CONTENTS

SHORT COMMUNICATIONS

PAUL H. FISCHER AND DIANE BAXTER. Enzyme Regulatory Site-Directed Drugs: Modulation of Thymidine Triphosphate Inhibition of Thymidine Kinase by 5'-Amino-5'-deoxythymidine ........................................... 231

J. D. DUNCAN AND A. K. CHO. N-Oxidation of Phentermine to N-Hydroxyphentermine by a Reconstituted Cytochrome P-450 Oxidase System from Rabbit Liver .................. 235

WILLARD G. HARRELSON, JR., AND RONALD P. MASON. Microsomal Reduction of Gentian Violet: Evidence for Cytochrome P-450-Catalyzed Free Radical Formation .... 239

B. IILIEN, H. GORISSEN, AND P. M. LADURON. Characterization of Solubilized Serotonin (5-HT) Receptors in Rat Brain .......................................................... 243

KENNETH M. M. MURPHY AND SOLOMON H. SNYDER. Heterogeneity of Adenosine A1 Receptor Binding in Brain Tissue ......................................................... 250


STELLA Y. CECH AND MICHAEL E. MAGUIRE. Magnesium Regulation of the Beta-Receptor-Adenylate Cyclase Complex. I. Effects of Manganese on Receptor Binding and Cyclase Activation ......................................................... 267

MICHAEL E. MAGUIRE. Magnesium Regulation of the Beta-Receptor-Adenylate Cyclase Complex. II. Sc2+ as a Mg2+ Antagonist ......................................................... 274

M. P. SEILER AND R. MARKSTEIN. Further Characterization of Structural Requirements for Agonists at the Striatal Dopamine D-1 Receptor: Studies with a Series of Mono-hydroxyaminotetralins on Dopamine-Sensitive Adenylate Cyclase and a Comparison with Dopamine Receptor Binding .............................................. 281

ANDRE DE LEAN, BRIAN F. KILPATRICK, AND MARC G. CARON. Dopamine Receptor of the Porcine Anterior Pituitary Gland: Evidence for Two Affinity States Discriminated by Both Agonists and Antagonists .......................................... 290

BRIAN F. KILPATRICK, ANDRE DE LEAN, AND MARC G. CARON. Dopamine Receptor of the Porcine Anterior Pituitary Gland: Effects of N-Ethylmaleimide and Heat on Ligand Binding Mimic the Effects of Guanine Nucleotides .............................................. 298

JOSE S. AGUILAR, PEDRO J. I. SALAS, AND EDUARDO DE ROBERTIS. Cholinergic Muscarinic Receptor in Synaptosomal Membranes: Heterogeneity of Binding Sites for L-[^3H]Quinuclidinyl Benzilate .................................................................................. 304

RICK B. MEEKER AND T. KENDALL HARDEN. Muscarinic Cholinergic Receptor-Mediated Activation of Phosphodiesterase ......................................................... 310

RUDIGER GRANDT, KLAUS AKTORIES, AND KARL H. JAKOBS. Guanine Nucleotides and Monovalent Cations Increase Agonist Affinity of Prostaglandin E2 Receptors in Hamster Adipocytes ................................................................. 320

RICHARD F. SQUIRES AND ELSE SÆDERUP. a-Aminobutyric Acid Receptors Modulate Cation Binding Sites Coupled to Independent Benzodiazepine, Picrotoxin, and Anion Binding Sites ................................................................. 327

RONALD L. KOCHMAN AND JAMES D. HIRSCH. Thermodynamic Changes Associated with Benzodiazepine and Alkyl b-Carbolines-3-carboxylate Binding to Rat Brain Homogenates .................................................................................. 335

(continued)
CONTENTS (cont'd)

P. CHATELAIN, P. ROBBERECHT, M. WAELBROECK, P. DE NEEF, J. CAMUS, and J. CHRISTOPHE. Thermodependence of Guanine Nucleotide-Activated Rat Cardiac Adenylate Cyclase Activity: Effect of Cholera Toxin Pretreatment

B. V. CHENEY, R. A. LAHTI, C. BARSUHN, and D. D. GAY. An Analysis of Binding at the Opioid Receptor Based upon an Agonist/Antagonist Two-State Model

RICHARD McGEE, JR., and JAMES G. KENIMER. The Effects of Exposure to Unsaturated Fatty Acids on Opiate Receptors, Prostaglandin E1 Receptors, and Adenylate Cyclase Activity of Neuroblasta x Glioma Hybrid Cells

PETER PENNEFATHER and DAVID M. J. QUASTEL. Modification of Dose-Response Curves by Effector Blockade and Uncompetitive Antagonism

K. HANIF, H. J. GOREN, M. D. HOLLENBERG, and K. LEDERIS. Oxytocin Action: Mechanisms for Insulin-Like Activity in Isolated Rat Adipocytes

