CONTENTS

In Vivo Studies on Spinal Opiate Receptor Systems Mediating Antinociception. I. Mu and Delta Receptor Profiles in the Primate. T. L. Yaksh ................................................................. 303

Behavioral Effects of Buprenorphine and Diprenorphine under a Multiple Schedule of Food Presentation in Squirrel Monkeys. Linda A. Dykstra .......................................................... 317


Calcium and Calmodulin Antagonists Binding to Calmodulin and Relaxation of Coronary Segments. J. David Johnson and Douglas A. Fugman .......................................................... 330

Ischemia-Induced Enhancement of Digitalis Sensitivity in Isolated Guinea-Pig Heart. Dong-Hee Kim, Tai Akera and Richard H. Kennedy .......................................................... 335

Relationships between Choline Uptake, Acetylcholine Synthesis and Acetylcholine Release in Isolated Rat Atria. Glenn T. Wetzel and Joan Heller Brown .......................................................... 343

Pentobarbital Causes Cardiorespiratory Depression by Interacting with a GABAergic System at the Ventral Surface of the Medulla. Kathryn A. Yamada, Joseph M. Moerschbaecher, Paul Hamosh and Richard A. Gillis ............................................................................. 349

Centrally Mediated Inhibition of Small Intestinal Transit and Motility by Morphine in the Rat. James J. Galligan and Thomas F. Burks .......................................................... 356

Effects of Chronic Administration of Mestranol on Alpha and Beta Adrenergic Responsiveness in Female Rats. K. T. Shiverick, K. Hutchins, D. C. Kikta, N. Squires and M. J. Fregly .......................................................... 362

Inhibition of Na+ Influx and DNA Synthesis in Human Fibroblasts and Neuroblastoma-Glioma Hybrid Cells by Amiloride Analogs. Martha E. O'Donnell, Edward Cragoe, Jr. and Mitchel L. Villereal .......................................................... 368

Naltrexone Effects on Plasma Vasopressin Concentration Elevated and Lowered by Various Stimuli. Lillian M. Rosella-Dampman, Lanny C. Keil, Oliver Chee and Joan Y. Sumny-Long .......................................................... 373


Ethanol-Induced Disordering of Membranes from Different Age Groups of C57BL/6NNIA Mice. H. James Armbrecht, W. Gibson Wood, Ronald W. Wise, Judy B. Walsh, Brit N. Thomas and R. Strong .......................................................... 387

[3H]Nicotine Binding in Rat Brain: Alteration after Chronic Acetylcholinesterase Inhibition. Lucio G. Costa and Sheldon D. Murphy .......................................................... 392

Pharmacological Characterization of Substance P-Induced Nociception in Mice: Modulation by Opioid and Noradrenergic Agonists at the Spinal Level. Janice L. K. Hylden and George L. Wilcox .......................................................... 398

Interaction between the Effects of Intragastric Meals and Drugs on Feeding in Rhesus Monkeys. Richard W. Foltin and Charles R. Schuster .......................................................... 405

Effects of Psychomotor Stimulants, Alone and in Pairs, on Milk Drinking in the Rat after Intraperitoneal and Intragastric Administration. Richard W. Foltin, William L. Woolverton and Charles R. Schuster .......................................................... 411


Differential Sensitivity of Hypothalamic Norepinephrine and Striatal Dopamine to Catecholamine-Depleting Agents. Glenn S. Takimoto, James D. Stittsworth, Jr., Bruce R. Bianchi and Janet K. Stephens .......................................................... 432

Behavioral Effects of the Optical Isomers of Methadone in the Rat during Acute and Chronic Administration. L. A. Raitano and D. E. McMillan .......................................................... 440

Effects of Chronic Phencyclidine Administration on the Schedule-Controlled Behavior of Rats. M. J. Brocco, S. K. Rastogi and D. E. McMillan .......................................................... 449

Contents Continued on w
Production of Prostaglandin E2 and F2α in the Freshwater Mussel *Ligumia subratula*: relation to Sodium Transport. David G. Saintsing, Daniel H. Hwang and Thomas H. Dietz 455

SCH 23390, a Potential Benzazepine Antipsychotic with Unique Interactions on Dopaminergic Systems. Louis C. Iorio, Allen Barnett, Frederick H. Leitz, Vincent P. Houser and Chryzanta A. Korduba 462

