

1992 MCB EDITORIAL POLICY STATEMENT

Molecular and Cellular Biology was founded by Aaron Shatkin in 1981 as a forum where high-quality research in molecular and cellular biology could be published without fear of arbitrary judgment, confining page limits, or narrow concerns regarding disciplinary boundaries. Over the past 10 years, MCB has lived up to these goals as a journal “run by scientists for scientists,” following in the honorable tradition of other journals published by the American Society for Microbiology such as the *Journal of Bacteriology* and the *Journal of Virology*. MCB has also grown in new directions (cell regulation and development are now more prominent than ever before), but these directions, and the appointment of new editors as well as members of the editorial board, have been dictated by the nature of manuscripts submitted to the journal rather than by editorial direction on the part of the editors or editor in chief.

Thus, in the tradition of the ASM itself, MCB has attempted to *serve* the expressed needs of the community of molecular and cellular biologists. It was in this spirit, a little over a year ago, that the editors announced a new editorial policy designed to maintain the reputation of the journal for high-quality reviewing and rapid handling of manuscripts. The number of manuscripts submitted to MCB had been increasing steadily, but the number of manuscripts accepted could not be increased without imposing an arbitrary page limit. The editors felt, however, that a page limit violated the spirit of the journal. The only alternatives were to reject an ever larger number of manuscripts or to ask that authors submit only their better work. Over the past year, we have been pleased to find that submission of strong manuscripts continued unabated while total submissions actually decreased. The new policy has spared many authors delay and disappointment; it has also saved countless hours of precious referee time, enabling referees and editors alike to devote more energy to timely, insightful, genuinely useful reviews of manuscripts that will ultimately be accepted.

We wish to reaffirm that MCB was founded on the belief that it should not be a struggle or hardship to publish good science. The journal continues to welcome all work of high quality and significance in cellular and molecular biology; interdisciplinary studies of all kinds are encouraged; and the absence of a formal page limit allows a complete story to be told. The editors are also pleased that MCB now sports a refreshing new cover; the table of contents has been reformatted for legibility; the gray background has been banished from half-tone figures; the average interval between submission and decision hovers around 5 to 6 weeks; and the interval between acceptance and publication can be as little as 6 weeks.

The Editors

MOLECULAR AND CELLULAR BIOLOGY

VOLUME 12 • MAY 1992 • NUMBER 5

Alan M. Weiner, *Editor in Chief* (1995)
Yale University
New Haven, Conn.

James R. Broach, *Editor* (1995)
Princeton University
Princeton, N.J.

Lawrence A. Chasin, *Editor* (1995)
Columbia University
New York, N.Y.

David A. Clayton, *Editor* (1995)
Stanford University School of Medicine
Stanford, Calif.

Anita K. Hopper, *Editor* (1994)
The Milton S. Hershey Medical Center
Pennsylvania State University
Hershey, Pa.

Tony Hunter, *Editor* (1993)
The Salk Institute
San Diego, Calif.

Tom Kadesch, *Editor* (1996)
Howard Hughes Medical Institute
University of Pennsylvania School
of Medicine
Philadelphia, Pa.

Steven L. McKnight, *Editor* (1992)
Carnegie Institution of Washington
Baltimore, Md.

Charles J. Sherr, *Editor* (1995)
Howard Hughes Medical Institute
St. Jude Children's Research Hospital
Memphis, Tenn.

Barbara Sollner-Webb, *Editor* (1995)
The Johns Hopkins University
School of Medicine
Baltimore, Md.

Shirley M. Tilghman, *Editor* (1993)
Princeton University
Princeton, N.J.

Owen N. Witte, *Editor* (1993)
Howard Hughes Medical Institute
University of California
Los Angeles, Calif.

EDITORIAL BOARD

Frederick W. Alt (1993)
Claudio Basilio (1994)
Susan Berget (1993)
Arnold J. Berk (1994)
Alan Bernstein (1993)
J. Michael Bishop (1993)
Elizabeth H. Blackburn (1994)
Helen M. Blau (1994)
Jef D. Boeke (1994)
Marjorie C. Brandriss (1994)
Rodrigo Bravo (1992)
John B. E. Burch (1994)
Kathryn Calame (1994)
Judith Campbell (1992)
Mario R. Capecchi (1993)
John A. Carbon (1993)
Marian Carlson (1992)
Nam-Hai Chua (1994)
Jonathan A. Cooper (1992)
Mark Johnston (1993)
Elizabeth A. Craig (1994)
Thomas Curran (1994)
Thomas Donahue (1992)
Daniel J. Donoghue (1993)
Robert N. Eisenman (1994)
Sarah C. R. Elgin (1994)
Scott Emr (1994)

