

Announcing a major new monthly journal!

RNA

The Official Publication of The RNA Society

First Issue: March 1995

RNA, the official publication of the new RNA society, will provide rapid publication of significant original research in all areas of RNA structure and function in eukaryotic, prokaryotic and viral systems.

Editor

Timothy W. Nilsen, *Case Western Reserve University*

Associate Editors

Thomas R. Cech, *University of Colorado*
Chris L. Greer, *University of California, Irvine*
Christine Guthrie, *University of California, San Francisco*
Robert M. Krug, *Rutgers University*
Reinhard Lührmann, *Philips University, Marburg*
Dino Moras, *CNRS, Strasbourg*
James Ofengand, *Roche Institute of Molecular Biology*
Nancy Standart, *University of Cambridge*
Joan A. Steitz, *Yale University*
Marvin Wickens, *University of Wisconsin*

Editorial Board

John N. Abelson, <i>CalTech</i>	François Michel, <i>CNRS, Gif-sur-Yvette</i>
Sidney Altman, <i>Yale Univ.</i>	Peter B. Moore, <i>Yale Univ.</i>
Brenda L. Bass, <i>Univ. of Utah</i>	Andrew Newman, <i>MRC Lab. of Mol. Biol.</i>
Jean D. Beggs, <i>Univ. of Edinburgh</i>	Harry F. Noller, <i>Univ. of California, Santa Cruz</i>
Marlene Belfort, <i>New York State Dept. of Health</i>	Norman R. Pace, <i>Indiana Univ.</i>
Donald M. Crothers, <i>Yale Univ.</i>	Arthur Pardi, <i>Univ. of Colorado</i>
James E. Dahlberg, <i>Univ. of Wisconsin</i>	Hugh D. Robertson, <i>Cornell Univ.</i>
Fritz Eckstein, <i>Max-Planck Inst.</i>	Michael Rosbash, <i>Brandeis Univ.</i>
Michael R. Green, <i>Univ. of Massachusetts</i>	Phillip A. Sharp, <i>MIT</i>
Richard B. Hallick, <i>Univ. of Arizona</i>	Aaron J. Shatkin, <i>CABN, New Jersey</i>
Daniel Herschlag, <i>Stanford Univ.</i>	Yoshiro Shimura, <i>Kyoto Univ.</i>
Anita K. Hopper, <i>Penn State Univ.</i>	Robert H. Symons, <i>Univ. of Adelaide</i>
Alain Jacquier, <i>Inst. Pasteur, Paris</i>	Jack W. Szostak, <i>Harvard Univ.</i>
Walter Keller, <i>Univ. of Basel</i>	Ignacio Tinoco, Jr., <i>Univ. of California, Berkeley</i>
Karla Kirkegaard, <i>Univ. of Colorado</i>	Glauco P. Tocchini-Valentini, <i>CNR, Rome</i>
Adrian R. Krainer, <i>Cold Spring Harbor Lab.</i>	Olke Uhlenbeck, <i>Univ. of Colorado</i>
Angus I. Lamond, <i>EMBL, Heidelberg</i>	Jonathan Warner, <i>Albert Einstein Col. of Med.</i>
Tom Maniatis, <i>Harvard Univ.</i>	Alan Weiner, <i>Yale Univ.</i>
James Manlay, <i>Columbia Univ.</i>	Eric Westhof, <i>CNRS, Strasbourg</i>
Michael B. Mathews, <i>Cold Spring Harbor Lab.</i>	Jo Ann Wise, <i>Case Western Reserve Univ.</i>
Iain W. Mattaj, <i>EMBL, Heidelberg</i>	Michael Yarus, <i>Univ. of Colorado</i>
William H. McClain, <i>Univ. of Wisconsin</i>	

Forthcoming Papers

Poly (A) polymerases in the nucleus and cytoplasm of frog oocytes: Dynamic changes during oocyte maturation and early development
Scott Ballantyne, Andrea Bilger, Jonas Astrom, Anders Virtanen, & Marvin Wickens

Interactions between the double-stranded RNA binding motif and RNA: Definition of the binding site for the interferon-induced protein kinase DAI (PKR) on adenovirus VA RNA
Paul A. Clarke & Michael B. Mathews

Self-assembly of a group I intron active site from its component tertiary structural domains
Jennifer A. Doudna & Thomas R. Cech

Translational control of maturation-protein synthesis in phage MS2: A role for the kinetics of RNA folding?
Herman Groeneveld, Karine Thimon, & Jan van Duin

A mutation at the universally conserved position 529 in *Escherichia coli* 16S rRNA creates a functional but highly error-prone ribosome
U.V. Santer, J. Cekleniak, S. Kansil, M. Santer, M. O'Connor, & A.E. Dahlberg

Crosslinking of an RNA hairpin to the human U1A N-terminal RNA binding domain
W. Tom Stump & Kathleen B. Hall

Intrinsic U2AF binding is modulated by exon enhancer signals in parallel with changes in splicing activity
Zhihuan Wang, Heidi M. Hoffmann, & Paula J. Grabowski

U6 snRNA function in nuclear pre-mRNA splicing: A phosphorophioate interference analysis of the U6 phosphate backbone
Yi-Tao Yu, Patricia A. Maroney, Edward Darzynkiewicz, & Timothy W. Nilsen

Subscriptions

RNA will begin publication in March 1995. Ten issues will be published in 1995; twelve issues per year from 1996. Volume 1, 1995 (10 issues) ISSN 1355-8382: Non-member individuals \$149.00 (£139.00 outside N. America, including air delivery); Institutions \$299.00 (£239.00 outside N. America, including air delivery).

