Journal of Cellular Biochemistry

```
EDITORS
```

```
In the United States
```

C. FRED FOX, Molecular Biology Institute, University of California, Los Angeles, CA 90024

MAX M. BURGER, Biozentrum der Universität Basel, Klingelbergstrasse 70, CH-4056 Basel, Switzerland

EDITORIAL BOARD

GIOVANNA FERRO-LUZZI AMES, Department of Biochemistry, University of California, Berkeley, CA 94720

RICHARD ANDERSON, Department of Cell Biology, University of Texas Health Science Center, Dallas, TX 75235

J. KENT BLASIE, Department of Chemistry, University of Pennsylvania, Philadelphia, PA 19174

ARTHUR BLUME, Physiological Chemistry, Roche Institute of Molecular Biology, Nutley, NJ 07110

RALPH BRADSHAW, Department of Biological Chemistry, University of California, Irvine, CA 92717

DENNIS D. CUNNINGHAM, Department of Microbiology, University of California, Irvine, CA 92717

MICHAEL EDIDIN, Department of Biology, Johns Hopkins University, Baltimore, MD 21218

FREDERICK A. EISERLING, Department of Bacteriology, University of California, Los Angeles, CA 90024 ELLIOT ELSON, Department of Biological Chemistry, Washington University School of Medicine, St. Louis,

MO 63110

WOLFGANG EPSTEIN, Department of Biochemistry, University of Chicago, Chicago, IL 60637

WERNER W. FRANKE, Institute of Experimental Pathology, German Cancer Research Center, 69 Heidelberg 1, West Germany

IAN GIBBONS, Pacific Biomedical Research Center, University of Hawaii, Honolulu, HI 96822

LUIS GLASER, Department of Biological Chemistry, Washington University School of Medicine, St. Louis, MO 63110

EUGENE GOLDWASSER, Department of Biochemistry, University of Chicago, Chicago, IL 60637

CURTIS HARRIS, Laboratory for Experimental Pathology, National Cancer Institute, Bethesda, MD 20205

ULF HENNING, Max-Planck-Institut für Biologie, Corrensstrasse 38, 74 Tübingen, West Germany

R. COLIN HUGHES, National Institute for Medical Research, London NW7 1AA, England

KARL ILLMENSEE, Laboratoire de Differentiation Cellulaire, 1223 Geneva, Switzerland

EDWARD KELLENBERGER, Biozentrum der Universität Basel, Klingelbergstrasse 70, CH-4056 Basel, Switzerland

JOHN H. LAW, Department of Biochemistry, University of Arizona, Tucson, AZ 85721

HARVEY F. LODISH, Department of Biology, Massachusetts Institute of Technology, Cambridge, MA 02139

HARDEN M. McCONNELL, Department of Chemistry, Stanford University, Stanford, CA 94305

GARTH L. NICOLSON, Department of Tumor Biology (108), University of Texas, Houston, TX 77030

DALE L. OXENDER, Department of Biological Chemistry, University of Michigan, Ann Arbor, MI 48109

ROBERT POYTON, Department of Molecular, Cellular, and Developmental Biology, University of Colorado, Boulder, CO 80309

JEAN PAUL REVEL, Division of Biology 156-29, California Institute of Technology, Pasadena, CA 91125

PHILLIPS W. ROBBINS, Massachusetts Institute of Technology, Cambridge, MA 02139 RUSSELL ROSS, Department of Pathology, University of Washington, Seattle, WA 98195

DAVID SABATINI, Department of Cell Biology, New York University Medical School, New York, NY 10016

MILTON SAIER, Department of Biology, University of California, San Diego, La Jolla, CA 92037

ERIC SHOOTER, Department of Neurobiology, Stanford University School of Medicine, Stanford, CA 94305

ROBERT D. SIMONI, Department of Biology, Stanford University, Stanford, CA 94305

HANS THOENEN, Max-Planck-Institut für Psychiatrie, Abteilung Neurochemie, Am Klopferspitz 18 a, D-8033 Martinsried bei München, West Germany

GEORGE TODARO, Laboratory of Viral Carcinogenesis, National Cancer Institute, Frederick, MD 21701

ANTTI VAHERI, Department of Virology, University of Helsinki, Helsinki, Finland

JAMES WATSON, Department of Pathology, University of Auckland Medical School, Auckland, New Zealand IRVING WEISSMAN, Department of Pathology, Stanford University School of Medicine, Stanford, CA 94305

DAVID WILSON, Department of Biochemistry, Cornell University, Ithaca, NY 14853

KAREL W.A. WIRTZ, Laboratory of Biochemistry, Transitorium, Utrecht, The Netherlands

H.G. WITTMANN, Max-Planck-Institut für Molekulare Genetik, Ihnestrasse 63-73, D-1000 Berlin 33 (Dahlem), West Germany

MANAGING EDITOR, 1983 ABSTRACT SUPPLEMENT

SANDY MALONE, Molecular Biology Institute, University of California, Los Angeles, CA 90024

The code at the bottom of the first page of each article in this journal indicates the copyright owner's consent that copies of the article may be made within the limits of Sections 107 or 108 of the US Copyright Law. For copying beyond these limits, except as noted below, consent is given on the condition that the copier pay the stated per-copy fee through the Copyright Clearance Center Inc., 21 Congress Street, Salem, MA 01970. (The copying fee for articles published prior to 1978 is 20 cents per page.) This consent does not extend to other kinds of copying not permitted by law, such as copying for general distribution, advertising or promotional purposes, creating new collective works, or for resale. Journal of Cellular Biochemistry (ISSN 0730-2312) is published by Alan R. Liss, Inc., 150 Fifth Avenue, New York, NY 10011

Subscription Price: Volumes 21, 22, and 23, plus Supplement 7A and B, 1983 (14 issues): \$375.00 in US; \$414.00 in Europe, the Middle East, and Africa; \$403.00 in other countries. (Subscriptions going to Europe, the Middle East, and Africa will be sent air freight to Europe and mailed from there.) Payments must be made in US dollars or at the current rate of exchange. For payments not made in US dollars and through a US bank, add \$12 service charge. Change of Address: Please send to publisher six weeks prior to move; enclose present mailing label with change of address. Claims for Missing Insues: Claims cannot be honored beyond four months after mailing date. Duplicate copies cannot be sent to replace issues not delivered because of failure to notify publisher of change of address. Exclusive agent in Japan: Igaku Shoin Limited, Foreign Department, 1-28-36 Hongo, Bunkyo-ku, Tokyo 113, Japan. Subscription rate in Japan is ¥155,500 (Air cargo service only).

Indexed by: Current Contents/Life Sciences-Science Citation Index • Chemical Abstracts • Index Medicus • Biological Abstracts • Excerpta Medica • Information Retrieval, Ltd. • ISI-Soviet Union

Printed in the United States of America.

Copyright © 1983 Alan R. Liss, Inc.