

The Journal of PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS

CONTENTS

Abuse Liability and Pharmacodynamic Characteristics of Intravenous and Inhaled Nicotine. Jack E. Henningfield, Katsumasa Miyasato and Donald R. Jasinski	1
Propylthiouracil-Induced Immune-Mediated Disease in the Cat. David P. Aucoin, Mark F. Peterson, Arthur I. Hurvitz, Dennis E. Drayer, Robert G. Lahita, Fred W. Quimby and Marcus M. Reidenberg	13
Transcapillary Transport of Solutes in the Myocardium: Effects of Nitroglycerin, Isoproterenol and Histamine on Permeability-Surface Area Products of Inulin and Sucrose. Edward O. Weselcouch, Kathryn J. Lucchesi, Christopher J. Luneau and Robert E. Gosselin	19
Biologic Activity of 3β-D-Glucopyranosides of Vitamin D Compounds. James M. Londowski, Susan Bollman Kost, Myron Gross, Ludvik Labler, Werner Meier and Rajiv Kumar	25
Effects of Clenbuterol and Antidepressant Drugs on Beta Adrenergic Receptor/N-Protein Coupling in the Cerebral Cortex of the Rat. James M. O'Donnell and Alan Frazer	30
Characterization of [³H]Pirenzepine Binding to Muscarinic Cholinergic Receptors Solubilized from Rat Brain. Gary R. Luthin and Barry B. Wolfe	37
Infusion of Opiates into Substantia Nigra Protects against Maximal Electroshock Seizures in Rats. Douglas S. Garant and Karen Gale	45
Dynorphin and Neendorphin Peptides Decrease Dorsal Root Ganglion Neuron Calcium-Dependent Action Potential Duration. Mary Ann Werz and Robert L. Macdonald	49
Alteration of Bone Marrow Cell Cycle Kinetics by Diphenylhydantoin: Relationship to Folate Utilization and Immune Function. Anne N. Tucker, Lily Hong, Gary A. Boorman, Oscar Pung and Michael I. Luster	57
Bepridil Hydrochloride Alters Potential-Dependent and Receptor-Operated Calcium Channels in Vascular Smooth Muscle of Rabbit Aorta. Stephen F. Flaim, Paul H. Ratz, Steven C. Swigart and Marie M. Gleason	63
Antiarrhythmic and Electrophysiologic Effects of Bepridil in Chronically Infarcted Conscious Dogs. Joseph J. Lynch, Daniel G. Montgomery, Anthony Ventura and Benedict R. Lucchesi	72
Opiate Agonist-Antagonist Interactions: Application of a Three-Key Drug Discrimination Procedure. Charles P. France and James H. Woods	81
Decreased Fractional Renal Excretion of Gentamicin in Subtotal Nephrectomized Dogs. J. Edmond Riviere, Karl F. Bowman and Richard A. Rogers	90
Effects of Single and Repeated Daily Injections of Morphine, Clonidine and <i>l</i>-Nantradol on Responding of Squirrel Monkeys under Escape Titration. James B. Smith	94
Pharmacological Experiments on the Binding and Internalization of the 50,000 Dalton Carboxyterminus of Tetanus Toxin at the Cholinergic Neuromuscular Junction. Lance L. Simpson	100
Effects of Serotonin Receptor Antagonists on Punished Responding Maintained by Stimulus-Shock Termination or Food Presentation in Squirrel Monkeys. Linda S. Brady and James E. Barrett	106
Effects of Nicotine, Cocaine and Some of Their Metabolites on Schedule-Controlled Responding by Beagle Dogs and Squirrel Monkeys. Marcus E. Risner, Steven R. Goldberg, José A. Prada and Edward J. Cone	113
Comparison of Triazolam and Pentobarbital: Performance Impairment, Subjective Effects and Abuse Liability. John D. Roache and Roland R. Griffiths	120
Comparative Interactions of Organic Ca⁺⁺ Channel Antagonists with Myocardial Ca⁺⁺ and K⁺ Channels. J. R. Hume	134
Relationships between Drug-Induced Changes in Tetrahydrobiopterin and Biogenic Amine Concentrations in Rat Brain. Eminy H. Y. Lee and Arnold J. Mandell	141
Densitization of Alpha-1 Adrenergic Receptor-Mediated Vascular Smooth Muscle Contraction. Keith G. Lurie, Gozoh Tsujimoto and Brain B. Hoffman	147