Stanley Fields (1994)
Thomas D. Fox (1993)
Stephen P. Goff (1992)
Paula J. Grabowski (1994)
Jack F. Greenblatt (1994)
Rudolf Grosschedl (1992)
Mark Groudine (1993)
Christine Guthrie (1992)
James E. Haber (1993)
Joyce L. Hamlin (1993)
Hidesaburo Hanafusa (1992)
Nathaniel Heintz (1994)
Ari Helenius (1993)
Steven Henikoff (1994)
Nouria Hernandez (1994)
Ira Herskowitz (1993)
Alan Hinnebusch (1994)
Peter M. Howley (1994)
Stephen H. Hughes (1992)
Mark Johnston (1994)
Katherine A. Jones (1992)
Michael Karin (1994)
Randall Kaufman (1994)
Jack D. Keene (1993)
Robert Kingston (1994)
Daniel Klessig (1992)
Monty Krieger (1992)

Elizabeth Lacy (1993)
Alan Lambowitz (1993)
Lester F. Lau (1992)
Michael Lenardo (1994)
Arthur D. Levinson (1993)
Susan Lindquist (1993)
Douglas Lowy (1993)
James Manley (1992)
Kunihiro Matsumoto (1994)
Frank McCormick (1992)
N. Ronald Morris (1992)
Bernardo Nadal-Ginard (1993)
Paul Neiman (1992)
Joseph R. Nevins (1993)
Carol Newlon (1994)
Harvey L. Ozer (1994)
Mary Lou Pardue (1994)
David Patterson (1994)
Marvin R. Paule (1993)
Tony Pawson (1994)
Scott Powers (1994)
John R. Pringle (1994)
Randall R. Reed (1992)
Robin Reed (1993)
Steven I. Reed (1994)
Danny Reinberg (1994)
Jasper D. Rine (1994)

Naomi E. Rosenberg (1994)
Rodney Rothstein (1993)
Milton J. Schlesinger (1992)
Matthew P. Scott (1992)
Stephen Smale (1994)
Frank Solomon (1994)
Nahum Sonenberg (1994)
Allan C. Spradling (1994)
Karen U. Sprague (1992)
Nat L. Sternberg (1992)
Bruce Stillman (1994)
Kevin Struhl (1992)
Bill Sugden (1994)
Lawrence H. Thompson (1994)
Lex H. T. van der Ploeg (1994)
Geoffrey Wahl (1992)
Randolph Wall (1992)
Peter Walter (1993)
Jean Y. J. Wang (1993)
Jonathan R. Warner (1993)
Lewis T. Williams (1994)
Fred Winston (1994)
Elton T. Young (1993)
Kenneth Zaret (1993)
Richard S. Zitomer (1994)

Barbara H. Iglewski, *Chairman, Publications Board*

Linda M. Illig, *Director, Journals*

Patrick N. Lacey, *Production Editor*

Molecular and Cellular Biology, a publication of the American Society for Microbiology (ASM), 1325 Massachusetts Ave., N.W., Washington, DC 20005-4171, is devoted to the advancement and dissemination of fundamental knowledge concerning the molecular biology of eucaryotic cells, of both microbial and higher organisms. Instructions to authors are published in the January issue each year; reprints are available from the editors and the Journals Division. The journal is published monthly, one volume per year. The nonmember subscription prices are \$360 (U.S.), \$385 (Canada), and \$462 (other countries; air drop shipping) per year; single copies are \$42.80 (Canada) and \$40 (U.S. and other countries). The member subscription prices are \$79 (U.S.), \$85 (Canada), and \$104 (other countries; air drop shipping); single copies are \$10.70 (Canada) and \$10 (U.S. and other countries). Correspondence relating to subscriptions, defective copies, missing issues, and availability of back issues should be directed to the Subscriptions Department, ASM; correspondence relating to reprint orders should be directed to the Publication Sales Department, ASM; and correspondence relating to disposition of submitted manuscripts, proofs, and general editorial matters should be directed to the Journals Division, American Society for Microbiology, 1325 Massachusetts Ave., N.W., Washington, DC 20005-4171. Phone: (202) 737-3600.

