

DRUG METABOLISM AND DISPOSITION

A Publication of the American Society for Pharmacology and Experimental Therapeutics

Founded by Kenneth C. Leibman—1973

Eric F. Johnson, Editor

ASSOCIATE EDITORS

Stephen D. Hall, Laurence S. Kaminsky, John O. Miners, Russell A. Prough, John D. Schuetz, Jeffrey C. Stevens, Kenneth E. Thummel, Donald J. Tweedie, Steven A. Wrighton, and Garold S. Yost

SCIENTIFIC ADVISORY BOARD

M.W. Anders, Minor J. Coon, Ronald W. Estabrook, Frederick P. Guengerich
James R. Halpert, Anthony Y. Lu, Bettie Sue Masters, and Paul R. Ortiz De Montellano

EDITORIAL BOARD MEMBERS

Tommy B. Andersson	Cornelis J. Elferink	Jeffrey P. Jones	R. Scott Obach	Bill J. Smith
Wayne L. Backes	Michael R. Franklin	Richard Kim	K. Sandy Pang	Grazyna D. Szklarz
Thomas Baillie	Ronald B. Franklin	Sang Geon Kim	Anna Radomska-Pandya	Yun K. Tam
John R. Bend	Joyce Goldstein	Thomas Kocarek	Judy L. Raucy	Timothy S. Tracy
Jeffrey L. Blumer	Robert Hanzlik	Dennis R. Koop	Allan Rettie	Mary Vore
Kim L.R. Brouwer	Ronald N. Hines	Lawrence H. Lash	Douglas Rickert	Paul B. Watkins
Arthur Cederbaum	Paul F. Hollenberg	J. Steven Leeder	David S. Riddick	David J. Waxman
Nathan Cherrington	J. Brian Houston	Lois D. Lehman-McKeeman	Joseph K. Ritter	Ronald E. White
Arthur K. Cho	Magnus Ingelman-Sundberg	Peter Ian Mackenzie	A. David Rodrigues	Larry C. Wienkers
David D. Christ	Philip B. Inskeep	Edward T. Morgan	Melissa Runge-Morris	Paul Wissel
Deepak Dalvie	Margaret O. James	Sidney D. Nelson	Magang Shou	Yasushi Yamazoe
William J. Ehlhardt				Cheryl L. Zimmerman
Sean Ekins				

BOARD OF PUBLICATIONS TRUSTEES

James E. Barrett, *Chair*; P. Jeffrey Conn, Ross Feldman, Lorraine J. Gudas, Eric F. Johnson, John S. Lazo, Edward T. Morgan, Richard R. Neubig, Rick G. Schnellmann, Darryle D. Schoepp, and Mary Vore

ASPET EXECUTIVE OFFICER: Christine K. Carrico

Journals Director: Richard Dodenhoff

Managing Editor: Jill Filler

Senior Editorial Coordinator: Rhonda Frankenfield

Journal and ASPET office: 9650 Rockville Pike, Bethesda, MD 20814-3995; telephone: 301-634-7060; fax: 301-634-7061; email: info@aspet.org; web site: www.aspet.org; journal web site: dmd.aspetjournals.org.

Editorial matters should be addressed to Dr. Eric F. Johnson, Editor, *Drug Metabolism and Disposition*, at the above address.

Official version: The online version of *Drug Metabolism and Disposition* contains all of the information and material contained in the print version plus additional material that may not appear in print such as videos and large data sets. The online version may be more current than the print version. Where noted, the online version has been corrected in departure from the print version. The online version of *Drug Metabolism and Disposition* officially published by the American Society for Pharmacology and Experimental Therapeutics is the definitive version and, to the extent any difference exists, will prevail over the print version.

Instructions to Authors: See dmd.aspetjournals.org for the Instructions to Authors and the ASPET Authorship Responsibility, Financial Disclosure, and Copyright Transfer form.

Subscriptions: Contact the ASPET Subscriptions Dept., 9650 Rockville Pike, Bethesda, MD 20814-3995; telephone: 301-634-7782; fax: 301-634-7061; email: subscriptions@aspet.org. For multi-site and consortia sales in Europe, contact: David Charles, eLicensing, 92 avenue du Général de Gaulle, 78600, Maisons-Laffitte, France; telephone: +33-1-39-12-29-29; fax: +33-1-39-12-47-45; email: dc.licensing@orange.fr.

Change of address: ASPET must be notified 60 days in advance. Copies undeliverable because of incorrect address will be destroyed. Duplicate copies may be obtained, if available, from ASPET at the single copy price. Send address changes to the ASPET office.

Issue replacement policy: *Domestic subscribers*—Claims for nondelivery of issues must be made within three (3) months of issue mail date. *Foreign subscribers*—Claims for nondelivery of issues must be made within six (6)

months of issue mail date. **Missing Issues (domestic and foreign)**—ASPET will not honor refunds or replacement requests made outside of the claim time period. Up to two (2) issues will be replaced free of charge per subscription year.

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

Copyright information: *Drug Metabolism and Disposition* is copyrighted by the American Society for Pharmacology and Experimental Therapeutics. For permission to photocopy or use material electronically from *Drug Metabolism and Disposition*, see www.copyright.com or contact the Copyright Clearance Center (CCC), Inc., 222 Rosewood Dr., Danvers, MA 01923; telephone: 978-750-8400. Photocopying of articles beyond that permitted by Sections 107 and 108 of the U.S. Copyright Law is allowed, provided that the \$20.00-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. Write to the ASPET office at the above address. Requests should include a statement of intended use as well as explicit specifications of the materials to be reproduced.

Disclaimer: The statements and opinions contained in the articles of *Drug Metabolism and Disposition* 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 © 2009 by the American Society for Pharmacology and Experimental Therapeutics. All rights reserved. Printed in the U.S.A.