MOLECULAR PHARMACOLOGY

Contents

ACCELERATED COMMUNICATIONS

493 High Affinity Amylin Binding Sites in Rat Brain Kevin Beaumont, Mary A. Kenney, Andrew A. Young, and Timothy J. Rink

498 Anandamide, an Endogenous Cannabinoid, Inhibits Calcium Currents as a Partial Agonist in N18 Neuroblastoma Cells Ken Mackie, William A. Devane, and Bertil Hille

504 Differential Modulation by Cyclothiazide and Concanavalin A of Desensitization at Native \( \alpha \)-Amino-3-hydroxy-5-methyl-4-isoxazolepropionic Acid- and Kainate-Preferring Glutamate Receptors Linda A. Wong and Mark L. Mayer

511 Role of the Aryl Hydrocarbon Receptor Nuclear Translocator Protein in Aryl Hydrocarbon (Dioxin) Receptor Action Markus R. Probst, Suzanne Reisz-Porszasz, Rosally V. Agbunag, May S. Ong, and Oliver Hankinson

519 Enhanced Stimulation by Ribavirin of the 5′-Phosphorylation and Anti-Human Immunodeficiency Virus Activity of Purine 2′,3′-Fluoro-2′,3′-Dideoxynucleosides David G. Johna, Gurpreet S. Ahluwalia, David A. Cooney, Hiroaki Mitsuya, and John S. Driscoll

ARTICLES

524 Molecular Cloning and Functional Expression of a Sheep \( \alpha_3 \) Adenosine Receptor with Widespread Tissue Distribution Joel Linden, Heidi E. Taylor, Anna S. Robeva, Amy L. Tucker, Jörg H. Stehle, Scott A. Rivkees, J. Stephen Fink, and Steven M. Reppert

Continued
<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>533</td>
<td>Alternative Transcript of Nonselective-Type Endothelin Receptor from Rat Brain</td>
<td>Hwei-Fang Cheng, Yu-Ming Su, Jing-Ruey Yeh, and Kwen-Jen Chang</td>
</tr>
<tr>
<td>539</td>
<td>Characterization of Guinea Pig Pulmonary Neurokinin Type 1 Receptors using a Novel Antagonist Ligand, [3H]FK888</td>
<td>Kikuo Miyayasu, Judith C. W. Mak, Masanori Nishikawa, and Peter J. Barnes</td>
</tr>
<tr>
<td>560</td>
<td>Rat CYP1A1 Negative Regulatory Element: Biological Activity and Interaction with a Protein from Liver and Hepatoma Cells</td>
<td>Kenneth Sterling, James Weaver, Kai Ling Ho, Li Cheng Xu, and Edward Bresnick</td>
</tr>
<tr>
<td>569</td>
<td>β2-Adrenergic Receptor Mutants Reveal Structural Requirements for the Desensitization Observed with Long Term Epinephrine Treatment</td>
<td>Melissa A. Proll, Richard B. Clark, and R. W. Butcher</td>
</tr>
<tr>
<td>575</td>
<td>Dual Coupling of the Cloned Human 5-Hydroxytryptamine1D. and 5-Hydroxytryptamine1Df Receptors Stably Expressed in Murine Fibroblasts: Inhibition of Adenylate Cyclase and Elevation of Intracellular Calcium Concentrations via Pertussis Toxin-Sensitive G Protein(s)</td>
<td>John M. Zgombick, Laurence A. Borden, Tamara L. Cochran, Stefan A. Kucharewicz, Richard L. Weinshank, and Theresa A. Branchek</td>
</tr>
<tr>
<td>583</td>
<td>Use of Chimeric Muscarinic Receptors to Investigate Epitopes Involved in Allosteric Interactions</td>
<td>John Ellis, Margaret Seidenberg, and Mark R. Brann</td>
</tr>
<tr>
<td>595</td>
<td>Benzoquinoid Tyrosine Kinase Inhibitors Are Potent Blockers of Cardiac Muscarinic Receptor Function</td>
<td>Angela de S. Otero and Nicole M. Sweitzer</td>
</tr>
<tr>
<td>605</td>
<td>Lysophospholipid-Mediated Inhibition of Na^+,K^+-Adenosine Triphosphatase Is a Possible Mechanism of Immunosuppressive Activity of Cyclosporin A</td>
<td>Ronald Anderson, Michiel J. Smit, and Constance E. J. Van Rensburg</td>
</tr>
<tr>
<td>615</td>
<td>Characterization of Endothelial Amino Acid Transport Systems Involved in the Actions of Nitric Oxide Synthase Inhibitors</td>
<td>Kurt Schmidt, Peter Klatt, and Bernd Mayer</td>
</tr>
</tbody>
</table>

