

## CONTENTS

## ACCELERATED COMMUNICATIONS

- STEPHEN G. FARMER, RONALD M. BURCH, SONYA A. MEEKER, AND DEIDRE E. WILKINS. Evidence for a Pulmonary B<sub>3</sub> Bradykinin Receptor ..... 1
- JEAN-PIERRE SOMMADOSSI, RICARDA CARLISLE, AND ZHU ZHOU. Cellular Pharmacology of 3'-Azido-3'-Deoxythymidine with Evidence of Incorporation into DNA of Human Bone Marrow Cells ..... 9

## ARTICLES

- JOHN R. RAYMOND, ANNICK FARGIN, MARTIN J. LOHSE, JOHN W. REGAN, SUSAN E. SENOGLES, ROBERT J. LEFKOWITZ, AND MARC G. CARON. Identification of the Ligand-Binding Subunit of the Human 5-Hydroxytryptamine<sub>1A</sub> Receptor with *N*-(*p*-Azido-*m*-[<sup>125</sup>I]iodophenethyl)piperone, a High Affinity Radioiodinated Photoaffinity Probe ..... 15
- JEFFREY A. MOSCOW, ALAN J. TOWNSEND, AND KENNETH H. COWAN. Elevation of  $\pi$  Class Glutathione S-Transferase Activity in Human Breast Cancer Cells by Transfection of the GST  $\pi$  Gene and Its Effect on Sensitivity to Toxins ..... 22
- JEFFREY A. HEROUX, CHARLES N. FALANY, AND JEROME A. ROTH. Immunological Characterization of Human Phenol Sulfotransferase ..... 29
- JAMES A. NATHANSON. Development of a Photoaffinity Ligand for Octopamine Receptors ..... 34
- FABIAN GUSOVSKY, TAKESHI YASUMOTO, AND JOHN W. DALY. Calcium-Dependent Effects of Maitotoxin on Phosphoinositide Breakdown and on Cyclic AMP Accumulation in PC12 and NCB-20 Cells ..... 44
- LEIGH A. RILEY, M. A. WAGUESPACK, AND RICHARD M. DENNEY. Characterization and Quantitation of Monoamine Oxidases A and B in Mitochondria from Human Placenta ..... 54
- TODD D. PORTER, SHAHROKH C. KHANI, AND MINOR J. COON. Induction and Tissue-Specific Expression of Rabbit Cytochrome P450IIE1 and IIE2 Genes ..... 61
- LINDA C. QUATTROCHI AND ROBERT H. TUKEY. The Human Cytochrome CYP1A2 Gene Contains Regulatory Elements Responsive to 3-Methylcholanthrene ..... 66
- TIMOTHY D. HODGES, JOHN C. BAILEY, JOHN W. FLEMING, AND RICHARD J. KOVACS. Selective Parasympathectomy Increases the Quantity of Inhibitory Guanine Nucleotide-Binding Proteins in Canine Cardiac Ventricle ..... 72
- SU-YING LIU, BYUNG-DOO HWANG, MITSUMASA HARUNA, YASUHIRO IMAKURA, KUO-HSIUNG LEE, AND YUNG-CHI CHENG. Podophyllotoxin Analogs: Effects on DNA Topoisomerase II, Tubulin Polymerization, Human Tumor KB Cells, and Their VP-16-Resistant Variants ..... 78
- SHIGERU YAMANO, TOSHIFUMI AOYAMA, O. WESLEY MCBRIDE, JAMES P. HARDWICK, HARRY V. GELBOIN, AND FRANK J. GONZALEZ. Human NADPH-P450 Oxidoreductase: Complementary DNA Cloning, Sequence and Vaccinia Virus-Mediated Expression and Localization of the *CYPOR* Gene to Chromosome 7 ..... 83
- THOMAS KRONBACH, DANIEL MATHYS, MORIO UMENO, FRANK J. GONZALEZ, AND URS A. MEYER. Oxidation of Midazolam and Triazolam by Human Liver Cytochrome P450IIA4 ..... 89
- STEVEN A. WRIGHTON, BARBARA J. RING, PAUL B. WATKINS, AND MARK VANDENBRANDEN. Identification of a Polymorphically Expressed Member of the Human Cytochrome P-450III Family ..... 97

Continued

MOLECULAR PHARMACOLOGY (ISSN 0026-895x) is an official publication of The American Society for Pharmacology and Experimental Therapeutics and is published monthly by Williams & Wilkins, 428 East Preston Street, Baltimore, MD 21202-3993. Price per year: USA individual rate \$80; Japan \$145 (includes air freight); all other countries, surface mail \$105. USA institutional rate \$175; Japan \$240 (includes air freight); all other countries, surface mail \$200. (Prices subject to change.) All subscription orders should be addressed to Molecular Pharmacology, 428 East Preston Street, Baltimore, MD 21202-3993.

