

## CONTENTS

<b>Neuropharmacology of 3-Isobutylmethylxanthine: Effects on Central Noradrenergic Systems <i>in Vivo</i>.</b> Matthew P. Galloway and Robert H. Roth .....	1
<b>Effects of Nephrectomy on the Pharmacokinetics of Various Cloned Human Interferons in the Rat.</b> Sharon A. Tokazewski-Chen, Benedict J. Marafino, Jr. and Nowell Stebbing .....	9
<b>Synaptic Transmission in Low Extracellular Calcium is Preserved by 3,4-Diaminopyridine.</b> Mitsuhiro Matsumoto and William K. Riker .....	16
<b>The Spinal Cord as a Site of Opioid Effects on Gastrointestinal Transit in the Mouse.</b> Frank Porreca and Thomas F. Burks .....	22
<b>Oral <i>d</i>-Amphetamine and Ketamine Self-Administration by Rhesus Monkeys: Effects of Food Deprivation.</b> Marilyn E. Carroll and Dana C. Stotz .....	28
<b>Further Study of <i>Kappa</i> Opioids on Increased Urination.</b> J. David Leander .....	35
<b>A Comparison of Antinociception Induced by Foot Shock and Morphine.</b> Anne E. Snow and William L. Dewey .....	42
<b>Effect of Probenecid on the Dose-Response Relationship of Bumetanide at Steady State.</b> Henry S. H. Lau, Ling-Jar Shih and David E. Smith .....	51
<b>Dissociation of Renal Organic Anion Transport from Renal Lipid Metabolism. I. Endogenous Nonesterified Fatty Acids (NEFA) as Determinants of Transport.</b> William E. Stroo and Jerry B. Hook .....	55
<b><i>Alpha</i> Adrenergic Receptor Subtype Associated with Receptor Binding, Ca<sup>++</sup> Influx, Ca<sup>++</sup> Release and Contractile Events in the Rabbit Aorta.</b> Raymond Awad, Roderick Payne and Richard C. Deth .....	60
<b>Narcotic Effects on Hepatic Disposition of Sulfobromophthalein in Rats.</b> Aryeh Hurwitz and Holly R. Fischer .....	68
<b>Central <i>Beta</i> Adrenoceptor Mediation of the Antinatriuretic Response to Behavioral Stress in Conscious Dogs.</b> John P. Koepke, Alberto Grignolo, Kathleen C. Light and Paul A. Obrist .....	73
<b>Effect of Ethanol Administration on the Metabolism of Ethanol in Baboons.</b> F. Nomura, P. H. Pikkarainen, P. Jauhonen, M. Arai, E. R. Gordon, E. Baraona and C. S. Lieber .....	78
<b>Prostaglandin-Independent Inhibition of Calcium Transport by Nonsteroidal Anti-Inflammatory Drugs: Differential Effects of Carboxylic Acids and Piroxicam.</b> Ronald M. Burch, W. Curtis Wise and Perry V. Halushka .....	84
<b>Pharmacodynamics of the Diuretic Effects of Aminophylline and Acetazolamide Alone and Combined with Furosemide in Normal Subjects.</b> D. Craig Brater, Sming Kaojarern and Polavat Chennavasin .....	92
<b><i>In Vitro</i> Correlates of Benzodiazepine Cerebrospinal Fluid Uptake, Pharmacodynamic Action and Peripheral Distribution.</b> Rainer M. Arendt, David J. Greenblatt, Rudolph H. deJong, John D. Bonin, Darrell R. Abernethy, Bruce L. Ehrenberg, H. Gwynne Giles, Edward M. Sellers and Richard I. Shader .....	98
<b>Desensitization of <i>Beta</i> Adrenergic Receptors Linked to Adrenocorticotropin Secretion.</b> Terry Reisine and Seymour Heisler .....	107
<b>Evidence for Histamine H<sub>1</sub> and H<sub>2</sub> Receptors in Guinea-Pig Oxyntic Cells.</b> A. I. Vinik, A. A. Heldsinger and M. L. Skoglund .....	115
<b>Na<sup>+</sup> Gradient-Dependent <i>p</i>-Aminohippurate (PAH) Transport in Rat Basolateral Membranes Vesicles.</b> Jeffrey S. Kasher, Peter D. Holohan and Charles R. Ross .....	122
<b>Suppression of Cell-Mediated Immunocompetence after Subchronic Exposure to Diethylstilbestrol in Female B<sub>6</sub>C<sub>3</sub>F<sub>1</sub> Mice.</b> Michael P. Holsapple, Albert E. Munson, J. Ann Munson and Peter H. Bick .....	130
<b>Comparative Effects of Prostaglandin H Synthase-Catalyzed Binding of Two 5-Nitrofuranyl Urinary Bladder Carcinogens.</b> Terry V. Zenser, Mark O. Palmier, Michael B. Mattammal, Robert I. Bolla and Bernard B. Davis .....	139
<b>Role of Calcium in the Interaction of <i>Alpha</i> and <i>Beta</i> Adrenoceptor-Mediated Renin Release in Isolated, Constant Pressure Perfused Rabbit Kidneys.</b> Terry J. Opgenorth and John E. Zehr .....	144
<b>Time Course of Functional Tolerance Produced in Mice by Inhalation of Ethanol.</b> Dora B. Goldstein and Rainer Zaechelein .....	150
<b>Maintenance of Behavior by Postponement of Scheduled Injections of Nicotine in Squirrel Monkeys.</b> Roger D. Spealman .....	154

