CONTENTS

Adenosine Selectively Attenuates H3- and Beta-Mediated Cardiac Responses to Histamine and Norepinephrine: An Unmasking of H3- and Alpha-Mediated Responses. Yuichi Hattori and Roberto Levi ........................................ 215

Pharmacological and Biochemical Evidence for Metabolism of Peptide Leukotrienes by Guinea-Pig Airway Smooth Muscle In Vitro. D. W. Snyder, D. Aharony, P. Dobson, B. S. Tsai and R. D. Krell ........................................ 224

Arachidonic Acid Metabolism By Rat Liver Cells (The C-9 Cell Line). Anastasia Rigas and Lawrence Levine ........................................ 230

Effects of Acetylcholine in the Pulmonary Circulation of Rabbits. John D. Catravas, Jerry J. Buccafusco and Hassan El Kashef ........................................ 236

Pharmacokinetics of the Poly-γ-Glutamyl Metabolites of Methotrexate in Skin and Other Tissues of Rats and Hairless Mice. Cheryl L. Zimmerman, Thomas J. Franz and John T. Slattery ........................................ 242


Inhibition of Urinary Bladder Contractions by a Spinal Action of Morphine and Other Opioids. A. Dray and R. Metach ........................................ 254

A Comparison between Classes of Drugs Having Phencyclidine-Like Behavioral Properties on Dopamine Efflux In Vitro and Dopamine Metabolism In Vivo. Lawrence D. Snell, Zarena L. Mueller, Robert L. Gannon, Peter B. Silverman and Kenneth M. Johnson ........................................ 261

Kappa Opioid Analgesia is Dependent on Serotonergic Mechanisms. P. F. VonVoigtlander, R. A. Lewis and G. L. Neff ........................................ 270

Pharmacological Characterization of Dopamine Autoreceptors in the Rat Ventral Tegmental Area: Microelectrophoretic Studies. Francis J. White and Rex Y. Wang ........................................ 275

Autoregulation of Cardiac Cycle Length: Role of Catecholamines. Jerod M. Loeb, John M. deTarnowsky, Sarah H. Doerschuk and Christopher C. Whitson ........................................ 281

The Application of Second Order Polynomial Equations to the Study of Pharmacodynamic Interactions: The Effect of Flecainide Acetate and Propranolol on Cardiac Output and Vascular Resistance. Jordan L. Holtzman, Donald A. Berry, Donald C. Kvan, Linda Mottonen and Gary Borrell ........................................ 286

Hepatic and Pulmonary Microsomal Metabolism of Naphthalene to Glutathione Adducts: Factors Affecting the Relative Rates of Conjugate Formation. Alan R. Buckpitt, Linda S. Bahson and Ronald B. Franklin ........................................ 291


Genotype-Dependent Behavioral Sensitivity to Mu vs. Kappa Opiate Agonists. II. Antinociceptive Tolerance and Physical Dependence. Germaine J. Gwynn and Edward F. Domino ........................................ 312


Effects of Thioridazine and Its Metabolites on Dopaminergic Function: Drug Metabolism as a Determinant of the Antidopaminergic Actions of Thioridazine. Clinton D. Kilts, David L. Knight, Richard B. Mailman, Erik Widerlov and George R. Breese ........................................ 334

Behavioral Differences between Neonatal and Adult 6-Hydroxydopamine-Treated Rats to Dopamine Agonists: Relevance to Neurological Symptoms in Clinical Syndromes with Reduced Brain Dopamine. George R. Breese, Alan A. Baumeister, Thomas J. McCown, Susan G. Emerick, Gerald D. Frye, Karen Crotty and Robert A. Mueller ........................................ 343


Dopamine Receptor Stimulating and Alpha Adrenoceptor Blocking Actions of trans (CS-265) and cis (CS-263) Isomers of Nonhydroxylated N-Propyl Octahydrobenzo[FRquinoline. M. Ilhan, J. P. Long and J. G. Cannon ........................................ 361

Effect of Age on Adrenergic Neuronal Uptake in Rat Heart. Margaret Spila Kreider, Paula Brustyn Goldberg and Jay Roberts ........................................ 367

Contents Continued on iv
Disposition and Anticoagulant Activity of Biologically Active Heparin Fragments in the Rat. Annette K. Larsen, Stella Hetelekidis and Robert Langer

Effects of Adrenoceptor Antagonists and Neuronal Uptake Inhibitors on Dimethylophenylpiperazinium-Induced Release of Catecholamines from the Rabbit Isolated Adrenal Gland and Guinea-Pig Atria. Anthony R. Collett and David F. Story

Mechanism of Reversal of Toxic Effects of Amitriptyline on Cardiac Purkinje Fibers by Sodium Bicarbonate. Betty I. Sasyniuk and Vija Jhamandas

Inhibitory Presynaptic Effect of Noradrenaline on the Hypogastric Ganglion of the Guinea Pig. Fujio Abe

Pharmacological Characterization of \( \alpha \) Adrenoceptors in the Rat Gastric Fundus. Peter A. Verplanken, Romain A. Lefebvre and Marc G. Bogaert

Individual and Combined Antiepileptic and Neurotoxic Activity of Carbamazepine and Carbamazepine-10,11-Epoxide in Mice. B. F. D. Bourgeois and N. Wad

Effect of Ethanol Tolerance on Norepinephrine-Ethanol Inhibition of (Na\( ^+ \)+K\( ^- \))-Adenosine Triphosphatase in Various Regions of Rat Brain. N. I. Rangaraj and H. Kalant

Is Acute Morphine Hyperthermia of Unrestrained Rats Due to Selective Activation of Brown Adipose Tissue Thermogenesis? J. A. Thornhill and M. Desautels

Treatment of Ventricular Tachyarrhythmias Resulting from Amitriptyline Toxicity in Dogs. Stanley Nattel and Murray Mittleman

Serotonin Regulation of the Canine Migrating Motor Complex. Herbert S. Ormsbee, III, David A. Silber and Franklin E. Hardy, Jr.

Arachidonic Acid Metabolism in a Cell Suspension Isolated from Rabbit Renal Outer Medulla. N. R. Ferreri, N. G. Ibraham, P. N. Chander and J. C. McGiff

Renal Metabolism of Sulindac: Functional Implications. Mark J. S. Miller, Martin M. Bednar and John C. McGiff

Cardiovascular Control by Cholinergic Mechanisms in the Rostral Ventrolateral Medulla. Robert N. Willette, Susan Punnen, Abbott J. Krieger and Hreday N. Sapru


Erratum