Contents

ACCELERATED COMMUNICATIONS

563 Epibatidine, A Potent Analgetic and Nicotinic Agonist
Barbara Badio and John W. Daly

ARTICLES

570 Pharmacological Characterization of Metabotropic Glutamate Receptors in Several Types of Brain Cells in Primary Cultures
L. Prézeau, J. Carrette, B. Helpap, K. Curry, J. P. Pin, and J. Bockaert

578 The H1 Receptor Agonist 2-(3-Chlorophenyl)histamine Activates G Proteins in HL-60 Cells through a Mechanism that Is Independent of Known Histamine Receptor Subtypes
Roland Seifert, Astrid Hagelüken, Ariane Höer, Dieter Höer, Lore Grünbaum, Stefan Offermanns, Ingo Schwane, Volkmar Zingel, Walter Schunack, and Günter Schultz

587 Gw1 Selectively Couples Somatostatin Receptor Subtype 3 to Adenylyl Cyclase: Identification of the Functional Domains of this α Subunit Necessary for Mediating the Inhibition by Somatostatin of cAMP Formation
Susan F. Law, Silvio Zaina, Raymond Sweet, Kazuki Yasuda, Graeme I. Bell, Jeffrey Stadel, and Terry Reisine

591 Increased Voltage-Dependent Calcium Influx Produced by α1B-Adrenergic Receptor Activation in Rat Medullary Thyroid Carcinoma 6-23 Cells
Timothy A. Esbenshade, Tracey L. Theroux, and Kenneth P. Minneman

599 Photoaffinity Labeling of Rat Pancreatic Cholecystokinin Type A Receptor Antagonist Binding Sites Demonstrates the Presence of a Truncated Cholecystokinin Type A Receptor
Sandrine Silvente Poirot, Chantal Escricet, Marlene Dufresne, Jean Martinez, Michele Bouisson, Nicole Vaysse, and Daniel Fourmy

608 Cloning of the Human Glycine Transporter Type 1: Molecular and Pharmacological Characterization of Novel Isoform Variants and Chromosomal Localization of the Gene in the Human and Mouse Genomes
Kyeong-Man Kim, Stephen F. Kingsmore, Hong Han, Teresa L. Yang-Feng, Nathalie Godinot, Michael F. Seldin, Marc G. Caron, and Bruno Giros

Continued
CONTENTS (cont'd)

618 Chronic Benzodiazepine Agonist Treatment Produces Functional Uncoupling of the γ-Aminobutyric Acid-Benzodiazepine Receptor Ionophore Complex in Cortical Neurons

626 Metabotropic Glutamate Receptor Heterogeneity in Rat Brain

637 Quantitative Changes in α1 and α5 γ-Aminobutyric Acid Receptor Subunit mRNAs and Proteins after a Single Treatment of Cerebellar Granule Neurons with N-Methyl-D-aspartate

649 Interference by Doxorubicin with DNA Unwinding in MCF-7 Breast Tumor Cells

657 Reduced Expression of the γ-Aminobutyric Acid Type A/Benzodiazepine Receptor γ2 and α5 Subunit mRNAs in Brain Regions of Flurazepam-Treated Rats

664 Metabolism and Cytotoxicity of Naphthalene and Its Metabolites in Isolated Murine Clara Cells

673 Kinetics of Inhibition by Tyrophostins of the Tyrosine Kinase Activity of the Epidermal Growth Factor Receptor and Analysis by a New Computer Program

684 Expression of Thyrotropin-Releasing Hormone Receptors by Adenovirus-Mediated Gene Transfer Reveals that Thyrotropin-Releasing Hormone Desensitization is Cell Specific

690 Localization of the Ligand Binding Site of the Neurokinin-1 Receptor: Interpretation of Chimeric Mutations and Single-Residue Substitutions

696 Contribution of Ligand Structure to Activation of α2-Adrenergic Receptor Subtype Coupling to Gs

703 The α1-Adrenergic Receptor that Mediates Smooth Muscle Contraction in Human Prostate Has the Pharmacological Properties of the Cloned Human α1C Subtype

