CONTENTS

ACCELERATED COMMUNICATIONS

NIKA ADHAM, PETER ROMANIENKO, PAUL HARTIG, RICHARD L. WEINSHANK, AND THERESA BRANCHEK. The Rat 5-Hydroxytryptamine$_{1D}$ Receptor Is the Species Homologue of the Human 5-Hydroxytryptamine$_{1D}$ Receptor ........................................ 1

MORDECHAI MOTTY SOBOL, RICHARD GARY AMIET, AND MICHAEL DAVID GREEN. In Vitro Evidence for Direct Complexation of ADR-529/ICRF-187 [(+)-1,2-bis-(3,5-Dioxo-piperazin-1-yl)propane] onto an Existing Ferric-Anthracycline Complex ................. 8

ARTICLES

SARAH C. R. LUMMIS AND JAN L. MARTIN. Solubilization, Purification, and Functional Reconstitution of 5-Hydroxytryptamine$_3$ Receptors from N1E-115 Neuroblastoma Cells 18

TUNG MING FONG, SANDRA A. ANDERSON, HONG YU, RUEY-RUEY C. HUANG, AND CATHERINE D. STRADER. Differential Activation of Intracellular Effector by Two Isoforms of Human Neurokinin-1 Receptor ........................................... 24

CHRISTOPHER M. FLORES, SCOTT W. ROGERS, LAURIE A. PABREZA, BARRY B. WOLFE, AND KENNETH J. KELLAR. A Subtype of Nicotinic Cholinergic Receptor in Rat Brain Is Composed of $\alpha4$ and $\beta2$ Subunits and Is Up-regulated by Chronic Nicotine Treatment ...................................................................................... 31

JAMES P. SULLIVAN, JANE R. CONNOR, BARRY G. SHEARER, AND RONALD M. BURCH. 2,6-Diamino-N-[(1-(1-oxotridecyl)-2-piperidinyl)methyl]hexanamide (NPC 15437): A Novel Inhibitor of Protein Kinase C Interacting at the Regulatory Domain .................. 38

GERALD ZERNIG AND NORBERT REIDER. Ion Dependence of the Partially Purified Mitochondrial Dihydropyridine Ca$^{2+}$ Antagonist Receptor ....................................................... 45

JON A. NORMAN, OPHELIA HADJILAMBRIS, ROSEANN BASKA, DARU Y. SHARP, AND RAMESH KUMAR. Stable Expression, Secretion, and Characterization of Active Human Renin in Mammalian Cells ........................................................................ 53

MARION A. BRACH, SURENDER M. KHARBANDA, FRIEDHELM HERRMANN, AND DONALD W. KUFE. Activation of the Transcription Factor $\alpha B$ in Human KG-1 Myeloid Leukemia Cells Treated with 1-$\beta$-D-Arabinofuranosylcytosine .................................................. 60

RAKESH DATTA, SURENDER KHARBANDA, AND DONALD W. KUFE. Transcriptional and Posttranscriptional Regulation of H1 Histone Gene Expression by 1-$\beta$-D-Arabinofuranosylcytosine .......................................................... 64

CHUCK C.-K. CHAO, YING-TANG HUANG, CHANG M. MA, WEI-YUAN CHOU, AND SUE LIN-CHAO. Overexpression of Glutathione S-Transferase and Elevation of Thiol Pools in a Multidrug-Resistant Human Colon Cancer Cell Line .................................................. 69

Continued
CONTENTS (cont’d)

STEVEN A. WRIGHTON, MARK VANDENBRANDEN, GERALD W. BECKER, SHAUN D. BLACK, AND PAUL E. THOMAS. Two Monoclonal Antibodies Recognizing Different Epitopes on Rat Cytochrome IIB1 React with Human IIE1 ............................................. 76

DAVID M. ROCK AND ROBERT L. MACDONALD. The Polyamine Spermine Has Multiple Actions on N-Methyl-d-aspartate Receptor Single-Channel Currents in Cultured Cortical Neurons ......................................................... 83

