CONTENTS

Do Calcium Antagonists Act Directly on Calcium Channels to Alter Baroreceptor Function? Diana L. Kunze, Michael C. Andresen and Louis A. Torres 303

Dependence on Tetrahydrocannabinol in Rhesus Monkeys. Patrick M. Beardsley, Robert L. Balster and Louis S. Harris 311

A Characterization of the Antinociception Produced by Intracerebroventricular Injection of 8-(N,N-Diethylamino)Ocetyl-3,4,5,-Trimethoxybenzoate in Mice. Sandra P. Welch and William L. Dewey 320

Sensitivity and Tolerance to Ethanol in Mice Bred to Be Genetically Prone or Resistant to Ethanol Withdrawal Seizures. John C. Crabbe and Ann Kosobud 327


Tolerance to Morphine Effects on Renal Disposition of Xenobiotics in Mice. Moshe Garty and Aryeh Hurwitz 346

Reversible and Irreversible Binding of β-Funaltrexamine to Mu, Delta and Kappa Opioid Receptors in Guinea Pig Brain Membranes. S. William Tam and Lee-Yuan Liu-Chen 351

Dose-Response Analysis of Nicotine Tolerance and Receptor Changes in Two Inbred Mouse Strains. Michael J. Marks, Jerry A. Stitzel and Alan Collins 358


Molecular Basis for the in Vitro and in Vivo Cardiotonic Activities of AR-L100. J. Scott Hayes, Virginia L. Wyss, Harve C. Wilson, David W. Robertson and Raymond F. Kauffman 375

Gastric Antisecretory and Antiulcer Properties of Emprostil, (±)-1α,15α-Dihydroxy-16-Phenoxy-17,18,19,20-Tetranor-9-Oxoprosta-4,5,13 (t)-Trienoic Acid Methyl Ester. A. P. Roszkowski, G. L. Garay, S. Baker, M. Schuler and H. Carter 382

Role of the Vascular Endothelium in the Contractile Response to Prostacyclin in the Isolated Rat Aorta. Jacques Van Dam, Yvonne T. Maddox, Peter W. Ramwell and Peter A. Kot 390

Analysis of Airway Responses to A23187 in the Cat. Tony Kriseman, David C. Underwood, Albert L. Hyman and Philip J. Kadowitz 395

Actions of Nizatidine on the Rat Uterus, Dog Stomach and Experimentally Induced Gastric Lesions. Tsung-Min Lin, David C. Evans, Michael W. Warrick and Robert R. Ruffolo, Jr. 400

Actions of Nizatidine, a Selective Histamine H2-Receptor Antagonist, on Gastric Acid Secretion in Dogs, Rats and Frogs. Tsung-Min Lin, David C. Evans, Michael W. Warrick and Richard P. Pioch 406

Age-Related Decrease in Beta Adrenergic Receptor-Mediated Vascular Smooth Muscle Relaxation. Gozoh Tsujimoto, Chi-Ho Lee and Brian A. Hoffman 411

Human Coffee Drinking: Reinforcing and Physical Dependence Producing Effects of Caffeine. Roland R. Griffiths, George E. Bigelow and Ira A. Liebson 416

Mechanism of the Depressor Action of LY171555, a Selective Dopamine D2 Receptor Agonist, in the Anesthetized Rat. Shusaku Nagahama, Yiu-Fai Chen, Marshall D. Lindheimer and Suzanne Oparil 426

Effects of Ethylketazocine and Morphone on Schedule-Controlled Behavior in Pigeons and Squirrel Monkeys. Jonathan L. Katz and Steven R. Goldberg 433

Robust Modulation of [3H]Dopamine Release from Rat Striatal Slices by D-2 Dopamine Receptors. Linda P. Dwozkin and Nancy R. Zahniser 442

Central Serotonin Actions on LY 165163, 1-(m-Trifluoromethylphenyl)-4-(p-Aminophenylethyl) Piperazine, in Rats. Ray W. Fuller, Harold D. Snoddy and Bryan B. Molloy 454

Beta Adrenocceptor Modulation of the Generation of Murine Cytotoxic T Lymphocytes in Vitro. Stephen M. Hatfield, Bruce H. Petersen and Joseph A. DiMicco 460

Biliary Excretion of Organic Anions in Diabetic Rats. John B. Watkins III and Hiroko Noda 467

Contents Continued on iv
Atriopeptin Turnover: Quantitative Relationship between in Vivo Changes in Plasma Levels and Atrial Content. Nobuo Katsube, David Schwartz and Philip Needleman .......................................................... 474

