CONTENTS

Temperature-Dependent Modulation of [3H]Nitrendipine Binding by the Calcium Channel Antagonists Verapamil and Diltiazem in Rat Brain Synaptosomes. Richard G. Boles, Henry I. Yamamura, Hans Schoemaker and William R. Roeke ................................................................. 333

Relative Efficacy of Prenalterol and Pirbuterol for Beta-1 Adrenoceptors: Measurement of Agonist Affinity by Alteration of Receptor Number. Terry P. Kenskin and Deborah Beek .................................................. 340

5-Hydroxytryptamine Receptor in Rabbit Aorta: Characterization by Butyrophenone Analog. Saul Maysani, Charles W. Wilkinson and Jay S. Stollak .......................................................... 346

Effect of Pregnancy on the Pharmacokinetics of Phenytoin in Rats. Ruby C. Chou and Gerhard Levy ................................................................. 351


Interaction of the Novel Inotropic Agent, ASL-7022, with Alpha and Beta Adrenoceptors in the Cardiovascular System of the Pithed Rat: Comparison with Dobutamine and Dopamine. Robert R. Ruffolo, Jr. and Emily L. Morgan ................................................................. 364

Cellular Pharmacology of Amino Acid Derivatives of Daunorubicin and Doxorubicin in Suspension of Renal Proximal Tubules. J. T. Hjelle, R. Baurain, M. Masquelier and A. Trouet ................................................................. 372

An Endogenous Ligand Modulates Dopamine-Containing Neurons of Retina via Alpha-2 Adrenoceptors. M. Hadjiconstantinou, J. Cohen, J. R. Rubenstein and N. H. Neff ................................................................. 381

Antinociceptive Effect of the GABAmimetic 4,5,6,7-Tetrahydroisoxazolo[5,4-c]Pyridin-3-ol (THIP): Chronic Treatment Increases Alpha-2 Adrenoceptors in the Mouse Brain. Lucio G. Costa and Sheldon D. Murphy ................................................................. 386

Evidence That Only One Type of Beta Adrenergic Receptor Mediates Inhibition of Antigen-Induced Histamine Release from Guinea-Pig Minced Lung. B. J. Undem and C. K. Buckner ................................................................. 391

Central and Peripheral Anti-Inflammatory Actions by Clonidine and a Structurally Related Imidazoline Analog. Michael P. Holappa, Andrea Malave, Martin T. Lowy and George K. W. Yim ................................................................. 399

Antinatriuretic Effect of Acute Morphine Administration in Conscious Rats. Larry A. Walker and James C. Murphy ................................................................. 404

Interactions Between Renal Brush Border Membranes and Polyamines. Barry B. Kirschbaum ................................................................. 409


Comparison of Behavior Maintained by Intravenous Cocaine and d-Amphetamine in Dogs. Harlan E. Shannon and Marcus E. Risner ................................................................. 422

Studies on Vascular Dopamine Receptors with the Dopamine Receptor Agonist: SK&F 82526. Eliot H. Ohistein, Bogdan Zabko-Potopovich and Barry A. Berkowitz ................................................................. 433

Acute Effects of High Ceiling Diuretics on Pancreatic Blood Flow and Function. Sherry D. Holland and Harold E. Williamson ................................................................. 440

Distinction Between High-Affinity [3H]Phencyclidine Binding Sites and Muscarinic Receptors in Guinea-Pig Ileum Muscle. Esam E. El-Fakahany, David J. Triggle, Amira T. Eldefrawi and Mohyee E. Eldefrawi ................................................................. 447


Characterization of the Alpha Adrenergic Receptor Properties of Rabbit Ear Artery and Thoracic Aorta. Ralph E. Purdy and George L. Stupecky ................................................................. 459

Sensitivity to Morphine-Evoked Bradycardia in Rats is Modified by Dynorphin (1-13), Leu- and Met-Enkephalin. Juliann G. Kiang and E. T. Wei ................................................................. 469

Cytosolic and Nuclear Estrogen Receptors in the Isolated Perfused Rat Liver. Y. Y. Liu, C. L. Thompson, W. Powell-Jones, O. S. McDaniel and G. W. Lucier ................................................................. 474

