCCTCTCTGAAATCATCAAATCCCTTCTTATCCTTTGAATGGATTA
ATTTTGCTTGGATATTATTTTCTAATAGATATTTTCAATCTCTTGGGCTTTCTCAACTC
25 CGTAGTCAATTGAAACGAACACAATCCGCCAGAACCAATAATTTTATATACTCCAAAA
CTTTCTCTTTGCTAAATCTCTCGTGTAGATATCAACAACATCCCTAAGCTTATTCATTC
CAAATCCAATTTCAAAGTCTAAAAGCTCTCTGTAAGCTTAACTCTATCCCCATAACTCT
TTCCAGTTGCAGAAGCAATTATTAACAGCCATGCTTTATTTTAGATATTTTTTCTTTA
AAATTTCTCTCTTTTTTCATTGCATCCTCTATCTTTCCAATCTTTATTAGGTAGATGATTT
30 TATATGCCTCATTTATTATCTCTTCATCAAATCCTAACAACCTTTAAAGTTCTGTCAATGT
TTTTAGATGCTTTTTAACAATGCATCGACATCATCAACAAATACAAAGTCAAATTTGCATT
TTGGCATGTTTTTTGTTAGATAGTTGGATGTTGTTATCAAAACATCATAATCGTTGTTTT
CAATCCTCTCCTTTACCTCTTTCTTTTCTTTGTTGAGAGTTCTGAATGATATGCAACTA
CTCTTATATTTAAGTTATTTTTTCTGTTAAGGAGGATATTTTTTCATAAGTTTGGCTTAA
35 CCAGTAGTGTTGTTGGTAGAATTATATAACATCTTTTCCCTTTCTTAGCTAAGAATAGGC
TCATAAGTATTTCCAAAAAGCTCTTTCCAACCTCCAGTTGGTACTACGATTGAAAACTCT
TGTTCTTTTAAACCTTTTAGCCACATCTTTTGAATACTTAAAGTTCAAATCCTAAAT
CTTTTACAAATCTTCAAATCTTTAAATTCATTCCAAATAATACAATAATCTTTTAAAT
TTTTCAAAGTTTCTCTCTCTAAGTTTTTCACATAATTTTAGTTTTTCAAAAACATTTT
40 CTCTTTTAAACATTTTTCACAACTCCTATAGCTAACCTTTCACTCGTTATCTCTCCGT
TACAGTTAGGACACATCTCTTTATATATCATCGGTATCATAATAACACCAAGTCAATGAA
TATTTATTAGAGAATCTGATAGATTATAATTTAATTTTTATGTTTCATTGGTTTATTGG
GTTTAAAAACTTTATTATTTGTTTTGTAAGAACATTAATCTATATTTAAATATATAG
ATATAATATTAATAAATAAATAAATAAATAATGAGTAGAATTAACACTGGTCTCCAGCA
45 ACTTCTAATATTGCCTCAACTGCCCTTTATAAATCTTGGCATACCCGCTCCTATATACACA
ACTTTCAATAACATCCTGAATCTCTCAATTGTTGCCCCCATTTCCATTAACCTTTTTGTCT
TGTTCTTTTAACTGCTTTTTTCATCCCCCAATGTTGCAACAACCGCTAACAAAAACCAATCTC
TGCATCTTTTCATCTAATTTTTTCCCACTGAAAACCTCCTTCTGCAAATTGGCAACAGCC
TCATAAACTCTGGGCAGTTTTTCTTTACAACCTCAATTGTCTCTGCTGGAACGAACCTCT
50 GCCATACTATCCTCAATGGTTGTTCAATTGTTGTGTTGTTTAAACCACAATTATACATA
ATTAATTTTATAATATAAAAAACATAGAAATTTAAATCCGCTAATTATATCCATAAGATT
TTATAGTGGCATAAATTTGCACAGTTATATTAATTAATATATAGGTGAAAATATGGGGTT
TTTAGAGGATAAAAAAGAGGACATTAATGAATTTAGAAGTTGCTATAAGAGAGGGCTTAGT
55 TGATGAGGAGATAATTCCAATACTAAACAAAATCAATGAATCGATAATTATTACACAAC
CTCAAGCTGTATTGGTAGGGTTGGAATAATGGAAATTTCCAAAGATAAGAATCCAAAGCT
ATATTCAAGATGGCTTGGGAAGTGGCATCACTATGCCTCTTATGATGAGTTATTTAACGC
TTTAAAAAACAAAAAGAGGGTTATATAGTTTTTGTATGAACCTCCCCATATTGCATAT
TGCATCTTAAAGATATAGAATCAGCAAAAAAGATGCTTGAATTAGCAATACACTCTGGATT
60 AAAGCTCTTCCATAAAATCAATTTAGATAAAAGAGTTATTGTTGAAATTTTAAACAAC
TTATAAGGTAGATACCCCTATAGGAGAAGATGGGGAGATATTGTTGATAATAATTACTT
AAAATTTTTATTGGACTACAGCAACTCTAAACTTAAAGAGCAAGAGAAATTTTATGAG
ATGGGCAATAGATTGGATGAACGAAAAAATAAAAAATGAAAAATAGCGATTATAATGT
GTAGTCTAATACTTTCTTAGCTTCTTCAATATGCTCTTTTCTTATTCTCTCAATATCTTC
ATGTAACGCTTTAATTACTCTACCAACTACAATAAATATTGTTCTGTTATTAATGGAAG

5 GTTATCAACAACATATGTCATCCAAAGGTAAGTCTCCAGGTATTTTTTTCATAACATACTT
TTTAATTGTTTCAGCTACTATGTTTTCTCTTCAATAACGCTTCTAAATAACTCCATTGA
GTTTAAAAATCCTTTTGTTAATGGGATGTGCCTCATCTTTATGATTTTTTGCATTCTCTTC
CTTTGCATTTCTGTGTGCTACTTCAAATAAATCTGCTAATTTCTTCTCAACAACATCCAT
10 TATGCTCTCTGCCTCTGTTTTATACAAATCGATTTCAACAAGTGTGTTTTCATTATCTTTTT
AAGCTGTGGGTATGGAATTATCATTCTGCCATTCTATCCCCCTCTTTTAAATTTTTTAAAA
TTTTTATTTTATGTTCTCATAACATACCTCTGCGAACTTATATATAAAGGTTTCTTTTA
TAGTTCATATTTAATTTGATTATTTTAAATAGTTAAATTTTTTATTTATTGATTATTTTC
AACTATCTCACCATCTCTCAACTTAATAATCTTTGAGGCATATTTTGTCAATTCTCTGCTC
15 ATGTGTAACCATTAATTATAGTTATTCCTTTTTTCATTCAACCCTTTTAAAGATACTCATAAC
AGCCATTCCACTTTTGCTGTCCAAATTTCTGTTGGCTCATCAGCAAATATTATTTTTGG
GTTGTTTGCTAAAGCCCTTGCTATAGCAACTCTTTGTTGTTGCCCTCCACTCAATTGATG
AGGGTAATGATTCAACCTATCTCTAAACCAACCATCTCCAAAAGCTTTTTTGCCCTCTT
CCTTCTATAACTCTTATCTCTCATCTAACATCATTTGGTAATTCAACATTTTCTAAGGC
20 TGTTAATGTTTTTATTAAGTGGAAATTGCTGAAATATAAATCCACTAATCTTTCTCTAAA
TATAGCCCTTTTCACTTCTCACTCATTGAACCTGTTCTCTCTCCCTTTTATAATAAACCTCCCC
CTTTGTTGGAGTATCTAAGAGAGCTAAAATATTCAATAAGGTAGATTTCCACATCCACT
CGGCCCATTTATCATTAACAACCTCTCCCTCTTCAATTTTAAATTAATATTTTTTAAAGC
TATGGTTTTGCTTCCCTTTACCATAGATTTTCCATACATTTTAGCTTCTATCAAAAT
25 TATTCCTCCCTCAATGCTCTTATTGGATTAACTTAGCCCCACTTCTGCTGGGAAATAA
CCGCTTATGACACCAACTAAGAATGAAAATATTAATAACTCCAACAATCAACTCCCATGAA
ATCCAAGCATTAACCATCAAATAACCCATTTTGTGAGCCAATGCTTCAATAACCTCAGCC
AATAAAATCCCTAAAATAAACCAACAATTCACCAATAAATCTAAAATCCTGACTCA
30 ACAACAAATATTGCTAAAATATCTGTTGCTCTGCTCCCAATGCTTTTAAATTTCCAATA
TCTTCTCTCTCTCCAAAATACTCATATGCATAGTGTGTTGAGATTCCAACAGCCCCAACT
AATAAAGATATAGCGGCAACTCCAACAACAATAATAGTTATTACTCCAAGGACTGAGCTA
ACTGCTTTGCTAATGCTCAGCAGTTAAAACAGAAAAGTCTCTCATCTCCAAAAGATTTT
TTTAAAGCTTTTTTAAATTTCTCTGAACTTTTTCTATATCTCTCCCTCTTTAACTGTT
35 ACGGAGATAAAGTTATATTTCCCTCATTTCCAAATAATTTTCTCCAACATCAATATTT
AATATAATTGAATTATCATCTGCTGATTTCCTATCTGCTTTAAATTTCCAACAACCTCTG
AATTTTTTATCTTTGATTTTTTATCATCTCCAACCTTTTATCTCTATCAACAAGTTA
TGCGCAGTTCCATAGCCAATGACACAGGCATATTTGTCAATTATCCTCTAACCATCTACCC
TCTTCAATATCGTAACCACTATCCTTATAAACCTCTCTTAATTTTGATGGGATTGCATAA
40 TAGTAGGATACAAACTCTTTTCTCCATTGTATTCTATCTCACAACCTCCATACCAACCA
TACATAACTGTATCAACGCCCTTTAAACATTTTTAATTGCTTTAATTTCTTTTTTGTAAAT
AGATGTGAAGGAGGAACGCCAAACTGTTTCATAGGCAGGATGGTTATTTTATTAGAAGCC
ATTTTCATCATCTCCTCATGTATGTAATTTTGAACCCATATCCTAAAGAGATTAAAGCTA
45 ACCATTGCTAAAACCTCCTATTACAATGCCAATAATCGTCAATAAACTCTGAGTTCTTTTT
TGCTTTATATTCTTAAATGCAAAAGTAATTATATCATCAACTTTTATAGACTTCCCAAA
AAACATCTAAAGCTTTATATACAAATATAAGCTTAAGCTTTATATATAGATTTATGTGGG
GGATTATGATGAAGAACTTTTGATAATTTTAAATTTGATTTATTTTGTATCTTCAATAT
50 CTGCCATTCAAATAGATGCTCCTCAGTATCAGCCGAATGTTATTCATCCTGGGGATGATG
TGGATTTGTGGATTAAAGATAAACAATGATAATTATGATAATGAAGTTAAAAACATAGTTG
TTGAAGTAACTCCCACTATCCATTTGAGTTGAGGCAGGTTAATCCAATTAAGGGGAAAG
45 CAACAATCAGCCATTTAAATCCTGGAGAATCAGACACTGTATATTTCAAACATACATGTTG
ATGAAAACGCCCCATCAAGAGATTATAGGATAGACGTAAGTAAGTTATGATGAAGTTG
ATAAAGAGGATGCAAAAGAAACAAGCCACCACTATGAAATAACTAAAATCTATTATCTAC
ATGTTTATGGAATAGCAAGCTTTGAAATTAATATAGATGATACTTCAATAATTCAGGAA
55 AAACAAAACCTATAAAATAGACATAAAAAATGTAGGAAGTGGAAATGCAAAATATTTAA
ACCTTTATTTAATTGGAATGATAAAATCAATATTTTAGGAGGAAGTTAATTTTTGTTG
GATGTTTAAAGCAAATAATCAATATATCATCCCTATAAAAAATACGCAGTTCCAGAAA
TTGAGGATGGCATATACTCAATTAATGCAAACTTATTTTGGGTTGGGAGGATGGTAAGC
AGTATAATTCAACAATTCCTTTAAATATAAGGGTTGTAAGAAGATTATGCAAAACAGC
60 CGTATATTTATTTAGATGATGTAAAAATAAAGGAGATTATATAGAGATAACTATTGGAA
TTGCAAAATAGGGGAACCTACAAAGATTAAAGCATTGTGTAATGACTTTAACTGCAATGGGA
GGAATTATACCAAGTATATTGGAGATTGGATGAAGATGATTATGACACTTCAATCTTTG
AAATAAAGGAGTTTGGGGATATTTCCAATTAAGGTAAGTGTACATACTTTGATGACTATC
ACAACCCATATAACGCTACAGAGACATTCAATATACATGTAGAAAAAGTTAAAAAGAGG
AATCATTAAAGTCCAATGTATATAATTGGAGGAGTAATTGTTGTTATAATAATTATCCTAT
ATATTAGAAAAAGAAAGAGACATCAGGAGTTTGAGGAATTTGAGGAAATTTAATAGAAC
TCTCGTAATGAATAAATAATTTATTGGCAATATGTGCATATCCATATTTTTGTAAAGTTA
TAAATTTAATATTCTAATGTATATGCAACACAAAAGTTCTATTAGATACTAAAACTA
TTTTTGTACTTTTTTAAATTTTAAAGAACAAATTGAAGAGTAGGATAACTATGTTTATT
GAACATCCATTATAAAACCAAAACCTTTGGAGGCGAGGTTGTATCAGCAGATTATTGCA

5 GCAAATGCTTTAAAGAAAAAGACATTATGTGTTTTATCGACAGGTTTAGGTAAAACAGCT
ATTGCTATTTTAGTTATAGCAGGTATTTTAAACAAAAAGGATGGAAAGGTTTTAATCTTA
GCCCTTCAAGACCTTTGGTTGAGCAACACTACAACAGATTAAAACAGGTTTTAAACATT
GATGAAGATAAAATAATAGCTTTAACTGGAAAAATCCAGCCAAAAAAGAGAGCTGAACTC
10 TATAAAAAAGGGAAAAATCTTTATAGCTACACCACAAGTTATAGAAAACGATATCATAGCT
GGAAGAATAAATGTGGATGAATTTATTTTATTGATAGCTGATGAAGCCCACCACACAACA
GGAGACCATGCTATGCATTTGTAGCAAAAAAATTTAAAGATAAATGTCATATTTTAGGT
TTAACGGCATCTCCAGGTTCTGATATTGATAAAGTCATGGAAATTTGTGAAAACCTTAGGA
ATTGAGCACGTTGAAGTGAGAAGTGAAGATGATGAGGATGTAAAACCATACATTGCTAAA
15 GTAAAACCTTATCCCAATTAGAATTGATTTACCCAACGAATTTAAAGAGCGTTAAAATTA
ATAAATGAAGCTTTAAAGGAGAGATTAAAAATATTAAGATGCTGGAGTTATAAATCC
ATTGCCGATGTAAACAAAAACAGAAGCTTATTGAGCTAAATAATAAGCTATTTTCCTATGAT
GAAGAAGTGAAGTGAAGCTTATAAAGTTTGTTCAGAGGCTTTAAACTTATGCATGCC
AAAGAAGCTTTAGAGAGTCAAGGAAGAGTGTATTTTAACTATATAAATAAATATCC
ATGCAAGAAGCAAAATCAGCTAAATCTATTGTTAATGATGAAAAAGTTAGAGAGGCAGTT
AATTTATTAATGAATCAGATGTAGAATCCAAAATTAGGTAAAGTTGTTGATATGCTT
AAAAATATTTTGGAAAAAATAAGGATGAGAGAATTATTATCTTTGCTCAATATAGGGAC
ACTCTAGAGAAGATTGTTAATCTCTTAACTCAAAATGGAATTAAGCAATAAGATTTATA
20 GGACAGGCAAAATAAGAAGGAAGGGAATGAGTCAGAAAGAGCAATAGAAGCTATAGAG
AGATTTAAAAAAGAGGGAAGTGTTTTAGTTTCAACAAGCGTTTCTGAGGAGGGAATAGAT
ATTCCATCGGTAAATTACATCATATTTTATGAACCAAGTCCATCAGAAATTAGCTTTATT
CAGAGGAGAGGTAGAGCGATGAGGGGAGAAGCAGGGAAGGTTTATGTTTTAATAGCTAAG
GGACAGCTGATGAAGCTTATTACAGGAGTGTCTTATACAAAGAAAGGGAGATGAAGAGA
25 TTATTAAAAAATATGTGTTATTTGCTAAATAAGAGGTTACAGAAGAAATTTGAAGAAAA
TCTAAAGAGGAAATAAAGGAAGAGACAGAAGAAATAAAAGAAAAAGAAATGAATCAAAA
ACTGCAGTAAAGAAGAACTAAGGAGGAAGAAGAAAAACCAAAAGCCAGTAACGATA
TTAGATTTTCATTAACAGATTGAAGTTAAGGAAGGTCTAAATCAGAAGAAGATAAAATA
AAACAAGAGATAAAAAATCCGAAAAAGCCAATAAAGATTATTGTAGATGTAGAGAGAAG
AATATGGCTAAGCTTTTACATAATTATGCAAAATATTGAGCTAAAAACATTAGAAGTGGGA
30 GATTATGTTTTAAGTGATAGGGTAGTTGTTGAGAGAAAGACAGCTGAAGACTTTGTAAAT
TCAATAATTGATAAGAGGTTATTTAGCCAAATTAATAAATCTTAAAAAGTTGAAAAACCT
CTGTTAATAGTTGAAGGTGAAAACCTTAGTAGATTACATGAAATGCACTTAAAGGGCT
ATTTTATCAATAATTTTGGATTTTGGCATCCCAATAATTTACAAAAATGCTGAAGAA
ACAGCTGATTTATTAATAAAGATTGCTGAGAAAGAGCAATAAAAGAGAAAAGAACAGTT
35 ATGGTAAGGTATGGAAGACAGCAATGTCTTAAAGAACAACAGAAATTTATTGTTGAG
AGTTTGCCAGACGTTGGTGGAGCATTAGCTGAGAGGTTGTTAAAGCACTTTAAACAGTT
GAAATGTATTTACAGCAAAAGAGAGGAATTAATGAAAGTTGAAGGAGTCGGAAGAGAG
AGAGCTaAAAAGATTAGAGAGGTTTTAACAGCAGAATATGAGGGATAAAAAATGAACTCT
CTATTATCTTAGGGACAAGACCTGAAATTATAAACTTTCTCCTATAATTAGAGCTTTAG
40 AAAAACTAATAATAGACTGGCATATCATCCACACTAATCAGCATTATTCTGAGAATATGG
ATAAAATATTCTTTGAGGAGTTAAATCTACCAATCCAAAGTATAATCTTAATATTGGCT
CTGGAACCTCATGGAGAGCAGACAGGAAAGATGTTAATAGAGATAGAAAAAGTTCTTTTAA
AAGAAAAACCGATGTTGTTGATGTTTCAAGGAGATACAAACACTGTTTTAGCAGGAGCTT
TAGTAGCCTCAAAATTAAGATAGATGTAGCTCATGTTGAAGCAGGATTAAGAAGTTTTG
45 ATAGAAACATGCCAGAGGAGATAAATAGAGTTTTGACTGACCATATAAGCAGTTATCTCT
TTGCTCCAAGTGAATAGCTAAGAATAATTTATTAAGAGAGGGCATTGAAGAAAATAAGA
TTTTTGTGTGGGAATACAATTGTTGATGCCACCCTACAAAATTTAAAAATTGCTGAAA
AAAATGAAAACGTTAGAGCTTTTTTAAATAGTGTGTTATTGATGATGATTATTTTTTAT
TAACCTACATAGGGCTGAAAATGTTGATAATAAAGAAAGATTAAAAATATTGTAGAGG
50 GAATATTTGAGATAATTGAGATATACGATAAAGCTATTATTTCTCAATCCATCCACGAA
CTAAAAAAGATTGAAAGAGTTAATTTGTTTGATAAACTAAAAAGCAATAAAAAAATAA
AAATTATTGAGCCAGTTGGCTATTTGGAATTTCTAATGCTGGAAAAAATGCCGAGCTAA
TTTTAACAGATAGTGGAGGAGTTCAAGAAGAGGCATGTATCTTAAAGTCCCATGTATAA
55 CTTTGAGAGACAATACTGAGAGGCCAGAAACAGTTGAAGTTGGAGCTAATATATTAGTTG
GTGATAACAAGAAAAGCTAATTAAGCGGTTGAAATAATGCTCAATAAAAAGAGAAATT
GGAAAAATCCATTTGGAATGGGAAAAGTGGAGAAAGAAATGTGAGAATTCTTACTTATG
GAAAGTATTAATAAGGACTTTTCGAGGAATAAATTTTATTGAACAATGATACCTAAAG
GCATCTATTTCCAAATTTAATAATATAGACTGCGAAAGTCTATTAAAAAGATAATCTTT
60 AAATAAATGATATAATTAGTTAGTTAGCCAAATGCCACAACCATGAAGGTGATAATATGAGT
AAACTTTTTATTAATACTCATGCACAACCTGGACGTTTGATAGTTTAAATGGCATGTGTT
TTTGGTATAAAAGTTTCTGATGTCAAAGTTTATTTTGATATTTTAAAAACCGCCCTTCA
AAAATAAACGACATTGCTGAGAGAATTAATAGGGATAGAAGTACAGTTTCAAGAGCAGTT
CAAAATTTAATGAATGCTGGTTTAGTAAAGAGAAAGCAGGTAAATATAAAGATGGAGGG
TATTATTATGTTTATGAGGCAATTCATTTGAAGAAACGAAAAAGATTATAAAAAAGACT

-585-

ATGGAAGAGTGGTGCAACAATATGAAAAAATGGGTAGAAGAATTAGAATTCGAGGATGTT
 GTTAAAGAATATTTAGAGAATATTGAGGAATAACTCCAAAAAGATGATTATTATGAAGCT
 AATATTCTTAGGAACTGGAGCGGCAGTTCATCAAAAAATAGAAATCATATTGGAATAGC
 5 ATTCAAATTTGGAGGAGAGGTTTTTTTATTTGATTGTGGTGAAAATATCCAGAGGCAGAT
 GCTTTTTACTGAAGTATCTCCAATGAAAATTAATCACATATTTATAACTCATTTACATGG
 AGACCATATATTGGGCATTCCAGGACTTTTACAGAGTATGGGATTTTTTGGGAAGAGAGAA
 AGAGCTTAAATCTTCGGCCCTGAAGGAACAAAGGAAATTATAGAGAATCATTAAAACT
 TGGAAACCCATTATATAGAATTTCCAATAAAAGTTTATGAAATTTATACAAAAGAGCCAAAT
 10 AACCATCTATAAAGAAGAAAATTATGAGATAATTGCCTATCCAATGAACATGGCATTCC
 ATCTTACGCTTATATATTTAAAGAAATAAAAAAACCCAGTTTAGATATTGAGAAAGCTAA
 AAAACTTGGAGTTAAATTTGGCCAGATTTAAAAAACTAAAAAATGGAGAGGCAGTTAA
 AAATATCTATGGAGAGATAATAAAACCAGAGTATGTTTTGTTACCACCAAAAAAAGGATT
 TTGTTTAGCTTACAGTGGAGACACTCTCCATTAGAAGATTTTGGGAAATATTTAAAGA
 GTTGGGATGTGATGTATTAATCCATGAGCAACATTTGATGATTACGCCAAAGATGCTGC
 15 TAAAGAGAATATGCATTCTACAATAGGAGATGCCGTTAATATAGCCAAATTAGCAATGT
 AAAGGCATTAAATTTAACCCATATCTCAGCAAGATATGACAAGGAGGAGTATTTCAACTT
 ATATAAAATGAACGTTAAACAGTATAATGAGAGCTTTAAATTTATTATCAGCGAAGATTT
 AAAATCTTATGATATAAAAAAAGATTTATTGGGGTGAAAAATGAAAATAGCAATATTAG
 GAGGTACTGGGGACCAAGGATTTGGTTAGCTTTAAGATTGGCTAAAAACAATAAGATAA
 20 TCATAGGTTCAAGAAAGAAAGAAAAAGCTGAAGAAGCAGCTAAAAAGGCTAAAGAGATAT
 TGAACACAGAGAGGAATTTGAGGCAGATATTATTGGTTAGAGAATAAAGATGCAGCAAAAG
 AAGGGGATGTTGTTATCCTATCTTTACCTTATGAATACACTCTATCAACATAAAAACAAT
 TGAAGAAGAATTAAAGGGGAAGATAGTAGTTCTATTGGCGTTCCCTTTGGCAACTGCAA
 TAGGAGATAAGCCAACAAGTTGTTGTTTCCCCCAGATGGGTCAGTTGCTGAAATGGTTC
 25 AAAATGTATTAAAGAGAGTAAGGTAGTTAGTGCTTTCCAAAACGTTTGTACGCTGTTT
 TAGAAGATTTAGATAATCCAGTTGATTGCGATATCTTAGTTTGTGGAAATGATGAAGAAG
 CAAAAAAGGTAGTTATTGATTTAGCTAATCAAATAGATGGAGTTAGGGCAATTGATTGTG
 GTAATTTAGAAAAATCAAGAATTATAGAGGCTATAACACCATTATTGATTGGGTTAAATA
 TAAATATAAATCAAAAGGAACCTGGTATAAGGATTACTAATTTGGAGATTTAATTTTAAA
 30 TTTTACGGTGATTTTATGGATGATAAGAGCTACTATGAAGAAATAGAAAGCATATTAAG
 GCAAACTACTACAACCAATTGAAAAAATTTCAATTTTCTACTTTTATTAGAGTAGTTAGTGG
 TTATAAAATATCCCTATTGATTTATCTAAAAAAGAAGATAAAGAATAATTAACGATTT
 AGCTAAGGCATGTAATGAAGTTATTGAAGAGATTAAAAAAACTGGTGGTGTAAAAACTAA
 35 GGAAGGAAAAACACCAAAAGAGTTAATGAAGTTGGCAATCATATTGAGCATTATGTTAA
 AGATGTTTTAAACAAATACGGCTATGCAATTACTCCAAAACTAAAAAAGGTAAGCAAAA
 ATCAACGGGTTATCCGGACATTGAATTTTGGTATAAAGGAAAGAAAGAAAGGGATGGAAG
 GGTGTTTATATCGAAATTAAACATTCAATGAnnAAAATATAAACTCATCCCATAGAAC
 TTTTATGCTTCTCCTTCAAAAGATGAAGAAGGGGTAAAAATAAGATATGATGCTCCTTA
 TTTATGCTTATCATTTAAGATTGAGAAGTTAGGTAG

