Contents

Volume 33 number 20

SURVEY AND SUMMARY

A second look at cellular mRNA sequences said to function as internal ribosome entry sites
M.Kozak 6593–6602

COMPUTATIONAL BIOLOGY

M Kernel-based machine learning protocol for predicting DNA-binding proteins
N.Bhardwaj, R.E.Langlois, G.Zhao and H.Lu 6486–6493

S, M Gene identification in novel eukaryotic genomes by self-training algorithm
A.Lomsadze, V.Ter-Hovhannisyan, Y.O.Chernoff and M.Borodovsky 6494–6506

GENOMICS

S Long-oligomer microarray profiling in Neurospora crassa reveals the transcriptional program underlying biochemical and physiological events of conidial germination

The excess of 5’ introns in eukaryotic genomes
K.Lin and D.-Y.Zhang 6522–6527

S A thermodynamic model of transcriptome formation
T.Konishi 6587–6592

MOLECULAR BIOLOGY

Activation of Sp1-mediated transcription by Rta of Epstein–Barr virus via an interaction with MCAF1

StpA protein from Escherichia coli condenses supercoiled DNA in preference to linear DNA and protects it from digestion by DNase I and EcoKI

Chimeric peptide nucleic acid compounds modulate splicing of the bcl-x gene in vitro and in vivo
J.E.Wilusz, S.C.Devanney and M.Caputi 6547–6554

Human Bex2 interacts with LMO2 and regulates the transcriptional activity of a novel DNA-binding complex
C.Han, H.Liu, J.Liu, K.Yin, Y.Xie, X.Shen, Y.Wang, J.Yuan, B.Qiang, Y.-J.Liu and X.Peng 6555–6565

SIP1/ZEB2 induces EMT by repressing genes of different epithelial cell–cell junctions

The PSEA promoter element of the Drosophila U1 snRNA gene is sufficient to bring DmSNAPc into contact with 20 base pairs of downstream DNA

Structure-specific binding of MeCP2 to four-way junction DNA through its methyl CpG-binding domain
T.C.Galvão and J.O.Thomas 6603–6609

S A haploid-specific transcriptional response to irradiation in Saccharomyces cerevisiae

AP endonuclease deficiency results in extreme sensitivity to thymidine deprivation
K.Dornfeld and M.Johnson 6644–6653

Continued
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Authors</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>A retrocopy of a gene can functionally displace the source gene in evolution</td>
<td>A.N.Krasnov, M.M.Kurshakova, V.E.Ramensky, P.V.Mardanov, E.N.Nabirochkina and S.G.Georgieva</td>
<td>6654–6661</td>
</tr>
<tr>
<td><strong>NUCLEIC ACID ENZYMES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>Role of the <em>Bombyx mori</em> R2 element N-terminal domain in the target-primed reverse transcription (TPRT) reaction</td>
<td>S.M.Christensen, A.Bibillo and T.H.Eickbush</td>
<td>6461–6468</td>
</tr>
<tr>
<td>M</td>
<td>Synthesis of novel poly(dG)–poly(dG)–poly(dC) triplex structure by Klenow exo⁻ fragment of DNA polymerase I DNA end-directed and processive nuclease activities of the archaeal XPF enzyme</td>
<td>A.Kotlyar, N.Borovok, T.Molotsky, D.Klinov, B.Dvir and E.Kapon J.A.Roberts and M.F.White</td>
<td>6662–6670</td>
</tr>
<tr>
<td><strong>RNA</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>The K-loop, a general feature of the <em>Pyrococcus</em> C/D guide RNAs, is an RNA structural motif related to the K-turn Minimal pre-mRNA substrates with natural and converted sites for full-round U insertion and U deletion RNA editing in trypanosomes</td>
<td>S.Nolivos, A.J.Carpousis and B.Clouet-d’Orval C.Cifuentes-Rojas, K.Halbig, A.Sacharidou, M.De Nova-Ocampo and J.Cruz-Reyes</td>
<td>6507–6514 6610–6620</td>
</tr>
<tr>
<td><strong>STRUCTURAL BIOLOGY</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>Rotation of DNA around intact strand in human topoisomerase I implies distinct mechanisms for positive and negative supercoil relaxation</td>
<td>L.Sari and I.Andricioaei</td>
<td>6621–6634</td>
</tr>
<tr>
<td><strong>METHODS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ERRATUM</strong></td>
<td></td>
<td></td>
<td>6671</td>
</tr>
<tr>
<td>M</td>
<td>contains a novel method</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>Supplementary Material available at NAR Online</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>