R. M. WOODWARD, L. POLENZANI, AND R. MILEDI. Effects of Steroids on γ-Aminobutyric Acid Receptors Expressed in Xenopus Oocytes by Poly(A)* RNA from Mammalian Brain and Retina .................................................. 89

JEAN-FRANÇOIS GOOSSENS, NICOLE POMMERY, MICHÈLE LOHEZ, JEAN POMMERY, NICOLE HELBECQUE, PHILIPPE COTELLE, MICHEL LHERMITTE, AND JEAN-Pierre HENICHAUT. Antagonistic Effect of a Vasoactive Intestinal Peptide Fragment, Vasoactive Intestinal Peptide(1–11), on Guinea Pig Trachea Smooth Muscle Relaxation .......... 104

STÉPHANE SWILLEN. Dynamic Control of Inositol 1,4,5-Trisphosphate-Induced Ca2+ Release: A Theoretical Explanation for the Quantal Release of Ca2+ .......... 110

DAVID L. NUNN AND COLIN W. TAYLOR. Luminal Ca2+ Increases the Sensitivity of Ca2+ Stores to Inositol 1,4,5-Trisphosphate ........................................ 115

VINCENT L. SALGADO. Slow Voltage-Dependent Block of Sodium Channels in Crayfish Nerve by Dihydropyrazole Insecticides .................................. 120

JAMES P. DILGER, ROGER S. BRETT, AND LISA A. LESKO. Effects of Isoflurane on Acetylcholine Receptor Channels. 1. Single-Channel Currents .................. 127

PAUL H. FRANKLIN AND THOMAS F. MURRAY. High Affinity [3H]Dextrorphan Binding in Rat Brain Is Localized to a Noncompetitive Antagonist Site of the Activated N-Methyl-D-aspartate Receptor-Cation Channel ......................... 134

DOMINIC P. GERAGHTY, CHRISTIAN J. MUSSPA, AND ELIZABETH BURCHER. Radiolabeled Substance P, Neurokinin A, and Eledoisin Bind Predominantly to NK1 Receptors in Guinea Pig Lung ........................................ 147

KEITH W. CRAWFORD, ELIZABETH A. FREY, AND THOMAS E. COTE. Angiotensin II Receptor Recognized by DuP753 Regulates Two Distinct Guanine Nucleotide-Binding Protein Signaling Pathways ........................................ 154

DANIELA PASQUALI, C. S. SHEELA RANI, AND WILLIAM J. DEERRY. Carbachol-Induced Decrease in Thyroid Cell Adenylyl Cyclase Activity Is Independent of Calcium and Phosphodiesterase Activation ........................................ 163

EUGENE QUIST. Regulation of GDP and GTP Binding in Cardiac Sarcolemma by Muscarinic Receptor Agonists .................................................. 168

EUGENE QUIST, PATRICIA POWELL, AND RANGA VASAN. Guanylnucleotide Specificity for Muscarinic Receptor Inhibitory Coupling to Cardiac Adenylyl Cyclase ......................... 177

Continued
CONTENTS (cont'd)

CHIARA COMETTA-MORINI, PATRICIA A. MAGUIRE, AND GILDA H. LOEW. Molecular Determinants of \( \mu \) Receptor Recognition for the Fentanyl Class of Compounds ........................................ 185


ZEGER DEBYSER, RUDI PAUWELS, KOEN ANDRIES, JAN DESMYTER, YVES ENGELBORGHS, PAUL A. J. JANSSEN, AND ERIK DE CLERCQ. Allosteric Inhibition of Human Immunodeficiency Virus Type 1 Reverse Transcriptase by Tetrahydroimidazo[4,5,1-jk][1,4]benzodiazepin-2(1H)-one and -thione Compounds ........................................ 203

ROBERT L. JANSING, EDDIE S. CHAO, AND LAURENCE S. KAMINSKY. Phase II Metabolism of Warfarin in Primary Culture of Adult Rat Hepatocytes ........................................... 209