

THE JOURNAL OF GENERAL PHYSIOLOGY

FOUNDED BY JACQUES LOEB

Editor

PAUL F. CRANEFIELD

Associate Editors

OLAF S. ANDERSEN DAVID C. GADSBY
ROBERT SHAPLEY

Editorial Board

RICHARD W. ALDRICH	STEPHEN W. JONES
CLAY M. ARMSTRONG	JONATHAN C. KENTISH
BRUCE P. BEAN	PHILIP A. KNAUF
TED BEGENISICH	HENRY A. LESTER
PHILIP M. BEST	EDWARD MOCZYDLOWSKI
GERDA E. BREITWIESER	GERRY S. OXFORD
MICHAEL D. CAHALAN	LAWRENCE G. PALMER
PETER M. CALA	JOHN C. PARKER
W. KNOX CHANDLER	EDWARD N. PUGH, JR.
DAVID E. CLAPHAM	LUIS REUSS
FREDRIC S. COHEN	JOHN M. RUSSELL
DAVID C. DAWSON	JAMES A. SCHAFFER
PAUL DE WEER	MARTIN F. SCHNEIDER
MARION FRANK	ROGER C. THOMAS
SERGIO GRINSTEIN	DANIEL TRANCHINA
BERTIL HILLE	ALAN M. WEINSTEIN
MICHAEL L. JENNINGS	W. GIL WIER

Honorary Editors

A. K. SOLOMON VINCENT ALLFREY
FRANCIS D. CARLSON C. M. CONNELLY
LORIN J. MULLINS

THE JOURNAL OF GENERAL PHYSIOLOGY IS THE OFFICIAL ORGAN OF THE SOCIETY
OF GENERAL PHYSIOLOGISTS AND IS EDITED IN COOPERATION WITH THE SOCIETY

Jeanne Hess *Copyediting and Production*

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 the 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 Section 107 or 108 of the U.S. Copyright Law—the copier pays the stated per-copy fee, for this journal \$2.00 per article, through the Copyright Clearance Center, Inc., 21 Congress Street, Salem, MA 01970, 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 General Physiology* (ISSN 0022-1295) is published monthly for \$190 per year (postal surcharge Europe only, \$36) by The Rockefeller University Press, 222 E. 70th St., New York, NY 10021. Second-class postage paid at New York, NY and additional mailing offices. POSTMASTER: Send address changes to *The Journal of General Physiology*, Order Service, The Rockefeller University Press, 222 E. 70th St., New York, NY 10021. Copyright © 1992 by The Rockefeller University Press, 222 E. 70th St., New York, NY 10021. *Made in the United States of America*