CONTENTS

Altered Methadone Pharmacokinetics in Methadone-Maintained Pregnant Women. Susan M. Pond, Mary Jeanne Kreek, Theodore G. Tong, Jayanthi Raghunath and Neal L. Benowitz ................................................................. 1

Renal Tubular Excretory Transport of Oxalate in the Chicken. Larry M. Tremaine, J. E. Bird and A. J. Quebbemann ................................................................. 7

Comparative Effects of Nisoldipine, Nifedipine and Bepridil on Experimental Pulmonary Hypertension. Stephen L. Archer, Robert D. Yankovich, Elliot Chesler and E. Kenneth Weir ........................................................................ 12

Metabolism, Distribution, Seminal Excretion and Pharmacokinetics of Caffeine in the Rabbit. Cynthia A. Beach, Dennis C. Mays, Bruce M.Sterman and Nicholas Gerber ........................................................................ 18

Prostaglandin Synthesis and Renal Vasoconstriction Elicited by Adrenergic Stimuli are Linked to Activation of Alpha-1 Adrenergic Receptors in the Isolated Rat Kidney. Christy L. Cooper and Kafait U. Malik ........................................................................ 24

Tyrosine Hydroxylase Activity and Catecholamine Biosynthesis in the Adrenal Medulla of Rats during Stress. Steven J. Fuhlary, Gretchen L. Snyder, Michael J. Zigmund and Edward M. Stricker ........................................................................ 32

Chlorphentermine-Induced Biochemical Alterations in Mitochondrial Membranes. Lech Zychlinski and Mark R. Montgomery ........................................................................ 39

Effects of 6-Methoxy-2-Benzoxazolinone on the Pineal Melatonin Generating System. Arthur Yuwiler and Wallace D. Winters ........................................................................ 45


Differential Effects of Xylamine on Extracellular Concentrations of Norepinephrine and Dopamine in Rat Central Nervous System: An in Vivo Electrochemical Study. Sherrel Howard-Butcher, Charles D. Blaha and Ross F. Lane ........................................................................ 58

Effects of H2-Receptor Antagonists upon Physiological Acid Secretory States in Animals. Robert G. Pendleton, Patricia G. Cook, Alene Shepherd-Rose and Allen W. Mangal ........................................................................ 64

Mechanisms of the Synergistic Combination of Metolazone and Bumetanide. D. Craig Brater, Russell H. Pressley and Shirley A. Anderson ........................................................................ 70

Relationship between Serotonin and Tryptamine Receptors in the Rat Stomach Fundus. Mariene L. Cohen and Laura A. Wittenauer ........................................................................ 75

Discriminative Stimulus Effects of Morphine Withdrawal in the Dependent Rat: Suppression by Opiate and Nonopiate Drugs. Stephen G. Holtzman ........................................................................ 80

Comparison of the Cardiovascular Actions of Dopamine and Epinephrine in the Dog. Haruki Itoh, Jai D. Kohli, Sol I. Rajfer and Leon I. Goldberg ........................................................................ 87

Effect of Halothane-Oxygen Anesthesia on the Pharmacokinetics of Diazepam and Its Metabolites in Rats. Larry E. Bell, John T. Slattery and Dianne P. Calkins ........................................................................ 94

Effects of 2-Nicotimidoethyl Nitrate on Agonist-Sensitive Ca** Release and Ca** Entry in Rabbit Aorta. R. Kelly Hester ........................................................................ 100

Actions of Ba** on Ionic Currents of the Guinea-Pig Taenia Coli. H. Inomata and C. Y. Kao ........................................................................ 112

Effects of Pentobarbital on t-[3H]Butylbicyclophosphorothionate and [3H]Flunitrazepam Binding to Membrane-Bound and Solubilized Preparations from Rat Forebrain. Judith A. Richter and Henry I. Yamamura ........................................................................ 125

Regulation of Muscarinic Cholinergic Receptor Density in Neuroblastoma Cells by Brief Exposure to Agonist: Possible Involvement in Desensitization of Receptor Function. Pamela Feigenbaum and Esam E. El-Fakahany ........................................................................ 134