40 The 58,407 bp *M. jannaschii* large circular extrachromosomal element
 (SEQ ID NO:2) has the following sequences:

TATACTCTCGTAATTTATATGTGCTATTTTTGAACTTAGATACCTTTAGGTATCACCATA
 TAATAAATAAATTTACTTTAGCTCTCATCAAGTATGTGAATATACTGTTATTAAGTCATG
 45 CATACCAGGAATAAATTTAATTAATTTAGATATTAATCTCATTATAGGTGTTAAAAATG
 GATTATGAGAGCAAAAAAGTTGATTATTTAGTTAATCCTAGCATAGAAAACTAATCCAA
 CTTTAACTAGTGGAAATTAACACAGTGTTATAACCTATTACACATTGCAAGGTTTAT
 TATGATGGGAGAGCAATTGGATTATCTTTAAATATTGTCAAAAATGATAAAAAAGTTTTT
 AGAACTCTTAAAAACATGAAAATTGACGTAGATTGAGATGAAGAAGTTAGTAAAAATAT
 50 TTTTATAATAATAACATTCCCATCTGGTTAAGATGTCATGATGATATCAAAAATGCCCT
 ACGTCTAATAGACAAAATTACAAACAAGGGAAGTTTACTAAAGTATTGGATAACTCAAT
 GAAGGAATATCATGTATTCTATATTTATGATGTGGACAACTATCTGACCTTATAGCTGA
 AGAATTAAGAAAGATTATACCTTATATGTAAATCAGAAGGAAAAAGTTATTATGAAAATAT
 ATTTTTCAGATTGGATAGGAAGTCAATATTAATAATTTATTTATGAAAATATCCCTTTCAA
 55 ACAATTAGATGTTATTAAAGGAAAGCTCAAAAATCAATTAGATTTCTTTGAAGAAATTTT
 CAATAATATTGAAAAAATGGTTATTTTTCAATAAGAATGGAAAATAGTCGTTATAATGA
 GCATATTAATCACTTCATCCTAATTAATAATATCATTGAGAGTAGATAAGGTGCATAT
 ACGTTTAGAAGCTCAAATAGACTACTACAATATAAATAACGAAAATGAAGAAGCATATAA
 GAAAATTTAGAACTGATGAACTCAATTTACTCACAATAGGTTATAAAGCAGTTGAAA
 ATTCCTTGAGGAAATTTATGAAGAAGTTTAAACCACTTCCAATATTGGTATAAAAAACT

-586-

ATTATAACTTGCTTGCAATTTCTATTGCAGTTTTTAAATCCTCTATTGTCCTTTGGGAGA
GGATATAATTATCCACACAAAATTTTAGATTCTCTTTTAATGATTTTCTTGGTCTAACA
AGGATAATCTTTGGATTATTCTTTTAATTACACCTGATAATAATAAACTTCTGAATTTT
5 TACTACTCTCCATTTTAAATAAGTTTTTCAATTTGTATATTGCTTCAATTGTTGGTA
ATTCTAAAAGTTCTTCAAAGCTGTCATAATATCCCACCAAAATATTCTAAAGTTATTCA
TCTGGGAATAGACACAAATTACACTTGATAATCCACTTTTTATTCTTATCATCTGGATAC
ACATCGATAATATTATGCTCATCATCAGCATACTTAATCTTGAAGTCCATGGGAGTGTT
10 TTTAGAGTGGAATAAGAGCATTCAAACATTCTTTCTAAAACCTATCTCACTTGAAGAT
TTTAACAACTTTCCAAAGATTTTATAAATCAACCAACTCTCAATCTCTCCCTCATA
ACCTCATCAAAGTTAATTCTAAATCGCACTTTATAATCCATTCTCCAAAACCACT
TGAACCTTACAATCCCTCATTTAACCACCCACAATTAGAATATAATTAAAGTATTCTCAT
AAGATTTTGTTAAAACCTCTTTCCCTTATAATATAAATAGCATCTCCATCGTTATTCCAAA
15 TAGCATATTTCTAAACTACTAACAATTAATATTAGGTAATGATACCTGAAGATGAGCGTT
TTAAATATTTACCAAACTCATAAAAATGATAATTTCAATTATCATAATTATAATTATCA
TTATGGGATTAGTATGTTTGTGGATAGAGAAGAAGAACTAAAAGCATTAAATGAAAAGTT
AGATAGTAACAACCTTTGAATTCATAGTTATTTATGGGAGAAGAAGATAGGGAGAGCAAA
GTTGGCATTAAAAGTGTAGAAAATAGGGAGCATATTTATTACTTAGCAGTTGAGGGAGA
TAATTTAAAGCATTTTAAAAGATATGCTTCAAAGGTTGAACCAACAATTGAATATGCTAA
20 AGAGGATTGGGAAGCATATTTAACTTTTAAAAGATAAAATCATTATCATTGATGAGTT
TCCAACTTAATTAAGAAAATCCTAATGTATTATCTCTATTCCAGAGAATTGTAGATAT
ACATTTAAAAAATACAAAAACAACTTATTATTCTTGGCTCATCAATATCCATGATGGG
AGAGAAGGTCTTAAGTTATAAATCTCCTCTTTATGGGAGAAAACTGGAGTTTTGAAGAT
TAAACCATTGAAGTTTAAAGCATTTAAGGAATTTTCCCAAAAGCTATTTGGGAAGAGTT
25 GGTGAAATTTATGGTTTGTCTGATGGTATTCCATACATCTTGAGAAGGTAAAACCTCC
ATTTTGGGATTACTTAGATAAAGAGATTAAGAGAGTTGATAGTTTTTTGAGATATGAGGT
TGATTTCTTGATGAAGTATGAGTTTGAGGAGCCAACTTATAAAAAGATTCTTGAGGC
AATAGCTTTTGGTAATCACACACTTGGAGAGATAAAGAATTACTTGGGCTTTAAGCATT
AGATTTAACACCATATTTAAAAAAGCTTGATTGAGGTTGAATTTATAGAGAGGCAAACTCC
30 TATTACAGAAAGTGTAAATCAAAAAAGGGAGGTATTACATTAAGATAATTTTATTGC
TTTTTATTTTAGGTATATTTTCCAAATTTATCTGCAATTGAAGAGGGGATTTTGTATAT
TGAGGAGATAAAGGCTGATTATAATCAATATTTAGGATTTGTCTTTGAAAAAGTTGCTAA
GGAGTTTTTAATTGAGCTGAATAAAATGAATAAATTACCATTAAAGTTTTTAAAGATTGG
35 AAGATGGTGGCATAGGGGAGAAGAGATTGACCTAATTGCTTTAAATGATAATGATAAAAA
AGCTTTATTTGTTGAGGTTAAATGGAAGGATTTGAAAGATAGAGATGTTAAAAAGATATA
TAGGGATTTGTATAGAAAGTCAAACTTGTGGATTAGATGATTATGAAAAATATTATGC
CATTGTTGAAAGAAGATTGAGAGTAAAGAGAATGGAGATTGTTTATTATTGATTGGA
GGATTTCTCATAAAAGTTATTGGGGTGGAAATTATAGCATTATTGATTGAAGAAGGAATC
ATAATAATAAAAGATAAAAAAGTTGCAGAGAGGTTTTTAAAGATTTAGAAATCATCACA
40 GGAATGGATTGGAAAGAAATTAGAGAAAGAGCAGAAAGAGCTAAGAAACAACTTGAAGAG
GGGATTGAATGGGCAAGAAGACGAAATTATAATCCTACTAAAAATATTATTAGAAGAAT
ATGATGAAGAAAAAGTAAAGCTTTATTAACCTCTTTTCTTGCCACAAAAATTTAGATGT
TGAGAAATTTTTTTAAAGAATTCTGCAATATTATTTGAAAAATTAAATAAGAGCAGAATA
TATCTAATTTTCAAAGAGGGACTAATGATATTTTAGCATACTTCACTCTAACAATCTCT
45 ATCTTAAAAATAGTTGATGAAAAATATCAAAAAAGACATTAATTTGTATAGGATAATT
TAAGTTTAGAATTTAAATTTATAAATTTATAATTTAATTGTTAATTGACTTTGAAGTC
AATTCACCTTATCAATTTCTCATACTCTTTGTCAATGGCAGTTCTAAGTGCTTCCATCCA
ATTTCTGAAAGTTTTATATATCTCCTCGGCCTATTTGCTGGAGCTTCCAATTTCTTGT
TTTATTATACCCACTTCTCCAAATAAGTAAAAACCTCCTCCATTTCTCAACACAAG
50 AGTAGGATCTTCTTCATCGCTCAGCCAAGGCAATATTACACATTTCATAGGACCACA
CTTACAATAACCACTCTCAAAATGCCTCTCACAAGCAAAAAGAACTTTTTTAAATCTTC
TGAATGTTCAAGAACTGCAATTAATCTAAATAATGTTCTAAGCTCTCACTCATAATCCC
ACTCCTATAAAGATGCCAAGGTATAAAAGTCTATTAGTGAATTGACTTTAAAGTCAATTC
AGCATTATTATATAGTATATCCCTAATTGTTTATATTTCAACGGAAAAATAAATATTTT
55 GAAAATGAACAATAGCATTATTTTTTACATTTTTTCATTAGATTCATCTTTTTTAATTGG
TTTATCCAACATTTTAGGTATTAAAAGTGTAAAGACAAGAACTAACACTATATACACCAA
CATTGCAGTAAGAAACACTAACAACTTCCCTCAACCATCTAATAACCTCCCAACAAAC
TAACTAATTTTTTATTCTAAAAAAGTATACTTAGATGCCATTGTGAATTGACTTTGAAA
TCAATTCACCTCTCAATTTGTATTCCAACAGTGACATGAAAAAGAAAAATAAATATATCA
60 TTCTCCCAAACTTCCCTCCACTCTGAAAAATAAGCTAAAAATCCCTATTTTCTCTGA
TATGTATTTTATCATGAATAAAATTTGCTTTTTTAAATCTTTTTTACTGATTTTCGCCT
ATTATGAGCATCTTTCAAATACCTTGGATAACCAAGTTTAGAGTATGGAATAAGCAAACT
TATAACTTCTTCAATTGATTTTTTGTAGTTCTTGGAACTTCAAGTGCTAATATTGGACT
GCTCTCGGCAATCTAACATAAGTTTTAGGAATCATCTCAAAGGATTTTCCCTGATAAC
TTCTAAAAATTTGAAATAATCTCAAACACATCACAATCTTGTAAATGTGCCTCCTACT

-587-

5 CCTTTTTTTTATTATAACAATCTTCCAATTTAAGAGTAGTGATCCCCCTCCCTCTAAATAT
TTGATTTAGAAAGTGTAGCATCAAGTAGGATATCAACATTTATGTTGTTTTCCITTTAAATTT
TTCTGTAATAATTGAATTCTCAAAATTTTGTAGCTATGAATGTACAATCATACTCTAACAA
10 TCTATTTAAAGAGTGTAGCAATTTCTATATACTCAAAATATACCTCCCCAACATGCAATTTT
CAATCTAGAATTGAGAATATTTGCTGCAAAATAACTCTTCCCTAATATCTTCAACATATTC
AGAATACGTACTATCAAACCTTTTGAAAAATCTTTATTGCTAAGAGAGTATTATCGTAAAT
ATTCCTCATCTAAATTTCTCCAAAACCTTCGTCCCAAAAATTTATCCAATGATTTTATAAACTT
CCAACCCAAATCTTCAGCTAAATCTGGATAAACAGTTAGAGGGTTAGTATCTCCACTTAA
15 AAGTGGTGGCATTATTAAAGCCCCGTGACAAAGTTCCATCTAAAAGGATTAAATCAACATT
CTTGCTAACAAAGTGTGCAAGCCTATACCTAAAGTCATCATTAACTCTTCTAACTCTATC
CTCTTCTTTAAAAAATGGTAGAACACCCCAATTCAACACATTCCTTTTCAATATCTTTCC
AATAGCATAGGATGAGAGGCCATAAACCAATACCACTACAGAATTCAACCTTCCCCCTACT
ACCATCTACCCACATAATACCCCTTCAACACCTTTTGGCAACTCATTCCACACTACTTC
ATCATTATATAATATTTCCAATACGTCTATATTTTTAACTCCCAATCCACAAAATTGTA
20 AATTATATCCAAATGATTTTTACTAATAATAACATTTTTATCACCCCTAAACGTAAATT
AAAGGTTTTTAAATTTTTAAATTTTTAAGACCATCTTCTCCTCTAAAACCTCCATCATAT
TTTTTAATTTTAAACCAATGCTGGAAGTGGGAGTGAAGAACCAACTACTATTGCCTCTCCA
GTTGATAATTGTGGTAAATCTTGAAGTAAATCCTCTCCAACATTCTCGAATCTCTGAAA
ATATATTTTTGGTCTGTTGGCTCTACAATTCTTAAATATCTTAGTATTCATTGAGAT
25 AAGACTGTAGGATTCAATTTCTTAGGCCTCTGACTTACTAAACCAATCCAACCTCCAAT
TTCTTCTCTCTTTTGAATTTCTATTAATCCAATAACAGACCTATCCTTCAAATTTCTTT
GCTGCAAAAAGGTGTGCTTCTCTATAATTACTAATGTTGGTTTTTCAAGTGCTTTAATT
TCAACTATCTCATGACTGATTTAATTCTCTCTTTTAAAACTCTTTTTAAGAATTCT
CCTACAATTTGTTTATGCTCTCTCATCTCAATCTTTTGAAGTGGGAGAACATTTATTTTA
30 TCACTCTTAATGTCAAACATTCCTCATTCTCTCCCAAAATATTTTTATTTTTGTTAATA
AACCATCTCAACTTTTCAATAACTCTATTTATTGACATTTTCATCATCTTTTTTTACAGTT
TTAGnCTTACATCTTGTCCATCATAATACTCGATATAGATTCTTTTTTTATCTTCAGAA
TTTGCAATTTTATCAGCACACTCTACAAGTTTTTCTTCAATTTTTTCAAATATTTCCAAC
CCAGAAATTTGTTTTTATTTCTCCTTACACTCATATTTTACAGTAAGTGCAGCATATACT
35 AAAAATGACTTTTGAAGTGAAGAAATTTCAACCAATACCAAGTAATTTTGCCAAATGCTCT
TCAGGAACCAATATTGGATTCAATTTTGCAGGTAGAATATGAGTATTCCTCATTTCACG
TATTCTCCATGCGGATCAACTATTACAATATTCATTTTCCCTTATCCTTTTCAAACAT
TCTTGGACTAACACGGCTATAGTATTTGATTTTCCAGCCCCAGTCATTGCCAATACAGCA
AAATGCCTTGAACAAAGCTCTTTTGCATTTAATTTCACTTTTGTGGAAGACCTTACCTTT
35 AAATAACCTACTTCAATACTACCATTGAAAAATTTTAGCTAACAAATCATCCTTAGTC
AATAAAACATTCTGAGGCACATTTATTGGATATACGTTAGATTCAATACTTCCACTTTCA
TTATTAATTACTCCCCAAATTTTGCCTCGCTAAAAATTTAGAAGAATTATTAAACATT
TCTTCAGAAATATATAACCCCCCTAATCTTAGCTAACTCACTAGCATCTTCGATTATCA
40 CCAATTAGAGCATTAAACAGAAACAATCTTGGTAATTTTGAAGAAGATAGTCCCCATGT
GTATTTTTTGTAAATGACAACTCTCCCTTCTAATCTTGTCAATAACCTGGTTCTCAATT
ACAACTCAAATTCATTAACATTTTTTGAAGCTACAACAGTCCCAACAACTACACTGTTT
ATAACCATCACCAACTGTTGTGCGTTTGTCTGCGTTAGTATGTATATACAACTTCTAT
ATATACTTTTGCATATCTAATGTGCGAGAATAAAGTTTAAATAGTACCTAAGGATTCTAGT
45 ATTATCATAGCCATAAAACAGGGTGAATGTATGAAAGTGTATGATATTAGAAAAATACAA
AAGCGTGTACAAAATCCAGAGGAAAAACCTACTATACCTATTATATTAACCTCCGCT
GAATGGATTGAAGATGCAAATTTAAAGAAGGAGATAAAGTTGAGATATCTGGAGATAAA
GATAAGCTATGTTTAAAGTCTGTATAGACAAAAGATGAAAATAATAAAAAACAATAA
AATAAGCATACACATCAACATTAAAGGGTGAATAATGAATGAATTATGAAATTTATG
50 TGAATTTCAGAGATGGGTTTATTGTTGAAGAACACATAAAGAAGAAATTCATTGAA
GACTGGATTGTCAACACCGTAGAACAACTTAAAAATTTACAATATACTAGATATACTTTT
GAAGAATTTACCCCAAGACAAAAAATTTAGAAGCATACAACAAATTTATTGGAATCTTA
AAAAACATACAAATATGGACATAGAAAATAACGTAAAAAGAAATTTATCATTGCATTGCT
GAAAAATAATAACTACAAATATGAAATTGCCTTTTATATAGTAATAAGTAAAAATTGGAAT
55 GAATAAGAAACATAAAAAACCAATTCTATGCATATCCATTTATTTAGGTGTCAATGTATG
ATTGAAACCATCCACATCAAAAATTTTAGAGGTATTAGAGAGCTTAAATTGGAAAAATTTG
GGACAGATAAATATAATTGCTGGGAAGAATAATGCTTCAAAATCAAGTATCTTAGAAGCT
TTGGCATTGTTTTTAAAGTGCAAAGGAGGGTTTTTCATTATTTATAAAAAATTTAAGGGAG
ATATTACTTTGGAGAGGATGGTATGGTGAAGAAAGTATTTATGATTTGTTCTATAAAAAT
60 TCTAAAGAATCTGAACTAAGTGTTAAGTTCTTAAATCAAGATTTTGCAAATTTAACCCCTA
AAAAATTTCTAATCAAAGTTTTTGCAAATAAAAAATTTGCAGTAGAACTTAAATCTGATAAA
AATTCTTGGAGTGGACGTTTTGATTACATTTAATACATCCAGATTATATATCATCAATA
TTAACCTCTGCAGAGGCTACACAAAGTAATTTGAATTTATAACATCCTTAACATTAATA
AAGTTTGGATATATTGAGAGCATATACTCTCAAGCCTATGAGACTCAAGTTTTACAGGAT
GCTATAAGATTGCTTAGAGAAGCATACCCAGAAGTTAAAGTCTAAGCCCTCTCCAAAAG

-588-

TATAACAAGTGGATAATTCATGTTTAACTGAATATGGAGTTTATCCATACTATGTAATG
GGAGAAGGTTTTAAAGTGCTTTAATAATTGCATTATTAACCTCTATACTAAAAAATGGT
TATCTTTTGATAGATTTCAGCTGAAGCCTTTCATCACCCTCCTCACTTGAAATTACTTCA
5 CAAATGCTTACAAAATCTGTAAAGAATAATAACGTTCAAGTATTTTAAACCCTCACAGC
CTTGAATTGATAGACTTCTCCTTGAACATGCCAGTAAAGAAGGTATAGAGGGCAGATTA
ATCTACATGCGTAGAGATGGGGAAAAATTAATTAGCAGTATGGAATCCTTTGAAAATGTT
AGGGAAATGAGAGAACTCTCGGAATTGATTTAAGGGGTAATCATGAGGATTTTATTAC
10 TTGAGGGAATTACGGATGTTGCATTCTTCATTCCAATATTAAAGAAATTATATGGTTTTT
CAGAAATTAGTTGTGATGGTATTATTAGAGCAGAAAAATGGGAGATATATCAAAACCAA
TATGTTTAGAGAATGAAGATGTTAAGTTGATAGTTTCCACTCTGGAGGAAAATCAAAAC
AAAAACATGCTTTGACAGCAATGCTTACGGCTATTAATAATGGGTATTTATCTAATATTA
AAATCTTGGGCATTGCAAGGGATATAGACCAAGAGCATGATGTCAAAAACCTGGACAAAGA
GTATAATAAAAAATGCTGGATTGGAAGTTAAAGAGGGTGACAAAATTTTGATTATAGAGG
15 ATTTAAACTTAAAAATAGCTGTTTTGGGTATTGCTAATTATGATGAGGATGATTTTAAACA
TCCCATCATTTGAACTAAAAAGAGAAGTGGAGGCAGTAATTACTGATATGGCTAAAGAAA
TCAGCATCATAGAAAAATTCAAAACCTCTTAGAATCATTAAGTAACGATGCTGAAAGAA
GATTAAAGCCAAAAGACATAACGCACGTTTTAGCCATTGCTAAAAATTTTGACGGAGACT
CCATGTCTGGCTTATATAGGAAATTTATTGAAGAGCAGATAAATAATAAAATAAAGTGA
20 ACTTTTATTAACTAATATGATGTTCTACCATGCTCACCCTCTTTAACTCTTTTAAAC
CATTTTGATAAAGATTTATGACATCTTTTACATCCTTTACTTCGACAACATCCTCCTCAA
TCTTAAAAATCTGCACAATTACCTCAATGTTCAATATTTGGACTTTTATTTTTTGAGATT
CCTAAAAAACTCTAAGGATTGTGCTTATTTTAAAAACACTAACAGGGTGAAAATAAAAA
GTTGCAACTAAAAATAAGGAATGTTTTATTAGAATATTTAAATTAATAAACACGTTTT
GAGAGTTTGTAACTAACAGTGAATTGACTTCAAAGTCAATTCACAAAAAAGACTCTCCA
25 TTTAGAATTACATTATAAAGTCTCTAAAAATAGTGATATGATAAAATAAACTTATTTAA
CTTTTACTGTTTTCTTTTGCATGTTTTGCTAAGTCGGCAGTTTCTTTATCTATTTCCAA
AGCTAAATTCTCTAATATCCTCAAGCAAGTATTCTGCTGCAGCCCTACTAGCTTATTCA
TTAAACCTACAAAAATATTACCATTTTTGCATATATGCTGGATAAAAGTTGCTCTATCA
CTTAAAGTTGCAGTTTTTTAATTGAAAGTTTTAAAGTTCTGATAATAGAAATTCAAACA
30 TTAATAATAGTATGTTGGATAAAACCATATAAAACCTATTTTCCATTGAAATCACAAAT
TTTTCATGATACACAAAAGTTTAAATACCTTTTGTTTTGATAAAATTTTGAATAAATATT
TAACTCGAAATTTTAAAGAAATAAGTATGTATAATCTCAGTTAAAAATTACTGAGGGTG
ATAAATATGTTTATAATTTTGAATAATGTTAAAAAGCTTATGAGGATCAACTTAAAAAC
TATATAAAAAATAGTTTAAATCCTAACCTCTCCTCACATGCAATAATGAAGTAGTTAAA
35 ATTTCAATGAAAAAAGTGGCTAACTTGGGTTTTGGATATTTAGTGGATAGTACATTATCA
AGTATAACTGGATATTATAAAGTTAGAGATTGGATTGAAGAATTATTAAAAGAGGAATTA
CAGAAATCTGGAGAAAATAAATGTTGTAATATAGTATTATGTGATTATCCAGAAGAGTTT
GAGATTAGCATGAGGGAATTCCTTATTATGTTAATAAGGTTGTAAAAATTTAATGGTGT
40 ATTATTTTCAGCATCATATCCTTGTTCTTTCTAAAAAACCTTATATATATGCCCTAAA
TGTGGAAGGATAAAAGAAGTTTATTTTAGTGAATTATTTTGGGATGATAAGGTTTTTGT
GAATTTTGTGGAGGAAGATGGAATTTGCAATGTGATGGATTATGAAAATTTTCAGGAA
TTAGTAGTCCAAGATTTATCTGATGAGAGTGAGTATTATGGTATTGAAAAAACCCATA
GTTTTGTACTGTGGTGCAAAACCATATTATTTTGGACATGTGAAAATTACGGGAATTGTA
45 AGGGAAGTTCCAGAAAGCTCAAAAAGTCGTATTTATGAGTTGATAGTTCAAGCTATAAAT
GTTGAAAAATTTGGAGTTGAAAAATCTCTAATAAATTTAACTGAAGAAGATGTTAAAAAT
ATTAAGAAAGTTGCAAAAGAGGGAGATATTATTGACATATTGGCTGATATATTGATCCCA
CCACTCCTCTGTGATGATGCGATTGTTAGAAAAGCCATCTTATACAGCAATAGCCCCA
TATTTAGAGGACATAGGCAAGATTAACATTCTACTAGTAACGGAAGTTGGTATTGACAAAG
50 ACAGCCATTCTAAAGAGAATTGGGAATATTCTGGAAATAATTTTATAACATAGCGGCG
TTGAAGGAGGAGGAATTAGCCACACCTTATGATAAAAGAGTAATATACTGGGAAAAATTT
TATACTGTATGTGGAGGTGTAATCCAAGGACTCTTGGAGTATTATGTATTGATGATTTT
AACGAGAACAATAAATTAAGTACAAAATTTATCTGAAGCTTTTGAGAGGAATGTTCTTACA
ACTAATAAGGGTTTCATTTTATTGCGTTCCCGCTGAGTGTAGTTTCTTATGTGCATGCTAT
55 CCTAAAACGAAATTTAGAAAGTTTGATCAAAAGAAAAGTATTATAAACAGATAGGGATT
TCGTCAATTTTATTAATAAATTTTGATTTAATATTTCCAATTAGGGATATTTCCCGACAAG
GATAGGGATGAAGAGGTGGCAAAATACATTTTCTAAAGTATATAAACTCAGATAATGAA
GAAATTGAAGGATATGATTATGTATTTGTAGATGTTGGTGGAGAAAAAATAAAAAATTGAT
TTTGAATTTTTAAAAAATATGTTGTTTACTCAAGACAAAATAACTCCAAAAATAACTGAT
60 GAAGTCATAGAAAAAATTTCAAACCTGGTATGATGAAATGAGGAAAAATCATTATATCACT
GCAAAACAATTAATACTGTTATAAACTTAGTATAGCAGTAGCAAGGGCAAAATTAATAA
GAGTGTGTTGATGAAGATGATGTCAAAGAGGCAATAGATATAAATAATGCCTATTTAAAA
CAAGTTGTTTATAATCCAAAAAGGGAATTATTGATGTTATTTTGTGTATAAAAAACAAA
ACATAAAAAGTATAGGAGATAAAAAATTTGGAGATACATTTTAACTGGAATGCCATAAAG
AAAGTATTGTAAATTAACAATGCTCCAGCCTCTTATTCTTTTCAAATCAAAATTATAAC