Contents Continued on iv
Effects of Opiate Antagonists and Their Quaternary Derivatives on Heroin Self-Administration in the Rat. George F. Koob, Hugh O. Pettit, Aaron Ettenberg and Floyd E. Bloom 481

Increases of Substance P-Like Immunoreactivity Within Striatal-Nigral Structures After Subacute Methamphetamine Treatment. Joseph K. Ritter, Christopher J. Schmidt, James W. Gibb and Glen R. Hanson 487

Effects of N-Nitrosodimethylamine on Humoral Immunity. Michael P. Holsapple, Anne N. Tucker, Peter J. McNerney and Kimber L. White, Jr. 493


Differential Effects of the Calcium Entry Blocker D 600 on Contractions of Rat and Guinea-Pig Aortas, Elicited by Various Alpha-1 Adrenoceptor Agonists. Jan Jacob Beckeringh, Martin J. M. C. Thoolen, Adriaan de Jonge, Bob Wilffert, Pieter B. M. W. M. Timmermans and Pieter A. van Zwieten 515


Development of Histamine Tachyphylaxis in the Guinea-Pig Mesenteric Artery. Hiroyuki Satoh, Jun Inui, Tomohiko Kimura and Tadaso Nakamura 527

Nonadrenergic Nature of Prazosin-Resistant, Sympathetic Contraction in the Dog Mesenteric Artery. Ikunobu Muramatsu, Shigeru Kigoshi and Masafumi Oshita 532

Pharmacokinetic-Pharmacodynamic Modeling of Prednisolone-Induced Lymphocytopenia in Man. B. Oosterhuis, J. J. Duivenvoorden, Tobias Optof and Ben W. Treljel 539


Electrophysiological Effects of Alinidine on Nodal and Atrial Fibers in the Guinea-Pig Heart. Lennart N. Bouman, Jeroen J. Duivenvoorden, Tobias Optof and Ben W. Treljel 551

Effects of Estradiol on Norepinephrine-Induced Contraction, Alpha Adrenoceptor Number and Norepinephrine Content in the Female Rabbit Urethra. Bengt Larsson, Karl-Erik Andersson, Satish Batra, Anders Mattiasson and Christer Sjogren 557

Measurement of Adenosine Metabolism and Uptake in Smooth Muscle and Effects of Adenosine Transport Inhibitors. Hans P. Baer and Richard Vriend 564


Muscarine Increases Tyrosine 3-Monoxygenase Activity and Phospholipid Metabolism in the Superior Cervical Ganglion of the Rat. Joel Horwitz, Sofia Tsymbalov and Robert L. Perlmutter 577

Microiontophoretically Applied Morphine and Naloxone on Single Cell Activity in the Parafasciculus Nucleus of Naive and Morphine-Dependent Rats. C. Reyes-Vazquez and N. Dafny 583

Effects of Parenteral and Enteral Hyperalimentation on Hepatic Drug Metabolism in the Rat. Robert G. Koobell, Nadine M. Steele, Frank B. Cerra, John B. Gross and Travis E. Solomon 589


Inhibition by Enflurane and Methoxyflurane of Postdriv Hyperpolarization in Canine Purkinje Fibers. Margaret Pratt, Stephen Vogel and Nick Spereiakis 603

Isoproterenol-Induced Amylase Release in Rabbit Parotid Glands: Relation of Protein Phosphorylation, Cyclic AMP and Related Kinase Activity to Changes in Secretory Rate. Blake Horio, Frank Dowd, Eileen Watson, Maija Mednieks and James Warren 608

Depolarizing Action of a Red-Tide Dinoflagellate Brevetoxin on Axonal Membranes. James M. C. Huang, Chau H. Wu and Daniel G. Baden 615

Effect of Desmethyliimipramine and Reserpine on the Concentration of Specific Proteins in the Parietal Cortex and the Hippocampus of Rats as Analyzed by Two-Dimensional Gel Electrophoresis. William E. Heydorn, G. Joseph Creed and David M. Jacobowitz 622