Claims for missing issues from residents of the United States, Canada, and Mexico must be submitted within 3 months after publication of the issues; residents of all other countries must submit claims within 6 months of publication of the issues. Claims for issues missing because of failure to report an address change or for issues "missing from files" will not be allowed.

Second-class postage paid at Washington, DC 20005, and at additional mailing offices.

POSTMASTER: Send address changes to *Molecular and Cellular Biology*, ASM, 1325 Massachusetts Ave., N.W., Washington, DC 20005-4171. Made in the United States of America. Printed on acid-free paper.

Copyright © 1992, American Society for Microbiology.
All Rights Reserved.

ISSN: 0270-7306

CODEN: MCEBD4

日本：価格は外貨表示とは関係なく円建。

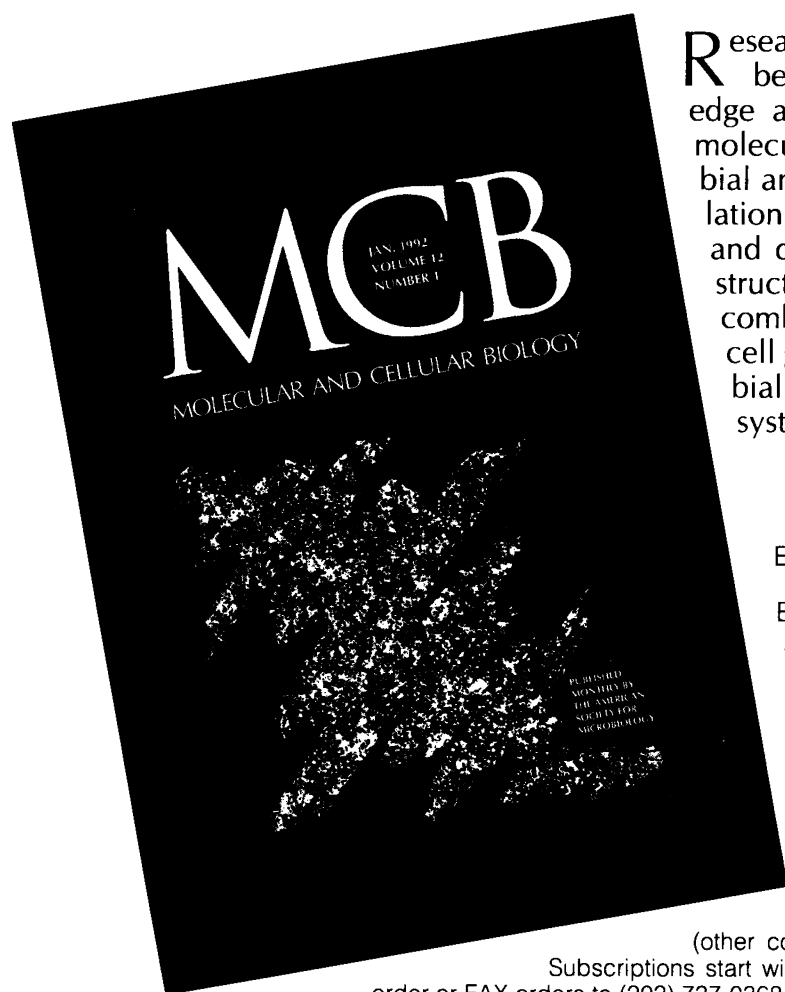
The code at the top of the first page of an article in this journal indicates the copyright owner's consent that copies of the article may be made for personal use or for personal use of specific clients. This consent is given on the condition, however, that the copier pay the stated per-copy fee through the Copyright Clearance Center Inc., 21 Congress St., Salem, MA 01970, for copying beyond that permitted by Sections 107 and 108 of the U.S. Copyright Law. This consent does not extend to other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale.

