CONTENTS OF VOLUME 215

No. 1, October 1980

Hydrolysis of Diacetylmorphine (Heroin) by Human Serum Cholinesterase. Oksana Lockridge, Nancy Mottershaw-Jackson, Harry W. Eckerson and Bert N. La Du 1

Effects of Drugs on Behavior in Rats Maintained on Morphine, Methadone or Pentobarbital. D. E. McMillan, W. T. McGivney and W. C. Hardwick 9


The Effects of Cocaine and Metanephrine on the Cardiac Responses to Norepinephrine Infusions. Yuritaka Masuda, Yasuo Matsuda and Matthew N. Levy 20

Effects of Lanthanum and Trifluoperazine on [125]-Calmodulin Binding to Rat Striatal Particulates. Yuen-Sum Lau and Margaret E. Gney 28

Tolerance and Disposition of Tetrahydrocannabinol in Man. C. Anthony Hunt and Reese T. Jones 35

The Effects of Methadone on Respiration and Ventilation in Pygmy Goats. Richard C. Neal and George D. Olsen 45


The Role of Norepinephrine in the Regulation of Fluid Absorption in the Rat Proximal Tubule. Y. L. Chan 65

The Effect of Estradiol-17β Treatment on the Metabolism and Biliary Excretion of Phenyltoin in the Isolated Perfused Rat Liver and in Vivo. Mary Vore and Christopher Montgomery 71

Pharmacokinetic-Dynamic Analysis of the Indomethacin-Furosemide Interaction in Man. P. Chennavasin, R. Seiwert and D. C. Brater 77

Live Protein Synthesis and Catabolism in Mirex-Pretreated Rats with Enlarging Livers. Keith M. Robinson and James D. Yarbrough 82

Oxazepam Kinetics: Effects of Age and Sex. David J. Greenblatt, Marcia Divoll, Jerold S. Harmatz and Richard I. Shader 86

Differential Effects of the Anticonvulsants, Phenobarbital, Ethoxyzimide and Carbamazepine on Neuronal Transmission. Marc T. Alender and Brad A. Trommer 92

The in Vitro Formation of Glutathione Conjugates with the Microsomal Processed Pulmonary Bronchiolar Alkylation Agent and Cytotoxin. Alan R. Buckpitt and Michael R. Boyd 97

Mechanism of Captopril-Induced Renal Vasodilation in Anesthetized Dogs after Nonhypotensive Hemorrhage. P. C. Wong and B. G. Zimmermann 104

Transit Patterns of Marker Compounds Given by Segmented Retrograde Intrabiliary Injection (SRII) in the Isolated in Situ Perfused Rat Liver. Toshiko Imamura and James M. Fujimoto 110

Site of Action of Dehydrocholate in Inhibiting the Biliary Excretion of Morphine in the Isolated in Situ Perfused Rat Liver. Toshiko Imamura and James M. Fujimoto 116

A New Mode of Action of SKF 525-A on Morphine Disposition Studied by Segmented Retrograde Intrabiliary Injection (SRII) in the Isolated in Situ Perfused Rat Liver. Toshiko Imamura and James M. Fujimoto 122

Behavioral and Biochemical Effects of the Antidepressant Bupropion (Wellbutrin): Evidence for Selective Blockade of Dopamine Uptake in Vivo. Barrett R. Cooper, Teresa J. Hester and Robert A. Maxwell 127

Amphetamine-Haloperidol Interactions on Striatal and Mesolimbic Tyrosine Hydroxylase Activity and Dopamine Metabolism. Ronald Kuczynski 135

Potentiation of Responses to Adrenergic Nerve Stimulation in Isolated Rat Atria during Chronic Tricyclic Antidepressant Administration. Fulton T. Crews and Charles B. Smith 143

Pimozide: Delayed Onset of Action at Rat Striatal Pre- and Postsynaptic Dopamine Receptors. Brian A. McMillen, Dwight C. German, Manjit K. Sanghera, Worthy Warranc and Paraduast A. Shore 150

The Pulmonary Vascular Effects of Three Prostaglandin I2 Analogs in Conscious Newborn Lambs. James E. Lock, Flavio Cocceani, Francis Hamilton, Alison Greenaway-Coates and Peter M. Olley 156

Ibufrofen Improves Survival from Endotoxic Shock in the Rat. W. C. Wise, J. A. Cook, T. Epper and P. V. Halushka 160

Effect of Plasma Protein Binding on Quinidine Kinetics in the Rabbit. Theodor W. Gurtner and Svein Øie 165


