

MOLECULAR PHARMACOLOGY

A Publication of the American Society for Pharmacology and Experimental Therapeutics

Founded by Avram Goldstein—1965

Kathryn E. Meier, Editor

John Tesmer, Deputy Editor

ASSOCIATE EDITORS

Cecilia Bouzat, Raymond Evers, John R. Hepler, Sridhar Mani,
Andrew Morris, Jeanne Nerbonne, Manojkumar Puthenveedu, and Alan Smrcka
Martin Michel, *Minireview Editor*

David Gewirtz, *Emerging Concepts Editor*

Martin Michel, Harvey J. Motulsky, and T.J. Murphy, *Statistics Editors*

EDITORIAL AND ADVISORY BOARD

Katerina Akassoglou	Michael Freissmuth	Hiroshi Itoh	Sophie Lotersztajn	Michael A. Rogawski
Giuseppe Battaglia	Liwu Fu	Kenneth A. Jacobson	Angeline M. Lyon	Bryan L. Roth
Jeffrey L. Benovic	Yoshiaki Fujii-Kuriyama	Andrew Jenkins	Ken Mackie	Siddhartha Roy
Nigel J. M. Birdsall	Aurelio Galli	Ralf Jockers	Adriano Marchese	Gunnar Schulte
Laura Bohn	Adolfo Garcia-Sáinz	Eric F. Johnson	Jeffrey Martens	Zhi Shi
Wendy Bollag	Ulrik Gether	Mathew Jones	James O. McNamara	Shivendra V. Singh
Joan Heller Brown	Alasdair Gibb	Thomas Kash	Laurence J. Miller	Gregory Tall
Moritz Bunemann	Alisa Glukhova	Marcelo Kazanietz	Graeme Milligan	Andrew Tobin
Thomas Burris	Frank J. Gonzalez	John Kehrl	Peter Mohler	John Traynor
Meritzell Canals	Michael M. Gottesman	Terry Kenakin	Ole Valente Mortensen	JoAnn Trejo
Jennifer Cash	Patrick Griffin	Brian K. Kobilka	Senthil Natesan	Joanne Wang
William A. Catterall	Grace Guo	Evi Kostenis	Richard R. Neubig	David J. Waxman
Niels Decher	J. Silvio Gutkind	Rakesh Kukreja	Kim A. Neve	Jurgen Wess
Mark Dell'Acqua	Randy A. Hall	Nevin Lambert	Eric Ortlund	Keith Williams
Jerod Denton	Kasper Hansen	Philip Lazarus	Rennolds S. Ostrom	Wen Xie
Lakshmi Devi	Donald Hilgemann	L. M. Fredrik	Jean-Philippe Pin	Richard D. Ye
Henrik Dohlman	Miwako Kato Homma	Leeb-Lundberg	John J. Reiners, Jr.	Lixia Yue
George Dubyak	Nato Hoshi	Henry Lester	Michael Robinson	Michael Zhu
Frederick J. Ehlert	Hidegori Ichijo	Lian Li	Cheryl Rockwell	

PUBLICATIONS COMMITTEE

Kenneth D. Tew, *Chair*; Laura Bohn, Lynette Daws, Xinxin Ding, Beverley Greenwood-Van Meerveld, Michael F. Jarvis,
J. Steven Leeder, Adriano Marchese, Kathryn E. Meier, Gary O. Rankin, Susan Wood; and Mohamed Ghonim,
ex officio Young Scientist Representative

ASPET EXECUTIVE OFFICER: Dave Jackson

Publications Director: Maria Pasho *Senior Journals Operations Manager:* Jacqueline Perry *Peer Review Coordinator:* Suzanne Cholwek

Molecular Pharmacology (ISSN 1521-0111) is published monthly online only (two volumes per year beginning in January and July) by the American Society for Pharmacology and Experimental Therapeutics, 1801 Rockville Pike, Suite 210, Rockville, MD 20852-1633. E-mail: subscriptions@aspet.org. ASPET web site: aspet.org. Journalweb site: molpharm.aspetjournals.org. Subscription rates at aspetjournals.org/site/subscriptions/index.xhtml. GST Tax Number for Canadian subscribers: BN: 13489 2330 RT.

Indexed or abstracted by: *Biochemistry & Biophysics Citation Index*®, *Biological Abstracts*, *Current Awareness in Biological Sciences*, *Current Contents*®/*Life Sciences*, *EMBASE/Excerpta Medica*, *Index Medicus*, *Medical Documentation Service*®, *Reference Update*®, *Research Alerts*®, *Science Citation Index*®, and *SciSearch*®.

Journal and ASPET office: 1801 Rockville Pike, Suite 210, Rockville, MD 20852-1633. Telephone: 301-634-7060. Fax: 301-634-7061. E-mail: info@aspet.org. ASPET web site: aspet.org. Journal web site: molpharm.aspetjournals.org.

Editorial matters should be addressed to Dr. Kathryn E. Meier, Editor, *Molecular Pharmacology*, at molpharm@aspet.org.

Instructions to Authors: See molpharm.aspetjournals.org for the Instructions to Authors and information on ASPET Authorship Responsibility, Financial Disclosure, and Chemical Structure policies.

Subscriptions: Contact the ASPET Subscriptions Dept., 1801 Rockville Pike, Suite 210, Rockville, MD 20852-1633. Telephone: 301-634-7782. Fax: 301-634-7061. E-mail: subscriptions@aspet.org. See aspetjournals.org/site/subscriptions/index.xhtml for rates.

Change of IP addresses: ASPET will help institutional subscription administrators update IP address ranges as requested. Subscription administrators can make these changes at the journal site using their account user name and password.

Reprints of individual articles are available from the journal web site using the pay-per-view option for nonsubscribers.

Reprints in large quantities for commercial or academic use may be purchased from ASPET. For information and prices, call 301-634-7063.

Copyright information: *Molecular Pharmacology* is copyrighted by the American Society for Pharmacology and Experimental Therapeutics. All permissions requests are processed through the Copyright Clearance Center (CCC), Inc. at <https://www.copyright.com/get-permissions>. Photocopying or printing articles beyond that permitted by Sections 107 and 108 of the U.S. Copyright Law is allowed, provided that the \$35.00-per-copy fee is paid through the CCC. Classroom photocopying is permitted at no fee, provided that students are not charged more than the cost of duplication. This consent does not extend to other kinds of copying. Reproduction of any portion of an article for subsequent republication requires permission of ASPET.

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

Copyright © 2022 by the American Society for Pharmacology and Experimental Therapeutics. All rights reserved.