Contents Continued on *iv*

<b>Discriminative Stimulus Effects of Diazepam in Rats: Evidence for a Maximal Effect.</b> Harlan E. Shannon and Seymore Herling .....	160
<b>Interactions in the Behavioral Effects of Methylxanthines and Adenosine Derivatives.</b> Jefferson J. Katims, Zoltan Annau and Solomon H. Snyder .....	167
<b>Pharmacokinetic Studies of 5-Fluorouracil and 5'-Deoxy-5-Fluorouridine in Rats.</b> J. Lai-Sim Au, Judy S. Walker and Youcef Rustum .....	174
<b>Ontogeny of Rat Hepatic Adrenoceptors.</b> Michael K. McMillian, Saul M. Schanberg and Cynthia M. Kuhn .....	181
<b>Norepinephrine Release and Vascular Response Elicited by Nerve Stimulation in Rats with Chronic Neurogenic Hypertension.</b> Antonio R. Granata, Maria A. Enero, Eduardo M. Krieger and Salomon Z. Langer .....	187
<b>Selective <i>Alpha</i>-2 Blocking Action of DG-5128 in the Dog Mesenteric Artery and Rat Vas Deferens.</b> Ikunobu Muramatsu, Masafumi Oshita and Kyozo Yamanaka .....	194
<b>Excitatory Effect of the Most Potent Marine Toxin, Maitotoxin on the Guinea-Pig Vas Deferens.</b> Y. Ohizumi, A. Kajiwara and T. Yasumoto .....	199
<b>Comparison of the Effects of <math>\beta</math>-Phenylethylamine and <i>d</i>-Amphetamine on Rat Isolated Atria.</b> G. Pesce and E. Adler-Graschinsky .....	205
<b>Acute Effects of Antidiuretic Hormone on Urinary Prostaglandin Excretion.</b> Geza Fejes-Toth, Aniko Naray-Fejes-Toth and Jürgen C. Frölich .....	215
<b>Effects of a New Antianginal Agent, Nicorandil, on the Cardiovascular System of the Miniature Pig: With Special Reference to Coronary Vasospasm.</b> Kazushige Sakai, Michitaka Akima, Yasuyuki Shiraki and Eiichi Hoshino .....	220
<b>Enkephalin Action on the Mesolimbic System: A Dopamine-Dependent and a Dopamine-Independent Increase in Locomotor Activity.</b> Peter W. Kalivas, Erik Widerlöv, Donald Stanley, George Breese and Arthur J. Prange, Jr. ....	229
<b>Bromoacetylalprenololmenthane: A Potent Irreversible Antagonist of <i>Beta</i> Adrenergic Elicited Protein Exocytosis in Rat Parotid Cells.</b> Eleni E. Kousvelari, John W. Kusiak, Arthur R. Hand, Josef Pitha and Bruce J. Baum .....	238
<b>Cardiovascular Responses to Leukotriene C<sub>4</sub> in the Rat.</b> Vincent J. Iacopino, Thomas M. Fitzpatrick, Peter W. Ramwell, John C. Rose and Peter A. Kot .....	244
<b>Effects of <math>\beta</math>-Naphthoflavone Administration to Pregnant Rats on Steroid Hormone Biosynthesis and Metabolism in Ovarian Microsomes.</b> Carolyn Fuhrman-Lane, Elsa Ortiz and Kathleen T. Shiverick .....	248
<b>Paradoxical Elevation of Sympathetic Activity during Catecholamine Infusion in Rats.</b> Mark D. Johnson, Peter G. Smith, Elliott Mills and Saul M. Schanberg .....	254
<b>Effects of 4-Aminopyridine and 3,4-Diaminopyridine on Transmitter Release at the Neuromuscular Junction.</b> Robert H. Thomsen and David F. Wilson .....	260