Cephalosporin Nephrotoxicity. Transport, Cytotoxicity and Mitochondrial Toxicity of Cephalexacin. Bruce M. TUNE and Doris Frazure 186


Changes in Cardiac Glycoside Activity Produced by Aminosugar Addition. L. Scott Cook, Robert W. Caldwell and Clinton B. Nash 198

Stereospecific Radioimmunoassay of α-l-Acetylmethyl (LAAM). Kip L. McGilland and George D. Olsen 205

Regulation of Calcium Fluxes in Rat Pancreatic Islets: The Role of K+ Conductance. A. Herchuelz, N. Thonnant, A.
Studies on the Effect of Chronic Oral Administration of Minoxidil and Hydralazine on Vascular Function in Spontaneously Hypertensive Rats. STANLEY GREENBERG ......................................................... 279
Prednisolone Clearance at Steady State in Dogs. FELIX J. FREY, BRIGITTE M. FREY, ANDREAS GREITHER and LESLIE Z. BENET .......................................................... 287
Disposition of Enflurane in Obese Patients. MATTHEW S. MILLER, A. JAY GANDOLFI, ROBERT W. VAUGHAN and JOHN B. BENTLEY .................................................. 292
The Cyclic Nucleotide Content of the Rat Superior Cervical Ganglion. LINDA F. QUINZER, BRIAN A. PATTERTSON and ROBERT L. VOLLE .......................................... 297
Phenyltoin, Renal Function and Renin Release. STEPHEN D. MIDGEAL, GARY L. SLICK, DAOUD ABU-HAMDAN and FRANKLIN D. MC DONALD ........................................ 304
Modulatory Effect of Brain Acetylcholine on Reflex-Induced Bradycardia and Tachycardia in Conscious Rats. A. P. CAPUTI, F. RODRIGUEZ, K. H. E. BREZENOFF .................................................. 309
Effects of Castration and Chronic Morphine Administration on Liver Alcohol Dehydrogenase and the Metabolism of Ethanol in the Male Sprague-Dawley Rat. THEODORE J. CICERO, JERROLD D. BERNARD and KARIN NEUMANN ......................................................... 317
Antagonist Dissociation Constants and Relative Agonist Efficacies for Compounds Interacting with Beta-1 and Beta-2 Adrenergic Receptors in the Rat Jugular Vein. MARLENE C. COHEN, ROBERT R. RUFFOLO, JR., and KATHRYN S. WILEY ...................................................... 325
Effects of Transmembrane Potential on Oscillatory Afterpotentials Induced by Acetylstrophanthidin in Canine Ventricular Tissues. GREGORY R. FERRIER ........................................... 332
Maturation of Sympathetic Neurotransmission in the Rat Heart. VI. The Effect of Neonatal Central Catecholaminergic Lesions. RANDY DESKIN, ELLIOTT MILLS, WILLIAM L. WHITMORE, FREDERIC J. SEIDLER and THEODORE A. SLOTKIN ....................................................... 342
Muscarnic Antagonist of the Effects of a Phosphodiesterase Inhibitor (Methylisobutylxanthine) in Embryonic Chick Ventricle. REBECCA L. BIEGON, PAUL M. EPSTEIN and ACHILLEES J. PAPPANO ....................................................... 348
Possible Generation of Potent Vasoconstricting Substance from Prostaglandin Endoperoxide Analogs, Human Platelets Mixture. SHIGI SHIBATA, W. K. W. HO and U. IBIDA ....................................................... 357
Dissociation of Varied Actions of Norepinephrine on 42Ca Uptake and Release at Different Sites in Rabbit Aortic Smooth Muscle. HIDEAKI KARIKI and GEORGE E. WEBB ....................................................... 363
Stereoselectivity of the Stimulus Effects of Morphine and Cycloheximide in the Squirrel Monkey. JANICE J. TEAL and STEPHEN G. HOLTMANZ ....................................................... 369
Potentiative Effects of Alpha Agnostic Sympathomimetic Amines on Vasoconstriction by Adrenergic Nerve Stimulation. CHE SU ........................................................................ 377
Comparative Study of the Electrophysiological and Behavioral Effects of Ia-Acetylchymethadol (LAAM), Two of Its Metabolites and Morphine and Methadone in the Rat. SCOTT E. LUKAS, J. EDWARD MORETON and NAIM KHANZAN ........................................................................ 382
