

Physiological Reviews

Editor: D. Brown

Program in Membrane Biology/Division of Nephrology
Massachusetts General Hospital
Simches Research Center
Boston, MA 02114

Editorial Board

T. M. Coffman
T. Kieffer
E. McNally
J. Merchant
J. Molkenin
A. Nagy
M. Sheng
J. D. Sweatt

Society Representatives

L. S. Jefferson
*American Society for Biochemistry
and Molecular Biology*
K. Foskett
Society for General Physiologists
J. H. Byrne
Society for Neuroscience
M. T. Nelson
Biophysical Society
R. Cousins
American Society for Nutrition
J. C. Adams
American Society for Cell Biology

Publications Committee

K. E. Barrett, *Chair*
D. Gutterman
T. Lohmeier
P. Persson
C. Sladek

European Editorial Committee

O. H. Petersen, *Chairman*
Department of Physiology
University of Liverpool
Liverpool L69 3BX
United Kingdom

J. C. Adams, *United Kingdom*
P. Bie, *Denmark*
B. Cannon, *Sweden*
A. Friederici, *Germany*
M. Lazdunski, *France*
B. Nilius, *Belgium*
T. Pozzan, *Italy*
L. Santella, *Italy*
A. Spät, *Hungary*

Associate Member

V. Skulachev, *Russia*

Corresponding Members

B. Martinac, *Australia*
M. Cerejido, *Mexico*
Y. Kidokoro, *Japan*

Ex officio

R. Scheman, *Director of
Publications and
Executive Editor*
I. Zucker, *President*
M. Frank, *Executive Director*

Physiological Reviews (ISSN 0031-9333) is published quarterly (January, April, July, October) by the American Physiological Society, 9650 Rockville Pike, Bethesda, MD 20814-3991 and online at www.prv.org (ISSN 1522-1210). Phone: 301-634-7070 FAX: 301-634-7243
E-mail: info@the-aps.org

Subscriptions: (prepaid) Institutions (print and online): US \$490, Canada & Mexico \$505, elsewhere \$515. Institutions (online only): \$410. Institutions (print only): US \$475, Canada & Mexico \$490, elsewhere \$500. Nonmember individual (print and online): US \$345, Canada & Mexico \$360, elsewhere \$370. Nonmember individual (online only): \$275. Nonmember individual (print only): US \$315, Canada & Mexico \$330, elsewhere \$340. APS members (print only; online is free): US \$145, Canada & Mexico \$160, elsewhere \$170. Payable in US currency only. Subscriptions accepted on a calendar-year basis only. *Single copies/back issues:* subscriber, \$65; nonsubscriber, \$135 prepaid. Periodicals postage paid at Bethesda, MD and at additional mailing offices.

Subscriptions and orders to: Physiological Reviews, 9650 Rockville Pike, Bethesda, MD 20814-3991. Phone: 301-634-7180.
Postmaster: Send address changes to Physiological Reviews, 9650 Rockville Pike, Bethesda, MD 20814-3991.

Change of Address: Please allow at least six weeks and include both the old and new address. Undelivered copies resulting from an address change will not be replaced.

Copyright © 2009 by the American Physiological Society.

Printed in the United States of America by Cadmus Communications—Lancaster Division, Lancaster, PA 17601. Code at the bottom of the first page of an article indicates copyright owner's consent that copies may be made beyond that permitted by sections 107 and 108 of the US Copyright Law, unless copies are for general distribution, advertising, creating new works, or resale, provided the per-copy fee is paid through the Copyright Clearance Center, Inc., 222 Rosewood Drive, Danvers, MA 01923, USA. 0031-9333/09 \$18.00

Disclaimer: The statements and opinions contained in the articles of *Physiological Reviews* are solely those of the individual authors and contributors and not of the American Physiological Society. The appearance of advertisements in the journal is not a warranty, endorsement, or approval of the products or their safety. The American Physiological Society disclaims responsibility for any injury to persons or property resulting from any ideas or products referred to in any article or advertisement.

Editor

D. Brown: Phone: 617-726-5665
FAX: 617-643-3182
E-mail: brown@receptor.mgh.harvard.edu

Director of Publications/Executive Editor

Rita Scheman: 301-634-7071

Editorial Manager

Mark Goodwin: 301-634-7072

Peer Review Manager

Gilbert Ebner: 301-634-7974

Journal Copy Editor (Manuscripts in Production)

Maria Kuhrmann: 301-634-7070

Manager of Scientific Illustrations

Scott Weldon: 713-926-2633