The Journal of PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS

VOLUME 249
MAY 1989
NUMBER 2

CONTENTS


Pharmacokinetics and Pharmacodynamics of Atrial Natriuretic Peptide After Bolus and Infusion Administration in the Isolated Perfused Rat Kidney. Michael E. Brier and George B. Harding 372


Unsurmountable Antagonism to 5-Hydroxytryptamine in Rat Kidney Results from Pseudoirreversible Inhibition Rather Than Multiple Receptors or Allosteric Receptor Modulation. Richard A. Bond, Alex G. Ornstein and David E. Clarke 401

In Vivo Metabolism of Atrial Natriuretic Peptide: Identification of Plasma Metabolites and Enzymes Responsible for Their Generation. Philip A. Krieter, Gillian M. Olins, Sheldon P. Verrett and Richard C. Durley 411

Benzodiazepine and Beta-Carboline Interactions with GABA Receptor-gated Chloride Channels in Mammalian Cultured Spinal Cord Neurons. Ashok K. Mehta and Maharaj K. Ticku 418

Cysteamine Produces Dose-related Bidirectional Immunomodulatory Effects in Mice. Henry U. Bryant, John W. Holaday and Edward W. Bernton 424


Pentobarbital-Like Discriminatory Stimulus Effects of N-Methyl-d-Aspartate Antagonists. Joyce Willetts and Robert L. Balster 438


Effect of 1,3-bis(2-Chloroethyl)-1-Nitrosourea on Cholephilic Dye Metabolism and Excretion in Anesthetized Rats. Dale Hoyt and Robert E. Larson 450

Sensitivity and Tolerance to Ethanol-Induced Hypothermia in Genetically Selected Mice. John C. Crabbe, Daniel J. Feller and Janet S. Dorow 456

Differential Modulation by [d-Pen², d-Pen⁵]Enkephalin and Dynorphin A-(1-17) of the Inhibitory Bladder Motility Effects of Selected Mu Agonists in Vivo. Russell J. Sheldon, Linda Nunan and Frank Porreca 462

Kinins Contribute to the Contractile Effects of Rat Glandular Kallikrein on the Isolated Rat Uterus. Gabriel G. Orce, O. A. Carretero, G. Scicli and A. G. Scicli 470


Effects of Acute and Chronic Acyclovir on Canine Renal Function. Alan S. Kimes, Karen Kumor, Karen McCullough, David Holtzelaw, Diana Teller, Dennis Dobyan and David Spector 483

Effects of Protein Kinase Inhibitor, 1-(5-Isoquinolinylsulfonyl)-2-Methylpiperazine, on Beta-2 Adrenergic Receptor Activation and Desensitization in Intact Human Lymphocytes. Ka Kit Hui and Jun Liang Yu 492


Effect of Continuous Exposure to Selective D₁ and D₂ Dopaminergic Agonists on Rotational Behavior in Supersensitive Mice. James D. Winkler and Benjamin Weiss 507


Contents Continued on iv
Alpha Adrenoceptor Agonist Stimulation of Oxygen Consumption in Rat Proximal and Distal Nephrons. Frank A. Gesek and Jack W. Strandhoy ........................................ 529
Characterization of Serotonin-1B Receptors Negatively Coupled to Adenylate Cyclase in OK Cells, a Renal Epithelial Cell Line from the Opossum. T. J. Murphy and David B. Bylund ........ 535
Characterization of the Pharmacokinetic Interaction between Nifedipine and Ethanol in the Rat. Kathleen M. Boje and Ho-Leung Fung .................................................. 567
Pharmacological Characterization of Neural Mechanisms Regulating Mucosal Ion Transport in Mouse Jejunum. Russell J. Sheldon, Margaret E. Malarchik, Deborah A. Fox, Thomas F. Burks and Frank Porreca ........ 572
Pharmacokinetic Modeling of the Anticonvulsant Action of Phenobarbital in Rats. Jasper Dingemanse, Joost B. M. M. van Bree and Meindert Danhof ........................................ 601
Inhibition of Converting Enzyme in the Cerebrospinal Fluid of Rats after Oral Treatment with Converting Enzyme Inhibitors. Peter Gohlke, Hansjörg Urbach, Bernward Schölkens and Thomas Unger ........ 609
Mexiletine-Quinidine Combination: Enhanced Antiarrhythmic and Electrophysiologic Activity in the Dog. Henry J. Duff .......................................................... 617
Activation of Heart Sarcoplasmic Reticulum Ca**-Stimulated Adenosine Triphosphatase by Insulin. Mahesh P. Gupta, Sheu-Lun Lee and Naranjan S. Dhalla ........................................ 623
Metabolic Changes in Glutathione and Metallothionein in Newborn Rat Liver. Karen R. Gallant and M. George Cherian ........................................................................... 631
Influence of Enzyme Induction and Inhibition on the Oxidation of Nifedipine, Sparteine, Mephenytoin and Antipyrene in Humans as Assessed by a “Cocktail” Study Design. J. H. M. Schellen, J. H. F. van der Wart, M. Brugman and D. D. Breimer ......................................................... 638
Interaction of 8-(N,N-Diethylamino)Octyl 3,4,5-Trimethoxybenzoate Hydrochloride, Ryanodine and Procaine with Muscarinic Cholinergic M3 Receptor Sites in Smooth Muscle. Tetsuhiro Hisayama, Issei Takayanagi, Naomi Kumagai and Haruichi Kubo ................. 646
Catechol and Indole Metabolism in Rostral Ventrolateral Medulla Change Synchronously with Changing Blood Pressure. D. Bhaskaran and Curt R. Freed ........................................ 660
Potentiation of 3-Methylcholanthrene Induction of Rat Hepatic Cytochrome P450IA1 by Dexamethasone in Vivo. Amanda J. Sherratt, Duane E. Banet, Mark W. Linder and Russell A. Prough ........ 667