

PHARMACOLOGICAL REVIEWS

A Publication of the American Society for Pharmacology and Experimental Therapeutics

Louis S. Goodman, Founding Editor, 1949

Lynette C. Daws, Editor

ASSOCIATE EDITORS

Hamid I. Akbarali <i>Virginia Commonwealth Univ.</i>	Kay Double <i>Univ. of Sydney, Australia</i>	Habibeh Khoshbouei <i>Univ. of Florida</i>	Rebecca Ritchie <i>Monash Inst., Australia</i>
Stephen P. Alexander <i>University of Nottingham, UK</i>	Ali Eid <i>Qatar Univ., Qatar</i>	Volker Lauschke <i>Karolinska Inst., Sweden</i>	John D. Schuetz <i>St. Jude's Children's Research Hospital</i>
Andrew Baker <i>University of Edinburgh, UK</i>	Charles France <i>Univ. of Texas Health Science Ctr.</i>	Francesca Levi-Schaffer <i>The Hebrew Univ. of Jerusalem, Israel</i>	Gunnar Schulte <i>Karolinska Inst., Sweden</i>
Matthew Banks <i>Virginia Commonwealth Univ.</i>	Michelle Glass <i>Dunedin, New Zealand</i>	Finn Olav Levy <i>Univ. of Oslo, Norway</i>	Ulf Simonsen <i>Aarhus Univ., Denmark</i>
Erin Calipari <i>Vanderbilt Univ.</i>	Michael Gottesman <i>NCI, NIH</i>	Sara Liin <i>Linköping Univ., Sweden</i>	Harald Sitte <i>Medical Univ. Vienna, Austria</i>
Mattias Carlstrom <i>Karolinska Inst., Sweden</i>	Thomas Gudermann <i>LMU Munich, Germany</i>	Martin Michel <i>Johannes Gutenberg Univ., Germany</i>	Barbara Stauch Slusher <i>Johns Hopkins University</i>
A.H. Jan Danser <i>Erasmus MC, Netherlands</i>	Grace Guo <i>Rutgers Univ.</i>	Eliot Ohlstein <i>Drexel Univ.</i>	Rhian M. Touyz <i>McGill Univ., Canada</i>
Robert Dantzer <i>Univ. of Texas</i>	Jukka Hakkola <i>Univ. of Oulu, Finland</i>	Clive Page <i>King's College London, UK</i>	Joanne Wang <i>Univ. of Washington</i>
	Hyunyoung (Young) Jeong <i>Purdue Univ.</i>	Des R. Richardson <i>Griffith University</i>	Richard Ye <i>The Chinese Univ. of Hong Kong, China</i>

SOCIAL MEDIA AMBASSADORS

Nina Beltran <i>Univ. of Texas, El Paso</i>	Öykü Deniz Beşe <i>Ankara Üniversitesi, Turkey</i>	Katie-Marie Case <i>King's College London, United Kingdom</i>	Mahan Gholam Azad <i>Griffith Univ., Australia</i>	Kimberly Holter <i>Vanderbilt Univ., Nashville</i>	Joseph Miller <i>St. Jude's Children's Research Hospital, Arlington</i>
--	---	--	---	---	--

PUBLICATIONS COMMITTEE

Kenneth D. Tew, *Chair*; Laura Bohn, Lynette Daws, Xinxin Ding, Beverley Greenwood-Van Meerveld, Michael F. Jarvis, Adriano Marchese, Gary O. Rankin, John J.G. Tesmer, Susan Wood, Ai-Ming Yu, and Mohamed Ghonim, *ex officio Young Scientist Representative*

ASPET EXECUTIVE OFFICER: Dave Jackson

Publications Director: Maria Pasho *Peer Review Coordinator*: Kristine Styron

Editorial supervision of *Pharmacological Reviews* is shared jointly with the **British Pharmacological Society** and the **Scandinavian Pharmacological Societies**.

Pharmacological Reviews (ISSN 1521-0081) is published bimonthly in January, March, May, July, September, and November online only 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. Journal web site: pharmrev.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: *Biological Abstracts*, *BIOSIS Previews Database*, *Biosciences Information Service*, *Current Contents®/Life Sciences*, *EMBASE/Excerpta Medica*, *Index Medicus*, *Index to Scientific Reviews®*, *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: pharmrev@aspet.org. ASPET web site: aspet.org. Journal web site: pharmrev.aspetjournals.org.

Editorial matters should be addressed to Lyn Daws, Editor, *Pharmacological Reviews*, at pharmrev@aspet.org.

Instructions to Authors: See pharmrev.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: *Pharmacological Reviews* is copyrighted by the American Society for Pharmacology and Experimental Therapeutics. For permission to photocopy entire articles from *Pharmacological Reviews*, see www.copyright.com or contact the Copyright Clearance Center (CCC), Inc., 222 Rosewood Dr., Danvers, MA 01923. Telephone: 978-750-8400. For permission to reprint portions of articles such as figures and tables or to reprint entire articles in a thesis or dissertation, see <https://www.aspet.org/aspet/journals/journals-information/permissions-request>. 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 *Pharmacological Reviews* 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 © 2024 by the American Society for Pharmacology and Experimental Therapeutics. All rights reserved.