Contents

ACCELERATED COMMUNICATIONS

175 Novel Amiloride Analog Allosterically Modulates the $\alpha_2$-Adrenergic Receptor but Does Not Inhibit Na$^+$/H$^+$ Exchange
Amy L. Wilson, Scott W. Womble, Chandra Prakash, E. J. Cragoe, Jr., Ian A. Blair, and Lee E. Limbird

180 Human Gene S31 Encodes the Pharmacologically Defined Serotonin 5-Hydroxytryptamine$_{1B}$ Receptor
John M. Zgombick, Lee E. Schechter, Mary Macchi, Paul R. Hartig, Theresa A. Branchek, and Richard L. Weinshank

186 Action of Thrombin Receptor Polypeptide in Gastric Smooth Muscle: Identification of a Core Pentapeptide Retaining Full Thrombin-Mimetic Intrinsic Activity
Morley D. Hollenberg, Song-Gui Yang, Adebayo A. Laniyonu, Graham J. Moore, and Mahmoud Saifeddine

192 Metabotropic Glutamate Receptors Potentiate Ionotropic Glutamate Responses in the Rat Dorsal Horn
David Bleakman, Konstantin I. Rusin, Paul S. Chard, Steven R. Glaum, and Richard J. Miller

197 Immortalized Hypothalamic GT1-7 Neurons Express Functional $\gamma$-Aminobutyric Acid Type A Receptors
Tim G. Hales, Helen Kim, Biancamaria Longoni, Richard W. Olsen, and Allan J. Tobin

ARTICLES

203 Biochemical Characterization of Kainate Receptors from Goldfish Brain
Cynthia J. Ziegra, James M. Willard, and Robert E. Oswald

210 $N$-Methyl-$d$-aspartate Exposure Blocks Glutamate Toxicity in Cultured Cerebellar Granule Cells
De-Maw Chuang, Xiao-Ming Gao, and Steven M. Paul

Continued
Association of Solubilized Angiotensin II Receptors with Phospholipase C-α in Murine Neuroblastoma NIE-115 Cells

Stephanie J. Mah, Anne M. Ades, Rubina Mir, Ivo R. Siemens, John R. Williamson, and Steven J. Fluharty

Histamine Increases Cytosolic Ca²⁺ in Dibutyryl-cAMP-Differentiated HL-60 Cells via H₁ Receptors and Is an Incomplete Secretagogue

Roland Seifert, Ariane Höer, Stefan Offermanns, Armin Buschauer, and Walter Schunack

Histamine Increases Cytosolic Ca²⁺ in HL-60 Promyelocytes Predominantly via H₂ Receptors with an Unique Agonist/Antagonist Profile and Induces Functional Differentiation

Roland Seifert, Ariane Höer, Ingo Schwaner, and Armin Buschauer

A Naturally Occurring Tyrosine to Histidine Replacement at Residue 33 of Human Thymidylate Synthase Confers Resistance to 5-Fluoro-2'-deoxyuridine in Mammalian and Bacterial Cells

Karen W. Barbour, Diana K. Hoganson, Sondra H. Berger, and Franklin G. Berger

Null Phenotype for Cytochrome P450 2B2 in the Rat Results from a Deletion of Its Structural Gene

Curtis J. Omiecinski, Richard Ramsden, Arfaan Rampersaud, and Frederick G. Walz, Jr.