ATTCTAAAGCTTTATTATATCTTTTAAACAGAGACAAAGAAGTCATCTAATTTGTATAAT
AATCCAGTATCAAGGGAATTTTTATTGATTAGAGTTGGTCTATTTGAGTACTTTTAATA
TTGCTTTTGTGTTCTTCGTTAGTAATGTTTTCTAAAATCTTTTTTATCAATTCCTTTTCTT
5 CATTTTCAACTTCAAAATACATATTACTAAGAATATATACAAAATCTTCTAAGAGTTTGT
AATTTTTTTGGCTAATTTTGTATATAGATTTTGAATAATATCTCTATGTATATGAATGT
TTAGTAAATCGTGTAAGAAAGAAATATCATTGTAAGCTAACACGTAATTGCATATTACAT
TTATAAGTTGGTTGTACATTGTTTTGAAATTCTCCCACTGTTTAAAGATTATTACTA
TATTTTTAATAGTCCATGATGGATGATCTATAAAAAAAGCTTAAAGCTTTGGCTTTGATAC
10 TAAAGCTATCATCATATATCATTTTTGCAATTTTTAGCTGTATAAGTTCTTTAGATTCTT
TGTCAATATCTCGCAAACTAAGATATTTTCTAGCAAGTTCAATATATACAATTTTTGCTT
CAAAATTATAGCCTAAGTCAATATTATTACTTTTTTTGAAGAATGTCTAAATTATACTCTT
CTCGTAAAGTTTTTGTAGAAATATTGTTTTTTAGGCAATATTACAGATTGTGTTAAGAA
TTTCTAGTGATAAATCTTTAAACGTTTACGTTGTTGCAAAAGTTTACAAAACTTTTTGT
15 ATTCCTCTAAACGATAATATTCAATTAATTAATAACTCTAGGTGCTCTTTTTCTGCAAGC
TTGTAAATCTCTCAATATTAGAATCCTATATGTTAAATCTTTTAAACATCAACTTCAA
AATCTCTTCAATATCAATTTTTAGATATTGTGATGTAATTATTTTAAATTATTTCTTTA
TGGAAATATTTTCTAGTTCTACATCCTTTTCTATAATTCTCCTAAGCTCTAGCATTGCTT
GAACCTTAAAGACCTCTATGGGCATATTTTAAAGCTTGAATAATGCATCTACTTTCTTTT
20 CTGAGTTTTCTTTAGTAATATAAGTCTTAAATAACTCGTTGTATTTCCACACCATACT
TATGCACATAATGACTGTTAGGATGAGTTTTAGATCTAATTATTGCTCTATGTGGTTTTA
TAAATTCTATAAAATCATCATATATTTTATCTGGAATAAAGATACTCTCCTTCAATAAAA
CTCTAAAAATTTGACGAGAATCAATGCCAAGTTTAGATTTTTTGGAGCTGGCTATAACCC
CATCATAATCTAAGTTTCAATCCACCATAAGTAGTTCCAACCTATAGTGATTTATTAG
25 TTTATTTTACGAAGAATATCGAATTAATATAAATGAACGAACTCTCCCTCCCATAAA
GAACGTTTAAACCTTTTCAATTTATCATCAACAATCGTTATTTAAATCTACTATTATTAG
AAAATCAGTTAGAGGATACTTTTAAATATCCATTCAAACATTGAAAATAATCATTTTCAA
CAATTCTCCCATTTATGGCTGCTATTACAAGCCCATATTTTAAATATTCTGCTAACAAAT
TATTGATAAAGTTAAACTGTATCTCAAAAACTAATGGTAAATTTGAAAATAAAGATAC
30 AAACCTTTAAATAATTTGTTTTATAATTTTTAATTGGTGGTATTATGAAATTTTTCAAC
AGGGAGAAAGAGATTAAATGAGATACTTCGAATTTTTAAATAGAGAGCCAGACGATTTTAT
TTTATATATGGACCCTTAAACAGTGGAAAACTACTTTAATAAATCACATAATAAACAAT
GAATTAATAAATCCATAAAAAATATGCTGTCTTTTATGTTAATTTAGAGAGTATGAT
ATTTACATCAATGGATAATTTTGTGAGGCATTGTTTGAATAGACGAAATTCGAAAGA
35 AAAGAAGATAAATCATACATAGAGAGTTTTACAAAGGGAGTTAATGATATTATAAAGCTT
ATACTATGGGATAAAGATTCCAGAGCCAATATTGGATAAGTTTTTGGAGAAAAAGAAAA
GGGGGATTGGTTTTTAAAGTTTATTAGAGATTTATTATGAGTTTGAATAAGAAGGGAGT
TCAGCCAGTATTCATTTTAGATGAATTGCAGATGATTAAAGATATTGTTATGAATGGAGG
AAAGCCATTATTAAAAAGCTTATTCCAATTTTTTGGTTTCTTTAACAAGGAGAGGCACAT
40 AGCACATGTTTTTGCCTAAGTTTCAGATAGTTTGTATTATTGAGTATGTTTATAATGCTGG
AGAGTTAGAAGGAAGGGCGAAATATCTATTGGTTGATGATTTTGATAAAGAACTTCCTT
AAAATTTATGGACTTTTTAGCAGTAGAAGGAAATATTAACCTTAATAAGATAAAGA
GTTAATTTATCTTATGTTGGGGGAAAGGCAAAGGACATAAAGTATGTTATTGAAGAAAG
TAAGTTTTAAGACTTAAGAGAGTTTTGGACTTTATGTTAAAGATGAGGTTTCCAAATT
45 GAGAAAAATTATTGGTTAAGATAAAAACTAAAAAGATTGCAGAAGTTGAGTATGAAATGT
TGTTAAGCATTAAATTTATTTAAAGACAATTATGAAATCAACGAATACCTTATGGACGA
GAATACAAAAGAATTCTTAATTTAAAGGAATATCTTATTCTTAAACCCGTAAGAGGAT
TTTAAAGCCACAAAGTTATTAGTTTGAACGCAATAAAAAGAGTATTACAAAATATAAA
CGATTTTTAAATTTATTGGTGGGATTATGAAATCTTCAATAGGGAAAAAGAAATTAATG
50 AAATTCCTTTAATCTTAGAAGAAGAACCAATAATATTTATTTTATTTATGGTCTTTAA
ATAGTGGAATAATCAACCTAATAAGAGAAGTTATACTAATAGATTAGACAAGTCAAAT
ACATACCATTTTTTATTGATTTTGAACGAGAAATATTTTAAACGTTGATAATTTTATTG
AATGCTTGTGTTGAAGTGGATGAAAAATCAAAAATAGACGATTTTAGGGAATATGCCAAAT
CATTAGCTGATTTGTTGGTTAAAGGTAGTGAAGAGATTAGCAAATACTACTTGGGTATGC
55 CTATTAAAGTGCCAAACCATTTCTTTGATAGAATTTTTAGTAAAGAGATAAATCAGCAG
ATGCTATCAATATATTGAATATTTATTTGCTAAATTAATGAGAAAGGTAAAAAGCCAA
TTTAAATATTTGATGAATTAAGATGATTAGGGAGATAACTTTAAACGGGAATAGGTTAC
TATTGTGGAGTTTTATCCAGTTCTTAGTTGCCTTAACATAAGTTCAACATCTATGCCATG
TTTTCTGCTTAAGTTCTGATAGTTTGTATTATTGAATACATCTACGGAAGGCTGAATTA
60 AGGGGGGAGTTGATTATATCTTAGTTGATGATTTTGATAAGAAAGCTGCCTTAAAGTTA
TGGATTTTTTAGCCAAACAAAAGAATATTAATCTAATAAGGATAAGGAGCTAATTT
ATTCTTATGTTGGTGGAAAGGCAAAGTATATTTATGATGTTATTGTCAAGTTAAAGCTG
TTAAAGATTGAAATATATTTTAGAGACAAAAGTTGAAGAGGAGCGGAATCACTTGAAG
AATTATTGGAGAAGGTTGAAGAAGATTATGAAGGCATAAATTATGATGAAGTCTTAGAAG
CATTTGAATTTGTTTAAAGATAATTATGAACCTTCAAAAAGTAAGATAAAAAGGAAATTA

-590-

GGATATTTTAAATTAAGAGAATATTTTATTCTTAAATCCACAAAAGGAACCTTTAAAGC
CACAAAGTTATTTGGTTTGAATGCTATAAAGAGAATGTTGTAATTAAGTTATTTCAAT
AAAATCTACTTTTCAAAGTCAAATCAAGGGTAGTGAGTTATGAGCATTCTCATTTCTA
5 ATAAACAATTCAATCATGEGGTTAAAGGATGAATTTGCTACTAAAAAGGATTTAGAATTGT
TAGAAGAGAGGATTTTGAGATATGTTGATAATAAGTTCAATCAATTGGATAAAAAAATTG
ATAGGACTTTTTATTTACTTGTCTTCTTTATTACTGTGGGTATCTCGGGAGGCATTTT
TTTATTTGATATAATCCGAACGCCTCCCTCATCGACACCCGCTCCCTTTACGGGGACAG
10 ACCCCCTACTGCCCGATAGGGACAGCTAGGAAGTAGCCTTAACTTTAATAACTTTAT
TATTGATAAAGTATTATACGTTTCATACATATAAAAAATGTGAGAAAAATGAGAAAAATAA
ATATGTAATTTAAATTGTTAAGATTTAATAGTTTAAACGTGTGAAAAATGCTTGTTTT
GAACATTGTATAATGTATTATGTAAATTATCTTTGGATATAATTAATAATGTAAGAAAC
CATTGAGATTTGGTGTAAAGAGGGATAGATTGATTATATTGAAAAAGTTTATGTTGTA
AAGTGTATATTTCATAATTGGTTTTTACTAATGGACAAAATTATACAGTTTAAATTTAAG
15 TTTATAAATTAGTATTATTCTCTTTTAGAATTTCTGCTATATGTTTAAAGCAGTTTTTCA
ATATTTATAATATAATTAATCGTATGTTTGAAGTGGACTTTAGCCCCAAAGTCCAACAA
TGGTTAAAAATTTTCGGACACCATGCCAAAACATAGAGCAGATGCCACTGCAGTATATAC
AATATTATAATATTATATTATCAATGGCATACAGTGGCATCTCCAGAGAAGTGTAAATCC
AATATGCCACTGAATATATAAAAGAAAACATAATAATCCCTATTTTCAAAAAATAACTG
20 TCATTAGGATCCCTTGTTTGGTGAAGACACAGAAAAATTTGTAGTGTATGTTATGGGTA
TTATAGGTTTTGTAAATGCATTAGCTAACGCTTTTACTACTTATATTAGGTATGGTAG
GTATTTTTATTTTTGCATGGTTTTTGTGTTTGCAGAGAAGATGAAGAGACAATTAGAAAA
TAAAAGAAGATGATTGGTGAAGTGTGAAGTTATTAAAGATTTTTCTATTTGTTTTGTTT
TGTTAGTTAGTAGTGTCTAAGTTGTGGTTGTATTGGAGATGAATGCACTCCACACCATA
25 GGCACATATAAGCGCTTGAAAAGATGAATACAGTTTGTTCATGGAATGTGATAAAATTC
TTAAAAATGAGTTTAAACAATTCTTCACAATTCTTTAGGAGGATACATGAGTTGGTA
AACTCTTTATTATAGCAGTGGCAACAAAACAGAAACACCCCTAACTCTTTTATTAAGAA
ACCAACACCCCAAAACATCACCCAAAGCACCCCTTATGAATAAAATGAACATCACACGAG
AATCCACTCCCTAACACTCTTTTTACCCAACACCTTAACAACATTCATGAACACCCACA
30 CACAAACAAATCCTAAAATCAAACATGCCACTGTATAAACTATTGATAATAATTAATA
ATATAAAATTTATCAAACTTAATACTACCAAAACAAATAAAATAAATCCCACCACAAAA
CAAAACAACAAATATTATAATCACCAAAACATATAAAACAATAATATTATGTAATTC
CCATTAGGGAAAAGGTGAAAACATGCTCAAAAACTATTTGGAAAAGACGATGAAAAAC
AGACGAACGAATTAATAAATTAGAAAACAGAAATAGAAAAAATAGAATTAGAGTTAAAA
35 CATAAAAAACACAAGTTCATACCCACAAATTATAAGAATAGAAAAAGAACTCCAACAAAT
AATAAAACAGACATTGACAACTAACACCCCTATACATCAAACCTCAACCCAAACCCAA
CACCATAGAACAAACAAAAATCATACAAATACAAAACACGAACAACCCCTACAAATCAT
CAAAATAGTAGAAAAACTAAAACCAACATAAAATCAAAGGAACAATCTACCAAGCCC
TAAAACAACTACAAAAAGAGAAAAAATAACAAAAGCCACAGTCAAAGAAAATGGTAAAA
40 GAAAAGTACTACAACTCACAGATGAAAACACTGATATAACATAGAAAACATCCCTAA
TCCTAATTGTTAAAAACATTAATTATCAAGGGAGGTTGCCACACTTTTTAAAAAGTGTGG
CAACCTCCCAATATTCTATAAGAAACAAAATTTACCATAAAGTAATAAAACCCCAT
AACTTATTTTCTATAGGATAAATGCCATTGACTATTAGAAAACAACACTCTTTATGC
CACTGCTAACACACAATAAATTTCCACATTCTATACACAATAAAGTGTTTTTAACCGTAA
45 TTTTCAACATTGGACTAACCACTCTAACAGAAATGTGAAATACCCACACACTTCCAAGA
CATGAAACGCCCCCTATTTTCAATTTTCAATTGTATTACTAACATTCACAAAAGAGG
AACAGCCAAATTTTAAAAAATTGGCTGTTCTCCCAACACCATAAAAATGCAGACACAAAC
CAAAACCCATTAAGCAACATACTGAGATTGAATTATTACAACCTATAAAAAATAGTTTA
TATGTTTCATACATATAAAAAACATGAGAAAAATGAGAAAAATAAAGATGTAATTTAAAT
50 ATTGTAATTTTCTATTTTGTGAGTAAATTGTGTTTAGTTTAAAGAGTATCCCCACTT
ATTATGTAAGTGGATTATTTACTCCACTAAAAATGTAATAAAACCATTGAGATTAGTGT
AAAAGATGAATAGATTGATTATATAAAAAAGTTTATGTTATAAAGTGTACCTTGATAA
TCAGTTTTCACCAATAGACAAAATTATACAGTTTAAATTTAAGTTTATAAATTAGTATT
ATTGAAAACATAAATAAATATGTGTTTAAATATTATTGTTTTTAGTATTGTTCAA
55 ATTCTGTGTATTTGATTTTGAAGTGGGAATAATAGTACGTTTCCAAAAAGTTATTTTAT
ATTTCAATCCTTTAATGTTATATACCATGCTAATGTATTCTAAGATTGTATCAACAATGC
TATCATTTAAGTCTCCCAATACAATTCCATAAAGTTTCCAGTAATCAGCAATATCAT
CTTCTTTTAAAGGATTAAAAAGTGATTTACCCATATTGAATTGACTTTGAAGTCAATTCA
CGATTATGGAAATAGTGAACAGTGTAGAAATAAAACAAAAGGGTAAATAAACTTATTT
60 CTTCAAAGCTAGTTTTACGTTCTTCGACTTTTACTGTTTTCTCTTTGCCATGTTTGGCA
AGTCAACAGCTTCTTTAGCTATTTCCAAAGCTAAATCTTCTATAGCCTCAGCAAGTATT
CCGCTGCAGCCCTACTAACTCTCTCAGCCCCATCCTTTTTTAATATCCTTACAAACGGTG
CAACTGAAGCTCAGCCATAACACCACCCAAAAAACTTATACTCAAAAATTATCAATTAA
AACCTACAAAAATATTACTATTTTTGTACATATACACCTCCCAATATTATAATATTCTAC
AATACAATAATTACATAATACCACAATACAATAATCCAAATCATGCTAAAGAAAAATCC

-591-

AATAAAACCCAAAAGAATAACATGATTACATAATAAAACAATACAACAATTAATTAATAA
 CATAATAAAAAATAAAACTTGTAAAATTATAATATTTTAACTAACTAAAAAGAAAAATA
 AAAATATAAAAAATTAAAAGAGGGGGAGAGCCCGAGAGGGGAAGGGGAGAAAATGAGAAAA
 5 GTCGAAATACTATAAATAGAATATGAACTGTCAGTTTAACTTTTATCAATAATATAGGT
 AAAAAATAGTAAAAATATGAGGCTCACGATAGTGGCTATAAAGGAGAGAATCGTGGAAAAAG
 AAGTATTCAGATTAAAGAAATTGCGTAGAAATCCTTCTATTGCTTAAACGAAGAATTAA
 GCATTCTATAACAGATTCTTAATAATAGTAGATTCAATACGGTAATTAGCTGGATAAAAA
 AGCTTCATGATGTTCTATAATTGGATGCAATTGTTAACTTGACAACCTCTAATAGAATAA
 10 CCTACCATCAAGTATTTTACCAGTATTTTTTAGATTTTAAAGGTAAAAGATTTCTTTGG
 TGTAAAATAGATTAGGAGTATAGAAAAGTTGATTATTTGCTTAATCCGTAGGTGATTTT
 TATGTTTCATAGTGGAGCTATGGAGTTGCTTAAAAATTGCAGAGAAGTTGTATGACAAAGA
 TTCAAGAAAGCTGTTGAAGTATATGATAAAGCAATTAAAAAGGCTGAAAGGATTTATGA
 TGATTATGCTAAAGCCGTATTTTGTCCAATATAGCCAAATCTCTATATAGCAGAGGTTT
 AACTAACAGGTTATTGAAGTATACAATAAAGCCATAAAAAATAGCAGAGGAGAGTAGTAA
 15 AAGAGACGTAATACTATCAAAAATTATTGAAAATTATGTAGTAATAGGTTGATAGATAA
 AGCGTTGGAGGTTGTGAATAAGATATCTGATGATTCTTCTAAGGCTATAGCATTATCTGA
 GATAGCAAAAGCTCAATACAATATAGGAATGCATGATGAAGCCCTTAAGAATTATGATAA
 GGCAATTTTATACTGAGGGTGTTTTGTGATGATGAGATTAAATCTTCAATCTGTTTGA
 AATATCCAGAGATTTTATACTATGGACTAGTAGATAAAGCATTGAAAGTTATTGGAAA
 20 GATACCTTACTCTAAGTATAGGTTGAGTTGTTAGATAAAATGGCAGAAGATTTGCATAA
 GAATATTAAATATATACATGGAGAGTAAAGAGTTTGTATGATGATAAAATTAAGATAATAT
 CAATGACTCCAAAGAGTGAAAAATCTGATAAGATAGTAATGCAGATTGTGGAGGAGTTTA
 TTAATAGTTTCCAGATGATAGATATAAGTTTAGAGTGTGTTGAAAGTTGCAGAGCTGA
 TTTCTAAGAATGGCTTATGTAATGAAGCATTTTAATACTTGACAAGATTCCAGATTCTCT
 25 ATTATAAATCTTCAGCACTATATAAAATGGCAGACATATTATAGAAAATAGGAACATG
 ATAGATTAATACAGATTGCAGAAAAGATACCTGATGACTATAAAAAATCAGAAGTCTTAT
 TAAAGTTGTAGAGCTATTATGCGAAAGTGGAAAATATGATGAGGCAATAAACATAGCTG
 AAAAAATACCTGACAATTATTATAAATCAGAAGCATTATTTAAATAGCAGAAAACCTTAA
 GCAACAAAGGATATTACGACAAAGCAGTTGAAATTGCTGAAAAAATCCAGACAATTTTT
 30 AGAAGAAAAATATATCCAAAGGAATGTTAATAATTCATCTTCTATTAAATCTAGTGGTTA
 TTTTCAATATATTGCACACATAGGAGTTTATGAATATGAACAGGTAATTACCTCGATAC
 CATATTATTTCGTAAGATTTTAAATAAAATAGTAAATTTGATACTGTTGTAGCTGGAATTAA
 ATACTTCATGATACTCTAATGAGGTGAAGTTACTAAGTTGACGATCTTTTTTATTATAA
 TGCAAGCATTATATTATAATATTTGTAGATTTTGTATTTAGTTTCAGAAAAATTTTTAA
 35 GAGACCCAACACATTTTCTTAAAAAGAAAGATTTATATACCCAACATCGTTCCAAAATT
 TCTTTAGAAATTAGCATTGGCGATAGATATGCCATACGACATTAAATGTGGAGAGGCATA
 TAACATTTCATACCAATTGTAGAAAAGAATAGTATATTAATTTCTAATCGTACTCGTATT
 TTAAATAACTTGATCAAAATGTGTAAATTTGAATATAAAACCAAAACTGAAGATGATTAT
 40 AAACGATTCTTATATGATTACTCAAAATCAATGTGGAGTAGATTTCAGAAAAGTAGATTGT
 GGAATAAAATTTTTCAAAAATATGCTGGATATAAAGTAAAAGATTACGGCAGTTCTTGGA
 AATATTCAGAGTTAGATAATCCTAAGTACACAATACAAGATGCGTGCAGAGATTTACTCA
 AAAATAATGGAGTGAAGTACCTAATTAACAACAGGGCATTAAAGGTATCTTTGAAATAAC
 ATTATTTGATGTGATTAAAAAGAATTAAGATTGTATTTTAGTGGCAGTATGGGAAAATG
 45 TAGGCATAATTGGAGAGGTTAGTATTTTGGCGTAAGACCAGCAAGTTTCTTACTTTCC
 ATTTAATTAATGGATAGGATTGGAGGTTTGTAAATATTGGATGAGTTGTGGTTAAGGAG
 GTGGTGTGAGATTATAGAATATCCGATGAAAATTTCAACTTTATACGTGCCAATTGAGGA
 TTATGGTATTCCTACAGTTGAGGATATGGATTTGATTGTTGATTTTATAAAGTATCATGT
 TTCTAATGGGAGAGAAGTCGTTGTCTCTTGTATCGGTGGACATGGAAGAAGTGAAGTGT
 50 TTTGGCTATTTGGGCTGGTTTAAATGGCGTTGAAAATCCAATAGAATATGTTAGAGAATG
 TTACTGTGAGTGTGCGTTGAGACAGAAGAACAAGAGGAGTTTGTAAATGGAGTATTTGAA
 AAAGAGATTATGAATTAAGAAGATTATATCTAAGAGTTCATCATATATTTCTATTTC
 CCTTTAAGGATGAGGTCGATAAGTTCATCTTCACTAACGATAATGATTTTACCGTTAATA
 TTGATTTCAAATTGATTATTTCCAATGTATCTTATGTTCTGTGTTGTTGATAGCTTTTCTT
 55 AATCTTTTAAATTAAGTCTTTACATGCTCTTGTATTGTGATTTACATAACCTCCTATTG
 TAATACTTTGCAACTTTGCTGTTAAAGAACCACATACCCATTTCTACATATCTTTGGTCT
 AATTTGCATTTCTTTGAATATTCATAGAGGAATATTTTATATGGATAAAGAGTTTAAAA
 TCAATTTCTCTAAAACCTTCATTAATGTCAAATTTATAATTTAATTTACATTTCTGTATAA
 ACTAATTCCTCAATGACTTTTTTAACTACTCTATCAATAGGCTTGTATAACAAATCCCTG
 60 CAATCTCCATATAACATCAAATGTGAATAATTGAAATATCTCTAAGGAATAGACAAGCT
 ATTTTATCTCCAACCTCTAATTTCTAATTAAGAAGTTGTATGCGTCGTAGATATTTCCA
 TTTCTTAATAAATTAAGTAGATAAGACACTAATGAAGCTGTTATTTGAGTATTACTAATA
 ATGTATAATAAACACATTTATTTGTGGTAGTTGAATTTATGTTACAACCTCGGATTTATA
 TTGTATCTTGGGTCTAAAGTGTCACTTGTATAGAAGCCCAATCCTAACATTTCTTAGATTA