continued
CONTENTS (cont’d)

622 3-Isobutyl-1-methylxanthine Inhibits Sustained Calcium Current Independently of Cyclic AMP in Neuronal and Endocrine Cells

628 Positive Modulation of Human γ-Aminobutyric Acid Type A and Glycine Receptors by the Inhalation Anesthetic Isoflurane

633 Kinetic and Equilibrium Characterization of Vesamicol Receptor-Ligand Complexes with Picomolar Dissociation Constants

642 Verapamil Blocks a Rapidly Activating Delayed Rectifier K⁺ Channel Cloned from Human Heart

649 Transfected D₂ Short Dopamine Receptors Inhibit Voltage-Dependent Potassium Current in Neuroblastoma × Glioma Hybrid (NG108-15) Cells

657 Mapping of Ligand Binding Sites of Neuronal Nicotinic Acetylcholine Receptors Using Chimeric α Subunits

667 Structural Determinants of Quarternary Ammonium Blockers for Batrachotoxin-Modified Na⁺ Channels

CORRECTIONS

677 Development of Polyclonal Anti-D₂ Dopamine Receptor Antibodies Using Sequence-Specific Peptides

677 Mechanism of Hepatic Cytochrome P450 Modulation during Listeria monocytogenes Infection in Mice

678 Commentary: Presence of α-Cobratoxin and Phospholipase A₂ Activity in Thymopoietin Preparations

RETRACTION LETTERS

680 Thymopoietin, a Thymic Polypeptide Regulates Nicotinic α-Bungarotoxin Sites in Chromaffin Cells in Culture

Steven M. Simasko and Shaochun Yan

Neil L. Harrison, J. L. Kugler, Mathew V. Jones, Eric P. Greenblatt, and Dolan B. Pritchett

Gary A. Rogers, Wayne D. Kornreich, Kieran Hand, and Stanley M. Persons

David Rampe, Barbara Wible, David Fedida, Richard C. Dage, and Arthur M. Brown

Miguel A. Castellano, Li-Xin Liu, Frederick J. Monama, Jr., David R. Sibley, Gregory Kapatos, and Louis A. Chiodo

Charles W. Luetje, Marietta Piattoni, and Jim Patrick

Ging Kuo Wang, Rachelle Simon, Donna Bell, Wai Man Mok, and Sho-Ya Wang

Virginia A. Boundy, Robert R. Luedtke, Roman P. Artymyshyn, Theresa M. Fitz, and Perry B. Molinoff

Steven G. Armstrong and Kenneth W. Renton

M. Quik, R. G. Cook, F. Revah, J.-P. Changeux, and J. Patrick

M. Quik, R. Afar, S. Geertsen, T. Audhya, G. Goldstein, and J. M. Trifaro

continued
Thymopoietin, a Potent Antagonist at Nicotinic Receptors in C2 Muscle Cell Cultures

M. Quik, H. El-Bizri, T. Audhya, and G. Goldstein

Interactions of the Thymic Polypeptide Hormone Thymopoietin with Neuronal Nicotinic α-Bungarotoxin Binding Sites and with Muscle-Type, But Not Ganglia-Type, Nicotinic Acetylcholine Receptor Ligand-Gated Ion Channels

Ronald J. Lukas, Tapan Audhya, Gideon Goldstein, and Linda Lucero