

CONTENTS

ACCELERATED COMMUNICATION

- ANNE H. CHEUNG, RICHARD A. F. DIXON, WENDY S. HILL, IRVING S. SIGAL, AND CATHERINE D. STRADER. Separation of the Structural Requirements for Agonist-Promoted Activation and Sequestration of the β -Adrenergic Receptor 775 ✓
- JOSEPH B. MONAHAN, JOHN P. BIESTERFELDT, WILLIAM F. HOOD, ROBERT P. COMPTON, ALEXIS A. CORDI, MICHAEL I. VAZQUEZ, THOMAS H. LANTHORN, AND PAUL L. WOOD. Differential Modulation of the Associated Glycine Recognition Site by Competitive *N*-Methyl-D-aspartate Receptor Antagonists 780
- LAWRENCE C. MAHAN AND RONALD M. BURCH. Functional Expression of B₂ Bradykinin Receptors from Balb/c Cell mRNA in *Xenopus* Oocytes 785

ARTICLES

- PEDRO M. POLITI, SUSAN T. ARNOLD, RONALD L. FELSTED, AND BIRANDRA K. SINHA. P-Glycoprotein-Independent Mechanism of Resistance to VP-16 in Multidrug-Resistant Tumor Cell Lines: Pharmacokinetic and Photoaffinity Labeling Studies 790
- JANE L. HALPERN AND JOEL MOSS. Immunological Characterization of Guanine Nucleotide-Binding Proteins: Effects of a Monoclonal Antibody Against the γ Subunit of Transducin on Guanine Nucleotide-Binding Protein-Receptor Interactions 797
- CRAIG R. FAIRCHILD, JEFFREY A. MOSCOW, ERIN E. O'BRIEN, AND KENNETH H. COWAN. Multidrug Resistance in Cells Transfected with Human Genes Encoding a Variant P-Glycoprotein and Glutathione *S*-Transferase- π 801
- PETER G. TRABER, WEI WANG, MICHAEL McDONNELL, AND JORGE J. GUMUCIO. P450IIB Gene Expression in Rat Small Intestine: Cloning of Intestinal P450IIB1 mRNA Using the Polymerase Chain Reaction and Transcriptional Regulation of Induction 810
- LORI A. MANGELS, AND MARGARET E. GNEGY. Muscarinic Receptor-Mediated Translocation of Calmodulin in SK-N-SH Human Neuroblastoma Cells 820
- D. DEMOLLE, M. LECOMTE, O. BOUTHERIN-FALSON, E. J. CRAGOE, JR., A. C. NAIRN, AND J. M. BOEYNAEMS. Amiloride Analogs Induce the Phosphorylation of Elongation Factor-2 in Vascular Endothelial Cells 827
- BERTHA K. MADRAS, DON R. CANFIELD, CHRISTINE PFAELZER, FRANK J. VITTIMBERGA, JR., MARIAN DIFIGLIA, NEIL ARONIN, VENKATESALU BAKTHAVACHALAM, NANDKISHORE BAINDUR, AND JOHN L. NEUMEYER. Fluorescent and Biotin Probes for Dopamine Receptors: D₁ and D₂ Receptor Affinity and Selectivity 833
- CHRISTOPHER C. BENZ, MAX A. KENIRY, JAMES M. FORD, ALAN J. TOWNSEND, FRED W. COX, SANJEEWANI PALAYOOR, STEPHEN A. MATLIN, WILLIAM N. HAIT, AND KENNETH H. COWAN. Biochemical Correlates of the Antitumor and Antimitochondrial Properties of Gossypol Enantiomers 840
- KENICHIRO OGURA, TORU SOHTOME, AKIO SUGIYAMA, HARUHIRO OKUDA, AKIRA HIRATSUKA, AND TADASHI WATABE. Rat Liver Cytosolic Hydroxysteroid Sulfotransferase (Sulfotransferase a) Catalyzing the Formation of Reactive Sulfate Esters from Carcinogenic Polycyclic Hydroxymethylarenes 848
- KENNETH R. COURTNEY. Sodium Channel Blockers: The Size/Solubility Hypothesis Revisited 855

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 \$85; Japan \$151 (includes air freight); all other countries, surface mail \$110. USA institutional rate \$185; Japan \$251 (includes air freight); all other countries, surface mail \$210. Single copies \$17 (\$20 foreign). (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 © 1990 by The American Society for Pharmacology and Experimental Therapeutics.