Interactions of Atrial Natriuretic Peptide with the Sympathetic and Endocrine Systems in the Pithed Rat. Zofia Zukowska-Grojec, Markus Haass, Irwin J. Kopin and Nadav Zamir .................................................. 480

Sympathetic and Parasympathetic Nerves Regulate Postsynaptic Alpha-2 Adrenoceptor in Salivary Glands. Marcelo D. Kaniucki, Juan C. Elverdin, Maria A. Luchelli-Fortis, Carlos J. Perez and Francisco J. E. Stefano ......................................................................................... 488

Effects of Neurokinin A, Substance P and Electrical Stimulation on the Rabbit Iris Sphincter Muscle. Naoko Ueda, Ikuo Muramatsu, Takashi Taniguchi, Shigetada Nakanishi and Motohatsu Fujinawa ......................................................................................... 494

Site and Mechanism of Growth Inhibition by Prostaglandins. I. Active Transport and Intracellular Accumulation of Cyclopentenone Prostaglandins, a Reaction Leading to Growth Inhibition. Shuh Narumiya and Masanori Fukushima .......................................................... 500

Site and Mechanism of Growth Inhibition by Prostaglandins. II. Temperature-Dependent Transfer of a Cyclopentenone Prostaglandin to Nuclei. Shuh Narumiya, Kouji Ohno, Motohatsu Fujinawa and Masanori Fukushima ......................................................................................... 506

Alpha-1 Adrenoceptor Antagonist Effects of the Optical Isomers of YM-12817 in Rabbit Lower Urinary Tract and Prostate. Kazuo Honda and Chieko Nakagawa ......................................................................................... 512


Mechanisms of Histamine-Induced Relaxation in Isolated Monkey and Dog Coronary Arteries. Noboru Toda ................................................................................................................................................... 529

Histamine Contraction of Isolated Human Airway Muscle Preparations: Role of Prostaglandins. Isabelle Haye-Legrand, Jacques Cerrina, Bernadette Raffestin, Carlos Labat, Cecile Boulet, Anne Bayol, Jacques Benveniste and Charles Brink ......................................................................................... 536

Evaluation of Two Anticonvulsant Amino-Pyridazine Derivatives in the Conflict Test in Rats. Alain Perio, Jean-Pierre Chambon, Roselyne Calassi, Michel Heaulme and Kathleen Biziere ......................................................................................... 542

Effect of Intravenous Ferric or Aluminum Chloride on the Uptake of 203Pb into Brain and Other Soft Tissues of Rats. R. Deane, S. H. Park and M. W. B. Bradbury ......................................................................................... 548

Release of Acetylcholine Mediated by Cholecystokinin Receptor from the Guinea Pig Sphincter of Oddi. Toshio Harada, Takeshi Katsuragi and Tatsuo Furukawa ......................................................................................... 554

Pre- or Post-Treatment with Methoxsalen Prevents the Hepatotoxicity of Acetaminophen in Mice. Philippe Letteron, Veronique Descatoire, Dominique Larrey, Claude Degott, Marina Tinel, Jean Geneve and Dominique Pessayre ......................................................................................... 559

Gamma Aminobutyric Acid B Receptor-Mediated Inhibition of Adenylate Cyclase in Cultured Cerebellar Granule Cells: Blockade by Islet-Activating Protein. Jian Xu and Walter J. Wojcik ......................................................................................... 568

Correlative Studies on the Effect of Carbachol on Myo-Inositol Trisphosphate Accumulation, Myosin Light Chain Phosphorylation and Contraction in Sphincter Smooth Muscle of Rabbit Iris. Philip H. Howe, Rashid A. Akhtar, Shokofeh Naderi and Ata A. Abdel-Latif ......................................................................................... 574


In Vitro Effects of Beta Adrenoceptor Agonists and Antagonists on the Rat Ovarian Suspensory Ligament. H. C. Stanton and K. W. Dungan ......................................................................................... 591


Effects of Anticonvulsant Drugs on Substantia Nigra Pars Reticulata Neurons. Barbara L. Waszczak, Eun Kyu Lee and Judith R. Walters ......................................................................................... 606

Efficacy of Baclofen and Phenobarbital against the Kainic Acid Limbic Seizure-Brain Damage Syndrome. Brian Ault, Michael Grunthal, David R. Armstrong and J. Victor Nadler ......................................................................................... 612

Action of Cholecystokinin Octapeptide and CCK-Related Peptides on Neurons in Inferior Mesenteric Ganglion of Guinea Pig. M. A. Schumann and D. L. Kreulen ......................................................................................... 618