RAFAEL NEHMAD, HANA NADLER, and RABI SIMANTOV. Effects of Acute and Chronic Morphine Treatment on Calmodulin Activity of Rat Brain

JON A. NORMAN and MATTYS STAELHIN. Calmodulin Inhibitors Activate Glycogen Phosphorylase B to A Conversion in C6 Glioma Cells

TOSHSIO TANAKA, TAKEHISA OHMURA, and HIROYOSHI HIDAKA. Hydrophobic Interaction of the Ca2+-Calmodulin Complex with Calmodulin Antagonists: Naphthalenesulfonamide Derivatives

TOSHSIO TANAKA, TAKEHISA OHMURA, TOSHIYUKI YAMAKADO, and HIROYOSHI HIDAKA. Two Types of Calcium-Dependent Protein Phosphorylations Modulated by Calmodulin Antagonists: Naphthalenesulfonamide Derivatives

KLASS GIETZEN, ANDREAS WÜTHRICH, and HERMANN BADER. Effects of Microtubular Inhibitors on Plasma Membrane Calmodulin-Dependent Ca2+-Transport ATPase

A. W. TANK and N. WEINER. Induction of Tyrosine Hydroxylase by Glucocorticoids in Mouse Neuroblastoma Cells: Enhancement of the Induction by Cyclic AMP

WILLIAM E. KLUNK, DOUGLAS F. COVEY, and JAMES A. FERRENDELLI. Comparison of Epileptogenic Properties of Unsubstituted and \( \beta \)-Alkyl-Substituted \( \gamma \)-Butyrolactones

WILLIAM E. KLUNK, DOUGLAS F. COVEY, and JAMES A. FERRENDELLI. Anticonvulsant Properties of \( \alpha \), \( \gamma \), and \( \alpha,\gamma \)-Substituted \( \gamma \)-Butyrolactones

WILLIAM E. KLUNK, DOUGLAS F. COVEY, and JAMES A. FERRENDELLI. Structure-Activity Relationships of Alkyl-Substituted \( \gamma \)-Butyrolactones and Succinimides

GABRIELA M. KELLER, CHRIS R. TURNER, and COLIN R. JEFCOATE. Kinetic Determinants of Benzo[\( \alpha \)]pyrene Metabolism to Dihydriol Epoxides by 3-Methylcholanthrene-Induced Rat Liver Microsomes

STEPHEN M. ADAMS and LAURENCE S. KAMINSKY. Molecular Orbital Studies of Epoxide Stability of Carcinogenic Polycyclic Aromatic Hydrocarbon Diol Epoxides

ARTHUR K. CHO, MICHAEL S. MAYNARD, RICHARD M. MATSUMOTO, BJÖRN LINDEKE, ULLA PAULSEN, and GERALD T. MIWA. The Opposing Effects of \( N \)-Hydroxyamphetamine and \( N \)-Hydroxyphentermine on the \( H_2O_2 \) Generated by Hepatic Cytochrome P-450

EVAN D. KHARASCH and RAYMOND F. NOVAK. Inhibition of Microsomal Oxidative Drug Metabolism by 1,4-Bis[2-[(2-hydroxyethyl)amino]-ethylamino]-9,10-anthracenedione Diacetate, a New Antineoplastic Agent

BO ANDERSSON, MAGNUS NORDENSKJÖLD, ANVER RAHIMTULA, and PETER MOLDEUS. Prostaglandin Synthetase-Catalyzed Activation of Phenacetin Metabolites to Genotoxic Products

(continued)
CONTENTS (cont’d)

BRUCE C. BAGULEY AND BRUCE F. CAIN. Comparison of the in Vivo and in Vitro Antileukemic Activity of Monosubstituted Derivatives of 4’-(9-Acridinylamino)methanesulfon-m-anisidide ........................................... 486

DAVID A. GEWIRZ, JOYCE K. RANDOLPH, AND I. DAVID GOLDMAN. Catecholamine-Induced Release of the Folic Acid Analogue, Methotrexate, from Rat Hepatocytes in Suspension: An Alpha-Adrenergic Phenomenon ............................................. 493

RICHARD M. DENNEY, NUTAN T. PATEL, RICHARD R. FRITZ, AND CREED W. ABEll. A Monoclonal Antibody Elicited to Human Platelet Monoamine Oxidase: Isolation and Specificity for Human Monoamine Oxidase B but Not A .............................................. 500


KATHLEEN M. ROSE, THOMAS B. LEONARD, AND TIMOTHY H. CARTER. Effects of Adenine Nucleosides on RNA Synthesis in Adenovirus-Infected Cells: 9-β-D-Arabinofuranosyladenine as a Selective Inhibitor of RNA Polyadenylation ......................................................... 517

ERRATUM ........................................................................................................................................... 524