CONTENTS (cont'd)

WANIDA SURICHAMORN, CARLOS FORRAY, AND ESAM E. EL-FAKAHANY. Role of Intracellular Ca^{2+} Mobilization in Muscarinic and Histamine Receptor-Mediated Activation of Guanylate Cyclase in N1E-115 Neuroblastoma Cells: Assessment of the Arachidonic Acid Release Hypothesis	860
SUBIR PAUL, IGOR FEOKTISTOV, ALAN S. HOLLISTER, DAVID ROBERTSON, AND ITALO BIAGGIONI. Adenosine Inhibits the Rise in Intracellular Calcium and Platelet Aggregation Produced by Thrombin: Evidence That Both Effects Are Coupled to Adenylate Cyclase	870
DOMINIQUE LANGIN, HERVE PARIS, AND MAX LAFONTAN. Binding of [3H]Idazoxan and of Its Methoxy Derivative [3H] RX821002 in Human Fat Cells: [3H]Idazoxan but Not [3H] RX821002 Labels Additional Non- α_2 -Adrenergic Binding Sites	876
LAWRENCE H. LAZARUS, WILLIAM E. WILSON, ANTONIO GUGLIETTA, AND ROBERTO DE CASTIGLIONE. Dermorphin Interaction with Rat Brain Opioid Receptors: Involvement of Hydrophobic Sites in the Binding Domain	886
CARLOS FORRAY AND ESAM E. EL-FAKAHANY. On the Involvement of Multiple Muscarinic Receptor Subtypes in the Activation of Phosphoinositide Metabolism in Rat Cerebral Cortex	893
CHIDE HAN, KAREN M. WILSON, AND KENNETH P. MINNEMAN. α_1 -Adrenergic Receptor Subtypes and Formation of Inositol Phosphates in Dispersed Hepatocytes and Renal Cells	903
XIAN-FANG LIU, MEI-LAN LIU, TAKASHI IYANAGI, KASSU LEGESSE, TERRY D. LEE, AND SHIUAN CHEN. Inhibition of Rat Liver NAD(P)H:Quinone Acceptor Oxidoreductase (DT-Diaphorase) by Flavonoids Isolated from the Chinese Herb <i>Scutellariae Radix</i> (Huang Qin)	911
ANKE WILKEN, HODA TAWFIK-SCHLIEPER, KARL-NORBERT KLOTZ, AND ULRICH SCHWABE. Pharmacological Characterization of the Adenylate Cyclase-Coupled Adenosine Receptor in Isolated Guinea Pig Atrial Myocytes	916
LOURDES ARBONÉS, FERNANDO PICATOSTE, AND AGUSTINA GARCIA. Histamine Stimulates Glycogen Breakdown and Increases $^{45}Ca^{2+}$ Permeability in Rat Astrocytes in Primary Culture	921
SUZANNE G. LAYCHOCK. Fatty Acids and Cyclooxygenase and Lipoxygenase Pathway Inhibitors Modulate Inositol Phosphate Formation in Pancreatic Islets	928
NAGINDRA PRASHAD, THOMAS J. GOKA, ROGER BARBER, AND R. W. BUTCHER. cAMP-Dependent Protein Kinase Responses of S49 Cells Are Reduced by Growth in Low Epinephrine Concentrations	937
LEONARD A. FAHIEN, JAN K. TELLER, MICHAEL J. MACDONALD, AND CATHERINE M. FAHIEN. Regulation of Glutamate Dehydrogenase by Mg^{2+} and Magnification of Leucine Activation by Mg^{2+}	943
MICHAEL R. TOTA, ZHENQUI XIA, DANIEL R. STORM, AND MICHAEL I. SCHIMMERLIK. Reconstitution of Muscarinic Receptor-Mediated Inhibition of Adenylyl Cyclase	950
GILLES KLOPMAN AND SANJAY SRIVASTAVA. Computer-Automated Structure Evaluation of Gastric Antiulcer Compounds: Study of Cytoprotective and Antisecretory Imidazo[1,2- <i>a</i>]pyridines and -Pyrazines	958
SU-SHU PAN AND HECTOR GONZALEZ. Mitomycin Antibiotic Reductive Potential and Related Pharmacological Activities	966
O. P. RORSTAD, I. WANKE, D. H. COY, A. FOURNIER, AND M. HUANG. Selectivity for Binding of Peptide Analogs to Vascular Receptors for Vasoactive Intestinal Peptide	971
TADIMETI S. RAO, JULIE A. CLER, MARK R. EMMETT, STEVE MICK, SMRITI IYENGAR, AND PAUL L. WOOD. BMY-14802 Antagonizes Harmaline- and D-Serine-Induced Increases in Mouse Cerebellar Cyclic GMP: Neurochemical Evidence for a σ Receptor-Mediated Functional Modulation of Responses Mediated by the <i>N</i> -Methyl-D-aspartate Receptor Complex <i>In Vivo</i>	978
TSUNEO ISHIZUKA, IZUMI KOMIYA, AKIRA HIRATSUKA, AND TADASHI WATABE. Novel Type of Ornithine-Glutathione Double Conjugate Excreted as a Major Metabolite into the Bile of Rats Administered Clebopride	983

Continued

CONTENTS (cont'd)

MARIA J. ANDRIES, GEORGE W. LUCIER, JOYCE GOLDSTEIN, AND CLAUDIA L. THOMPSON. Involvement of Cytochrome P-450c in α -Naphthoflavone Metabolism by Rat Liver Microsomes	990
MICHAEL R. TOTA AND MICHAEL I. SCHIMERLIK. Partial Agonist Effects on the Interaction Between the Atrial Muscarinic Receptor and the Inhibitory Guanine Nucleotide-Binding Protein in a Reconstituted System	996
AUTHOR INDEX FOR VOLUME 37	1005
SUBJECT INDEX FOR VOLUME 37	1012

Copyright © 1990 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.