-592-

TTTTCATAGCAATTGCATATATTACTAATCCAAGTATTGTTATGTAAATTGAAATTTCTA
TCTATGCAAACGCCCCAATAAATCCATGGATTCTTACTCTTATGGAGCTATAACTACTC
CCAAAAGGTCTCATATAAGCATAATTTGAAATAAACAATTGCAATGATTCACTTAAATCA
5 TTTAAATGATTTGGGAATATTATCTCCCAAATGCTTTAATTCTAGTGCTTCATGTAAC
CTTCCGACATCTTCAAAGAATTTAAACCATGCACAGATACAATCTTTATTAGCATATTCT
CCAGAACAATAATTTTTCTTAATACTTTAAGTATATCTTCAACTTCTTTTCTATATTT
TTTCTCTCTTTAATAACTGGGATAAAGAACTTTTAATAATATCTCTTGCTAATGGACAG
TTTCTAATCCTGTTGATAAATTGCTGAACCTACCATCCCCACTCCTCTCCACATCTTTCAA
10 ATATAAATGTACTGCAGTTCTTAAATATAAATTAATATAAATTTTATAAATATTTTACACT
AAAAGCTCTGCTAATATTTTAACTCTATTGAGTTTCTATTTTCTTAAACAGAAATCAAA
TCCATACTAAGTGTTTATTATTAGCAACAATTCCTATAGGTGTAGTTTCTCTTCTTCAAA
TTTTTGGTAATATATTTTAAATTACATTGAAATCAAATATATGTACATACTCCTTTTCCA
CATCTTTAATATTACAATATTATCAATTTCTGAAATTTTCTTCTGTTTTTAAATCGATAT
15 AAATATGACCTCTTCCATTACATTTTAACTCACACGATTATCTTTTATAGATATTGACT
CTATATCCCCTCAGTTTTGAACCTCCCAAATTTTATCTCCAGTTTTTAGATTAATGGCAG
AGATACATCTTCTTCCACATTCTAATACTGCAATACCACCTCTAATAGATAAACTTCTTA
ATTCTAACATCTTAACACCATTATCTCTACTGATGTTGAATTAATTTTTGAATCATAATA
CTTGTTTGATTTTTTGTATTATTGAGTAGTTTTTAATTATATTGAAATCAAGGGCATAAAA
20 CATGTCCTCTTTTACATCTGATATTACAATATTGCTTTTGATGGACAAATCTAACACTG
CACTTTCTGTTTTTAAACTTCCATTTTCTCACCAGTGTTAATATCAAGAGCATAAAGAT
AATTATCACATCCTAATAATACAGCATCATTTTTAATAGACAAACCATTACATCCCCAT
CTGTCTTAAATGCCCCATAAATCTCCCCCTGCATTAATATCAAGAGCATAGACACATTCTC
GATTACATCCCCAATATTACAATATCATCTTTAATAGATAATCTTAATACAGACCCTACTA
25 CCTTAAATCTTTCCATCTTCTCTCCTGTATTAATATCAAGAAGATAAACATAACCTCCCC
TACATCCCAACAATACATTATCCTTTTAAATAGATAAACTCTTTACCTCTCCTTCTGCCT
TAAACCTCCATAGTTCTCTACCAGTGCTAATATCAAGAGCGTAAAGATAATTATCACAT
CAAATAGCAAAATGTCAATTTTTTATGGATAAATTCGTATGGATTTTCTGATTTTGCTT
TAAACTCCCATAACATATTTCTGCTAATATCAAGGGCAAGTATATATCCTTTTTTTAC
30 ATCCCAACACAACAATATCGTCTTTAATAGATAAACTCCTTACATCATGCTTTATCTTAG
ACCTCCATATTTCTCTTCTGATTAATATCAAGAGCATAAGCATACCTTCTCCAATA
TTTTTCCATTTTTCAACATGACAATGCTCTCAAATATATTTCCACATCCTAATACAACAA
TATCATCTTTAATAGACAAACCCCATACTGTATCCTCTGCCCTGAATCCCATAATTTCT
TACCAGTTTTTAAATCAATGGCATAAACATGTCCCGAAACACATCCTAATATTACAATAT
35 CACCTTTAATAGATAATAACCTTACACCCCCCTCTGCCCTAAACTCCCACAATAACTCAT
CTACTCTTTTAAATCCCTAAAATATCCAATATAAACTTACCAACATTAATTGCTAACTCAT
CATTTGAGTTATTTACCAATCAATTAACCTTATTCATATAAATAATTAAATACAGCCCTAT
TTTCATTGAAAATGTTTTTAAATCTGCTGTATATTTCTTTATAGTTTGTATGTTTAAAT
TATCTATCTCTTGTTTTAGGATTTTGCAATTTTTTCTGGCCTCATGTCTACATTAT
40 CTCCTTTAAATTTTGTAAATGTTAATCTTCTGTAATCTTTCTTTGTATCGTATGTTAA
ATTCTATCTTCAACTCTACAACAATAATCTATCGGTAGTTTTCTTTAACTTTTGGATTTA
TAAAAAGGTTAATGACTTTTGTGTCTCTTCTCTAATTTTTATCGGCTCTATGTCTTTAA
ATAAAATATCTTCTCGTTTATTATTGAAATTTTCGATATTGTTATATCTTTTAAATGATT
TGTTTGTTATTTGTTATGGTAGTTTCATCCCATTCATTCAAATTAAGTGATTTTTTAAATA
45 GGGTTAAATCTATCTTTACTATTTCTTTTCAATTATATTAGTTAGTTGTGGCCTAACTCTT
GTATTTTGAATACAGGTTAGTATCAAGGGCATAGACACACCCCCACATGTCTGCCAATA
TAGTAACATCCCCACTTATCAATAAATCACTTACATGCCACTCTCCACCAAACTCTAATA
TTTTCTCACCTGTTTTAATATCAAGGACATAAAAATATTACACCCCATATTCTATCTCAC
ATCTCAATATTTTATCATCTTTGATAGATAACTCCCATAACACCACTCTGCTTCAA
50 ACTCCCACAATTTACCTCCTGTCTCAACATCAATAGCATAAATGTATTTATCCCCATCAC
CCAATATAACAATATTATCTTTGAGAGAAAAACCCACATACGCTCTCCTACCTTGGACT
CCCATATTTTATCCCCAGTCATAACATCAAGAACGCAACATGCCACCTCTATATTCCA
ACATTACAATATTATCTTTGATGAATAAACTATCTACATTGTGCTCTACTTTATATTCCC
ATATTTTATCCCTGTCTTAAATATCAAGGGCAAAAAGATGGTTACTACACCTAATATTA
55 TAATATTATCTTTGATATCTTTGATGGACAAATCCCATACACTCCCCCTGCCCTTAACT
CCCATATTATGCTATCTTTTAAATACATAACATAAACTTATCAATTTCAAGTGATAACT
CATTATCATCTAAATTTTTTCAATTAACCTCAATTAATTTATCCACGTAATAATTAAATATAT
CTCTATTTTTGTCAAAAACATTTTTTAAATTTGTATATATTTCTTTATAGTTTGATACGT
TTAAATTATCTATCTTGTCTAATGTTTTCAACTCCATTGATTTTATTTCTACAAAAA
60 CCTTCTCATCACCAAAAAAAGTTTTTATTTTCAAAATTTTTCTAATAACACACCATT
CAATTATCGAAATTAGATTAATAAATTCATTACAAGTGCTCTAACACTTCACCATATTT
TTATTATAATTTCAATTATACCTTAATAGCATATTAATTCATAAACCACCTTTAATTTT
GCACCTTATTAAGATTTGTAACATTATCAATGCCCCCTACCATAATTCCATAATGAGTTTT
TGGAGGTTTCACTAAAAGAAGTAATCTACAGCATTTTAAATTATATGCTGTAATTGACT
TTAAAGTCCATTATCCCTTAACATTCCTTATAAAGAAATCTCTATAAAGTTTATTAT

-593-

5

10

15

20

25

30

35

40

45

50

55

60

TACATTATTGCATTAAACAGTTAAACATATAACCAATAATTTAAATATGAAATAATGTAA
TGCCATAACTGTGAATAAAATAATAGAATACTAATGGTGAGAGTTTATGGTTGTAATT
TCAATTGCCAAATCAAAAAGGGGGTGTGGGAAAAACAACAATAGCATTAAACCTATCATT
ACACTTGCAGAAAAGGGGTATGATACTTTAGTAATCGATTTAGACCCACAATTCAACTTA
TCCTTTGGAAATTTTGGGAATGAAATTATTAGATTATGCTGATAAAAAATATTGGAATACTA
TTATCAAAAAATTCTGTGAAGAAGAAAGAAATTGAAGAGTCTATTATAAAAAATTAATGAT
AAGTTAGATTTAATCCCCTCCCCTTGCAGCTTTCTGCTGTAGAAAAAATGTTAGTTAAT
GCTTATGCAAGGGAAATGAAGTTGAAAAATATCATTAAACCAATCAAAGAAAATTATGAC
TACATAATAATTGATAATGCCCCATCATTAGGACTATTTTTAATAAATTCATTAGTGGCA
TCTGATTATATTATCATCCCATGTGAGCCAAGTTATTTTAGTATTGCAGGAGTTCAACTA
ATGTTAGATACTGTTGAGGAAATAAAGAATCAAACCTGAATCCAAAACCTAAAGTTTTA
GGGTTTATTTTCAACAAGTACTCTAAACAATCAAAAAATCCACAAAAGAGGTTAGAACAG
TTAAAACAACTCTATCCTAACATTCCAGTAATTGGAGTAATCCAAAGAACTATTACTGTT
GAAAAGGCAGAACGTGAGGGAACCTGTGTTTAAATTTGATGCTAATAATCCTGCAAGT
GTTGCATTCTCAGAACTTGTGAGTGGGTGATAGAAAATGTCAAATGATGATTTGAATGC
ATTAAAAAATTAAAAGAAATTAGTTCTGGGACAGTAAACAGATAACTTCACTACCAAA
AAAAGAACCAACAAGAAGAAAAATGTCAAAAACCTCTAAGGATAAAAAACACTACTCATGA
AAAAATTATTGAATGTATGGGAAAAAGTTGGTAGCCAAGGAGAAGTTGTAGATAAGGG
TGTTCAGCTCCTCTATGCATTATGGAATACTTCCAGAAGAACAAATTTAAAGGGTTGT
TAACTGGCTGAAGAAGATAGGTTTGAAGAATTTGCTGATAGGTTGGGTATTGAATAAA
AGAAGAATAAATAATTATTGCATTGCATTTATAATCTCCTTTATAGCATGCCATTCGATA
ATAGATGTCGGTTTGATTATTCCATTTATCACATCATAAACAATATTTCACTCTCAATT
AGGAATTTTAAATATTTCACTTCTCTTTTAACTTCTTATCATAGGAGATTTTTATC
TTGTCTTTGAATTTAGATAAAACATTATAAAGCCCCCTCTCATCTAAATCGGTTGTATCT
ATAAGGTATTTTAGCCCATCTTTTCAACATTAATCCACTGTTTTATAGTTTGTTCACAA
GATAAACCTAACTTCTTATTATTTATCAGTTGAGAAATCTCATAAGGCAATGATAAATAG
TCTAAAGCATAATTAACTCTTCTTCTGCTAAAACCTTCTCTTTTAAATATTCCTTATA
GTTCTCTTTCTTAACCAAGTCAATTAAATAACTCAGAGGCATTTTTTAATGTTGAATTC
CTATAGATTTCAATAAATAATGTATCAGAAGTTAAGCATATAACATGGCATAAATGT
TCCATTTTAGTTAGAGAGACGAATAAGTTAAACAATTCGTTTAAATAAGACTTTCCCTCCA
TTAAATAAATAATTCTTCAACTTTTGTAACTCATCAATTATTAACCTGGCTTTTTCTCT
TCTTCAACAACCTGCGTTAATACTCTCATTTATCTTAGCAAAGACATCTTTAGGCATAAG
TTATTAAAGTCAAAATCTCTTCAATCCAACTTACAACTCCCAAGTTAAGTTCTAAC
TTATTTAATAGATATTTTTATCCGACTTTTCAAAAAATACTCTTAAAACTCATCCCTT
GTTGGTGTTCATATTTTCTTAAATTATAATAGAAAAACACTATATTACTGTTTCTAAC
TCCTTAATAACTCTCCTCATTACCGTAGATTTACCAGATGATTTAGGACCATAAACAAAA
AGGATAGAATTAGGTTCTAAGTACAGTAGGTTTTAGATAGTTGAGTTCTTTCTCTCTA
TCATAGAATTTATAAATTTACCCCAATAAATCTTTATTTTAAATTAATAATATTATTT
AGAGTATTTAAAGTTGAACATGCCATATTACATTAGCTGTGAATCTAAAGTTGAAAATT
AACCTTTACTGTCTTTATGACATCATACCACACTACCTATTGTATTATTTTATTACATC
ATAAATTAAATTGCATTATAACATAAATACATTATTCCATAATTCTTTATACAATAATTAT
TTAACAATGGCATTAAACAATTACTTAAAAATTTAAATACACAAAACAACATTGCAATAT
TGCAATAATAAATAATTCACTAACTAAAAATAATAAGTGGTGAATTGACTTTGAAGTC
AATTCAAGTTATAGATAAATAAGTACCTAAAGCTTCTCCAAATCCAATGGAACATATTT
TACAATAAAGCCTTATTTACAATAAACAACATCTCCCTTTCCAACATCAACCAAGACAGT
ATAAGGGTCTTTACAACAGCATTGCCCCCAACACTTCAACATTAGCCAAATGCAACCT
AACCTTATGATTATGGCAAAAGAATAAAACATAATCTTTCTCTCTTGAGTACTAACACA
CGTTTCCCTAACCTCTTTGGCTGCTTTTTACCTTTGCCCTGTTTTTCTGGCCAGTTTG
TTTTTACCATTATTTTTAGATTTTGACTTTCCAACTTTTAAGCTCTTTTTCAATCTC
TTCTAAATGCTTACTTTTAACGTGTTTCTTAACAACCTTAGCATCAGCATTAGTATAATC
ACAAAAGGACATTTATAAAAAACCAATATCATCTTTTGAAGCTCTAACTTCTCAACATA
CTCATCAACATTCAAACTCTCACCTAGAATATCCAAATTTGAAAAATAGCAAAATGTCA
AATGCAATGTATTTCCCATACTATCAATATGTAAAGTAATCCATATTTAAACTATCCT
AAGCCTAGTAACAAACACAAAGAATGCAATAAAAAAGAAAAGATGAAAAATGTGACATTT
AGCACATTAAATGCCATTGTTATAAATAAACAAGACAAAACCTTTCCCTCCCTAGCAATT
TTGAGTTAAGAGAGACAACCAACCTGCAGCAATTTTGAAGAATTTAGTAAAGGAATTA
TCCCTTACATAAATACACGCAAAAAGTGCAATCTGTTGCGGAAATTCATTCTACTTTTA
AATTTATTATCTATTTGTTTGATAAGATTTAAATGTATTGTTATATCTATTAATTTTG
CTAATGTTTATTAAATAAATATTTAAATATATTGATTAATATTATAAACTCTTAAATTT
CATCATCACTTTTTTGTATTGTTGTTTTAATTAGGTAATCCGCAGCAATCCAGGTTTTGG
CTCGTATATTACCCCCAATTTTTCACTTTTCTAATGCTTTATAGAATACTTCTTCAAC
AACTTCAATTTTTCAACAATTAGTTCAATAATCCATTTCTAATATTTCCCTCCATT
TTCTTCAATTTTCTTTTCAATAACTTTTTCACTTTTCAACACTGTTAGAGTTAATATT
TTGTTTTATAATCTCATATAGCGTTTTAACTCTTTGTTAAGTTCTTTTATTCAACTAC

-594-

5 TGCATTTTCCCCCAGTTTTTTTACTCCTCTAATTACACAATTAAATATTGCTCCTTATCAA
TCTTCTAAGTTTCAAGGTTAGAGTGAATCCACATTCTCTTTTATAACCTCTATTAA
TTCTCTAATTTTGAATTTTGTCTTTCAATGGCAAAATCTCTAAGTTTATTAACTTTT
10 TGCAACTAATGACCTTAACCTTAAGTTTCTCCTATCTAATCTCTCATCATCTTCTCCTAC
TACAATATTCCATACTGCTCTTATAATCCTTTGAATCTTACCCCATTTTGGATGGAGGGCA
TAAGAATGTTTTAGAAATAGCTCTTCTATAAATCTTGCCAATGTTGAGAGTTTATCCTT
ATGTTCTCTAACAATTTCAAATCAATATGGTAAATTTCTTTGTTTTCTATCTTCATT
15 TTCATTAATTTCTTTAACAATTTTCTTATACTCGTTAATTTCTTCTAAGCATTTTTTAAT
AGTATTTTTCATCTAAGTTCGATTTTTTATCATCATCTTTTCTTTATTCAACATTAGGTT
ATACACTTCTATAACTTCTGGAATATTATAAACATCTTTAACACGTTTATACCTCTGTT
AATCCTTTTTGAGTGTTTTTTATTAAATTTGTGGAGTGTATTCATCCCTACAATCTTTAAA
TTTCTTATAATTATTATATTCCAAGGCATTTTGAATTCATTCACTCCATATTCTTTAAA
20 TGCAATAATTATATGTTTTGCACTAATTTTTCAAGATATTGAGATAATTATATTTTAA
GAACCTATCCAGCTTACTTTCTTTTAACTCTTTTATGTTTTAATTGCAAACTCATAGCC
AGTAGTTTTTTCTAAATACTCTTTTAGTAATTTATAATCTCTTGTAATATGGGCCTCTAA
TAGACTATTATAAATGTGTGCTATTTTCATCTTCTCTAATAACCCATCTTCTTTTCTCT
ATCATAATATATTGCATTTTGAATTTGAGAAATCAACACTTTCTTATAATTTTATCCAA
TTCTTTTAAACTTCAATATCCGTTTCTAATATCTTTTAAATAGTTTATAATTTTCTT
25 AAACATTCAATCATTGCATTATAATCAATAATCATTGGCTCTTCTCTCTTTCTTTAAA
AGGTGCTGTGACAATTAACCTTCCCCACCATTCTACATCTGGCAATAAACTGTCTAAT
GGTGGTAGCACTCTTACAATACAATGCCCATACCAAAATCAACATGATTTTTAATATTAAC
TCCCTCAGAAATGACTCTTGTGGCTAAAATTAACCCCTCTTCTGGTACTTTTTCTTCATT
AATAATCATTTTACTTGCCTTGTCAATTCACAGTCTCTCTTGTATAACGTAAATTGG
30 CTTGTAAAACCATACAATTCTAAAGTATATTTATATTCTCAATCATTCTTCTATTATC
AACTAAAACCTACAGCATTTTTTATCCATCCCTGTCTAAACATTAGTAGGATGTATTCACA
AACTCTCCAATAATATTTTTTGCAATATGGATAGAACATCTTTCAAATAATTTTTTCTC
ATCTTTAAATTCACCTTCTATAACTGGATAGTTATTCAAATTAATTAACCTGGAGTTGC
AGTTAGTAAGACACAACCTCCAGCCCTGTCTATACACTTTTTTACCCCTGTATTGCCCT
35 TTTTCTAAACTCTTTTTGGATTACTAAATCATGTGCTTCATCTATTGCCAATAGAATATC
CTCTTCATTAGCAACTTGAATTTTCTCCCTTTATAAGTGTCAACATAAATCATTAAG
CATATTTTCAACTTGGTCGTAGGTCCCAATGGTCAAATAATGAATAGTATTCTTATCCAA
TTTTTCCCCTCTTCAATAACATTGGAACCTACTACTCCATCAGCGTGAATCCTGCCCT
TACTTGTAAAACCTTGTATTTTATATGGGAATGCCACTGCTATAGCATGTTTTTAAATAC
40 CTCTTTAATTTCTTGTATTTCTTGTAGAGTATAAGTTTTCCCTTCCAGTGTCTGC
TTTAAGAAATACTGGAACCTCTTGTCAATAGATAATTGGTATGCTTTTATTATAGCCTC
TTTTGGTAAGTATCCTTCTGCTTCTATCTTTATTGTTTCTCTATCGAGTAGTTCATTCT
TATCTCTCTAACAGTCTTATAAGTGGATGGCTTTGGATTAAATATTGTGAATTTTAAAA
TTCTATTATTTTATCCCTAAATTTCTTAAATCATCCATAATCCTGCTAATGCAATAAATCT
45 CATATTTGGATCGTGGAAATCTACCATTAAGTATATCCCTCATTAATGTAAATAGA
ACAGTCAGGATTTTCCCATCATCAAAGAATAAACTCCATAAGTCTAATCTGGTCCATT
TTTACCATATTTATAATCAATTTCCCAAGTAGGAGAGGAGTTTTTCAATCCATCTTTTACC
CAATTTTTTAGTTAATTTATCTTGTATAGTATATAACCATTTGTAAATCTTTTATTAT
ATCTTGCAATATAGTTTTTATTAAGATTTGGTTTTTTTATTAATCTATTAATTTGTTGGT
50 AATGTTGTTTAAATCCTCGCTTATTGTATAATTTCTTCTTTTTTCAATTGAATAACTTC
AAATTTCTTTATAATTTTCAATAATTTCAAACCTTCTCATACAATATTATTGGAGTTAACA
TTTTTCAATATCTTCTTCTCATCTGCTCAACTGGGCTATTGTAAACATGGTCTTGGACTACC
ATATTTTTCTTTATAATTTGAAGTTCTTACCAGCCTATCAACTCTTGCCAAATCATACAT
TGCAATATCTGCCCCATAATCTTCAGCAATCATTTCTTAGTAGTATTAATTTCTTCTCTAA
55 AATAGGTCTTTTCAAGATATAATATGAATCTTAATCCTCCCCCAGTAAATGCCACTTTATG
TGGAAGTATATCCTTCTCTACGAATTTTGATAAATATTTAATCAATTTTTCCATAATTTCT
TTCTTCTGTAGGCATTTGTTTGTCTTCCACTCTTCAACGTCAAATCAAATGCAATATA
ACTCCAAGCAGTGGCAGCTCCCGCATCCCTCTTTTTTCTTTCTTGGGGCAATTCGGAC
ATAAACCCCATCTAATCTTCTTTTCTTTTGTTTTTTAAATATACTCATACTGTTTTTTAT
60 TAATTTTTATGATTTCTTCAGTTTTTTCTAAATATTATCAACGTGAAATCTGAAATATC
TATGAAAAATGTTTTTACCCTTAAATTTTCTTAAATCTAATTTCTAAATACTTAAA
CTGTTTTACTAATTTTTTCAAATTTTTTCTAAATGAGTTTCTCCAAGATATACTGAAAA
TTCTTCTTTATGTTTGACAAATCAAAAATAGCAACTGTGCAATGTGTAATTTTAAATCAGA
TTCTAAATATCATCTGAGATATTGTAAATTCACCTAACATTTATTTGATACCTATCAAA
AATAGCTTTTACAGTTTGTATCATCCCAATACCGCAAACTTTTTTACTATTAGATAGTAT
ATTATTCAATTTGGTCACTCACTTACTGTGGGTAGTATATTTCAATTTGGTCACTCTCTTG
GTCATACACCTCGACCATGCCTACCTAAATACTCCCTAATGTTGCAATACCTTAACATA
TAATGCAATACAATACTGAGCTCTTTTGATACAATCTATGTAATTTAAGAGTATAAGAA
ACATTTTTCAGGGGGCGACCATTTCTATATTTTTTTGAAGTATATAAACTTTTAGTTAT
TTTTTGAATTTGTATATTTGGATTTATATCATATAACTTTTTCTGAAATTTTTCTCTGAC