Gentamicin Uptake by Renal Tubule Brush Border Membrane Vesicles. JANIS L. LIPSCY, LINDA CHENG, BERTRAM SACKTOR and PAUL S. LIETMAN ........................................................................ 390
Differing Electrophysiologic Effects of Slow Response Inhibiting Agents Manganese and Verapamil on Ischemic, Infarcted and Normal Tissue in Situ. JOEL KUPERMARK and ROBERT COHEN ....................................................... 394
Metabolism of Benzidine by a Prostaglandin-Mediated Process in Renal Inner Medullary Slices. NEVILLE S. RAPP, TERRY V. ZENGER, WENDY W. BROWN and BERNARD B. DAVIS ........................................................................ 401
Effect of the Angiotensin Converting Enzyme Inhibitor, Captopril, on NaCl Appetite of Rats. MELVIN J. FREELY ........................................................................ 407
Increase of Neurotensin Content Elicited by Neuroleptics in Nucleus Accumbens. S. GOVONI, J. S. HONG, H.-Y. T. YANG and E. COSTA ........................................................................ 413
Inhibition of Depressor Cardiovascular Reflexes by a Derivative of g-Aminobutyric Acid (GABA) and by General Anesthetics
with Suspected GABA-Mimetic Effects. PETER M. LALLEY
Response and Sensitivity of Female Guinea-Pig Respiratory Tissues to Agonists during Ontogenesis. CHARLES BRINE, PAMELA G. DUNCAN, MALINDA MIDZENZI and JAMES S. DOUGLAS
Cyclic Nucleotides and Contraction/Relaxation in Airway Muscle: H1 and H2 Agonists and Antagonists. PAMELA G. DUNCAN, CHARLES BRINE, RICHARD L. ADOLPHSON and JAMES S. DOUGLAS
Mechanism of Renal Tubular Secretion of Norepinephrine in the Rabbit. RODNEY W. LAFPE, DAVID P. HENRY AND LYNN R. WILLIS
Regulatory Role of Glutathione and Soluble Sulphydryl Groups in the Toxicity of Adriamycin. RICHARD D. OLSON, JAMES S. MACDONALD, CHRIS J. VAN BOXTIEL, ROBERT C. BOERT, RAYMOND D. HARISON, ALFRED E. SLONIM, RICHARD W. FREEMAN AND JOHN A. AATES
A Comparative Study of the Pharmacological Properties of the Positive Potential Recorded from the Superior Cervical Ganglia of Several Species. N. J. DUN and A. G. KARCZMAR
The Presence of the Type A Form of Monoamine Oxidase within Nigrostriatal Dopamine-Containing Neurons. KEITH T. DEMAREST, DAVID J. SMITH and JEREMY A. AZZARO
Hydrocortisone and Human Lymphocytes: Increases in Cyclic Adenosine 3'-5'-Monophosphate and Potentiation of Adenylate Cyclase-Activating Agents. GIANNI MARONE, LAWRENCE M. LICHTENSTEIN and MARSHALL PLAUT
The Ionic Mechanism of Prolongation of Action Potential Duration of Cardiac Ventricular Muscle by Anthopleurin-A and Its Relationship to the Inotropic Effect. KITARO HASHIMOTO, REIKO OCHI, KOROKU HASHIMOTO, JUN ИУЭ和YUJI MIURA
Presynaptic Effects of 2-Aminotetrinal in Striatal Dopaminergic Neurons. IRENE S. HOFFMAN, ROBERT J. NAYLOR and LIUJ X. CUREDDU
Antidopaminergic Properties of Yohimbine. BERNARD SCATTON, BRANIMIR ZIVKOVIC и JAROSLAV DEDEK
Effects of Acebutolol and Other Structurally Related Beta Adrenergic Blockers on Transmembrane Action Potential in Guinea-Pig Papillary Muscles. HIDEAKI SADA and TAKASHI BAN
Tolerance to the Effects of Morphine on Intestinal Motility of Unanesthetized Dogs. NORMAN W. WIESERODT, PIOTR J. THOR, E. M. COPELAND and THOMAS F. BUKER
Effects of Alpha Adrenergic Blockade, Combined Nicotinic and Muscarinic Ganglion Blockade and Spinal Anesthesia upon Norepinephrine Depression of Ganglion Transmission in the Dog. JAMES G. HILTON
Improvement of Human Myocardial Mitochondria after Dobutamine: A Quantitative Ultrastructural Study. DONALD V. UNVERFURTH, CARL V. LIEBER, RAYMOND D. MAGORIEN, RICHARD CROSSbery, JOHN R. SVIBREL, ALBERT J. KOLIBASH, MICHAEL R. DICK, JOSEPH A. MEACHAM AND NOBUCHI BARA
Does Histamine Influence Vasodilation Caused by Prolonged Arterial Occlusion or Heavy Exercise? ALAN DANIEL AND CARL R. HONG
Propranolol Effects on Membrane Repolarization Time in Isolated Canine Purkinje Fibers: Threshold Tissue Content and the Influence of Exposure Time. JACK K. PHEUET, THOMAS WALLE and У. KRISTINIA WALLE