Sequence Analysis, In Vitro Translation, and Expression of the cDNA for Rat Liver Minoxidil Sulfotransferase

Sharon J. Hirshey, Thomas P. Dooley, Ilene M. Reardon, Robert L. Heinrikson, and Charles N. Falany

Cloned Mouse N-Acetyltransferases: Enzymatic Properties of Expressed Nat-1 and Nat-2 Gene Products

Karen J. Martell, Gerald N. Levy, and Wendell W. Weber

Transcriptional Regulation of Rat Microsomal Epoxide Hydrolase Gene by Imidazole Antimycotic Agents

Sang Geon Kim

Anti-liver Microsomes Autoantibodies and Dihydralazine-Induced Hepatitis: Specificity of Autoantibodies and Inductive Capacity of the Drug

Mohammed Bourdi, Jean-Charles Gautier, Jasmina Mircheva, Dominique Larrey, Andre Guillouzo, Chantal Andre, Claire Belloc, and Philippe H. Beaune

Two Binding Sites on Angiotensin-Converting Enzyme: Evidence from Radioligand Binding Studies

Rose B. Perich, Bruce Jackson, Fraser Rogerson, Frederick A. O. Mendelsohn, Donna Paxton, and Colin I. Johnston

Characterization of Functional Interactions of Imidazouquinoloxaline Derivatives with Benzodiazepine-γ-Aminobutyric Acidₐ Receptors

James D. Petke, Haesook K. Im, Wha Bin Im, David P. Blakeman, Jeff F. Pregenzer, E. Jon Jacobsen, Beverly J. Hamilton, and Donald B. Carter

Role of Ornithine Decarboxylase Suppression and Polyamine Depletion in the Antiproliferative Activity of Polyamine Analogs

Lucy Ghoda, Hirak S. Basu, Carl W. Porter, Laurence J. Marton, and Philip Coffino

Continued
CONTENTS (cont’d)

307 Evidence for the Stereoselective Inhibition of Chick Embryo Hepatic Ferrochelatase by N-Alkylated Porphyrins. II
S. M. Kimmett, R. A. Whitney, and G. S. Marks

311 Complex Allosteric Modulation of Cardiac Muscarinic Receptors by Protamine: Potential Model for Putative Endogenous Ligands
Jingru Hu, Shou-Zhen Wang, Carlos Forray, and Esam E. El-Fakahany

322 Both Enantiomers of 1-Aminocyclopentyl-1,3-dicarboxylate Are Full Agonists of Metabotropic Glutamate Receptors Coupled to Phospholipase C
Olivier Manzoni, Laurent Prezeau, Francois A. Rassendren, Fritz Sladeczek, Ken Curry, and Joel Bockaert

328 Molecular Pharmacological Differences in the Interaction of Serotonin with 5-Hydroxytryptamine_{1C} and 5-Hydroxytryptamine_{2C} Receptors
Sigrun Leonhardt, Elena Gorospe, Beth J. Hoffman, and Milt Teitler

336 Identification of Endothelin Receptor Subtypes in Rat Kidney Cortex using Subtype-Selective Ligands
Ponnal Nambi, Hsiao Ling Wu, Mark Pullen, Nambi Aiyar, Heidemarie Bryan, and John Elliott

340 Cyclic AMP Potentiates Receptor-Stimulated Phosphoinositide Hydrolysis in Human Neuroepithelioma Cells

347 Receptor Occupancy and Adenylate Cyclase Activation in AR 4-2J Rat Pancreatic Acinar Cell Membranes by Analogs of Pituitary Adenylate Cyclase-Activating Peptides Amino-Terminally Shortened or Modified in Position 1, 2, 3, 20, or 21
Patrick Robberecht, Philippe Gourlet, Philippe De Neef, Marie-Claire Woussen-Colle, Marie-Claire Vandermeers-Piret, André Vandermeers, and Jean Christophe

356 Effects of Oxidizing and Reducing Analogs of Acetylcholine on Neuronal Nicotinic Receptors
Yu Xie, Gerald S. Jones, Jr., and Ralph H. Loring

364 Preferential Block of T-type Calcium Channels by Neuroleptics in Neural Crest-Derived Rat and Human C Cell Lines
John J. Enyeart, Bruce A. Biagi, and Boris Mlinar

373 Theoretical Studies on the Histamine H2 Receptor: Molecular Mechanism of Action of Antagonists
Jesús Giraldo, Miguel Martín, Mercedes Campillo, and Leonardo Pardo