ATATCTATTAGGTAGTTAGTATATATATATTTTTTCGGATTTTTGCGATGTTTTTACACTTT
ATCTTCTAATTTTATACTAAAAGTTTATATTTTTTCAAATAAAAAGGTTTATATACTATG
AAATCATAGTATTGCTTGATTACAAAATTATTTTTTTGATAATAATGCCTATTTTTTCTT
AATTCGTTTGTGTGGTTGATAAAATTGTTAGCAGCATTTATGTTTTATATTTTAAAAAGAA
5 AAGCATTAAATCTACATTTATTGTTATTATCTTATTTTTTGTGTCTTTTTTATCTTCTGT
AACTCTTATAAATCTCTTATATAGTATTATAATTATTCTATAAAAATATGTGGATTAAG
TTGGGTAAAGAAAATGTGCGAAATAGGGGCTAAAATAATATTAAAACATTAAATGTCTTTT
GTCTAGTGTTACATTTTTTAGTTACGTCCTTAACCACTTTTATTAGTACAGTGAATTGGCG
TTGAATTCAATTTACAAAAGAGACATTCTATATATATAATTTACTTATAATTATATTCAA
10 AAATAGTGTATAATAAACAAATGGATAAAATGGGCTTATTTCTTTAAAGCTAATTTTTAT
ATCTTCAACTTTTACTGTTTTTCTCTTTCGCTGCTTAGCTAAATCAACTGCTTCCTTAGC
AATTTCTAATGCAATTTCTTCAATGCCTCTGCTAAGTATTCTGCTGCAGCCCTACTAAC
TCTTTCAGCTCCAACCTTTTTTCAAGATTCTCTCAANTGGTGCAACTGGAAGCTCAGTCAC
AACACTACCTCTTTGTATATGTAGAGTGTAGAAGCTCTAATAACCTACAAAGTGGGAGTT
15 CAAATTTGCTAAACTTTAAGCTCCCTTAATGGAACTCGAACTAAAATAAGTAAAACCA
TAATACAAATAACATCATTCAATAATATCATAAAATCATAATTTAGTAATGCAATAAT
CCAATAACTCCACAATAACATAATAAAATAACTTTGAGTTCCACTAAAAGAAATTCAAA
GGTGGGCTTAATAAATTTCTTATATGAATTGACTTCAAAGTCAATTCACAAAAAGAAAT
20 GTCACCCATCACATCATAAACACATCCACCGACATACTAATCAAAATTTAATTTATGAAT
TATTAAATTAACAATAACATAATAACATAATTATTACATTATGTTATTATTTAAAATAA
CCATAAACTCCAGATAGTATTATTGGGTCTCGTAAAAATATAGTCGTTCAATTTGAACC
ATAATATTGCTAATATTGGTCATTCTACTGAACCAATATATAAATGTTTTTTATCATTAG
TTAGGTTCAAATTTGGCAACTTCACCTTATTTATATAGTATTTTCATGAAAATGTAGTAAT
25 TTTCAAACACTACTATTTGAATTAACCTTTAAATCAGTTAAAAGAAATATTTTATCTTAAT
CCTATTGAGGGAACTTTAAAACCAAGTTATTTGGTTTGAATGCAATAAAAAGAGTA
CTGTAAATTTATCTTAATTTATCTCAATAAAATCTACTTTTTCAAAGTCAGAATCAAAGG
TAGCTAATTTATTTATCCTATAATATTTACAAGTGGCTATTATGATTGCATCGTTTGTTA
AAAGTTGTATTTTTTACCTATTTTCAGGAGCTAATTTTAAACTTCCCAATTTGTATCTA
30 ATATTTTAAAGTAGTTCAATTTAATCATTTTATCAATTTTTTCTCTAATCTTCTCATATA
CCCAAGAATATCTAATTTAAATTTCTTTTTTAAATCATAAACTCCTCTAATTTCCATCTTCTA
ATGCTATATGAAATGTCACTTTAAACATTGTTTCAGAAAAGACTATTGGATTATGCATA
ACATAAAACCATCATTTATTAGTTTAGATAATAATTTATGAGCTTTTTTCATCTCCAATAA
ATAATCCAACCATGACTGAAGAATCAATAAAAAACATTAGAAGGACTCATAATATGCCTCT
35 TTTAATTTTTTATAATCGATATCTTTACACTTTTTTATTATCATAGATTTTAAAACTCT
TCTACATCATCATTAACAATTTTAAATTTTAAATCTCTTTTTTACCCTTTATTTTAAATGGT
TTTAAATGGTTTAAAACCTCCATCTTCGTAAATAACTTCAATAATTTCTGACATATAAATC
ACCAGAGGCTTTATTTTTCTATTTTTCTAAGGTAATTTTAAACCTCTTTTGAAGTGT
40 ATATTATTGTTTTTGAAGATTGAGAAAAGTTTAAATTTGACAGTTTCTTAAATGATAGAC
AGAGAGTATATGATAATTATATATTTAACTTTTTTATTATTTTATACTCTTCGTTTATACT
CCCTTATCTTGGTTTCTGAACGTGCAGCATTTTTTAGGCTGCCACCTGAATTGACTTTAAA
GTCAATGCACTCTCTTTCTAACGATGAATATATAACATATAAACAGAGAAATAACTAC
TAAAACATCTATATTTAAAGGTGGTGCTTACATTTTTCTTATTTTTCTCCCCCTCCCTCT
45 CGGGCTCTCCCCCTCCCCCTCTTTTAAATTTTTCTATTTTAAATTTAAATTAATATAATT
ATTAATTTGACAATTTGACAAGTTTTTTTATTTTATTATTTGTTTTATTTTGGATTGTAT
TTTTTGTTTTTGTTTTGTTTTTATCCTATTTTTTTTGGCTTGTTTGTTTTCTTTTTTT
GTTTGATTGTATTTTGCATCGGTATTTTGTATTTTCTTTAGTAGGAGTTGTATTATGTT
TTTATTGTATTGTTGGATTATGTTGTCATGTTATTATTGTATTATTTAGTTATTGTATTA
TAATTTGTATTTTGTATTTTCTTAATGGAGAGAGGTTATTTATTTTATTGTTTTATTGTA
50 TTATTTTATTATGTTATTAATTAATAGTTGTAATCTTTTATTATGCAATTATGTTATTCT
TATGGTGTGTGTTGTTGAATTTCTTTTAGTGGAATTTGAATTATGTTATTGTTCTC
GTGAGTTTGTTTTTTAGGTTTTAATAGAGTGTGTTCAAAAATAGGTTGTAAGATATGGT
TAGAATAGTCTTTGCTAAATTAATAAATAGGTGGTAGAAAGATGAGGGTTATTTTT
CTGATTAGTCTAAGGTAGTTTGCCAACCTTTTTATAGCTCCAATTTCTTCTTTACATGATT
55 CTTTAAATTTCTTGCCATTCTTTTATCTTTAATCACTTTAATTTCTCCATTTCTTGATA
CTTCTTAAAGATATCCTTTTAAATTTCTATTACTAAATAACTTTAATGTTCTTCAATTC
GTTTACTGACTATGTTTTTATAATCCTTATAGAAATAATCAATTATGGAGATACTTGTGC
TTCTGTATAATGCATCCATTATAGTCCCTACAGTAACTCTTTTTCAACAAGTGAGTCCA
TATTTATAGAAATATTGAGAGCATCAATTAACCTTAAGAACATTTGCATTTAGAGTTTAT
60 TTTCTGGTAATATTACAATATCTTTATCTACTCTTAATAATTTATTTCTTTGTCTATTA
TACATTTCTTCTTACAAAGTTTTTGTATAATGTTTTCAATTTCTTTAAATCATCTTCTT
TTAACTTTCTAATGAGTATTCACCTTTTGGGAGAATAATCTTTTACTAAATACCATCC
CCACTTCTGGCTCATCGTGCCAGATAATGCCATAGATACGAGTTCTCTAAGTATAAGAA
TTTTAAATAAACTTCCCTCTTTGTCATTCTCAGCATCGCAATCAGTAAATCATAGGAAG

-596-

5 G' T T T C T C T T T T T C T C C C C A A G T T A T T G G A A A T A T T T T A T T T A G C T T T T G A T T T T C A T A A T
T A C C A C G T T C G A G T G A A A T T T C T C C A G G T G A A C T T T A A A A T T T G A A T G T C T T C T G T A T
C T T T T A A A A C A G G A T G T G T A G T T A A G T C A T C A A A T G A C A T G T A A C T T A C A T C A G A C T T A T
10 A T A A T C T A G G A T T T T T G T G A C A G A A A T G T A T C C T T T G T T T A T A A T A A C A T G T A G A T T C T
C T T T T A A T T C A G A T A T T T T C T A A T T G C T C T T T T T G A T A C T T T T A G A T T T G C A T T C A A
A A A T A A G A C A T G T G T A T C A T T A T C A T T A A C A A G T A T A A C A T C T G G A G T T A T T T C T G C A G
G A T T G C C A T T T T T A G T A T A A T A T A T T C C A T C A A G A A C G A T T C T T A C A C C A A G A G T A C T A C
C T T T T T T G G G T C G A T A T C C C A A G T C A T A T A G A T G A T G G G G A A A A T A T T T T A T A G G A T A A A
C A A G A T T T A A T A T T A T G T T G A T T A G T T T A G T A T G T T G A G A T T G A T A A T C T T C A A G A T T T T
15 C T G A A A T T A A A G C G T T A T A T A T T C A A T A A T A T C T T T A T A T G A A G G T T C T G T T G A G G T T T
T C T T C T T T C C A T A T T T C T C G A A A T A A A A T C T A A A G T T C T G T T A T C T A A T T C T T T C C C C A
T A C T T T T C C A C C T C T A A A A T T G T C T C A G A A T C A T A C G T C T G T T G G A T A T T A G A T A G T A A T
C T T A G A C A G T G T T T C C A C A T G A G C T T T A G G T A A G T A T A G T C T C A T C C A C C A T G G A G T A
A C T T C T A A T G A A A C C T A T C T C C A T T G T G C A A A T C C A C T C C T G A A A T G T A A T A C A T A T C T
20 T C T T C A A C T T G T T T G G C T A A C C C C A A A T T T T A A A A G G T T C T T T A C T G A T A T T A G T C C C
T C T A C A A A G T T T T T A A A T C T T C A A T T T C T T T T C A A A T T C G T A A A T T A G T G G T A T T C T A
T C G C C C C A A T C A C T T G A A G T A T A G T C A A T T A G A G A A T C T T C A A T A A T T T C A A T T T T T G T
T C G T A A T T T T C T A T A G T T T T A T C T A C A A T T T C A T T G T G T T T T T C T A T T G A T G T T C C T T T A
A C T G T A A A T T T C C C C C A A T A A T A A A T A T C C T C C A A G A C A A A T T T A T C T T T A T C A T C T T C T
25 G A A C A T A T C T T T A T T T T G A T T T T G T A A T T C T A A T T A A G T G T T T A A A T T C A T G T A A T T T
T T G A T A G T G T T A A A T A T C T T T T T A T T T T T G T A T C A T T T A A C A A T T G G A A A T C C T T A A T T
A G T T T T T C A A A T T C T T G A A T C T C A T C T G A A G A T A A T G A T T G G A T A A T T T T A A T T A A C T C A
T A G A C A C T T T C C C C A T T A C T A C T A A T T G A T A A T T A T T A G C C C T C T C T T C A A C A T C A T T A
T C T A A G T A A A A T G G A G T T T C A T C A T G T T A G T T G A T A A C C C C T A A C A T A A T C T G C T T T T
30 T T T A G G A A T T T T C T A A A T C A C C T G T G G G C A T C C A T A G C T T A T C T A A T C T T G A T T T T A T T
G G A C T T A T T A A T T A T T A A A A T A T T T A T C A G A C T C T T C T G A T T T T T G T A A T G T G T A T A A T
T T C C A A A A T C T T G G G T T T T T A G C A T C T A T G A A A A A G T A A C C T T C A T C A C C A A T A C G T A A C
A T G T A G A A C T C A T A T T C A T C T A A T G G T T T T A T T T T C C A G T T T T A T T A T T C T T G A T A A T
T T T T T G G G A T G G A T A T T C G A C T C T A A A A T A T A T G T T T T A C A A C A T T T T G T C G G G T T C T
35 A A T T T C G T A T C G T C T A A A A T G T C T T T A T A A G A C C T T T C C A T G T T T C T T T C T A A C C A T T C G
T A T A A C T G A G G A C G A T T T G T T A T G T C G G G T A T A G C A C T T C C A A C A A A T A T T G T G T C C A T A
A T T A T C A C A C T C C T T A A T A A C A G T A A A A C A G T G T A A G G T A T T A A A A A C C G T C C T A A T A
A A T A C C A G C T T A T T A T T T T T G A A T A A T T T G T T T T A A T G A A T A A A A A T T T C T T T C T
C A C T G G T G T G T C C A A T A T T A G A G T T G T G A G T A T T A T A T A C T C A T A G C A C A A A A G A T G G A
40 A A T C A G A G T C G T G G T T T A T T A A C A T A G G A T A A A A T C T T G A A A A T A T T C G A T A A T G T C A T
T A A G A A T C T A C T T T A C T C T T A G A T T T G A A T T C A A T A A A T G A T A G T G T T A A T G T T A T T G T T
T T T A A A T T T G G G T C T A A A T A A C T A T G T G A A T T G A C T T T G A A A T C A A T T C A C G T G A G G A T
C T T A T C C C C T C A T A A T A C T C C A A A A A C A A A A C T A T T A C T T G T G T A T G T A G A G T G C A G A
A A C T A C A C C T C A A A G T A T G A A C T C T A G T C C G C A A T T T T G A A T T T C T T T A A T A T G T T A T
45 T A T T G C A T T G T T G A A T T A T G T T G T T A T T A T T A T T A A A T T A T T A T T A T T A T T G T A T T
G T C T T G T A G G C T A T T A T A A A C T T G T A T T T T G T A C T T C C T T A T T A A T G G A A A T C A T C C A T T
A T T G C T T A T G T G G G C G T T A T A G T A T T A T A G G A A G T T T A T A T T G T T A G A A T T A A C A T T A A A
A A G C T C T A A G T A T C T A T T T T C T A G A T T T T A G A T T T T A T G A C T A A A C T C A A A T T T C A A A
A A C A T G G A T T G T G A G T C T A T A C C G C T A C A T A T A A A A G T G T G A A A G A T A A C A A T C T C A A
50 T T T T A T T G G A T T C T A A A T T G C A T T A C A A A T T A A A T T G A A A T A T T A A T G A G C T T A A A A
A A G A A G A A A T T A C C A A C C A C T G A A T A A A A T A T G A T T A A A T T T G C A A T T A T C T T T G T T
T C G C A T T T T T T T G A A T G A C T T C T A A G A T T T C T T T T T C T A A T T T T A G T A T T T C A T T A T T
G T T G T T T T A A A G G T A T C T A T T T C A G A C T T T A A T G T A T T A A A T T T A G T A T C A A A C T T T T C A
T C A A T C T T A T T T A C T T C T T C G G A T A A A A T T T C A A T T T T A T T C C A T A T T G G A G T T G T T A C A
55 T C T C T T G T C G C A A C A C C G A G T A T A C C T C T A A T G A A T T G T T T G T T A C C A A C C T C T T C C T T A
T T T A T T G G G A A A T C A T A G A T T C T T A C A A A C C A G A T G C T G A T T G C T T A T A G G A T A T T A T A
A A A G C G T G T G C A T A C T G T A C A T T A T C T A T G G C T A C A G C T A A T G G A T T A A T T G A A A C T C C A
G A A A C T C C A T G A G G T G G T G T C T T A T T A T G A G G T T T T G T A C C A A C C C A T A G G G A A G A C T T
A A C A C T A T A C C T G A T A T T G T C A A A C T A A T A C G T T T A T T A G T A G T A A T A T A A T T T G G A T T C
60 A T G C T A A G C A C G T T T T G C A T A A C T G G C G G A T T C A A T T T C T G A T T A T C A T C T G C T C C C C A
A C A T A T T G G G G A C T A T C A C C C A T C C A A C A A T A A T T T G A C C T G C A T T A A G A A A T C T C C T T
A G T A G G C T G T T T G A T G T A G G A T T A T C C G G A T T A T C T A A A C T A A A T C A G G A A C A A C A T C T
T G A G C A A A T A C T A C C A C A T A T T C T T A T T T G T A T C T T T A G A A C C C T C C C C T A A C A C C C T C
T G C A A A C T G G G A G C G T C A A T A A C T T C A A A A T C A T A T T T T C T A G T T C T T A G A T A T A T G C
T T A G C C A C A T T A T G A G G T A T C A G C T G T A A G G A T A A C G T T C A T C A T A G T A T A C A T A C A A C
T T C T T T T C A G T T A G T C C T G G T G T C A T A T G T T C A C C C T A G T T C A C T A T C T A T A T T T A A A A
T A A T C T T C T T G A T A T C T T C T G G A A C T T C A G T A A G T C T T G A T A C T A T C T T T T C T G C G A T T T
T A C A T T T C A A A T A T C G T T C A A T C G A T C T A C C A C T G T C C C A C C C T A A T G T A A T A A A A C T
C T T C G T C T A C A T T T T T A A A A C T G T G A A T A A T T T T C C A C T A A G T T T G T G C A A T A A A T C T T

5 TTTTCATTTTTACCTTCTTCATTCTTACAAGCACCAAAAATTTTGATTTCATCTATAATAG
ATTTAATTTCTTCGTCTTGGAGAACTTCTTCATATTTATCTTTGAGACATTCTCTTAGTA
ATTCATCAAGTGGGAGAAATGAAATCTTCAGGTTTTATGTATCCTAGTATATCTTTTTCT
10 CTATTATAAATACTTCAAAATCTCAGCTAAGCCCATATCCTTAGCTATTTTAACATTCT
TTAATCCCTCTTCATCATTATCAGCAATTAACAACTTTAATCCCGTAATCCCTCCTTA
ATACTTTTATCATCTCTTTAGACTTCTTTGAGCATAGGGTATTATAATATAGCTAAAT
TAGGAAGATTTTTAAGTTGTTCTATGAGCAAATCTATGTAACCTTGCAATATTATCCGAT
CGCTGTTTCTTCGACAAGTATTGCGACATCTGAGAAAAGGAAATAACCTGGTACAACAC
CCAGATCTCTAGCAAGTGATTCACTAAGCCTGCTACCAAGGAATGGATAAAAGATTCTTG
15 TAGCTAGAAGCTCTGTTGGGTATCCTTCAAGTTAATTTTAATTGAATCTTTTCGAACAC
CTATAACAAACCTCTTATCTTTAAGAGTGGCAATGAAATCTGGAGAATGTGTAACATATGA
TTAATCGAACATTAAATTTATAGCTAAGTCTTCCAACACCTTGCCAAACGCTCTTATAT
ATGCAGGATGTAAGTGAATTTCTGGCTCTTCTATCAAAAATATATGATGTTTTCTTTAG
ATATTATTGAAGCTAATATTCCATCAATAATCTGATCTCCACTTCCAAAAGTTCATAAT
20 TTAATGACATACCTTCATATGATTTTGTAAATTTTCAGTTCTATCAGGTTGTTTCATACG
TGTCTACACTTCTCTTTATCTCTCTAAGACAAATCATATAACATTCTAAGTCGTGCAAAAT
CTTTTATCGTGTTTTAAATGACATTTATTAATTCAGAAGATACCATAGGATGGGCAAAA
GGCCTTTAATTTGGGATATTTACCATTTTATAGATCTCAGGGAATGTATTCACATAGCAT
TCTTATTTTATAAGATCTATGAATATATAAGACATCTTTATTTTATAGTACCGC
25 TTPCCACAATTACACATGGCCTAAAGAATCTCCAGTCTTTGACTCGATATTATGCCCTG
TCACCTTACTGTGGATTTCTTTCAATTTCTTTAAAGCTTCTTTGCAATCTTGGATGTCT
CTGATACGTAACCAATATTATCACATTTTGAGCTTCCATATAATTGATTATTATTAC
TCTCAATGGATACTTCAATATATGCTTTCTTAACATTACTTTCTAAACCACATACCTCCC
TCAATTTGTGCGCTTCTCTTCATCAAGTTTAGCCATACAGCAAGTTTATAGGGTAAT
30 TCTGGTAAGTGTAACCAATAATCTTCAATTTGATCTTTAAGTTTGTTCAGTTATGG
TAGTGATATTAAGATTTTCTCAGTAGAATTAGTGTCGAGATTTTCAATATGATCCTTA
TAACATTAAGTATCGATGTTTTCCAGAACTATTTTGCCTATAAGCACTGTAACCTTCC
CAATCTACAGTTAGATCATAAATGCTTCTAAAGTTTCTATTTTAACCTGTTCTATTT
TCATACACTACAACCCCTTAGTAGATTGTAGATATAACATAAAAAATATACTAATATCAT
TAATTTAAAAATTTTCATTATTATTAAATTTACTATTATTCTAGAAATTTGTTATAGAGT
GCTATGGTTCTTCATTAGCAATAAGAAGAAGCTTTCTACCATTTCCTACTAAATAAACA
35 TAAAAAATCAAAACAAAAAACAACAAAAAATAAATAAAGTACAAACAAAAATACAATC
AAAAATAAAACAACAATAAAAAATAAACTTGTCAAAATAAGTAAATTAATAATTTTAAA
CTAAAAAATAAAAAATTAAGAGGGGGAGGGGAGAGCCGAGAGGGAGGGGGAGGAAAC
AGAAAGAAAAATAAAACAGAAACAGTAAACTAATCCCCACAATCAACTTATAATCCTC
CTCAGGAATCTCCCTCATAGCCTTACCCATCAATGCCACTCCACCTCTTCTTATTAGT
AATAAATTAAGCTTCGGGATCAACTCCTTAAATTAATTTGGTGGTTCAAAGACTTTAAT
40 TTCTTTAATTTAACTCTATATGGAACCTTCTCATTAGGATTTCTTGGAGTTGGCTTAAA
AATTTTGAACCTATCCTTATAAACCTCTGAAACAACCTCATAAATCCTCTTATGTATGG
GGGTTTATAATCCTTTCCACTCCTCTGAATCTCATAAATAATCAGCTTATCTCCTACTTT
AACTTTGTTTATGGTGTTTTGTACCTCTCTGCTACACCCCAATCTTCTCTCTTTTAT
AACCTTCCAGTTATCCTCGTTGGTTATACAGAGCCAGTATGCCATAAGATCCACTATAAT
TAACCTTTTAATAACTTTTCAATAAAAAATATTTTAGAGCTTTTGTAAATATATAACCT
45 ATTAGATTGGGAGGTACTTTCTATATTTGGTGGTTGTTATGAGATTTTAAACGCTTGTG
GTAGTAATTTATTTGCTGTTATTTCCAGTATTTGCTGCTTGTATTGGTAGAGTTTGGGAT
AATGACTCTGGGGAGGTTTTTTGTAAATACTTTTAGAAAATGAGACTTCAAAATATACAT
TTAATACATCTGATGTAGACATTTTAAATCTGTAATATTTCTAATAATGAAACCTGTA
TTGTAATTTGGGAAATGAATAATTTTAGTAAAAATTTAGAAGAATGTTTTCAAAAATATG
50 GATATGAGAATTTTACACTTTTATTGGCTGGATATATTGCAAAATATCCTAAATATGAAG
AAATCTCTAACAATACCAATTTCTAAATGAATATCATAATGAAGTATCAAAATATTACTA
CTTGCCTACATGTTTATAAAAACCTTAGCAGAGGGTGTAAAGAGATTTCACCTTGATT
TACTATCTTAAATGATTATGAAATTAAGTAAATCTATGGTTGAGCCTAACGTAA
TTAGTGATGCAATAACCGTTGTAACACTTGTAAATGATTATAATAATCTTATTGATGCTG
55 CAAGAAATGTTAAAAAGGGAGATAAAGAATCCTATACAAATTTCTATATTGCATTGGGAA
TTGTAGTGTGATGTAATTTTAAATAAAGAGAATGTGGCTTATAAGGTAAGTTATAAAC
TTGTAGGAATTTTAATTAGTAAACGGGCTTCTATAAAGTTATTTACAAGTATGGTGGAA
GCACAGCATTAACCTATAGAGAGTTGTACACATTGGATATCTCGAGGAGAAATTAATA
GTATGCCCACTAAATGTATAACAATTCAGATAAATTAACAAACATTCAATAAAAAATTA
ACACTTCAAACTGTATAACAAGAGTATAAACAATAAGAAGTAAATAATGGAGTTT
60 CAAGTTAGATAATAGAATGTTTGTATTGTTGGGTCTGTAACCTCTAATTTTTTTATTCG
TTAATGTTTTAGTTGTTCTATAAAACAAATATCCAACAGCTTTTATGTTAAATTTTACA
AATAATAAAGGGTTCTAAATGTTTTTACACTTTTAAATCAATTTTAGGAACATATTT
TTGATTTCTTTAATAGTTTCTTTAATTGAGTCTATTATTTTAGATTTATTTGTTAAGAAG
ATAACGAATAAACTCCAAATAGAATAATTAAGAAATCTTCGGGGATTTTTGATAGTGA