All members of The RNA Society will receive the journal as part of membership. Membership rates: regular members \$115.00, students \$57.50. Optional air delivery of the journal is available outside of the U.S., Canada, and Mexico for an additional \$55.00.

For additional information and membership application, contact: The RNA Society, 9650 Rockville Pike, Bethesda, MD 20814-3998, USA, Tel: 301-530-7120 Fax: 301-530-7049

For further information on manuscript submission contact RNA publication office at the first Cambridge University Press address given below or by fax (212) 645-5960, or by email: rna@cup.org

In the United States, Canada and Mexico send orders to: Journals Department, Cambridge University Press, 40 West 20th Street, New York, NY 10011-4211, USA, fax +1 914 937 4712. email: journals_marketing@cup.org

Outside North America, send orders to: Journals Department, Cambridge University Press, The Edinburgh Building, Cambridge CB2 2RU, UK, fax +44 (0)1223 325959, email: journals_marketing@cup.cam.ac.uk



CAMBRIDGE
UNIVERSITY PRESS

NOTES TO CONTRIBUTORS

GENETICAL RESEARCH publishes original work on all aspects of genetics, or in any field of research which has an important bearing on genetics. Reviews of topical interest will also be considered. Papers will be submitted to referees, and will generally be printed in order of acceptance. Short papers (see below) will be given priority in publication.

CONTRIBUTIONS are welcomed from scientists of all nationalities but must be written in English. Papers should be sent to one of the Executive Editors (see addresses inside front cover), or to a member of the Editorial Board with a particular interest in that area of genetics. Submission of a paper will be taken to imply that it is unpublished and is not being considered for publication elsewhere. Papers should be as concise as clarity permits, and illustrations should be restricted to the *minimum needed*.

SHORT PAPERS This category is designed for concisely written reports of work for which rapid publication is considered desirable. Such papers will normally be published within three months of receipt in acceptable form. They should not exceed 4 pages of print in length, and should include a summary.

TYPESCRIPTS A top copy and two other copies should be submitted. The top copy should be typed with double-spacing on one side of good quality paper, leaving margins of about 1½ inches at the left-hand side and at the top and bottom of each sheet. Each copy should include a complete set of illustrations. The title should ordinarily identify the organism. The address of the laboratory at which the work was carried out will be printed with the authors' names at the head of the paper, and changes of address may be added in footnotes. A footnote to the title page should also give the name and address to whom reprint requests may be made. Sources of financial support should be included with other acknowledgements at the end of the text. The title page of the typescript should include a short title for running headlines (limited to 50 letters and spaces), and the name and address of the author (or his proxy) to whom the proofs are to be sent, under the heading: *Proofs to be sent to . . .* Main headings should be typed in capitals and (except summary and references) numbered consecutively. Subheadings should be typed in lower case, and underlined except for those words and symbols which would be italicized in the text. Subheadings should be numbered (i), (ii), etc., within each main heading. **Numeral 1 and letter e: if your typewriter uses one symbol for both, please make clear to the Printer which is intended in formulae, gene symbols, etc.**

SUMMARY The summary will be printed at the beginning of the paper. It should give a concise abstract of the significant content and conclusions of the paper, in a form suitable for abstracting journals to use, and should not exceed 250 words.

ILLUSTRATIONS The separate category of Plates no longer applies in the new format. All illustrations, including photographs, diagrams, graphs etc. are to be labelled consecutively Figure 1, 2 . . . according to their relative positions in the text. Each figure should have a legend to be printed underneath it. Photographs should be supplied as unmounted glossy prints, with a sketch or separate set to show the arrangement required when several photographs are to form one figure. The names of the

authors and the orientation of the figure should be indicated on the back of each photograph. *Diagrams* should be about twice the size of the printed figure, but not larger than 12×8 inches, unless exceptionally complicated, and the thickness of lines and size of points should be determined accordingly. They may be submitted as glossy photographic prints or be drawn in indian ink on white Bristol-board, tracing linen or graph paper ruled in pale blue (but not other colours). The lettering on drawings should be lightly inserted *in soft pencil only*, so that the printer can put in the finished lettering. Legends to illustrations must be given on a separate sheet of paper. Each illustration must have the name of the author and figure number pencilled on the back.