Author Index

- Abbott, C. A., 2057
Aloni, Ronit, 2203
Andrews, Nancy C., 2135
Arndt, Karen M., 2372
Aronheim, A., 2383
Attar, Ricardo M., 2432
- Bannister, R. M., 2115
Barnhart, Kerry M., 2143
Barr, Eliav, 1967
Barry, David, 2282
Becker, Peter B., 2241
Berman, Judith, 1997
Bigler, Jeannette, 2406
Borgmeyer, Uwe, 2339
Bothwell, Mark, 2193
Boulanger, Scott C., 1950
Bowne, David B., 2396
Braus, Gerhard H., 2322
Brennwald, Patrick, 2017
Bristow, James, 2124
Buermeyer, A. B., 2250
Burgess, R. R., 2250
- Campbell, Frank E., Jr., 2260
Campbell, Mary-Ann, 2315
Carminati, Janet L., 2444
Chan-Thomas, P. S., 2057
Chao, Stephen, 2391
Chu, F.-F., 2115
Clark, Robin, 2050
Cleveland, John L., 2351
Coffino, Philip, 2178
Collinge, Mark, 2359
Conner, David A., 2391
Cooper, Geoffrey M., 2029
Culbertson, Michael R., 2154, 2165
- Davis, R. J., 2010
Defeo-Jones, Deborah, 1905
DeMarini, Douglas J., 2154
Deyerle, Karen L., 2193
Dib-Hajj, Sulayman D., 1950
Dickson, Robert C., 1924
Dominski, Zbigniew, 2108
Dynan, William S., 1986
- Egli, Christoph M., 2322
Eisenman, Robert N., 2406
Eisenmann, David M., 2372
Elgin, Sarah C. R., 1915
Enomoto, Shinichiro, 1997
- Farnham, P. J., 2250
Feagin, Jean E., 2043
Felenbok, Béatrice, 1932
Fey, Georg H., 2282
Finstad, Stacey L., 1997
Fleig, Ursula N., 2295
Flores, Edwin, 2396
Folk, W. R., 2213
- Frech, Matthias, 2050
Fujii-Kuriyama, Y., 2115
Fürst, Peter, 2091
- Garrett, Michelle, 2017
Garsky, Victor M., 1905
Gavin, Brian J., 2418
Geisterfer-Lowrance, Anja A. T., 2391
Ghoda, Lucy, 2178
Gideon, Petra, 2050
Gilman, Michael Z., 2432
Gitelman, Stephen E., 2124
Goossen, Britta, 1959
Gould, Kathleen L., 2295
Grewal, Thomas, 2339
Grussenmeyer, Thomas, 2339
- Hamana, Koei, 1915
Hankinson, O., 2115
Hebbar, Sharda K., 1950
Hecht, Andreas, 2339
Heimbrook, David C., 1905
Henderson, Ann S., 2273
Hentze, Matthias W., 1959
Her, Jeng-Horng, 2222
Hicks, James B., 1977
Higgs, Douglas R., 2135
Hocke, Gertrud M., 2282
Hoekstra, Denise, 1977
Hokanson, William, 2406
Horn, Friedemann, 2143
Hubbard-Smith, Karen, 2273
Huber, Hans E., 1905
- Irniger, Stefan, 2322
- Jackowski, Suzanne, 2351
Jha, Krishna K., 2273
John, Jacob, 2050
Johnston, Cynthia G., 2444
Jones, Kathryn S., 2331
Jones, W. Keith, 1924
Jung, Frank, 1967
- Kabcenell, Alisa K., 2017
Katz, Richard A., 2331
Keller, Andrew D., 1940
Kellum, Rebecca, 2424
Kephart, Daniel D., 2067
Koch, Jennifer L., 1950
Kole, Ryszard, 2108
Koslowsky, Donna J., 2043
Kraut, Norbert, 2302
Kulkosky, Joseph, 2331
Kulmburg, Peter, 1932
Kuzhandaivelu, Nadarajan, 1924
- L'Allemain, Gilles, 2222
Lautwein, Alfred, 2050
Lee, Bum-Soo, 2165
- Leeds, Peter, 2165
Leiden, Jeffrey M., 1967
Lenouvel, François, 1932
Lida, J., 2057
Longtine, Mark S., 1997
Lukas, Thomas J., 2359
- Mack, Joseph P. G., 2331
Macrae, Madhu, 2178
Maniatis, Tom, 1940
Markowitz, Rhea-Beth, 1986
Marshall, Nicholas F., 2067, 2078
Martin, Angela K., 1924
Martin, M. E., 2213
Mathieu, Martine, 1932
Matrisian, Paul E., 2359
Matthews, Maura-Ann H., 1986
Matthews, R. James, 2396
McAvoy, Elizabeth M., 1905
McEachern, Michael J., 1977
McMahon, Andrew P., 2418
Mellon, Pamela L., 2143
Meyuhus, Oded, 2203
Miller, Walter L., 2124
Morley, B. J., 2057
Mortensen, Richard M., 2391
Munder, Thomas, 2091
Myler, Peter J., 2100
- Nair, N., 2010
Nardulli, Ann M., 2037
Novick, Peter, 2017
Nurse, Paul, 2295
- Oliff, Allen, 1905
Orkin, Stuart H., 2135
Orr-Weaver, Terry L., 2444
Ozer, Harvey L., 2273
- Pal, Subrata K., 2029
Pardinas, Jose R., 2273
Parmacek, Michael S., 1967
Patrick, Denis R., 1905
Patsalis, Philippos, 2273
Peleg, David, 2203
Perlman, Philip S., 1950
Peterlin, B. Matija, 2383
Poyton, Robert O., 2302
Price, David H., 2067, 2078
- Qian, Feng, 2339
- Reed, Steven I., 1977
Reisz-Porszasz, S., 2115
Ricupero, Stephanie L., 2372
Riley, George R., 2043
Robinson, H. L., 2010
Rock, Charles O., 2351
Rupp, Ralph A. W., 2339
- Sadhu, Chanchal, 1977
- Sanfaçon, Hélène, 2322
Schedl, Paul, 2424
Scheffler, Julie E., 2050
Sefton, Bartholomew M., 2315
Seidman, J. G., 2391
Sequeval, Daria, 1932
Setzer, David R., 2260
Shapiro, David J., 2037
Sharpe, J. A., 2057
Shattuck, Rebecca L., 2359
Shen, Tingliang, 1967
Shi, Yanggu, 2186
Sidney, David, 2178
Simon, Francis R., 2302
Sippel, Albrecht E., 2339
Skalka, Anna Marie, 2331
Sogawa, K., 2115
Souza, Augustine E., 2100
Stief, Aribert, 2339
Stirdivant, Steven M., 1905
Stover, Denise M., 2230
Strasheim, L. A., 2250
Strauss, Erich C., 2135
Stuart, K., 2100
Stuart, Kenneth, 2043
Sturgill, Thomas W., 2222
Szeberényi, József, 2029
- Taiji, Kazuko, 2193
Taiji, Mutsuo, 2193
Theisen, Manfred, 2339
Thomas, John O., 2186
Thomas, Matthew L., 2396
Thompson, N. E., 2250
Trawick, John D., 2302
- Ursic, Doris, 2154
- Van Eldik, Linda J., 2359
Voliva, C. F., 2383
Vora, Anuradha J., 1967
- Wagner, Cynthia R., 1915
Walker, M. D., 2383
Walworth, Nancy C., 2017
Watson, A. J., 2115
Watterson, D. Martin, 2359
Webb, Frances, 2154
Weber, Michael J., 2222
Weir-Brown, K. I., 2115
Windle, Jolene J., 2143
Winey, Mark, 2154
Winston, Fred, 2372
Wittinghofer, Alfred, 2050
Wood, Jeffrey M., 2165
Wood, W. G., 2057
Wu, Carl, 2241
Wu, Jie, 2222
- Yang, X. Y., 2213
- Zehner, Zendra E., 2230
Zimmer, Warren E., 2359
Zinkel, Sandra S., 2029