-598-

5 TTAATTCCTTCTGTGATTATTGTTATCAATATTTCAATTAGTTTTTTTTATAATGCTTGT
AACAAATTTCAAGTATTGTGATAATAATAGACGTGCATATTTTAAATGCTAAAGGTGCTGT
AACATTCATAATGCAAAATGAAAATGAACCTTGACTTAGTTCAGTGAGTACAACCTTTTAC
10 TTCTCCAACCTTTCCAAATTTTATAATTTTTTGGTCTTTAAAATCTTTATCACGTGTTAT
AATTCATGGGTATCAAGTGAAAGAGCTAAAGTTACAAAAGGAATATCCTTTACATCCCT
ATGACCTATCAGATTATATGCAATTTTACTCCAATTATTTGATTTTTTATCATTTATTAT
TTTAATATTGGACAGTATAATATTAGCAATTTTATTGCTTAGATTTTGCTTTATTTTC
GTCAATATTCTTCTTTTTACATTTTTTTGGGAGAACATTCTCAATCTTATTTTTTAACTC
15 ATCTACAATTAATTGTGGAGCATATAATCTATAAAAAGGATTATTGATAAAATCCAATAT
CCATGGGAGTTCACCTTTTGTAACATAGGATAATACTTGTGAGAATATAATATTAGTATC
AACAACTAACTTTAATTTAAACTCTTTACCTAACATATATACTAAATTTCTTCTGGAAATA
AGCACTAAGATAATTAATAAAGTCTCTTCCCTAAAGTTTTTTCTATTTTCATTCCATAATTT
GTTAAATTCATCATCAAACTCCTTAAATACTCCCACTCACAATCATGAAACCTTTGAAC
20 TTCAATATTGTGAGAGATTGCATATTAGCCACATTTAAAGATTTATTAGTATTATCTA
AAACTTTGATATTATAATTGCTATAACATGTAAGGATTGATGAGTTATTGATTACCTGA
TTTCTGTTATTTCCCTAAACTATGCTAACTATATCCATTAGAGTATATCTCTGTGATGA
AACTTAATTTATTTCTAATAACTTTTCATTTTCTTTAGTTTTTCATTTTCACATATTTCTCA
TTGTAATTGACCATTTTATCACCTTTTCATTGTTGTTGGATAATATTTTATTAACTTTA
25 ACNACATTATAAAATATATGTTCTATATATTTAAATGATTATATATTTAAATAAATAGAA
TAATTTATTATAAGAGTGTAACCTCTCATTTAGAGTTAGGAATAGAATTAGGAATTTTCAT
AATATACATTTACAGCAAATTTACCTTCATCTTTTTTTTATTTCAATATTGGATACATTT
TAATATTCGTTAAGAATTTATTGTAAATTTCTTTAGAAATTACCTTACAATAGAGTTAAT
GTGTTATTTTCATCATAGTTCTCAATCGGAATTGATAATTTTACTGGTATTGGTTCAACTT
30 TCTTATTATATTGCTCTGCATTTTTAATTTGTAGTTCTTTTTTAAACATCTTCTCTATTT
TTCTAAGAATGTCATCACTAATTTCACTTTTAAAGTTATTTTCATTTTATAGTACTTTT
CAACAAATTTCAATTTTGAGTTGTATATCAACTGGAGTATAAATTTTACTTTTTCTT
TTCTTAATTTTTTTTAAACCATACATCTATTTGTATATGGGCAATTTTGGTCAATTACAT
AATAATAATCATCTATTTTTTACAGCAACTGCAACGTGAGTTGgaTAAACCAAAAAGTAAT
35 GCTTTATATTTAAATTTATGAAGAATTGCAGAAGTTAATTTTGCATAATCTCTACAATTG
CATATTTGGTCTTTAATATGGTTTTTAAAGATGTAGATATCCAAATTAGACTTAATGTAG
TAAATAATCCTTCCCTTTAATTTTAAATTTTTACTGTCACATTTTGATAAAGTAAAGAACG
TAGCCCATAAAGTGAAGAATGTTCCCTACCACCCACATAAGAACAAGAATAGTATTATAG
TAATTATAAATATAAACAGCATATTATAATGTGTATTGTAGGTGATATGCAAAATACTT
40 GTTCGCACCATAAACCAACTCTCGGAAATATTGCCCATACTAACCTACTATAATGAAAA
ATGTAATAAAGTAATATACATTCGACTTTTTTCATAACAATAACGTATATTACTATCTTCCC
ATTCTAAAACATTAATTTATTGTTTTAATGCTGTTGTTTTTGTATTTTAAATTTTCAGCAA
GATGTTTTGTGCTCTCAAACTCCTCATCTTTAATTGAATATGCTCTAATAAAATAGGCA
CAACACTTCACCTGTAGTTCCCGAATGTAATTTCTTACATCTTTAAGTCTCATGAATT
45 TTGATTCTACTCTTATATTGCATATATATTTTTTGCATATTCAAAATAAATCATCTGAAAT
CTTATTTATAAGTGAATAATCTTTTATCCCTTCTTCAATAGAAATGATTTTAAAGTTTAGC
TCGTATTTTAGATTGGAGATTTTTCTTCTTTTTTCCAATCAGGAGCTTTAATATAACCAGA
CATCATCTCTGCAATTTCTTTTGAATTTTTTCTACTCTTTTTTTATCTGTTAGGGGTAT
ATTGGGATATGAAAGTAAAGGTCAATAAATGCCAACTCCTCTCAGTTAGTCCCAATTC
50 TTTACCTTCTTCAGCAGCTTTTCTAATTTCTTTAGCCAAATTAAGTCTTCAATCAT
TTCCGCGAGTGGTTATTACCTTTTATACGGTATTTCTCTATAACTTCATTTAACCTTTCTGA
AAACTTTTTTAAATCTTATCGGATTTCTTTGCCATACGAACCTTATATCATCATTTAGAAT
TTTGATAAGAACATCTCTTACATAATCTTTGTATTCTATTTTAGCAATCTCAGATAAAAA
TTTATCAGATAAAACGGAAAGCTCCGGTTTTTCTTTTTTTTAGCATTTCAAAGACGCTCTAC
55 TAGCTCTTTAGCACTAATACTTTTAGATATTAACTTTGTATGTCATTTTCAAGGTCTTG
AGAAATCTCACGGATTTTTTTAGTGAATATTTAACAATCATCTTTTTTATCATTTCAAA
GAATTCATAATCATCTTTAATACCTATTGTTTCAGGATGAGGTGAGCAAGTAAGTAAAG
CTTTTTTAATGCTATAACATTTCTTAACAAATTTCTTTTTTGGTATTATCATCTTTTGCTAC
TCTTTGATAAGCTTTTACTGTAAGTAGGGATAAGTCTTCTGAAGATAACTTTTTTCCAATC
60 TTTGTAATTAATATTTTAAAGTATGATGTACCTTTTCATATCTACGCTTCATCTCTTC
AATAACTACTTTAATGTCAGTCATTAAATCCTTTCTCGCCTCACTTGAATATTAGAAAG
GGATTAGATAAATCATCGGCAATTTCTATATAATCTACAATAAGCCCTCCTGGTTTATC
TTTAAATACTCTATTTACCTTTGCTATTGCTGTGCTAATGAATGATTTTTTCATCGGTTT
TAAGAAATACATCGTATGTAAGCAGGGAACATCAAAACCTGTAAGCCACATATCGACAAC
TATAACCATCTTTAAATCTGACTCTGGGTCTTTGAATTTCTTTGGCTAAGTTTTCAGCTC
CTTTTTTGTCTTATATATGTTGGGTGGAATCTTCAGGGTCTTTGATTTATTTCCAGACAT
TACAACGGCAATCTTTGGAGCATTTGGCTGTTTAGTAATCCATTTATATAATTTCTACTGC
TACTTTTCTACTAATAGTAACCTACCATAGCCTTTCCATCGAAATCTTGAAGACGTTTGT
AAAATGCTCTATAATATCCTTTGAAACCTTGAGAGATAATCCTCTGTAAGCATGATTTT
TTCAAGTTTGCAAAATACTTCTTTTATACTCTCTTTTGTCTGGGTCAATGGCTACTCT

5 TTCAGAGATTTCATCAAACCTCTAAATCAATGAATTCATTTGTAAGATGTAATTCTACAAG
TCGGGCTTCATAATAAATTGGAACTACTCCATGCCTCTTTGCCTATCAATTGGATA
GGCACTTATATAATCTCCAAATACTAAGAATGTTGAACGGTCTTTGTAGTCTATTGGAGT
GGCTGTGAATGCCAAAATGATGCGTTAGGAATAGCTTTTCTAAGATTTTGAGCTAATGT
10 TCCATAATGGCTTCTATGGGCTTCATCTGCAATTATGATTATGTGTTTCTATCAGTTAG
GAAAGGGTAGTGTTCATCTTTTGACTTTCTACCAATTTTGTATTGTAGCAAAAATTAT
TCCTCCAGGTGTTTTCTAATGAGTTCTTGAAGCTCAGCTATACTTTGAGCTCTTTCAGC
CTCTGAAAAACACTTGAAAAACATTATATAGTTGTTTCATCAAGTTCTAATCTATCTGT
GAGGAATACTAAGAGGGGATAATTTAATTCTTCTGTTTAAAGTGCTTTTTTGGCATAAAA
15 TAACATTGTTATAGATTTACCTGTCCCTTGTGCATGCCATACAATACCGATTCTCCTATC
TTCAGGAGTTTCTCCATAAAGTACGGATTTTATTGTTCTATCTACGGCTTTTTAACTGT
ATAAAATTGATAATAAGTGGCTATAATCTTTTCTTATCATGGATGATAAAGTCTCGAG
GAATTCATAAAGATGTTCTTTTTTAAATAAACCCATTAAAGTATGTCTAAGCTTGATA
TGGGTTTTCTTTATATTTATACATTGTATTTCCATAATTATCAACTTCTATAACTTCAAC
ATCGTCATCACTTTCAACTCCTTCCCAACAAAGAACTATCCCAATCACTTGTGGAGA
ACCGTATTTTGTCTAAACCGTCGCTAACAACGAGTATTTGGGCATATTGGTATAGTTG
20 AGGAATATCTTTCAATTTTGTATTTATGGTCGTTAAATGCATCTTTGGCTGTTGATTGGA
TTTTGGGCTTTTAAATTCAAAAATTGCAATGGGAATTCATTTATAAATACAACCTAAGTC
GGGTCTTCTAAATCTTCCATTTTTCATAATAGTATTCAACTCAAATTGATTGGCTACTAA
AAATTCATTTTATTTATATTTTCAAAGTCTATCAATTTTACAAATCTTGTCTTTCTTTT
TCCATTTCTTTAAATTCTAATTTAACTCCATTAATTAGCATTTTCAAAAATATTTTCC
ACCCATATTGAAATCTGGGTTATCTATGTTGGTTACAGTTTTATAAATCTTAAGTGCTAA
TCTTTCAGTAAGCCATGGGTTGATATCTTTATAGCTTTTATAAATCGGTTTTTAAGTAT
25 TGCATCTCTGTAAGATTCCCTCTCATTATATTCTGGAGTTAGTTGAGAACCATGTTTATA
GGAATAACCAAGATTTTTGAGTCTTTGTATCGCTGCATTTTCTACAACGTAATCTTCATT
TAATTTTGAGCTTCTTTTTTTCATTTTATCACCATGAATACCCCCACTAATAAAAAATA
TTTATTTGCAGATATTGGCATTATCTAATTTAGCAATTAAAAAAATTTTTATAATTCTT
CAACTCTCAACTCTCCAAATACCAATTTTGGTAATAAAGCATCTCTAATTTTTTCAAAA
CCATAATTTGTTTTGATTGTTTATAATTTTTTCGAACAATGGTGAACCTAATGAATGGA
30 ATTTTTGAGTATTGGTTGTGGTGGGATAATTATATATTTATTTTCAATATCTGAAATTT
TTAAATAAGTAAAGTAGTTCTTTTACACTATATACAATTTCTTTTAGTAAAAATCTCA
AAAGACAGTAAATAAAGTAATGCTTTTCATTTAGCATGCTACTATCTATAACAGCAAGAT
GATTTACTGCAGTAAATTTAAAGGAAGTATATTTACTCGAGCTTCTTTCAAGAGCTCTC
CACTTTTTTGAAATATGATACTTTTTTTCATTATATAATTTCAATTTTATAATCTTTTAAAG
35 CCAATTCATTTATAAAATCTGAAGATTCAATACAACTCCTTTTACTAAATGTTTTACTC
TTACAAATGGGATTTTAGCGTTTTCAAAGTATATTTCTCTTTGTGGTGCATTACTTCCAG
ATTCAGCTTTTAAATATCTCCCAATCTCTTGACTTCCCAACCTTCGGAATCTCTTTAT
CCAATTCATCATTATAAACAACTCTTCATTTTAAACGGCTCAAAATCTATAAACCAAT
40 TTTTAAATAATTTCTAAAGCTATTTTTTCTAAATTTCAATTTGTTTTTCTTATTTTCAA
TTAAATCATCAAAATATGATAAAACAGTTGCTATTTTTTGTGTTCTTCTGGTGAAGGAT
ATGGTATTTCAACTTCTTTTAAATGTGCTACCTTTTAAATCTGGAAATGTAGAACCCTCCAG
AAATATCTTTCAAATATTCATCTATTGTTTTTGTCTTAAATAAATAGTAAAGATATTCAC
TAACCACGCCATCCTTTGGAATAATATTTCTAAATCCTTGATTGTTGTTAGTGGATTTT
45 TTGCAATAGCCACATAACCAATAGGTGCTCTTGATGTTAGTAAGATTGTTCTTTTGGAA
ATATTCTCAATGAACACTCTTTTACAGCTTTTCTGTAATGTTTCTTTCCCTCTTGAA
TGTAATATACTCATAATTAGCAAGGTCTTTTGGAGTTATCCAAGGAATATCCCCCTCCC
AATATTCTTTAATTTTTGTAGAAGGTGTTGAACCAACAGCAACTTCGCCAATATCTTTAA
TTTTCTTAACATCCCAATCCTTAGGAATTTCCCAATATCTGTTTCTTTAAATCTGTTT
50 CCCATCTAAATTTAACCATAAATAACACCTCAATATGTAATTGCTCCCAGAGTAAACT
AAACCAAGTTATAAATGATGAACCAATGGATGCTATAATGTAAATTCCTTTGGTAATGAA
ATTCTAAAAATATAGCTAAAAAAGGCAACAATCCCTATAATTGTCATAATATCTATATAA
ATAACTAACCAAGAGGCAAGGATGCAAAATTATAAAAGTAAGTAATTAAAGCAACAAA
TTTAAAmTAATGCCATCCTTCCAGTATAATGCTTTTCAACAAATGTCCTACTAAGAGT
AATGAAAATGGTCTTATTAAGGTATTACATTATCTGGTAAAAAATATGCCAACAAATTT
55 TTCATTCAAACCACCAAAATATTTATTTTAAACCTTAAAGCATCCAAAATCTCTTTAAC
CTTATTCCTCAACTTCTCTTCTCATCTAACAACTTCTTTAACTCCTCAGAATACTCTTT
CATCTTAACCTCAAAAGGTATCCATCATCTTCAATCTTAACCCCAACATACCTACCAGG
AGTTAAACATATCCATTTTAGCAATCTCATCAATAGTAGCAACCTTGGCAAAACCAAG
TTCATTTATTTGTCTTCATCTTCCCCACTTTCAAACATTCTAAACTTATCAACAATCTT
60 TTTTATATGCTCTTCAGTTAAATATTTCTGCCTTCTTGAATCTGCTTATATAAATCTTT
CGCATTAATAAACAAACCTTTCCCTTCATATAATCTGGCTTCTCCTTCTTATAAACCA
TAGAGAAACAGGCAAACTTACATTATAAAACAACCTTTGGAGGGCATGCAACAATCCATA
CAAGGTGCTTCTCTATTATTGCCTTCCTTATTTCCCCCTCTACATTTCCAGCAGACAA
TGCACCATTTGCCATAACAAAGCCAGCTTTTCATTGGGTGCTGTATGATAAATAAGTG

-600-

5 TAGTATCCACATATAGTTTGCATTACCATTGGAGGCACTGGGACTTTTTATTTCGAAT
TCTAAGTCTTGGGTCATCTGGTTTTATTCTATTTGCATCCCATTCACTATCATTAAATGG
AGGCTTAGCAACTACATAATCAAAAGTCATATCCATAAATTTATCATCATGATATGAATC
ATCTATACGAATATCTCCTTCAGCCCCCTAATAATAAGGTTCATTTTGTGAGCCTATA
10 GGCCATTGGGTCAGAATCTTGCCATAAATGATAACTCATTATATCTATTCCTCCCT
CTCTAATTTTTCAAGTGCTGAAACAAAAAATCCACCGCTACCACAAGCTGGGTCAAATAT
ACTCCCTCCTTTGACATCTAAAACATCCACAATAAGTTTTGTTAAAGACCTTGGAGTATA
AAACTTTCTCCTCAAGTTTTCCCTCAACCTCTGTAAATTTTCTAAGAAATATTCATAAAT
15 CCTACCAAACACATCTTTAACTCTATGTTCTTTCCCAAACCTTATTTCTGAAATTTATT
TATGAGATAGGAGTAGTCATGGTTATCAAGGGGAGATTGTGCATAGATTTTAGGAATTAC
ATCTTTTAACTATCAGGATATTTTTCTCTAATATCTCTATAGCTGTATCAATAATTTTC
TCCAATATTTGGACTCATTACATTTTCTACAAAATAATCCCATCTTGTTCTTAGGAAG
ATAAAGAAGTCTCTCAGAGAGATAAAAAATCTCATCTTCGAGAATCATTTTCTAAGTTT
20 TGGGCTTTCAGTGATTAACCTACTATTTGGATTAGAAAGTTCTCTCAATCTCTTTCT
CCTCTCATAAAATCTACAAGTTAAAGCTCTCAAAAATATAAGCCCCAAAACAACATACTT
ATACTGATGAAGTCTCATCTTTCTTAAGCTTATCTGCCACTTTCCATAACTGATTTTC
AAACTCTGGTGTGAGTTCAAAATGGTCATGTGATACCAATGATTGAGAAGTTTGTAGTA
TTTAGATGATTTTTTCTTACTTTCTTTCTTTTATGTTTTTCATCATTTTCTTTAATACT
25 TAAGAATTTATCGAGTGTGCCATAATACATCACCATATACATTGTAATTTTTAGTGAT
CTTTCTGCGGATACTAGGAATAGGAATAATAAACTAACCTCTAATTTAATCCTAAGCTT
TCTATTCAATTTAAGTTATAGGATTTTACAAATATATTTAATATTAGTTAATGATAAAC
AAATCTCTTTACATAGAGAGGTTATGGCACTCCTAACAGATATTCGATTTTAGTTATCTC
CTAAACTATACCAAGTAATTTTTTAGATTATTTTGCCATTTAGGCAATCAATGATTTTT
30 TCAAATTTATTAGCAAGTTCTGGATTTTCATATAATTTCTTTTATTGTTATTGCTACA
TCGACTTTTGAGAAATCTCCTAAGTTATTTAATCTAACTCATTATTAAGTTCTTCAATT
ATTTTAGATTTTGATTTTCTTAATTTTCAACGATTTCTTAACTTTTTGAAGTTTCTT
AGGTCATGAGTGAAGATTCTTTTATAAGTTTCTAAGACACAATCTAAATAGAAGTTTTTA
TCAATTAATCTTCAATTTCTTGATTTTCATCTCCTAAAAATATTATTTTATTACTTATT
35 TTATCTCTTTCAAATTTTTCTTTCTTATCCCCATCTAATAAGAAATAGTATTTAATTTCT
TCAAAATTTGATAAGCATGAATATAGTCTGACTTTTTTAACTATCTCGTTATCTTCAAGT
TTATCTCCACCAGACAATGGATGAATATACCAATTTTTTAAGTTTTAAGTGTTTCTAAT
TTTCTAATCCTTCTAAATAAATTTATCCGAAATTCCTTCAACAAATAAAATTTTACTT
AAATTTTCTTTGAATAGTATTTTATCAACTCCTAATGCTCTCCTAATTGGATAAATATG
40 TCTTTTTGTTCAATTAATCTCCAGGTCTCTTTATTTTTGTTCTATTTTCTTTATCAAGTAT
ACTAATAAGACTCTATCAAGCTCTTCTTCAATTAATAACGACATAAGATGGGTATTATAT
AGGATTTGATATTCTTTTGATAATCTTCAAGTTTCTCTAAAAATGATTTTTGAACATTT
GGATGCAAAATAAAGTGCAGGGTCGTCAAGCAGTAAACTATATCATTATTCCTCCCCATTT
TTTAAATTTCTCAATATTCAAGTGTTATAAGATAAGCTAAATACCATTTAAATCCTTTA
45 GACCATATTCCGGAAGAGTTATTTAATAGGTTCTTTTTATTATCACGCTCTTCAATT
TCAAAAGACATTTCTCTTTCTGATATTTGTATCCCAATCATATATTTTATCCCAATAT
TTTTTTAACAATTTTAGAGAACTCTATACAACATTTTCTTAAATATTCTCTGTATATAT
AATGGCTTTTTTTTCAAAATCTTCTATGTCTATATTCATTACTCTAAAAAGTCTGGCATT
ATAGAGTAGTCTTATCTCTCTTTTAAATGTATTACTCCAAGATGTATTTTTTATAACCG
50 CTCCTTTTAAATCCATTCTTCTCGTCTAAATAAACAAATTTTGGCTTTAAGTTTATAAATG
CAATAGTAAGTATTGAATTAAGTATAGTAAAGATTTCTGTGAATATATTATACGGGTTTA
ATTGGATGTTTCTACCTGGAAATAGATATAGATAACAGAAGTATTGGAATACTTTTAACTA
TATTTTCAATTCGTTTGATATTTTCAAAAATTTCTTCAAAAGTATTCAACGTTCTAATCT
CATCTAAAATTTTACGATAATGGTTATTAAAATTAGGGTTGCCCTAATATTAGCAACTG
CATTAGAAATTTGATTTTCAGGAATATTCTGTTTTTTTACTTCTCTTTAATACTTCTT
55 CATAAATTAGATTAAATAAATCTAATGGTGTTTTTTTGGAAATCACATTTTAAACAGT
CATAAATTTCTTTGTTATATCTTCCAATTGGTCTGTATATAATGTTTTAATAAACC
CATCAGCATATTTCTCAAAATTTAAGAATTGAATTTTATTAGCATATCTTCAAGTTTA
TTAAGATATCCTCGTTGATATCTAATTTAATTACTTCTAAAATTTCTTTTATATTAGAAA
TTATTTTTTCTTTGAAGTTATCTTTATTAACAATCTCAAAATAAGCTTCTATGATAGGTT
60 TTTTAGAATATTCTTTATTTCTTTTCTTAAATTTCAACTGGTATATCATCTCCCCCTA
AAGGTTTATCTGTCCCAAACCAATTTAATGCCTTTAGGATATTTGATTTACCACTTTTCAT
TTGCTCCTACAAAGACAGCAATATCTCCAATATTGTTTATGTGTGCTACTTTGATAGACC
TGAAGTTTCTAATTTGTTACCTTCGTTAAGTGAAGAGTTTTTGTCAATTAATCTATCCCCC
ACTTTATAAACAAATGTCTTAAACTAAAATAAACTCCCGATTTCAATTAATGTACAA
AATGTATTATGTTGATTTGGTATTATA

