

RNA

A PUBLICATION OF THE RNA SOCIETY

VOL. 28, NO. 11



NOVEMBER 2022

CONTENTS

Tribute

- Tribute to Sidney Altman 1393
Venkat Gopalan and Timothy Nilsen

Mini-Reviews

- Exploring the epitranscriptome by native RNA sequencing 1430^{OA}
Oguzhan Begik, John S. Mattick, and Eva Maria Novoa
- RNA modifications: an overview of select web-based tools 1440^{OA}
Jillian Ramos

Review

- The mutual interaction of glycolytic enzymes and RNA in post-transcriptional regulation 1446^{OA}
Melanie Wegener and Karl-Josef Dietz

Bioinformatics

- De novo prediction of RNA–protein interactions with graph neural networks 1469
Viplove Arora and Guido Sanguinetti

Reports

- circRAB3IP modulates cell proliferation by reorganizing gene expression and mRNA processing in a paracrine manner 1481
Natasa Josipovic, Karoline K. Ebbesen, Anne Zirkel, Adi Danieli-Mackay, Christoph Dieterich, Leo Kurian, Thomas B. Hansen, and Argyris Papantonis

(continued)

Cover Illustration: Bacterial Cas12i crRNA R-loop complex before target DNA cleavage (PDB id: 7EU9; Zhang B, Luo D, Li Y, Perculija V, Chen J, Lin J, Ye Y, Ouyang S. 2021. Mechanistic insights into the R-loop formation and cleavage in CRISPR-Cas12i1. Nat Commun 12: 3476). Cas12i is a newly identified member of the functionally diverse type V CRISPR-Cas effectors, shown here in a pre-cleavage crRNA–DNA complex. Formation of the RNA–DNA heteroduplex triggers a conformational rearrangement that unleashes DNase activity. The RNA backbone is displayed as a red ribbon; DNA backbones are displayed as orange ribbons; block bases use NDB colors: A—red, C—yellow, G—green, T—blue, U—cyan; protein is displayed as a gold ribbon. Cover image provided by the Nucleic Acid Database (ndbserver.rutgers.edu). Image generated using DSSR and PyMOL (Lu XJ. 2020. Nucleic Acids Res 48: e74).

Conserved and transcript-specific functions of the RESC factors, RESC13 and RESC14, in kinetoplastid RNA editing	1496
<i>Katherine Sortino, Brianna L. Tylec, Runpu Chen, Yijun Sun, and Laurie K. Read</i>	

Articles

Structures of RNA ligase RtcB in complexes with divalent cations and GTP	1509
<i>Agata Jacewicz, Swathi Dantuluri, and Stewart Shuman</i>	
Knockouts of TUT7 and 3'hExo show that they cooperate in histone mRNA maintenance and degradation	1519 ^{OA}
<i>Chris E. Holmquist, Wenxia He, Rita M. Meganck, and William F. Marzluff</i>	
Molecular basis for the recognition of the AUUAAA polyadenylation signal by mPSF	1534
<i>Pedro A. Gutierrez, Jia Wei, Yadong Sun, and Liang Tong</i>	
Pseudouridylation of Epstein-Barr virus noncoding RNA EBER2 facilitates lytic replication	1542
<i>Belle A. Henry, Virginie Marchand, Brent T. Schlegel, Mark Helm, Yuri Motorin, and Nara Lee</i>	
RNA: Instructions for contributors	1553

^{OA}Open Access paper