MOLECULAR AND CELLULAR BIOLOGY...

INDISPENSABLE



Researchers find *Molecular and Cellular Biology* to be an authoritative source of fundamental knowledge and new developments in all aspects of the molecular biology of eucaryotic cells of both microbial and higher organisms. The scope includes regulation of gene expression, transcription, cell growth and development, oncogenesis, cell and organelle structure and assembly, DNA replication and recombination, chromosome structure, and somatic cell genetics. The journal publishes work on microbial as well as higher organisms and on viral systems where the emphasis is clearly on the cell.

Editor in Chief: Alan M. Weiner

Editors: James R. Broach, Lawrence A. Chasin, David A. Clayton, Anita K. Hopper, Tony Hunter, Tom Kadesch, Charles J. Sherr, Barbara Sollner-Webb, Shirley M. Tilghman, and Owen N. Witte

ISSN 0270-7306 • 7,000 pages/year • monthly • \$360.00 (U.S.A.) • \$385.00 (Canada) • \$462.00 (other countries; includes airdrop shipping). Add \$340.00 for airmail service outside the U.S.A. Advance payment in U.S. dollars (or MasterCard, VISA, American Express, or Eurocard charge instructions) required. Members of ASM may subscribe at \$79.00 (U.S.A.), \$85.00 (Canada), \$104.00 (other countries); limit is one personal subscription per member.

Subscriptions start with the January issue. Call (202) 737-3600 to charge your order or FAX orders to (202) 737-0368. Purchase orders and other correspondence to Publication Sales at the address below.