Contents Continued on iv

Nicotine Renal Excretion Rate Influences Nicotine Intake during Cigarette Smoking. Neal L. Benowitz and Peyton Jacob III	153
Effect of L-(αS,5S)-α-Amino-3-Chloro-4,5-Dihydro-5-Isoxazoleacetic Acid on Urinary Excretion of Methylmercury in the Mouse. Kathleen M. Mulder and Paul J. Kostyniak	156
Role of Extracellular Calcium in Contractions Produced by Activation of Postsynaptic <i>Alpha-2</i> Adrenoceptors in the Canine Saphenous Vein. Kam F. Jim and William D. Matthews	161
Inhibition by Metoprolol of the Antihypertensive Effect of Aspirin in Young Rats. Richard S. Tuttle, Vera Banziger, Shilpa Patel and Nicole Northrup	166
Reversal of Caffeine-Induced Calcium Overload in Cardiac Purkinje Fibers. Hiroyasu Satoh and Mario Vassalle	172
Kinetics of Drug Action in Disease States. XIII. Effect of Dialyzable Component(s) of Uremic Blood on Phenobarbital Concentrations in Rats at Onset of Loss of Righting Reflex. Masafumi Hisaoka and Gerhard Levy	180
Nonintracellular, Cell-Associated O-Methylation of Isoproterenol in the Isolated Rabbit Thoracic Aorta. R. J. Head, R. J. Irvine, S. Barone, R. E. Stitzel and I. S. de la Lande	184
Effect of Spironolactone on the Renal Clearance of Digoxin in Dogs. Mark S. O'Brien, Lawrence F. Salamone and Thomas P. Gibson	190
Serotonin-Stimulated Phosphoinositide Turnover: Mediation by the S_2 Binding Site in Rat Cerebral Cortex but Not in Subcortical Regions. P. Jeffrey Conn and Elaine Sanders-Bush	195
Effect of Chronic Methadone Administration on Neuroendocrine Function in Young Adult Rats. Cynthia M. Kuhn and Maria B. Bartolome	204
Arachidonic Acid Metabolism and Urinary Excretion of Prostaglandins and Thromboxane in Rats with Experimental Diabetes Mellitus. J. Quilley and J. C. McGiff	211
Release of Leukotrienes, Induced by the Ca^{++} Ionophore A23187, from Human Lung Parenchyma <i>in Vitro</i>. Lidia Sautebin, Tetesa Viganò, Enrico Grassi, Maria T. Crivellari, Giovanni Galli, Ferruccio Berti, Maurizio Mezzetti and Giancarlo Folco	217
Regional Differences in the Responses of Guinea-Pig Cardiac Tissue to Carbachol and Their Potentiation by Hypothermia. Kenneth J. Broadley, Kathleen M. MacLeod, Robert L. Rodgers and John H. McNeill	222
Role of Hemoglobin in the Differential Biotransformation of Glyceryl Trinitrate and Isosorbide Dinitrate by Human Erythrocytes. Brian M. Bennett, James F. Brien, Kanji Nakatsu and Gerald S. Marks	228
Displacement of the Surface Membrane Bound Calcium of the Skeletal Muscle Fibers of the Frog: Effects of Lanthanum and Opioids. Suraj S. Shetty and George B. Frank	233
Mechanism of Uptake of Dihydroergotamine by Isolated Rat Hepatocytes: Effect of Troleandomycin. Micheline Dumont, Ghislaine de Couët, Jean-François Le Bigot and Serge Erlinger	239
Discriminative Stimulus Properties of Lysergic Acid Diethylamide in the Monkey. Erik B. Nielsen	244
α-Glucosidase-Albumin Conjugates: Effect of Chronic Administration in Mice. T. M. Allen, L. Murray, D. Bhardwaj and M. J. Poznansky	250
Biodegradable Microspheres II: Immune Response to a Heterologous and an Autologous Protein Entrapped in Polyacryl Starch Microparticles. Per Artursson, Peter Edman and Ingvar Sjöholm	255
Autoregulatory Vasodilation Enhances Renal Prostaglandin E_2 and Associated Renin Release during Arachidonic Acid Infusion in Dogs. Arild Vikse, Ole M. Sejersted and Fredrik Kiil	261
Differential Effects of Sulmazole (AR-L 115 BS) on Contractile Force and Cyclic AMP Levels in Canine Ventricular Muscle: Comparison with MDL 17,043. Masao Endoh, Teruyuki Yanagisawa, Tominori Morita and Norio Taira	267
Supraspinal Convulsions Induced by Inverse Benzodiazepine Agonists in Rabbits. Marino Massotti, Dario Lucantoni, Maria Grazia Caporali, Laura Mele and Franco Gatta	274
Surgical Sympathectomy of the Heart in Rodents and Its Effect on Sensitivity to Agonists. Katsutoshi Goto, Penelope A. Longhurst, Lisa A. Cassis, Richard J. Head, David A. Taylor, Peter J. Rice and William W. Fleming	280
Evidence for γ-Aminobutyric Acid Mediation of the Sympathetic Nerve Inhibitory Response to Vagal Afferent Stimulation. Stephen J. Humphrey and Robert B. McCall	288