

# Journal of Cellular Biochemistry

## EXECUTIVE EDITORS

*In the United States:* **C. Fred Fox** • Department of Microbiology and Molecular Genetics, University of California, Los Angeles, CA 90095-1489

**Gary S. Stein** • Department of Cell Biology, University of Massachusetts Medical Center, 55 Lake Avenue North, Worcester, MA 01655

*In Europe:* **Max M. Burger** • Friedrich-Miescher Institut, Postfach 2543, CH-4002 Basel, Switzerland

## FIELD EDITORS

**Garth L. Nicolson** • Office of the Director, The Institute for Molecular Medicine, 1761 Kaiser Avenue, Irvine, CA 92619-2470

**W. Jackson Pledger** • H. Lee Moffitt Cancer Center and Research Institute, Tampa, FL 33612-9497

## EDITORIAL BOARD

**Jorge E. Allende**  
Santiago, Chile

**Richard G.W. Anderson**  
Dallas, TX

**Jane Aubin**  
Toronto, Canada

**Yves-Alain Barde**  
Martinsried, Germany

**J. Bar-Tana**  
Jerusalem, Israel

**Avri Ben-Ze'ev**  
Rehovot, Israel

**Ronald Berezney**  
Buffalo, NY

**Jaswant Bhorjee**  
Bethesda, MD

**Mina J. Bissell**  
Berkeley, CA

**E. Morton Bradbury**  
Davis, CA

**Rodrigo Bravo**  
Princeton, NJ

**Edward Bresnick**  
Worcester, MA

**Ralph Buttyan**  
New York, NY

**Judith Campisi**  
Berkeley, CA

**Kermit L. Carraway**  
Miami, FL

**Moses V. Chao**  
New York, NY

**Richard A. Clark**  
Stony Brook, NY

**David R. Clemmons**  
Chapel Hill, NC

**Carl M. Cohen**  
Boston, MA

**Carlo M. Croce**  
Philadelphia, PA

**Dennis D. Cunningham**  
Irvine, CA

**Michael P. Czech**  
Worcester, MA

**James R. Davie**  
Winnipeg, Canada

**Benoit De Crombrugge**  
Houston, TX

**Pierre De Meyts**  
Gentofte, Denmark

**David Denhardt**  
Piscataway, NJ

**Edward A. Dennis**  
La Jolla, CA

**Edward M. De Robertis**  
Los Angeles, CA

**Rik Derynck**  
San Francisco, CA

**William N. Drohan**  
Rockville, MD

**John Eisman**  
Sydney, Australia

**John H. Elder**  
La Jolla, CA

**Marilynn E. Etzler**  
Davis, CA

**Charles H. Evans**  
Bethesda, MD

**Ten Feizi**  
Middlesex, England

**Carl M. Feldherr**  
Gainesville, FL

**John H. Fessler**  
Los Angeles, CA

**Richard Firtel**  
La Jolla, CA

**Donald A. Fischman**  
New York, NY

**Benjamin Geiger**  
Rehovot, Israel

**Ian Gibbons**  
Honolulu, HI

**Antonio Giordano**  
Philadelphia, PA

**David W. Golde**  
New York, NY

**Ira D. Goldfine**  
San Francisco, CA

**Eugene Goldwasser**  
Chicago, IL

**William Greenlee**  
Worcester, MA

**Curtis C. Harris**  
Bethesda, MD

**Mary E. Hatten**  
New York, NY

**Mark R. Haussler**  
Tucson, AZ

**Norman B. Hecht**  
Medford, MA

**Brian Herman**  
Chapel Hill, NC

**Harvey Herschman**  
Los Angeles, CA

**Scott Hiebert**  
Nashville, TN

**Richard A. Houghten**  
San Diego, CA

**Tony Hunter**  
San Diego, CA

**Maria Imschenetsky**  
Concepcion, Chile

**Samson T. Jacob**  
Columbus, OH

**Gary R. Jacobson**  
Boston, MA

**Gary L. Johnson**  
Denver, CO

**Peter Jones**  
Los Angeles, CA

**Michael Klagsbrun**  
Boston, MA

**Barry Komm**  
Radnor, PA

**Barbara Kream**  
Farmington, CT

**Jeanne Lawrence**  
Worcester, MA

**Yvonne Lefebvre**  
Ottawa, Ontario, Canada

**Jane B. Lian**  
Worcester, MA

**Marc E. Lippman**  
Washington, DC

**Elizabeth J. Luna**  
Shrewsbury, MA

**Bruce E. Magun**  
Portland, OR

**Denis Monard**  
Basel, Switzerland

**Harold L. Moses**  
Nashville, TN

**Ellis Neufeld**  
Boston, MA

**Marit Nilsen-Hamilton**  
Ames, IA

**Masaki Noda**  
Tokyo, Japan

**Anthony W. Norman**  
Riverside, CA

**Dale L. Oxender**  
Ann Arbor, MI

**Sheldon Penman**  
Cambridge, MA

**Paul F. Pilch**  
Boston, MA

**Peter Quesenberry**  
Worcester, MA

**E. Premkumar Reddy**  
Philadelphia, PA

**Phillips W. Robbins**  
Cambridge, MA

**Gideon A. Rodan**  
West Point, PA

**Alonzo H. Ross**  
Shrewsbury, MA

**Russell Ross**  
Seattle, WA

**Giovanni Rovera**  
Philadelphia, PA

**E. Helene Sage**  
Seattle, WA

**Milton H. Saier**  
La Jolla, CA

**Alan R. Saltiel**  
Ann Arbor, MI

**Martin E. Schwab**  
Zürich, Switzerland

**Eric M. Shooter**  
Stanford, CA

**Justin Silver**  
Jerusalem, Israel

**Robert H. Singer**  
Bronx, NY

**Gail E. Sonenshein**  
Boston, MA

**Kenneth Soprano**  
Philadelphia, PA

**Thomas C. Spelsberg**  
Rochester, MN

**Eric J. Stanbridge**  
Irvine, CA