Beta-2 Adrenergic Control of Ornithine Decarboxylase Activity in Brain Regions of the Developing Rat. Geoffrey Morris and Theodore A. Slotkin ........................................................................ 141

LY171883, 1<2-Hydroxy-3-Propyl-4-<4-(1H-Tetrazol-5-yl)Butoxy>Pheny1>Ethanone, an Orally Active Leukotriene D4 Antagonist. Jerome H. Fleisch, Lynn E. Rinkema, Klaus D. Haisch, Dorothy Swanson-Bean, Theodore Goodson, Peter P. K. Ho and Winston S. Marshall ........................................................................ 148

Contents Continued on iv
Endothelial Cells and the Electrical and Mechanical Responses of the Rabbit Coronary Artery to 5-Hydroxytryptamine. C. J. Garland ........................................... 158


Physiological Approach of Beta-Receptor Coupling to Adenylate Cyclase in Rat Airways: Ontogenical Modification and Functional Antagonism. Nelly Frossard and Yves Landry ........................................... 168

Lipoxygenase Inhibitors and Cyclic AMP-Mediated Insulin Secretion Caused by Forskolin, Theophylline and Dibutyryl Cyclic AMP. Satoshi Yamamoto, Teruo Nakadate, Hiroya Uzumaki and Ryuichi Kato ........................................... 176

H⁺ Gradient-Dependent Transport of Aminocephalosporins in Rat Renal Brush Border Membrane Vesicles: Role of H⁺/Organic Cation Antiport System. Ken-Ichi Inui, Mikihisa Takano, Tomonobu Okano and Ryohei Hori ........................................... 181

Response and Sensitivity of Isolated Human Pulmonary Muscle Preparations to Pharmacological Agents. Bernadette Raffestin, Jacques Cerrina, Cécile Boulet, Carlos Labat, Jacques Benveniste and Charles Brink ........................................... 186


Influence of Pharmacological Manipulation of Inhibitory and Excitatory Neurotransmitter Systems on Seizure Behavior in the Mongolian Gerbil. Wolfgang Löscher ........................................... 204

Disposition of Beta Glucuronidase-Resistant “Glucuronides” of Valproic Acid after Intrabiliary Administration in the Rat: Intact Absorption, Fecal Excretion and Intestinal Hydrolysis. Ronald G. Dickinson, Ruth M. Kluck, Mervyn J. Edie and Wayne D. Hooper ........................................... 214

Age-Related Alteration in the Activities of Drug Metabolizing Enzymes and Contents of Sex-Specific Forms of Cytochrome P-450 in Liver Microsomes from Male and Female Rats. Tetsuya Kamataki, Kaori Maeda, Miki Shimada, Kenichi Kitani, Tsuneji Nagai and Ryuichi Kato ........................................... 222

Effects of Calcium Entry Blockers on Coronary Constriction and Myocardial Ischemia due to Leukotriene D₁, David Ezra, Lilie M. Boyd, Robert E. Goldstein and Giora Feuerstein ........................................... 229

Muscarine Stimulates the Hydrolysis of Inositol-Containing Phospholipids in the Superior Cervical Ganglion. Joel Horwitz, Sofia Tsymbalov and Robert L. Perlman ........................................... 235

Potentiation of the Hepatotoxic Effect of Acetaminophen by Prior Administration of Salicylate. S. M. Doudar, P. J. Boor and A. E. Ahmed ........................................... 242

Evidence for a Central Site of Action for the Antitussive Effects of Caramiphen. Edward F. Domino, Halina Krutak-Krol and Jawahar Lal ........................................... 249

Autoradiographic Characterization of N-Methyl-D-Aspartate-, Quisqualate- and Kainate-Sensitive Glutamate Binding Sites. J. Timothy Greenamyre, James M. M. Olson, John B. Penney, Jr. and Anne B. Young ........................................... 254

Experimental Gentamicin Nephrotoxicity: Effect of Streptozotocin-Induced Diabetes. W. Clayton Elliott, Donald C. Houghton, David N. Gilbert, Joan Baines-Hunter and William M. Bennett ........................................... 264

Type II Cell Response to Chronic Beta Adrenergic Agonist and Antagonist Infusions. Stephen L. Young and Robert A. Silbajoris ........................................... 271