Evaluation of the Adrenergic Effects of a Novel Optically Active Catecholamidine *in Vitro* and *in Vivo*: Differential Application of the Eason-Stedman Hypothesis to *Alpha* and *Beta* Adrenoceptors. Robert R. Ruffolo, Jr., Jon W. Banning, Popat N. Patil, Akihiko Hamada and Duane D. Miller 469

Spinal Serotonin (5-HT) Receptor Subtypes and Nociception. Frank P. Zemlan, Lee-Ming Kow and Donald W. Pfaff 477


Erythropoietic Effects of Prostacyclin (PGI2) and Its Metabolite 8-Keto-Prostaglandin (PG)E1. Peter Kim Nelson, Jesse Brookins and James W. Fisher 493

Inhibitory Effects of Anthracenedione Antineoplastic Agents on Hepatic and Cardiac Lipid Peroxidation. Evan D. Kharasch and Raymond F. Novak 500

Effects of Met-Enkephalin on the Substance P-Ergic and Cholinergic Responses in the Rabbit Iris Sphincter Muscle. Naoko Ueda, Ikunobu Muramatsu, Haruki Hayashi and Motohatsu Fujiwara 507


Correlation between Cholinesterase Inhibition and Reduction in Muacarinic Receptors and Choline Uptake by Repeated Dl-isopropylfluorophosphate Administration: Antagonism by Physostigmine and Atropine. Shizuo Yamada, Mitsutaka Isogai, Hiromi Okudaira and Eiichi Hayashi 519

Chlordiazepoxide Reduces *in Vivo* Serotonin Release in the Basal Ganglia of Encephale Isolé but Not Anesthetized Cats: Evidence for a Dorsal Raphe Site of Action. Philippe Soubrie, Catherine Blas, André Ferron and Jacques Glowinski 526

Glucuronidation in Isolated Perfused Rat Intestinal Segments after Mucosal and Serosal Administration of 1-Naphthol. Andries Sj. Koster and Jan Noordhoek 533

Effect of Liposome Size and Drug Release Properties on Pharmacokinetics of Encapsulated Drug in Rats. T. M. Allen and J. M. Everest 539


Pharmacology and Regional Variations of Quinolinic Acid-Evoked Excitations in the Rat Central Nervous System. M. N. Perkins and T. W. Stone 551


Quantitative Aspects of *Alpha* Adrenergic Effects Induced by Clonidine-Like Imidazolines. III. Comparison of Central and Peripheral *Alpha*-1 and *Alpha*-2 Adrenoceptors. A. de Jonge, P. B. M. W. M. Timmermans and P. A. van Zwieten 565

Demonstration of an *Alpha* Adrenoceptor-Mediated Inotropic Effect of Norepinephrine in Rabbit Papillary Muscle. Halfdan Aas, Tor Skomedal and Jan-Bjorn Oanes 572


Mammalian Tissue Acetylsalicylic Acid Esterase(s): Identification, Distribution and Discrimination from Other Esterases. Basheer Ali and Swaraj Kaur 589

Effects of 1-(4-Nitrophenyl)-2-Isopropylaminoethanol (INPEA) and Propranolol and Their Dextro-Isomers on Hemodynamic and Metabolic Responses to Isoproterenol in Dogs. Tai-Ichi Nishimura, Shin-Ichi Kita and Yasushi Abiko 595

Suppression of Lymphatic Vessel Contractility with Inhibitors of Arachidonic Acid Metabolism. Miles G. Johnston and Cathy Feuer 603

Similarity between Tyramine-Induced Neurotoxicity and the Coma of Reye's Syndrome. Bahjat A. Faraj, Daniel B. Caplan, Eugene J. Malvesux, Vernon M. Camp and Farouk M. Mi 608

Biphasic Effects of Baclofen on Phrenic Motoneurons: Possible Involvement of Two Types of γ-Aminobutyric Acid (GABA) Receptors. Peter M. Lalley 616

Anti-Inflammatory and Antiarthritic Evaluation of Acetaminophen and Its Potentiation of Tolmetin. S. Wong and J. F. Gardocki 625

Erratum 632