TABLES Each table should be typed on a separate sheet of paper and its approximate position in the text indicated on the typescript. Each should be numbered and carry an appropriate title. The table should be designed, whenever possible, to be printed in the normal orientation of the text. The data should be grouped so as to make the use of rules unnecessary. Vertical rules, in particular, are expensive to print, and will only be included at the Editor's discretion. Table footnotes should ordinarily employ the symbols *, †, ‡, §, ||, ¶, **, etc., in that order.

SYMBOLS Gene and mathematical symbols should generally be printed in italics. Please underline those to be italicized when they appear in the text and tables. Bold letters add to printing costs and should only be used where they are necessary to avoid confusion. The author must assume responsibility for the accurate printing of complex mathematical formulae submitted in typewritten form, by differentiating between letters and numbers which are open to misinterpretation, and identifying all Greek, Hebrew and script letters by means of marginal notes at their first appearance. Note that Greek symbols cannot be italicized and that '+' as the symbol for a wild-type allele should not be italicized.

NOMENCLATURE Wherever possible, standardized nomenclature should be employed. The author should refer to the following publications for guidance: Novick *et al.* (*Bacteriological Reviews* 40, 168–189) for plasmids; O'Brien (Ed.), *Genetic Maps* 6, Cold Spring Harbor 1993, for recent information on most species and recent gene lists.

REFERENCES should follow the normal usage in the journal. In the list of references at the end of the paper, *both titles of articles and names of periodicals* should be written out in full.

PROOFS Two sets of single-sided page proofs, together with the typescript of each paper will be sent to the author. The printers' marked proof should be returned after correction to the Executive Editor, together with the typescript. Excessive alterations, other than corrections of printers' errors, may be disallowed or charged to the author. Corrections should be made using the symbols in British Standard 1219: 1958, or its shortened version B.S. 1219C: 1958.

OFFPRINTS Fifty offprints of each paper, or short paper, are provided free of charge. Additional offprints may be ordered in the form sent out with proofs, provided this is returned within fourteen days of receipt.

Cambridge University Press

The Pitt Building, Trumpington Street, Cambridge CB2 1RP
40 West 20th Street, New York, NY 10011-4211, USA
10 Stamford Road, Oakleigh, Melbourne 3166, Australia

Printed in Great Britain by the University Press, Cambridge

Genetical Research

Contents

- 81 EDITORIAL
- 83 WILLIAMSON, CHRISTINE M.; DUTTON, ELIZABETH R.; ABBOTT, CATHERINE M.; BEECHEY, COLIN V.; BALL, SIMON T. *and* PETERS, JOSEPHINE. Thirteen genes (*Cebpb*, *E2f1*, *Tcf4*, *Cyp24*, *Pck1*, *Acra4*, *Edn3*, *Kcnb1*, *Mc3r*, *Ntsr*, *Cd40*, *Plcg1* and *Rcad*) that probably lie in the distal imprinting region of mouse Chromosome 2 are not monoallelically expressed
- 95 BÉNASSI, VÉRONIQUE *and* VEUILLE, MICHEL. Comparative population structuring of molecular and allozyme variation of *Drosophila melanogaster Adh*, between Europe, West Africa and East Africa
- 105 PINYARAT, WARAPORN; SHIMADA, TORU; XU, WEI-HUA; SATO, YUKIHIRO; YAMASHITA, OKITSUGO *and* KOBAYASHI, MASAHIKO. Linkage analysis of the gene encoding precursor protein of diapause hormone and pheromone biosynthesis-activating neuropeptide in the silkworm, *Bombyx mori*
- 113 KONDRASHOV, ALEXEY S. Dynamics of unconditionally deleterious mutations: Gaussian approximation and soft selection
- 123 BARTON, N. H. A general model for the evolution of recombination
- SHORT PAPERS
- 145 CABALLERO, ARMANDO; KEIGHTLEY, PETER D. *and* HILL, WILLIAM G. Accumulation of mutations affecting body weight in inbred mouse lines
- 151 WOOD, PHILIP A. *and* HAMM, DOUG A. Survey of genomic repeat sequence-PCRs that detect differences between inbred mouse strains
- 157 BOOK REVIEWS
- DNA and Chromosomes. Cold Spring Harbor Symposia on Quantitative Biology. Volume LVIII. ERIC REEVE
- Lords of the Fly. By R. E. Kohler. JAMES H. SANG
- Molecular Ecology and Evolution: Approaches and Applications. Edited by B. Schierwater, B. Streit, G. P. Wagner and R. Desalle. ERIC REEVE
- DNA-Protein Interactions: Principles and Protocols. Methods in Molecular Biology Volume 30. By G. Geoff Kneale. ARTHUR C. ROBINSON
- Protocols for Gene Analysis-Methods in Molecular Biology 31. Edited by Adrian J. Harwood. ARTHUR C. ROBINSON
- 165 BOOKS RECEIVED