The 16.550 bp *M. jannaschii* small circular extrachromosomal element (SEQ ID NO:3) has the following sequence:

```

5  TATAAATAGTATAGTAACCCCTATAAACAATAAAAGGAATATATAAACAAAATTTCATAAA
   CAATCCCTTTTCAATGTTTGGTTTATTTATAGTAAAGATTTAATATCCTCGTATTATTCT
   ACACCCCATTTTCAATAATCCTAACCCACTCATGAGATATTATTTCTTAATTAATTTGT
   TTAATTTCTTTATCACCTTTTATTGATTCATAAACTTCATTAATTGTTTTAGATTTTCTT
   CCTCIAATTGTTTTAATTCCTCTTCCTCTTCTTCTGTTAAATCGCCTTCTAACAGCTTTT
   TCCAATACAATTTCAGCCCATCTATCATAATTTATTGGTTTTAAGTGCTTTGAAATTGTTT
10  CTAATAGATGTTCTTCATCCCACTGTATAATTTGTTTGGAGCGGAGCTTTAAGGAAC
   TTGGTTAAATTAAGAAATCCCACTTTATTAAAGTATATCTTTTCAAGAATCTCAAGGATT
   TCTAAGACATCTCGACCTTTTGTAAATGGTCTGATAATCCAATATTCTGCATTTTCTGT
   TTTAAGTCATCATGTTCTCCATAGTTTCTAAGTCATCAAATGTGCAACCCCTACAAA
   TAAACTTTTACGTTATTTTAAATAATCCAGAGCTTTATTTTTTCTGTTTAAAGCA
   TTTTCTAATCTTTTGTATATTCCCATTTTTTTAAGTGAGGATTATATCCATAATCTCCT
15  GGATTGTGAAATATTATTCTAAAATAATAATCTTTATTATGTTCTTTTCGACTTATAAGAT
   GTAGTGATGAACCAATATATCAAAATCTTTATTTAAATGTCATTTAAGTCATATTTA
   GTGGCTATTGATGACCTAATCTCTATTGTAATTATCTCATCAATTGAAAGATGAATTTCT
   ATGTCATTGTGGGATTCATAGTTAAATTTTCATTGCTTACATTTGCACCTTTGATTTCA
   ATGTAATCTTTTATTAACTTAATTTTTCAGTAATTAATTTGTTTACAACCTTTTCTGCA
   ATAAGTCCGCAAAATGATGACAATAATTTTCTTTCTTCTTATATCTCCACTTGGGA
   TTCTTTTTCACAAACATCTTCTGCTAATTTTTTAGCTTCATCATGGATATTATTTAATTCA
   TTATCATCTAATTCTACTTTTATTACTACAAAATATTTTTTGTGATATAGGGGTATT
   TTGCTTCCATTATATTATTTATAGGATGTCTATAGTATTTTCAAATATAAATTTTCATA
   CAATCACCTTAATTTTTATTCCGTATCTTACGCACCAATTCATTTGTATTATGGTATT
25  AGTAATTTAATAATATTTTGGCAGTATTTTAAGCAGTCTATGGATTTTTCGTCATACTTT
   TTTATGATGCCATTAATTTTCATTGCAGATTTTCGTTTAATTCCTCTTTTGGTATTAAGTCT
   TGGAAGTAAATCCCATAACTAATGAATCTATTATATTTTCTAAAATATTCTGTCATTT
   TCATTTAATTTATCGTTTAATTCGAACCTCAATTTACTTAACTGTGTTAAAGCGTTTATT
   ATGTTTTTATTTTGGGGATTACTATAGGTAACCTCTCTTAATTTCTTAAGGTAGTCTGC
   CTAAATCATCTTTTAATGCTATTGGCGACTTTCCAATGTATATATAAGATATTAACCTCA
   CTATTTAGTATTCCTAATAAATAGAAGTAATTAATAGGAGTATCTGGCTTTAAACAAAC
   ACATACAAATCCTTTTTTACAACCTCCTCAATATTTCCATAAGATGCCATAATTCTATCT
   TGTCTATTAACGATTCTCCGTATAAAGATTTTCTCGGGAGACATAAATAGATTAATAAGC
   TTTTCGTTGTTTTATGTTTTGAGAAATCAACATAATTTTTTAATTTAATTTAGTTTCA
35  TACCTATACACATTACCTTCTAAATATGGCAAAATAATATTCGTTTTCTTTTTATCTGAA
   AATTTATATTTTGAAGCTAAATTCCTATTGTAGATTCTGTTAAATCTTCCAAGTAAGTT
   AGTGATTCTCTACAATTTTGTTTAATTTTATCTAATATTATGTAGATTTCGGGACTTTTT
   GGAATATTTCGACACTTTGGGTCATTTAATATTTTGAATATTCTATGAAAAGGTCAATTT
   TTAAACTCAAATGAGATTTTTTTAGTTTTTTTAGGGAATGCATATATCAAAACCAAATCT
   TCTGATTTTGGAGGTTTTTTATGCAGTATTATTATACAATTATCAACATACGCTCCTGAA
   AATACATCAAAGGTAGATAGATTAATTTTTTTCAGACACATTTTGTAAATAACTCTTTT
   CTAAGATTTGAATATCTCACACCGGTTCCAAAACCTTGATGGGATTATAAATCCTAAATAC
   CCTCATTTTTTCAATAATTTTACTACTATGCACATATAAATGTACAAAATGTCAAATTC
45  GGAGTATCTCTACGTTTCATAATTTCTTTTTTCAGTAGGAGATAGCAAATCCCATAAGGT
   GGATTTCCAATAATTACATCAAACCTTCCTCTTTAATAATCCATCCGAAGTCAATCTTC
   CAAATGGAAGGGTTTTAATTTTTCAAATTCCTCAACACGTGGTCTATTCTTTTTACTTTTT
   TTACCATTATTCTTTTTGTTATTTCCATTTTGGTAAATCTCAGCGAAATATGCTGGAGTT
   ACACCTCTCATATATTGAATCTCTAATTTTCATCTAATAATTTCTTTTAACAGATTGGCTTTA
   AGTCCGTGGCTTGTCTATATACTTCATAAAGGAGATGATACGCTTCCACATAATTGTCT
   AATACATATCCATCTCTTTTTTCAAGCAATTCCTTAGCTTTTTTCAGTTTTTTCTCTCT
   TCAGAATTTGTGAGCGTTGATAATTAACCTTCAAGAACACACATTATACGCACATTATCG
   CATAGGTAGGAGATGGAAGCTGTTTTAAATTTTCATCAATCCATCCAATAAAGTCTTA
   CCACATCTTACATTATACTCAATATTTGGCAGTAAACTTCTCCTCTTTTTAAAGCCTCA
55  ACGTCTAAATTTCTAATAAGAGCAAGCCACAACCTAAGTTTTGCTATTTCACAGCAATA
   TCATCAATATCAACACCATAAAGATTGTTTAGTATAATACCTAACTTTTCTTTGTAAATG
   TCCATCTCTTCTCTAAGTAAATAATAAATCCTTTTCTTAATTTGGAGCAATTCCTTTAAT
   GCAGATATTAAGAAATGACCACTTCCAACCTGCGGGGTCTAAAATTTCTATTTTATCCAAT
   TCATCAAGAAAAGCTCTTAAATATGTTTATTTTCAGCTATTTTACTATCTTCATTAAGA
   ATTTTCATCTAATGTTGAGAAATTAATGTCATTTATTTTCCAATTTTTAATAATCTCTTTA
   AACCTCTCTACAACAATCGGCTCTATTGTATTTTGGCAATATAGCTTGTAATCTCATCT
60  GGAGTATAATAAGCACCCAGTCTTTCTGCCCCTTTTTCTGCCAAAATATTAATTAACTTT

```

-602-

TCATAAACATACCCAGAATATCTGGATTTAATTCAACTTCTTCTGAACCTTCAGATGTA
GATAGAGTGAATTTATACCTTTCTAAAAAATTAATAACCTCTCCAATAATTTCAATTATCT
TTTATAGTAAATGATAGTTCGTTAGGAACATTATTACTCCTGAATAATCCACCATTAAAG
5 TAAGGGATGCTTTTATAGTAAGGATTAGTTCTAATATTTCTTTTCTTTTCATCTTCTGGA
GTATTAAGCACTTCATAGAATAATGGTTTAAGATAAGCATCATAATAATTTATTAACCG
TTAGATTTTTTGTAATCTTCATAAGTTCTTCTAAGCAAATCTCTTGGGACTATTCCTTG
10 TCCTCAAGGAATTTTATAAATATTAACTGTTTCATTAAACAATACTGCAAATTTTTCTTG
TCCAATTCTGATGTATTGGGTGGAGCTTCAATACAATTGTATAAGCATTTTTTTAGTGCCT
TTATCTTTTTCTGAACACTTTTTATCTTTTTCTTAACATCCTTAACATCTTCAAATCCA
AAAACAAGTTTTACGAACCTTTTATAGAATTCATTAGTAATTTCTTCTTTTTTATGTTTA
ATATTCTTTGTAGCAACTTCAATATATTCTTCAATATACTCCTTTGAAAAACAATAATAA
AACTCAGAAAATACCTGTTTAAATTCATTTTCTAAATCTTTATCTTTTTTATTTTCAAGA
ACATACTCAAAAATAGATTTAAGATTCAATCTTTGAGAGTCTTATTTCTTTAATTGTA
15 ACATCATAGGTGTAATAACACCCATTCTAAACCATTAGTGGCTATACAGTATCTAGGCA
TAAGATTTGATAATTAACCACTCCTTAACCTGGTGAATTCAGAATCTTTTTTATTTAAA
TCACTACCTAAAGGTCGGCTTCGATAAGAATTTCTTTGTAAATACTGATACTCTATAA
TCAGGAATTTTTCTATCTCCTAATGGTGATTTTTTAGATATTTCTGATGTGAATTCATAA
CCCAAGAATTTCTAAAATTTGGTTCTATAACCTTCGCCTCGTAAATGGTTCTGGAAGTTGC
20 CCTCCAAAATCATCAGATTTAAAATTTGTATCTACCTTTTTCAATAACTCTTTAAATTTG
CCTTCTAATTTCTGGAATTTGCTTAATAGACAAAATAATATCCCAACAAGCTTAATAAAA
TCCTTCCACTTGTATAAACTTCTTTTGGAAATTTCTATATCAGAACACAATTTTGTGGA
GCCATAACTACCACCTAACATCTAAAAAATTTAAATTTATTGATTAATTTAAAGTTCTTT
AAAATTTGCTCATATTCGTCTCTTTTACATATTTTCCACAACTGGAATAAATCTCTTT
25 GGCTTAACAACCTTTGGATACTTTCTAATATTTTTAAGATGATAACTATCCATGGTTTT
TTCTTTTTCTTACCATATCCCCACTTTTTATTGAACTTCAATATATTTTTTAAATTCCT
TCTTCTGTTAAAAATAAATTTATTTTTATTTCTCAAGTATCTTCATAGGATTTTCAAAA
AATTCCTACTTCCCAATCTCTGCCTCTCCATAAAATCCCTGCTCTTCCCTTGAAGCATAA
AATATTATCTTCATTCCCTTTTCAAGTTTTGGTTAATGTTGCTGGTTTGACAAAAACATT
30 TTTATGCTCATCCAAAATCCTACCAATTAATGACTTGGGAATTTGGAATGTAGCTCTAC
AATTTTATCATCCATAACCTCACCTCTATTATGTAGAATATTTTAAATATAGTGTAAAA
TTTATCTTCAACCTCACTATTTTAAACCTACCTTTCTTAACAATCTCAACTCTTCCCTC
TTTTTTAAGTTCATTTAATGCAGTATAAACTTTCTCGTATCAACTTCAAGTATTTCAAT
TAATTTCCGTAATGCAATAATCTTTTTCAGATTGTAAGAGTTCCACAACTCTATTTTTAA
35 CATCATCTACTGTATTAGAAGATTCTTTCAAATTTATTTCCATGTGAAATGTTAATTATA
AACCATTAAACCAAGTAGATAATGTATTTAGTTGATTAACAATGTCATTCAATTTCTTCT
TGCTAACATAATCATTATTGTTAGAGTTAATAACATTATTAACTCTAATTGAATTTCTT
CAATTTCTTTCTTAATGAAATTTAGTTCTTTTCAAAATTTATCTAATTTTTTATTCAATT
TTTCAAAATTTTCAAAGATTTCTTTTCTTTCAACCTCTAACTCTTCAATTTTTTCAATAT
40 AGTTATCAATGCCTAACAGCTTAATAATAGCCTTTTTAAGCATAATAACAGCTCCAAGCA
GTGATTAGGTTTCAATTACCTTTTCAATCTCATCATTATTATAAATATAGTAAATAAAT
TACCTTATTTTTAATGTGTCCCTCAATTAATTTATTATACAAAATGACTGTCCATATGA
TAAAATCGGCAATATACGCTCTATAAGTGGTATGCACTTTGAAAATTTCTTAACCTATCCT
GAACCTTTTAGGCAACCAATAATAATAATATGCAATCTCCTTTTTAATTGATTAATTAAT
CAATTAAGCAATTAATTGAGTATCAATTGATTAATTGCAAACTTTTATACTTCAATTG
45 AGAAAAGAAAATGGTTGAAAATAGTTAAAAACGAAAAGCTTATATTTTCTTAGAAATATA
CAACTAAAAAGGTTATCTACTCTCAATTTGGTTATTACACAAAAGCCTACCAATTTAC
AACTTGGAAATTAACCTCACCTGTTTATATAAATGTTACTAAAAATTAGAAAAGTAGAAAG
ATAATGCCCTTATGGTGTGTCATGGAAAGTAAAGAATATCGCAAATTAGAGTATAACTA
TAAAGCTTTTTTAATTTTTTCTAAAGTTGCCATGCTAACATTTCTAACCGTCGGTATTGG
50 TGCTATATTTACGCCACAAACATATCCAATAATGCCAACCATTTGGTTTTATAGTTGTTGC
TGGAAATCGTATCCTTAATAGGTATGACTATCGGAGCATTAATTATTCACCAACAATATGA
GACGTTACCAGCTAACGAAAAGTTAGAAATTAACAAAACTCCTACCAGAAGCATACTA
CATTTGTATAGAAATTTGTTTGGTTACGGTTCAATTAGTATTATTATACACACATTTACATC
55 AAACAATCCTACATTATGCGTTATGTCTCTATTAATGGCAGGATTGTTTATATTGGTAGT
CTTAGTAATCTGGTATTTTGGCTACAAAAGTTATTAAGTATCTTATTCCTTAGATGCATC
CTTAACCTGGCTTTTTTAAATAGCCAATAATTCAAACTGCAAGGCAATAATTAACAATCC
ATACATCAACATGGCAGTAAAGAATATCCACAAATTAGCATCTTCCATAACCACCAGCCC
CTATTTTTCTACTTATGATTATGGCAACTAATGAGATATAAACCTTTACTCCTCTAACGG
AATTAAAGCAACAATATGCCCTTTTTGGATTATAATCCTCTCAACTTCCTTATCATCAAC
60 CTTAGCGTCCAAAACCATATAATTAAACCTATCCTTTGCCTTGACAGTTCCCTCAACAAT
CATACCATTATCTAAGTAAATTTTACACTTTTTCTTATGAGCAATAATAGCATATAATC
CTTATAATCGTCATCCTTCTTCTTAGGTTGCTTTTTCATCGGTTTTCTTTGGGTTTTAT
CTGCTTATTTCAAATTTCTCAACCTCCTTAGCTATTATATCATAATGCTTACTTTAATGTG
CTTTTTAATTGCCTTTACATCTGCATTAGTGTAATTACAGTATGGACATTTATAGAAAA

TCCCTCTTCTGTATTTCCAATTTTCAATATAATCATCTATGTTCAATTTTTTCACCAAA
TAGTTATTTTATCCAACCTCATAACTTTTATAAATCTCTATTTGCGTTTTTGCCCTCT
GGTATGTTCTCTTTTAGCCACTTAATAGAGCATACTTTACCATTCCCTATCATAGAGATAC
5 TAACTTCATAATCTATATGTTTGATGTATTTGTTGCCATACTTGAAGCCCCAACGGTTC
AATAACTTTATAGTTTTATCTCTTCCATAGCCTAACAGCTTACATAATGAAGTTAAATAA
TAACAGCCTCTCATTTTGCCATCTTCCCAATTGGAATTGATTAACTCATTAAGGTAGCTC
TCCAACCTTTACCTTATTTAATACAACCTTCCTTATCTCCTATGGTTGTTTTGATGTATTCC
CTCTTACTATGCTCTACCTTAGGTTTTGCCTTCTTATTGGTGTTTTATTCCAAATCTATC
10 TTAATATCGTTATTACCTTTCTTAGTTGCTTGATAATATCTTAAAGCATCATCCACAAAG
TCCGTTAAATCCCCTCTTATCTCTCCAAAGTTTTTCATAGTATTTTGTTAGCTTCCTTATG
AAGTATGGCTTTACATTCTGCAAATATATCGGTTTTAACTTCTCCACTTTGTTAATTGGA
AACGGTATGCTTATCGGTGTCTTCCCTCAATGTCTGCATAGTATAAGCTAAATGGTGCT
GTTACAGTCATGTTTTCTTATAGATTGATAAGTCAATACCCGTATCTCCTTCCCTGCCA
15 ACAAATCTAACAACCTTCCTTAGCTTAAAGTTTAGAAAGTTGTTAATATGGTGCTTCCT
TCAACATAGCCCTTATTTAGTATCTCATTAGGCAAATATCTGGCATTAAATCCAAATATGA
AAGCCCTTACTCCCCTAACTTTATGTGGATGTCTTAACTCCATAATCTTTAAAAATC
TCTCTTACTTCTTAGCTATCTCCTTAGATTTCTTAAAGTTGCCCTTAAAGTCAATATCT
ATAACCCAATCCCAATAATGTAGTCGATAGCTGGATACTCCAACCTCATATCTGGACTC
20 TCAAAGTAGTATGGAGAGCAGTAAATACTCCTAAGGTTCTCTATAATCCAATCCTTAAAG
TTGCCTCTATAATCCCAATAATCAATATGCCTTAAATATGGCTTCTCCCCCTTTGGGATG
TTGTTATAGTTCCAATACTTTGGATGTCTCCAATTGATTTTTCTATCTCTATCCAAATCC
AACCTATGGCAACTTAATAACCTATCTAAACAAAATAATATAAATATCTGGAAGTTAGT
TTATAGTAGGTAAGCCTATCCATAGCTACCACCTTATAGTGGTCTCCATTGGTCCGGATT
25 CTGGATTATCCACATCTCCATTTTCCACAGCTCTTTTAAATCCCCCGTGTCTGTATCTT
CCGATATGTTGAAGTTTTCAGCAATTTCAACCGTAGTGTAGATTTTTGGATTTTGTAGCA
TGTAGTTTAAATCTCTCTTTTTAGTTGGGATAACTTCTTACTTTCTCTATAAGTTTGT
TAATCTCTTCTAACTCTTCATCCTTTTGTGTGTTCTTTTATCTCTTCTCCAACCAATT
TAAATATCTCCTTAACCTTATCTGGTGCTTTAATTCTTAACAAAACCCCTAAGATTGTCT
TAAACCATATTTTAAATGCATCCCTAACATCCTCTAAATCCACATACTCCTTAACTTAA
30 GTTTAGCATAGCTTTAGCCATATACTCAATTTGATTAAATAATCTATCGGAATATCCTT
TAAATAGTCCGTAATCTCTCAATAAATCCCTTAACTTCTCCTTACCTCCCAAGTGTCT
TTAATGCATCTTCTTAACTCAATATCCTTATTTTAAATGTAGCTAATGAATAAGCAC
ACTCGTAAGCTTCCAAATCTTTTGTGTTTATGAAGTTATTGTCTTCTCTCAATCTTTAA
CTTTGTAGGTGTAGTTTAAATCTCCTTCCAATCCTCGTTGGTGTATGGCTTTAATAGAT
35 AGATTAAATGGAATTCTATCTGTCACTTCCCTCAAATTCTTCAAAGTAAATCCAATATTT
TTGACAATAACCATCTGATGCATTTAACTGGGGGTAGCTCCCAATATATATTAACTA
TCTTTTTAGCCCTATCTTCTGCCTCATTTCTATCATAGTCACTGTTGTTTTAGTAACTTTT
TAGCGAAGTAATTTATCATAGCTTCTTAACTCTTCAAATCCCTTAAAGTGGTAAATTT
40 CCCAAAGCTCCATTAAGTCAATATCCTTAAATGTTCCCTACTCCAATCCATGGGCTTACCC
CAATCATTTGGGATGTTATAACCTCTCTTTCTCTCTTCCAATACCTGAAGTTTTACCAC
TTTTTAATAAGTCTAAGTCGTTGCCTACTCTTAAATAAAGTCCATCATCTCTTCAATAA
ATATCGGTCTATTGTGGTTCAATTGGGATTATTCCTTTTTTATAGAATTTATGTTATCTC
TGGAGATAACTAAACCTATTAAGTTCTCTATGTTAGGCATATCTACTCTTATCATGTCTC
45 CAGTAGTGTGTTGGAGTTTTGCCAATGGTCTATTGTTAACTCTTCCCTTGTCCATAGC
TTCCAATGAACAAACATCAATAGTTTTCAGGCTTAAAGTGTCCATCCCTATTTTATCCC
AATATATATGGGATGATGCCAGTATCTCCAATGTTATTAAAGTGTCTATCGTTGGATTTT
TCCCTTCTTTGTCCAATATTGCCTTCACTTCGTAAAATACCCCTATCTTAAATATAATCTA
AGGCATTACTATAACAGCATCTTAAACCTTCTAACAAGGCATCATAATTGAAATTTA
50 TGGTCTTTTGTGGATTGATACTTAAGCCCTCTATGTAATACTCTCCTTTATGGTTTGT
TCAAATTCCTACAATTTCAACATCCCTTAGGTTGTTAATCTCTGGTGTGTATGGAAGAT
AAACCCCTATAAATCTCATCCGTTTCTTTTAAATTGGATTATGGCTATCGTTAAATCCCTTT
CCAACCTTTATTGGTTCTCCATCTTCACTTTTGAATAGGGATTCTGAATATTTTATGTCTC
TGCCACACTCTGGACACTTAATTTTATAATCTTGGCTGTTTTCCACTGGCTCATACAACC
55 TTATAACTTCACAATTACATCCCTTGTTATTGCCGTTCTTATCCAAATCAATACATACAT
AACGTCTCAAATTTGGTCTGCTTTTCTATGGTGTATTATCCCGCAATATCTCCCTAA
ATACACACAATTTATCTTAACTCTCCCAATCCTTAGCTTTTGTCTATTATGGTCTTAC
TTCTTAGTGTCTTAAAGCAATTATGTTAATCTCTAAAGGCTTAAATTGGAAGTATTTTT
CATAATAAATCTTATAAATCATCTCTATGGCTTCTATACGTTTCAATTAAGAGTAAGCTCC
60 TAAAGTAAGCCCTTACAATCTCTCTTTGCCCTTAAACCTATCAACTTCGTTAATGTCAA
ATTCAAAGCCCTCTGGTGTAAATCTCTCTCTATGAATTTTTTAAAGTATTTTTTCAAAT
CTTCCATAAATTCGCTTTTAGCTTCTGCCTCTTGAATGCTTTTTTAGGTAAATACTCAT
CTAAGATGTCTTAAATGTCTTATAGAATTTGTAAAGTTAGATAAATGTATTTTCTATCGT
AATCCTCTGGATTTTCTTATGTCAATCCATTCTAATGTTTGTAAATCTTAGGTGTT
GCTTTAATGTTCTCTCCAATTTTCAACTGCTCTATGGCTTTATTCATAAATTCGTCAA

