MOLECULAR PHARMACOLOGY

Contents

ARTICLES

1	Site-Selective Photoaffinity Labeling of the <i>Torpedo</i> californica Nicotinic Acetylcholine Receptor by Azide Derivatives of Ethidium Bromide	Steen E. Pedersen
10	Expression and Characterization of Cloned Human Bombesin Receptors	Richard V. Benya, Takashi Kusui, Tapas K. Pradhan, James F. Battey, and Robert T. Jensen
21	A Ryanodine Receptor-like Ca ²⁺ Channel Is Expressed in Nonexcitable Cells	Fulvia Larini, Paola Menegazzi, Olavio Baricordi, Francesco Zorzato, and Susan Treves
29	Precipitated Morphine Withdrawal Stimulates Multiple Activator Protein-1 Signaling Pathways in the Rat Brain	Pastor Couceyro and James Douglass
40	Expression of the Bovine Striatal D_2 Receptor, But Not the D_1 Receptor, in Bovine Adrenal Medulla	Rosario Maroto, Manuela G. López, Mercedes del Valle, José R. Naranjo, Britt Mellström, and Antonio G. García
51	Evidence for Transcriptional Control of Human <i>mdr1</i> Gene Expression by Verapamil in Multidrug-Resistant Leukemic Cells	C. Muller, F. Goubin, E. Ferrandis, I. Cornil-Scharwtz, J. D. Bailly, C. Bordier, J. Bénard, B. I. Sikic, and G. Laurent
57	Divergent Regulation of Cytochrome P450 Enzymes by Morphine and Pethidine: A Neuroendocrine Mechanism?	Anders Rane, Zhurong Liu, Colin J. Henderson, and C. Roland Wolf
65	Differential Effect of 2,3,7,8-Tetrachlorodibenzo-p- dioxin on the "Adipose-Type" and "Brain-Type" Glucose Transporters in Mice	Phillip C. C. Liu and Fumio Matsumura

continued

MOLECULAR PHARMACOLOGY (MOL/ISSN 0026-895X) is an official publication of The American Society for Pharmacology and Experimental Therapeutics and is published monthly, two volumes a year, beginning in January and July, by Williams & Wilkins, 428 E. Preston St., Baltimore, MD 21202-3993. Second class postage paid at Baltimore, MD and at additional mailing offices. POSTMASTER: Send address changes to MOLECULAR PHARMACOLOGY, 428 E. Preston St., Baltimore, MD 21202-3993. Subscription Rates: U.S.: Personal \$105; Institutional \$230; Single copy \$19. Outside the U.S., except Japan: Personal \$135; Institutional \$260; Single copy \$23. Foreign prices exclude Japan. See Information for Subscribers for detailed instructions. The GST Tax Number for Canadian subscribers is 123394371. Country of origin USA. PRICES ARE SUBJECT TO CHANGE. Indexed by Index Medicus, Current Contents (Life Sciences), Excerpta Medica, Reference Update/Research Information Systems, and Current Awareness in Biological Sciences. Copyright © 1995 by The American Society for Pharmacology and Experimental Therapeutics.

CONTENTS (cont'd)

74	Relationship of Cytochrome P450 Activity to Clara Cell Cytotoxicity. IV. Metabolism of Naphthalene and Naphthalene Oxide in Microdissected Airways from Mice, Rats, and Hamsters	Alan Buckpitt, Ai-Min Chang, Alison Weir, Laura Van Winkle, Xiuzhen Duan, Richard Philpot, and Charles Plopper
82	A Single Amino Acid Substitution in Somatostatin Receptor Subtype 5 Increases Affinity for Somatostatin-14	Bradley A. Ozenberger and John R. Hadcock
88	Probing of the Location of the Allosteric Site on m1 Muscarinic Receptors by Site-Directed Mutagenesis	Hideki Matsui, Sebastian Lazareno, and Nigel J. M. Birdsall
99	Identification of 5-Hydroxytryptamine, Receptor Binding Sites in the Rat Hypothalamus: Sensitivity to Chronic Antidepressant Treatment	Andrew J. Sleight, Catherine Carolo, Nadine Petit, Catherine Zwingelstein, and Anne Bourson
104	ADP and ATP Activate Distinct Signaling Pathways in Human Promonocytic U937 Cells Differentiated with 1,25-Dihydroxy-vitamin D3	M. Angeles Ventura and Pierre Thomopoulos
115	Elucidation of the Insurmountable Nature of an Angiotensin Receptor Antagonist, SC-54629	Gillian M. Olins, Susan T. Chen, Ellen G. McMahon, Maria A. Palomo, and David B. Reitz
121	Channel Inhibition by Alkanols Occurs at a Binding Site on the Nicotinic Acetylcholine Receptor	Susan C. Wood, Peter H. Tonner, Alberto J. de Armendi, Birgitte Bugge, and Keith W. Miller
131	Characterization of Cloned Human Dopamine D1 Receptor-Mediated Calcium Release in 293 Cells	Chun Wel Lin, Thomas R. Miller, David G. Witte, Bruce R. Bianchi, Michael Stashko, Arlene M. Manelli, and Donald E. Frail
140	Glutamate-Induced Destabilization of Intracellular Calcium Concentration Homeostasis in Cultured Cerebellar Granule Cells: Role of Mitochondria in Calcium Buffering	Lech Kiedrowski and Erminio Costa
148	Functional Effects of Mutations in the Putative Agonist Binding Region of Recombinant α -Amino-3-hydroxy-5-methyl-4-isoxazolepropionic Acid Receptors	Feng Li, Neil Owens, and Todd A. Verdoorn
155	Receptor Binding Characterization in Kidney Membrane of [3H]U-37883, a Novel ATP-Sensitive K+ Channel Blocker with Diuretic/Natriuretic Properties	Kaushik Meisheri, Michel Fosset, Stephen Humphrey, and Michel Lazdunski
164	Characterization of a Series of Anabaseine-Derived Compounds Reveals That the 3-(4)-Dimethylaminocinnamylidine Derivative Is a Selective Agonist at Neuronal Nicotinic $\alpha 7/^{125}$ I α -Bungarotoxin Receptor Subtypes	Christopher M. de Fiebre, Edwin M. Meyer, Jeffrey C. Henry, Samuel I. Muraskin, William R. Kem, and Roger L. Papke

CONTENTS (cont'd)

172	Agonist Selectivity for Three Species of Natriuretic Peptide Receptor-A	Jill R. Schoenfeld, Patricia Sehl, Clifford Quan, John P. Burnier, and David G. Lowe
181	Blockade of Multiple Human Cardiac Potassium Currents by the Antihistamine Terfenadine: Possible Mechanism for Terfenadine-Associated Cardiotoxicity	William J. Crumb, Jr., Barbara Wible, David J. Arnold, John P. Payne, and Arthur M. Brown
191	Cyclic AMP and Protein Kinase A Mediate 5- Hydroxytryptamine Type 4 Receptor Regulation of Calcium-Activated Potassium Current in Adult Hippocampal Neurons	Gonzalo E. Torres, Yves Chaput, and Rodrigo Andrade
198	Mechanism of Clofilium Block of the Human Kv1.5 Delayed Rectifier Potassium Channel	A. A. Malayev, D. J. Nelson, and L. H. Philipson
206	Structural Analogs of Interleukin-2: A Point Mutation that Facilitates Biological Response	David Z. Chang, Maria Luisa Tasayco, and Thomas L. Ciardelli