Second Class Postage paid at Baltimore, MD, and at additional mailing offices. POSTMASTER: Send address changes to MOLECULAR PHARMACOLOGY, 428 East Preston Street, Baltimore, MD 21202-3993.

Copyright © 1989 by The American Society for Pharmacology and Experimental Therapeutics.

CONTENTS (cont'd)

HARI MANEV, MARCO FAVARON, ALESSANDRO GUIDOTTI, AND ERMINIO COSTA. Delayed Increase of Ca <sup>2+</sup> Influx Elicited by Glutamate: Role in Neuronal Death . . . . .	106
ALAN POLAND, PHILLIP TEITELBAUM, AND EDWARD GLOVER. [ <sup>125</sup> I]2-Iodo-3,7,8-trichlorodibenzo- <i>p</i> -dioxin-Binding Species in Mouse Liver Induced by Agonists for the Ah Receptor: Characterization and Identification . . . . .	113
ALAN POLAND, PHILIP TEITELBAUM, EDWARD GLOVER, AND ANDREW KENDE. Stimulation of <i>In Vivo</i> Hepatic Uptake and <i>In Vitro</i> Hepatic Binding of [ <sup>125</sup> I]2-Iodo-3,7,8-trichlorodibenzo- <i>p</i> -dioxin by the Administration of Agonists for the Ah Receptor . . . . .	121
MARC J. PALLARDY, ROBERT V. HOUSE, AND JACK H. DEAN. Molecular Mechanism of 7,12-Dimethylbenz[ <i>a</i> ]anthracene-Induced Immunosuppression: Evidence for Action via the Interleukin-2 Pathway . . . . .	128
WENDY P. GATI AND ALAN R. P. PATERSON. Interaction of [ <sup>3</sup> H]Dilazep at Nucleoside Transporter-Associated Bindings Sites on S49 Mouse Lymphoma Cells . . . . .	134
LINDA G. JONES, PATRICK M. McDONOUGH, AND JOAN HELLER BROWN. Thrombin and Trypsin Act at the Same Site to Stimulate Phosphoinositide Hydrolysis and Calcium Mobilization . . . . .	142
ROGER J. HILL, HENRY J. DUFF, AND ROBERT S. SHELDON. Class I Antiarrhythmic Drug Receptor: Biochemical Evidence for State-Dependent Interaction with Quinidine and Lidocaine . . . . .	150
MATTHEW A. SILLS AND PATRICIA S. LOO. Tricyclic Antidepressants and Dextromethorphan Bind with High Affinity to the Phencyclidine Receptor in the Absence of Magnesium and L-Glutamate . . . . .	160
GOZOH TSUJIMOTO, AIKO TSUJIMOTO, ETSURO SUZUKI, AND KEITARO HASHIMOTO. Glycogen Phosphorylase Activation by Two Different $\alpha_1$ -Adrenergic Receptor Subtypes: Methoxamine Selectively Stimulates a Putative $\alpha_{1a}$ -Adrenergic Receptor Subtype ( $\alpha_{1a}$ ) that Couples with Ca <sup>2+</sup> Influx . . . . .	166
CHARLES E. SPIVAK, JAMES A. WATERS, AND ROBERT S. ARONSTAM. Binding of Semirigid Nicotinic Agonists to Nicotinic and Muscarinic Receptors . . . . .	177
PETER G. W. PLAGEMANN AND CLIVE WOFFENDIN. Permeation and Salvage of Dideoxyadenosine in Mammalian Cells . . . . .	185
JOHN B. COLEMAN, DONNA GILFOR, AND JOHN L. FARBER. Dissociation of the Accumulation of Single-Strand Breaks in DNA from the Killing of Cultured Hepatocytes by an Oxidative Stress . . . . .	193
MARCO A. RIVA AND IAN CREESE. Comparison of Two Putatively Selective Radioligands for Labeling Central Nervous System $\beta$ -Adrenergic Receptors: Inadequacy of [ <sup>3</sup> H]Dihydroalprenolol . . . . .	201
MARCO A. RIVA AND IAN CREESE. Reevaluation of the Regulation of $\beta$ -Adrenergic Receptor Binding by Desipramine Treatment . . . . .	218

---

Copyright © 1989 by The American Society for Pharmacology and Experimental Therapeutics

All Rights Reserved

No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the copyright owner.

The appearance of the code at the bottom of the first page of an article in this journal indicates the copyright owner's consent that copies of this article may be made for personal or internal use, or for the personal or internal use of specific clients. This consent is given on the condition, however, that the copier pay the stated per copy fee through the Copyright Clearance Center, Inc., (21 Congress Street, Salem, Massachusetts 01970), for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. 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. Copy fees for pre-1986 articles are the same as those shown for current articles.