**E. Richard Stanley**  
Bronx, NY

**Janet L. Stein**  
Worcester, MA

**Donald F. Steiner**  
Chicago, IL

**F. Marc Stewart**  
Worcester, MA

**Charles D. Stiles**  
Boston, MA

**Tatsuo Suda**  
Tokyo, Japan

**Marvin L. Tanzer**  
Farmington, CT

**Steven L. Teitelbaum**  
St. Louis, MO

**Jean Paul Thiery**  
Paris, France

**George Todaro**  
Seattle, WA

**Milan R. Uskoković**  
Nutley, NJ

**R. Van Driel**  
Amsterdam, The Netherlands

**André J. van Wijnen**  
Worcester, MA

**Klaus von der Mark**  
Erlangen, Germany

**D. Martin Watterson**  
Chicago, IL

**Noel Weidner**  
San Francisco, CA

**Sherman Weissman**  
New Haven, CT

**Karel W.A. Wirtz**  
Utrecht, Netherlands

**Gerard Zambetti**  
Memphis, TN

© 1997 Wiley-Liss, Inc. All rights reserved. No part of this publication may be reproduced in any form or by any means, except as permitted under section 107 or 108 of the 1976 United States Copyright Act, without either the prior written permission of the publisher, or authorization through the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923. (508) 750-8400, fax (508) 750-4470. Requests to the publisher for permission should be addressed to the Permissions Department, John Wiley & Sons, Inc.

**Journal of Cellular Biochemistry** (ISSN 0730-2312) is published 16 times a year, monthly except for twice in the months of March, June, September, and December, by Wiley-Liss, Inc., a division of John Wiley & Sons, Inc., 605 Third Avenue, New York, NY 10158-0012. **Send subscription inquiries to:** John Wiley & Sons, Inc., Subscription Department, 9th Floor, 605 Third Avenue, New York, NY 10158 (212) 850-6645. **Advertising inquiries** should be addressed to Susan Levey, Advertising Sales Manager, Wiley-Liss, Inc., 605 Third Avenue, New York, NY 10158-0012, (212) 850-8832, fax (212) 850-6207. Advertising inquiries outside the United States contact Carol Melling, Non-Subscription Sales Manager, John Wiley & Sons, Ltd., Baffins Lane, Chichester, West Sussex, PO 191 UD, UK, 44(0)1234 770351, fax 44(0)1234 770429. **Offprint Sales and Inquiries** should be directed to the Customer Service Department, John Wiley & Sons, Inc., 605 Third Avenue, New York, NY 10158-0012, (212) 850-8776. **Subscription Price:** Volumes 64, 65, 66, and 67 (16 issues) plus Supplements 27, 28, and 29, 1997: \$2,604.00 in U.S.; \$2,794.00 in Canada and Mexico; \$2,917.50 outside North America. **Special Personal Subscription Rate:** 1997: \$245 within North America; \$341 outside North America. (Individual price does not include Supplements.) All subscriptions outside the U.S. will be sent by air. Payment must be made in US dollars drawn on a US bank. **Change of Address:** Please forward to the subscriptions address listed above six weeks prior to move; enclose present mailing label with change of address. **Claims for Missing Issues:** Claims for undelivered copies will be accepted only after the following issue has been received. Please enclose a copy of the mailing label or cite your subscriber reference number in order to expedite handling. Missing copies will be supplied when losses have been sustained in transit and where reserve stock permits. Send claims to John Wiley & Sons, Inc., Customer Service, 605 Third Avenue, New York, NY 10158. If claims are not resolved satisfactorily, please write to Susan Malawski, Director, Subscriptions Fulfillment and Sales, John Wiley & Sons, Inc., 605 Third Avenue, New York, NY 10158. **Cancellations:** Subscription cancellations will not be accepted after the first issue has been mailed. **Postmaster:** Send address changes to **Journal of Cellular Biochemistry**, Susan Heaney, Subscription Systems and Distribution, John Wiley & Sons, Inc., 605 Third Avenue, New York, NY 10158. **Indexed by:** Current Contents/Life Sciences • Science Citation Index • Scisearch • Chemical Abstracts • Index Medicus • BIOSIS Data Base • Excerpta Medica • Information Retrieval, Ltd. • Cambridge Scientific Abstracts • Institute for Scientific Information-Soviet Union • Current Opinion in Orthopedics • Current Opinion in Pediatrics • Current Opinion in Cell Biology • Current Opinion in Rheumatology • Reference Update. Printed in the United States of America. Copyright © 1997 Wiley-Liss, Inc.

This journal is printed on acid-free paper.