ATCTCATACCTTCAAAGGTTAGGATTGTGAATATTTTAGCAGTTTTTTACAATCATCGT
TTTTATAACTCTTTTTTAATGTGTTGGCTCTCTCGCCGATTTTGTTCATAGGTCTTCAA
TCATACTATTATCTTGTATATTATGCAGTAATTGGTGAAGCATAGTGAAGTCGTTATTTT
5 GTTGGTGAAGTGCAGTGAATTCTTCACCACATTGGTGAAGCATAGTGAAGTCGTTATTTT
GTTGGTGAAGTGCAGTGAATTCTTCACCAACAATTCACCAATTTTTATGTCTCTATTTT
GTTGGTGAAGCATTTCACCAGCTTTACCAATTTTAATACGACTTCCTTAGGGTCGTGTA
TCTCCCAGAAAGCTCCAACCTAAAATTGACGTAATTGCATCCTCCAATCTATATAGTTGT
10 CGGTTGGCAATTCTGCCCCTAACCTCCCATAAACCATATTTTAATAATAGTTGCCCTCTCT
TCAGAGGTAGCTTGTTTAATGAAAATAGCCATATATTTCTAAGATTTCAGTATTGTTTT
TGTTATGCTCGTCTAATTCTTTGATAGTATTAGGGTCATATCTAATGTTTCAAGTAATTTTA
TGGCAACCTCTAAAACATCCTCTGGATATTGATTAATTTTCAATTAATTGTATATCCAATA
CATTTGTTGTTCTGTATGTTATTTATACTACCATTACATATTTATCCATGCCCTAACCACT
15 TCTGTTGTTGTTAGGTTTTTCGGAGTTTTGAGGGTATGGAGATACCTTTTATAGGTTCTC
CCTATCTTTTTCCAGTATATTTAATAAGCTATTTTTGAAGTTTTAACTTTTAAACATTA
AATGATGTTCTTTTATGTAGCATTATCAACTTGAAAGCATTATTTTCAAATTCGTGATAT
AGAAATCTTTCAAAGTTGATATTGCAAACTACTTTTATGGAACATATACAATPATCCACA
TTTATCTATTGTATCCTAAAATCAGTTAGTTAAATATTCCAATTTATATAATTTATGT
GTTGAAGCATCTTGATATTTAACCATGAACCACTTAAATAAACATCTCATCTTCC
20 AAAGGTAGATTACACAATGAAAATAGCCAATGGGATAAACTTAATTTTATATAATACAAC
TTACTATAATAGTTAGTTAGTAACTTTATAGTGCCTTTCAATACATTGTCAGAATAGCAT
TTAATCCATTTAACCAATATTTCCAAATCTATGATAATCAAAAAATATATAAATTTGTTT
ATGACACACATATAATCACCTCCTTTGCAGTGGTTTTTCCAAGTATTTTCCCAATTTGGGG
AAGGAAGGGGGCTTAACACTATTTTTTTAATTTCAAAGTATATAAACCTTACGAAATTA
25 TCGGAATTATCTGTTCCATATTCAGGTAATGGCATAAAAGCTTACTGGATTATATTTAAC
TATTAAAATTTATTAATTTTATGAGAATAATGCGGAATTTTTACGCAGAGGAATTTTTT
ATTATCCAACTATCGATTTAGATAGTTCTGATAGATTTAACTATTGAAGTTATTTTAT
GTAATATTTTCTAAAATTTACGGACATTTTCCGAGATTGCTACCACGATATTGTATAATT
AAACAAACACCACTTAGGTGAAAAATATACCAGTAAAGAATACATTCATCTCGGAAAATA
30 TCCGTAACGGAAAATTTCAATGCACAACTTTTAATTATCTGTAATATAAAAAATTGTC
AATAATTATTTTATATTTACCAGTGAAATTTGAAAACGTGAAATAATATCTTACATGTCA
TTATACTCGGAATTTTGCAAGTCTTATATTTGAAATATCGGTTACACACACTATTGTAA
AATACTCGTACTTATCGGAATTTTCCGTGCGGACATTTTTCGAAGGAAGACATAATTTT
AAGCCATAACAACATAAAAGAGAATGGATTACAACTACTTTCGGAATAATCCGCACG
35 GAAAAATTTTCGCAGTCAGTAGTATATACATCTTCCATAAGTTTTGTAGGTATGTTATAT
CATGTTTATCAACGTTTTTTCTTTCATCATGAGATAATTTACAATTGCTAAAATCAATA
TTAATATTATAAATCCGAGAATTATCGCCTTCCACCTAATTTTCCAGATTCTAATGTTT
CACATAATACGCCTAAACCAATATAAACTAAAAGCACCAGTAATCGAATAAATAACTG
ATTTTGGAGGAATATTTCAAGATTCTCTATAAACAACCTGCTCAGAACGTGATTTTCAGAA
40 CTCTATCTATTATTTCTCTGAGCATTATTATCGTTTTCTTTGGTTTTTCGAATCATTTA
TATTTTCTTCAATTTTAAAGTTTTGATTATTATTTATAAATTGAATATCATTTTCCGTTT
TTTTAACGTTTAAACGAGTTTTCTATATTTTCGTTAATTTTAAACGTTCTTAATAGCTGTA
AAGCAACATCAATTAATTTTTTCCAGATAATTTTATAAGATTATTGTATTCATCCAATA
TTTCTAAAGTATGAGTTTATTTTTCTTAGAATATAAGTGCTTTAGGTTTAAATTTTAT
45 TTTGTATGATTATTTGTATGTTTTTTCATTAATTTTCAATACATGTCCGATTTTTTCAA
ATATTGATAATAACTTTTCAAACCTTTTACTCCAACGTTAAAATTTCCAGTTTTAGAAAG
ATAACGAATATCTTATTTTACTATCATAAGTTGCCGATATTTCTAAGTAACATAAT
TTACATAAAAAATTACAGATAATTTTCGTCGGGCATATTCGACACCTTTTTAAATTTCACT
50 GTAAATTGACGTTTTGGTAGTATTATATTATTGTGATTACAAAGAATATACCTTTTCGGAA
AATATCCGCAACGGAAAATTTCCGAAGTTAGTAGTGAGACATTGAACCTATATGTTTTAA
GAGTTAGAACATGCCCAAAACATGCTTGTATATTATATGTAATGAGTAATTTATGATT
AGTATATTTTTATCCAAAAAATAGAGTTCAAATTTAGCGTTGCTAAATCCCATAAATCTAT
GTGGCTATAAAGTAATAAGGTTATGAAATTATGAAATTCCTAATCTCCATAAATCTCTGG
55 AAATTCACAACCTTTCACAAAGTTGTAATGTTATAAATTCAGTAGTGCCAAAAATTAT
TAACCTAAGTTAGACTTTGGGCTGAAAGTCCAACTTCTATTAACCTTGAGACCATTTAAT
ATGTGCATATTTTAAATATGGAATATACCTTATTAATCCATACAAAAATATTAGGTGAG
TGGGGGATGTTATCTAAAATCGAACGACTTATATTGGCAAACCAATACAAAAATTTGAAA
ATTTTGGAAAACTTTCAGAATATGATGAGATAATTAAGATTTTAGAGGAAGGGTATGAA
ATATTTTATGATGAAATTTTAGGACATATTTTGTATGAACCTCCAGAATCTGAAGGACAA
60 TTTGTATTAGATATTCTCTCTTTTACGACATTGTAGTTGAACCTACAAACAAAAGAAC
CCTAATTGACCATGAAATAATAAATCATCCATATTCGATTTTAAAGGTTTTGATGGCAAT
AGCGAAACAAAATATATGGCGTTTGTAAAGATTCTTATAGAAGACCAGAAAAAATTTTCA
TTCGTAGCAAAGTATGCAAAGAAAACGTATAATTTAATAGTCATTTCCCAATGTTGGAT
AAATATAGAAAAATGGTAGAGTTATGGGAATCGAAATACAATAAAAGTATGACTTAAAA
AGGGAGGAAATCTTGACATCTAATGCATAATTTTATTTATCTAAATATATTTTAGA

-605-

TTTTTATTTATTATAAAATTCAAAAATATCTTATCGTATTATAGAAAGATTGTGAATA
AACTCATTATAATAGTGAAATCTTACTTCGAAAATTTCTAACCTTGGCTGAACTTTGTTG
ATTAAGTTCAGGATAAACAAAAATAAAAAGAACAATGATTTTAAACTCACTATCAGTGT
5 AGAGATTGGCATTAACTATTTATTTGTATTTATCTATCATACTGAGAGTTTTTTTATTTT
CTTTTATTGCTTTTATTGATTTTCTTTGAATGATTCTAGTACTATTTCTCATAAGGAAA
AATGTTTGGTTTGTCTATCTTAAATTTAAGTGATTTGATAAATTATAATTATCCCAACTTA
AACTGTAAATGAACACAAATATCCTTTCTTTTGTTTAAGTTCATATCTTTTATTTTTT
GAACAATTTCCACAGAATTCCTTTCTTAATATGTTTTTTATGTATCGGCATAAAGATTCT
10 TTGATTATTGCATCGTTTATATCATACCAAATTCATAATTTTTGAGTTTCGAATTCAAAA
TTTGGCTTTTTTACTCTTCATTACCTCATATATTTCTTTAATAATATTGTCCCAGTTAGGT
TTAATATATTCTTCATTTAATAAGTTTTTATCGATATATTTTCAATATTTTCTTTCTGT
GAGTCAAAACCATTTTCTTTCTGATTTATTTTATAGATTTTATACCTCTTCTCTAAATC
CTATGCTTAGTGGATTGTATTTTATCCATGTGTTAATTTACGAATGGGTAGTCGTTGG
15 TCTATTACATAGATTTTCCATTTATCTCAATAGCTGCAGCAACATGCATAGGATGAGTT
ACTAAATATAAGTTATAGTTGGGAAACAAATTCGAAAGTAAAGCAATAGTTAGTTTAGCA
TAATCTCTACATACTGCTTTTTTGTATTTTAGAATTTTGGACACTTTAATATCATAACAT
AAAGTATCATGCAGCATAGCGATTGCTGATACAAAATTTCCATTGCATTGAAACAAATAT
TTTACTATCAATGTAAGTATTAACACCCAAAGTCCTGAAATTATACTAATAATTATAAGA
20 TTTTCACTGAAAATATACAATGTGAAGATACTTACTAACAACAACATGCTAATGTTGTTT
AAGTATTGTGAATATTTTGATGGCAATGATATTAATACTAAGAGAGCCACTACTGCAGAT
ATTACCCATAGTATCAATACCATAATATCATTGATTATAATCTCAAAACCTATTATCAAT
AAACAATACCATAAATAACAATACCACACCATATAACATAGCCGCAATAACATAATAAATT
AAAGAATCTGCCGCTCTTTCCATCCAATATCTAATATTAGTTTCTTGCCATTCCAAAATA
25 TTATTTAAAGTTTCAACAATTGAATTTTCCATAACTGTTTCAGACAGTTTTTTTATTTCC
TTACTATAAATTTCTTTTAGAGAAGGAATACTTAAAAAGTGTGACAACCTT

-606-

While the present invention has been described in some detail for purposes of clarity and understanding, one skilled in the art will appreciate that various changes in form and detail can be made without departing from the true scope of the invention.

5 All patents, patent applications and publications recited herein are hereby incorporated by reference.

-607-

What Is Claimed Is:

1. An isolated nucleic acid molecule comprising a polynucleotide having a nucleotide sequence at least 95% identical to a sequence selected from the group consisting of:

5 (a) a nucleotide sequence of an open reading frame depicted in Table 2(a) or 3;

(b) a nucleotide sequence of an open reading frame depicted in Table 2(a) or 3, but minus the codon for the N-terminal methionine residue, if present; and

10 (c) a nucleotide sequence complementary to any of the nucleotide sequences in (a) or (b).

2. An isolated nucleic acid molecule comprising a polynucleotide having a nucleotide sequence 100% identical to a sequence in (a), (b) or (c) of claim 1.

15 3. An isolated nucleic acid molecule comprising a polynucleotide that hybridizes under stringent hybridization conditions to the nucleic acid molecule of claim 2.

20 4. An isolated nucleic acid molecule comprising a polynucleotide that encodes the amino acid sequence of an epitope-bearing portion of the *M. jannaschii* protein encoded by an open reading frame depicted in Table 2(a) or 3.

5. A method of making a recombinant vector comprising inserting the isolated nucleic acid molecule of claim 1 into a vector.

6. A recombinant vector produced by the method of claim 5.

-608-

7. A method of making a recombinant host cell comprising introducing the recombinant vector of claim 6 into a host cell.

8. A recombinant host cell produced by the method of claim 7.

5 9. A recombinant method for producing a *M. jannaschii* polypeptide, comprising culturing the recombinant host cell of claim 8 under conditions such that said polypeptide is expressed and recovering said polypeptide.

10. An isolated polypeptide having an amino acid sequence at least 95% identical to the amino acid sequence selected from the group consisting of:

10 (a) an amino acid sequence encoded by a *M. jannaschii* open reading frame depicted in Table 2(a) or 3; and

(b) an amino acid sequence encoded by a *M. jannaschii* open reading frame depicted in Table 2(a) or 3, but lacking the N-terminal methionine residue.

15 11. An isolated polypeptide, wherein said amino acid sequence is 100% identical to a sequence in (a) or (b) of claim 10.

12. An isolated antibody that binds specifically to the polypeptide of claim 11.

20 13. Computer readable medium having recorded thereon the nucleotide sequence depicted in SEQ ID NO:1, 2, or 3, or a nucleotide sequence at least 99.9% identical thereto.

14. Computer readable medium having recorded thereon the nucleotide sequence of at least one *M. jannaschii* open reading frame depicted in Table 2(a) or 3 or its complement.

15. The computer readable medium of claim 13, wherein said medium is selected from the group consisting of a floppy disc, a hard disc, random access memory (RAM), read only memory (ROM), and CD-ROM.

5 16. The computer readable medium of claim 14, wherein said medium is selected from the group consisting of a floppy disc, a hard disc, random access memory (RAM), read only memory (ROM), and CD-ROM.

17. A computer-based system for identifying fragments of the *M. jannaschii* genome that are homologous to target nucleotide sequences, comprising:

10 (a) a data storage means comprising the nucleotide sequence of SEQ ID NO:1, 2, or 3, or a nucleotide sequence at least 99.9% identical thereto;

(b) a search means for comparing a target sequence to said nucleotide sequence of said data storage means of step (a) to identify a
15 homologous sequence, and

(c) a retrieval means for obtaining said homologous sequence of step (b).

1/4

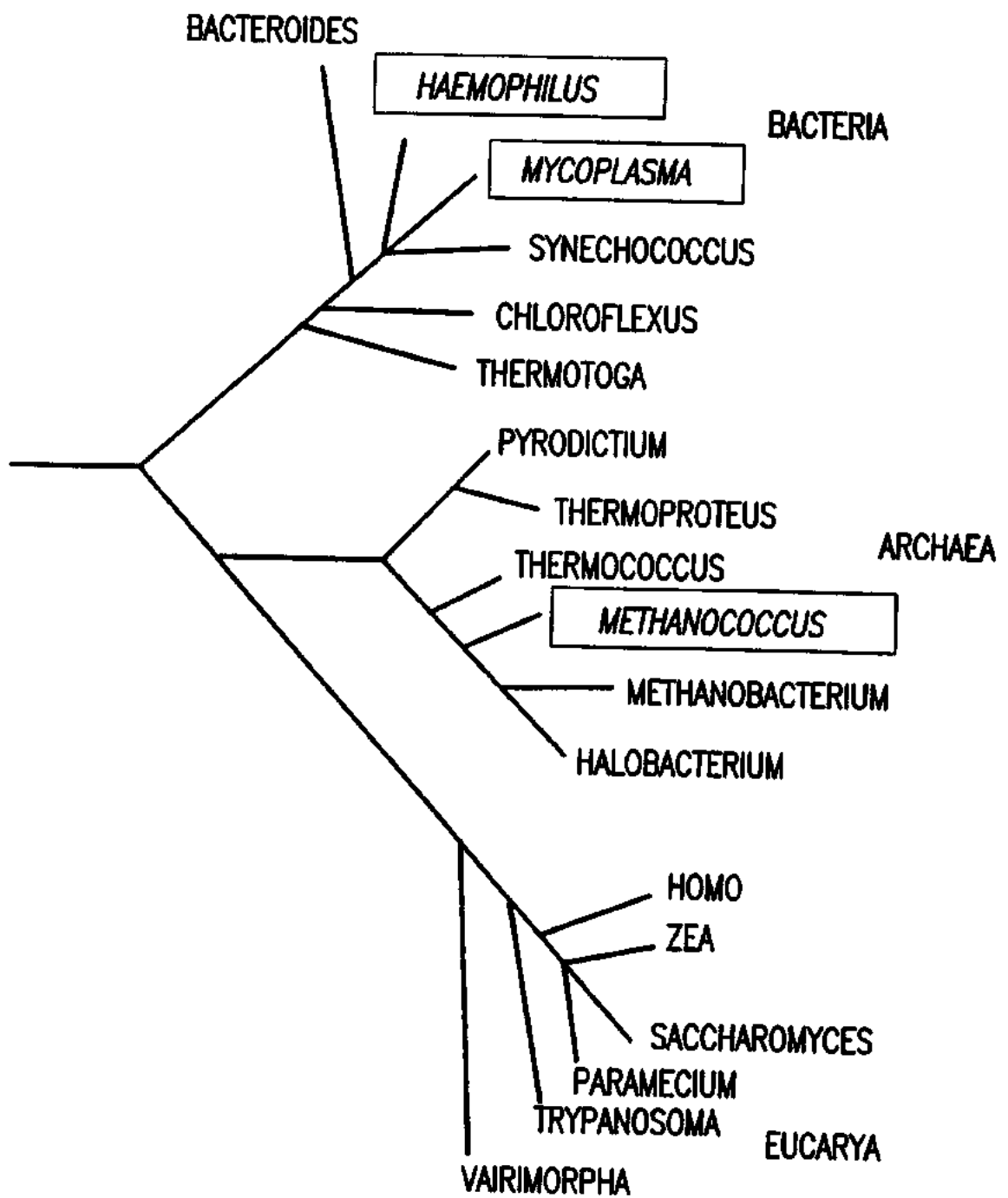


FIG.1

2 / 4

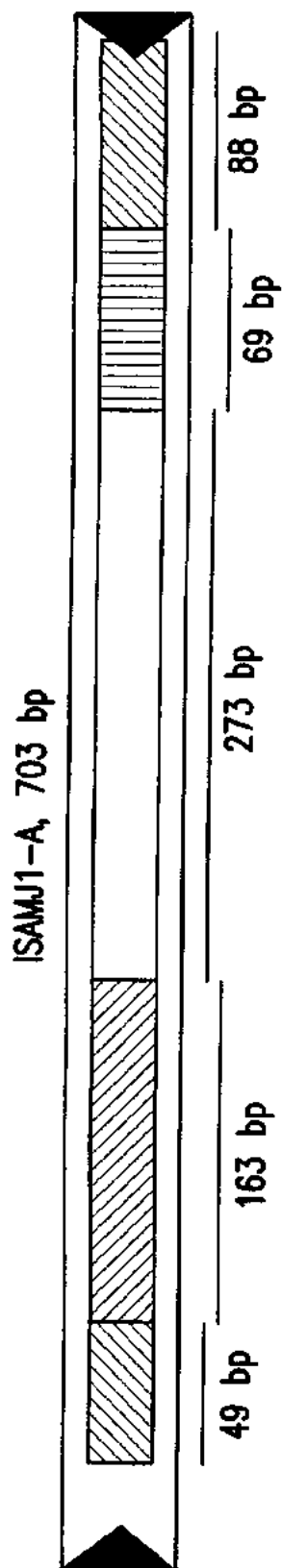


FIG.2A

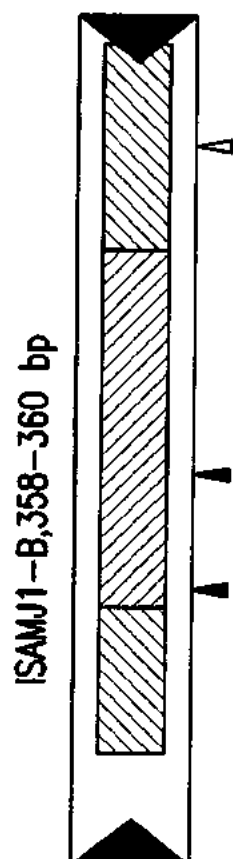


FIG.2B

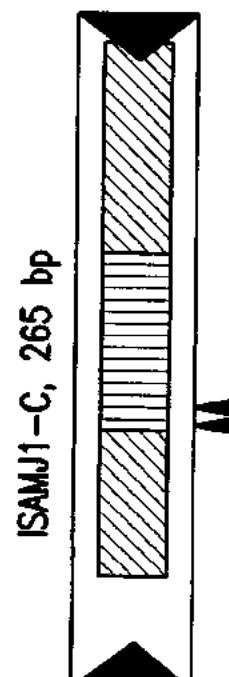


FIG.2C

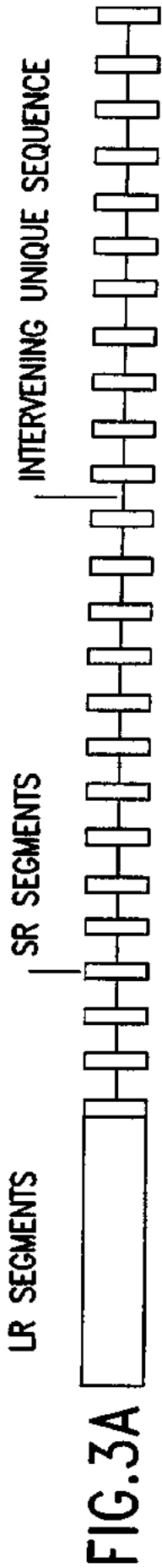


FIG. 3A

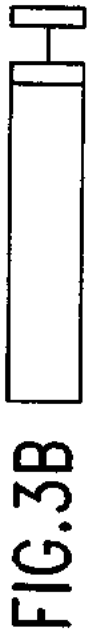


FIG. 3B

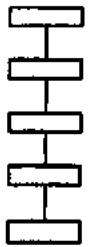


FIG. 3C

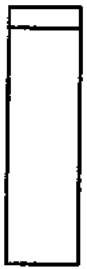


FIG. 3D

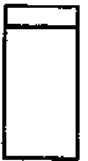


FIG. 3E

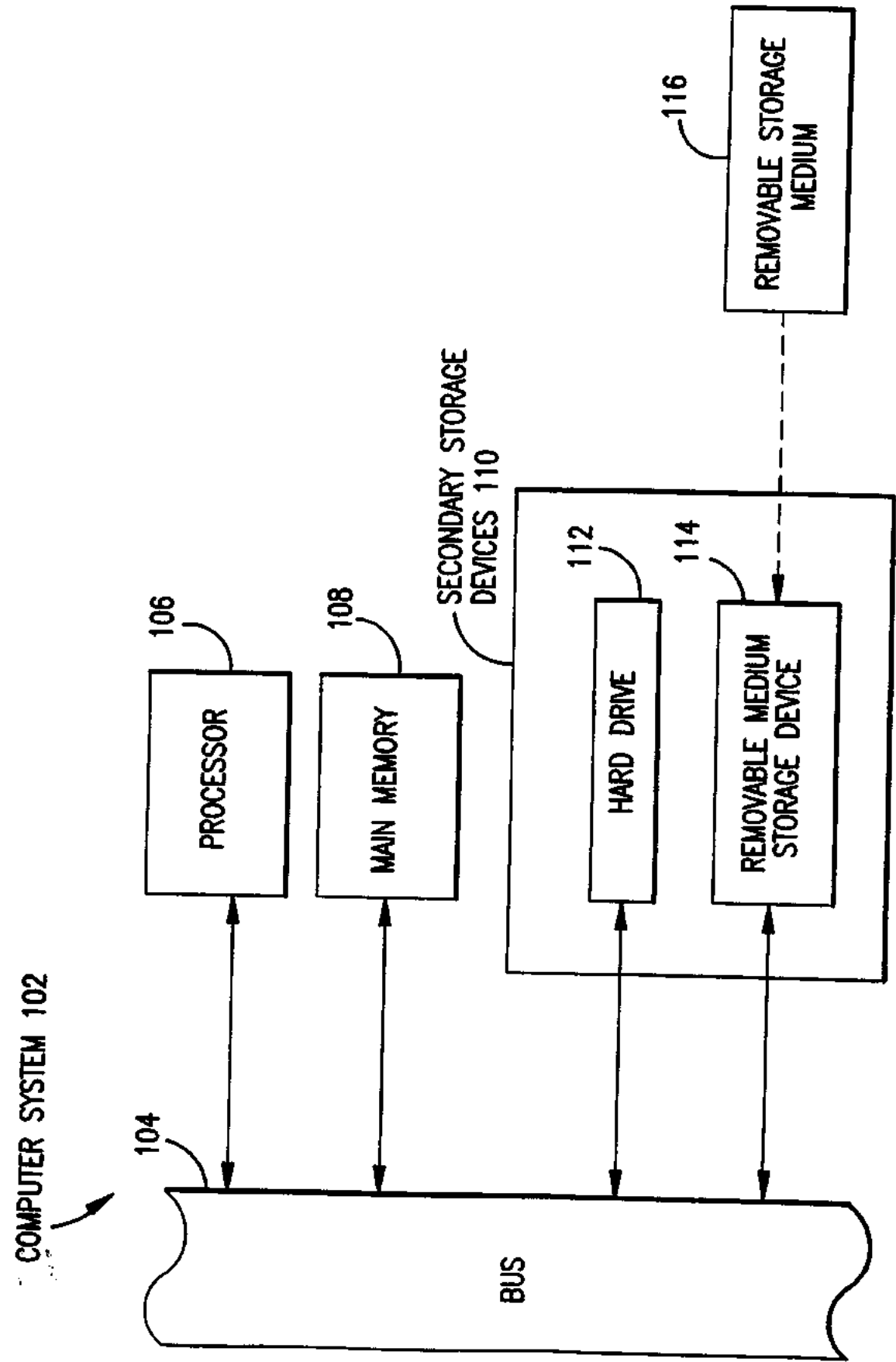


FIG.4