

EDITORS

Alan N. Houghton  
Maclyn McCarty  
William A. Muller  
Carl Nathan  
Michel Nussenzweig  
David N. Posnett  
Ralph Steinman  
Sasha Tarakhovsky

# THE JOURNAL OF EXPERIMENTAL MEDICINE

ADVISORY EDITORS

Paul Allen  
Frederick W. Alt  
K. Frank Austen  
Marco Baggiolini  
Jacques Banchemareau  
Albert Bendelac  
Michael J. Bevan  
Christine Biron  
Christian Bogdan  
Thierry Boon  
Thomas J. Braciale  
Hal E. Broxmeyer  
Michael Carroll  
Yongwon Choi  
Robert L. Coffman  
Jason Cyster  
Lisa Denzin  
Keith Elkon  
Victor H. Engelhard  
Ferric Fang  
Anthony S. Fauci  
Douglas T. Fearon  
Vincent A. Fischetti  
Amanda Fisher

John Fraser  
Shu Man Fu  
Stephen J. Galli  
Ronald N. Germain  
Laurie H. Glimcher  
Pierre Golstein  
Christopher Goodnow  
Siamon Gordon  
Emil C. Gotschlich  
Sergio Grinstein  
Pierre A. Henkart  
David D. Ho  
Tasuku Honjo  
Kayo Inaba  
Ralph Isberg  
John W. Kappler  
Elliott Kieff  
Tadamitsu Kishimoto  
Seymour J. Klebanoff  
Gary Koretzky  
Tomohiro Kurosaki  
Lewis L. Lanier  
Antonio Lanzavecchia  
Michael J. Lenardo

Xiaojing Ma  
H.R. MacDonald  
Linda MacPhail  
Bernard Malissen  
Philippa Marrack  
Diane Mathis  
Lloyd F. Mayer  
Ira Mellman  
Louis H. Miller  
John P. Moore  
Michael Neuberger  
Victor Nussenzweig  
Anne O'Garra  
Eric Pamer  
William E. Paul  
Bice Perussia  
Hidde Ploegh  
Daniel A. Portnoy  
Klaus Rajewsky  
Anjana Rao  
Jeffrey Ravetch  
Westley H. Reeves  
A.B. Rickinson  
Steven Rosen

Matthew D. Scharff  
Hans Schreiber  
Gerold Schuler  
Robert A. Seder  
Rafick-P. Sékaly  
Charles N. Serhan  
Stephen Shaw  
Alan Sher  
Roy L. Silverstein  
Alfred Singer  
Jonathan Sprent  
Susan Swain  
Giorgio Trinchieri  
Herbert Virgin  
Ulrich von Andrian  
Harald von Boehmer  
Sharon M. Wahl  
Arthur Weiss  
Raymond M. Welsh  
Zena Werb  
Linda S. Wicker  
Ian Wilson  
Samuel D. Wright  
Wayne M. Yokoyama

EDITORIAL ASSISTANTS

Karen Cheung • Mary E. Donnelly • Nickey Henry  
The Rockefeller University Press, 1114 First Avenue, New York, NY 10021  
phone: (212) 327-8575  
fax: (212) 327-8511  
email: jem@rockefeller.edu

COPYEDITING AND PRODUCTION

Henry Chou • Alexandra E. MacWade • Jessica H. Dickson

PRODUCTION DIRECTOR

Suzanne M. Runyan

ELECTRONIC PUBLISHING DIR

Robert J. O'Donnell



Published semimonthly by  
The Rockefeller University Press  
www.jem.org

The appearance of the code at the bottom of the first page of an article in this journal indicates that the Publisher gives consent for individual copies of that article to be made for personal or internal use. This consent is given on the condition, however, that—for copying beyond the limited quantities permitted under Sections 107 or 108 of the U.S. Copyright Law—the copier pay the stated per-copy fee, for this journal \$8.00 per article, through the Copyright Clearance Center, Inc., 222 Rosewood Drive, Danvers, MA 01923, Tel.: 978-750-8400, a nonprofit organization. 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.

*The Journal of Experimental Medicine* (ISSN 0022-1007) is published semimonthly for \$795 (outside USA/Canada add \$192 net postage) by The Rockefeller University Press, 1114 First Avenue, New York, NY 10021. Periodical postage paid at New York, NY and additional mailing offices. POSTMASTER: Send address changes to *The Journal of Experimental Medicine*, Circulation Department, The Rockefeller University Press, 1114 First Avenue, New York, NY 10021.

Copyright © 2003 by The Rockefeller University Press, 1114 First Avenue, New York, NY 10021.