709 Mechanisms of Steric and Cooperative Actions of Alcuronium on Cardiac Muscarinic Acetylcholine Receptors

718 Identification and Characterization of a Lysophosphatidic Acid Receptor

Xian-Jue Hu and Maharaj K. Ticku

M. V. Catania, Helene de Socarraz, J. B. Penney, and A. B. Young

Brent T. Harris, Maura E. Charlton, Erminio Costa, and Dennis R. Grayson

Frank A. Fornari, Joyce K. Randolph, Jack C. Yalowich, Mary K. Ritke, and David A. Gewirtz

Tai-jun Zhao, Ted H. Chiu, and Howard C. Rosenberg

C. H. Chichester, A. R. Buckpitt, A. Chang, and C. G. Plopper

Israel Posner, Michael Engel, Aviv Gazit, and Alexander Levitzki

Erik Falck-Pederson, Marcos Heinflink, Mauricio Alvira, Daniel R. Nussenzveig, and Marvin C. Gershengorn

Ruey-Ruey C. Huang, Hong Yu, Catherine D. Strader, and Tung Ming Fong

Margaret G. Eason, Marie T. Jacinto, and Stephen B. Liggett

Carlos Forray, Jonathan A. Bard, John M. Wetzel, George Chiu, Ellen Shapiro, Rui Tang, Herbert Lepor, Paul R. Hartig, Richard L. Weinshank, Theresa A. Branchek, and Charles Gluchowski

Jan Proška and Stanislav Tuček

Fiona J. Thomson, Louise Perkins, David Ahern, and Mike Clark

Continued
CONTENTS (cont’d)

724  RES-701-1, A Novel, Potent Endothelin Type B Receptor-Selective Antagonist of Microbial Origin  Takeo Tanaka, Eiji Tsukuda, Mika Nozawa, Hiromi Nonaka, Tetsuji Ohno, Hiroshi Kase, Koji Yamada, and Yuzuru Matsuda

731  Differential Heterologous and Homologous Desensitization of Two Receptors for ATP (P2Y Purinoceptors and Nucleotide Receptors) Coexisting on Endothelial Cells  Graeme F. Wilkinson, John R. Purkiss, and Michael R. Boarder

737  Docosahexaenoic Acid and Signaling Pathways in Rabbit Colon  Vincenzo Calderaro, Carmen Parrillo, Maria Luisa Balestrieri, Alfonso Giovane, and Francesco Rossi

747  Loperamide Blocks High-Voltage-Activated Calcium Channels and N-Methyl-D-aspartate-Evoked Responses in Rat and Mouse Cultured Hippocampal Pyramidal Neurons  John Church, Elizabeth J. Fletcher, Khaled Abdel-Hamid, and John F. MacDonald

758  The β Subunit of Neuronal Nicotinic Acetylcholine Receptors Is a Determinant of the Affinity for Substance P Inhibition  Grace A. Stafford, Robert E. Oswald, and Gregory A. Weiland

763  Kinetic Evidence Suggesting that the Multidrug Transporter Differentially Handles Influx and Efflux of Its Substrates  Wilfred D. Stein, Carol Cardarelli, Ira Pastan, and Michael M. Gottesman

773  Direct Demonstration of High Affinity Interactions of Immunosuppressant Drugs with the Drug Binding Site of the Human P-Glycoprotein  U. Subrahmanyeswara Rao and Gene A. Scarborough

777  Effects of IMP Dehydrogenase Inhibitors on the Phosphorylation of Ganciclovir in MOLT-4 Cells before and after Herpes Simplex Virus Thymidine Kinase Gene Transduction  Riad Agbaria, Craig A. Mullen, Neil R. Hartman, David A. Cooney, Zhang Hao, R. Michael Blaese, and David G. Johns

783  Biochemical Studies on PT523, a Potent Nonpolyglutamatable Antifolate, in Cultured Cells  Myong S. Rhee, John Galivan, Joel E. Wright, and Andre Rosowsky

792  p-Alkoxyphenols, a New Class of Inhibitors of Mammalian R2 Ribonucleotide Reductase: Possible Candidates for Antimelanotic Drugs  Stephan Pötsch, Hannelore Drechsler, Brunhilde Liermann, Astrid Gräsland, and Günter Lassmann

797  Aldose Reductase-Catalyzed Reduction of Acrolein: Implications in Cyclophosphamide Toxicity  Natasha S. Kolb, Lucy A. Hunsaker, and David L. Vander Jagt