No. 3, December 1980

The Effects of Chronic Methyleneidate Treatment on Growth and Endocrine Function in the Developing Rat. GEORGE H. GREELAY, JR. and J. S. KIZER
Histaminergic Mechanisms Involved in the Centrally Mediated Effects of Ouabain. RANDALL L. TACKETT and J. E. HOLL
Different Mechanisms of Action of Acetazolamide and Parathyroid Hormone on Proximal Tubular Absorption of Fluid and 5,5'-Dimethyl-2,4-Oxazolidinedione. Y. L. CHAN
Transport of Choline Out of the Cranial Cerebrospinal Fluid Spaces of the Rabbit. ROBERT C. LANMAN and LEWIS S. SCHANKER
Sodium Dependence of the Positive Inotropic Effect of Cardiac Glycosides. JAY R. WIGGIN and JUAN JOSé BENTOLILA
Phenyltoin Inhibition of Cyclic Guanosine 3'-5'-Monophosphate (cGMP) Accumulation in Neuroblastoma Cells by Calcium Channel Blockade. ROBERT E. STUDY
Regulation of Serotonin (5-HT) Receptors Labeled with ['H]Spiroperidol by Chronic Treatment with the Antidepressant Amtriptyline. STEPHEN J. PEROUTKA and SOLOMON H. SNYDER
Three Day Pleural Inflammation: A New Model to Detect Drug Effects on Macrophage Accumulation. N. ACKERMAN, A. TOMOLONIS, L. MIKAM, J. KIERFETS, S. MARTINEZ and A. CARTER
Maturation of Sympathetic Neurotransmission in the Rat Heart. V. Development of Baroreceptor Control of Sympathetic Tone. JORGE BARTLOME, ELLIOTT MILLS, CHRISTOPHER LAU and THOEDOR A. SLOKIN
Induction of Aryl Hydrocarbon Hydrolase Activity in the Rat Prostate Glands by 2,3,7,8-Tetrachlorodibenzo-p-Dioxin. I. P. LEE and K. SUZUKI
Electrophysiological Evidence for Presynaptic Actions of Phenocyclidine on Noradrenergic Transmission in Rat Cerebellum. JWAHARLAIL MARWAI, MICHAEL R. PALMER, DONALD J. WOODWARD, BARRY J. HOFER and ROBERT FREEDMAN
Estrogen-Induced Alterations in the Autonomic Responses of the Rabbit Uterine Bladder. ROBERT M. LEVIN, FRANCES S. SHOFE and ALAN J. WEIN
Alterations in Pentobarbital and Meperidine Pharmacokinetica Induced by Bile Duct Ligation in the Rat. ROBERT G. KODDELL, DAVID A. BROOKS, RICHARD C. ALLEN and WALTER T. KYNER
Sites of Antinociceptive Action of Systemically Injected Morphine: Involvement of Supraspinal Loci as Revealed by Intracere-
broventricular Injection of Naloxone. Joseph C. Yeung and Thomas A. Rudy 626
Multiplicative Interaction between Narcotic Agonists Expressed at Spinal and Supraspinal Sites of Antinociceptive Action as Revealed by Concurrent Intrathecal and Intracerebroventricular Injections of Morphine. Joseph C. Yeung and Thomas A. Rudy 633
Stereospecific Assay for (−)- and (+)-Propranolol in Human and Dog Plasma. Bernie Silver and Sidney Riegelman 643
Consistent Unmasking of Dopamine-Induced Dilation of the Canine Femoral Vascular Bed. Jay J. Listinsky, Jai D. Kohli and Leon I. Goldberg 662
Comparative Studies of the Pharmacological Effects of the d- and l-Isomers of Codeine. Thuy T. Chau and Louis S. Harris 668
Effect of Carbonic Anhydrase Inhibitors and Acidosis on Choroid Plexus Epithelial Cell Sodium and Potassium. Quentin R. Smith and Conrad E. Johanson 673
The Renal Clearance of Digoxin is Dependent upon the Serum Digoxin Concentration. Thomas P. Gibson and Antonio P. Quintanilla 681
Purine Release from Vascular Adrenergic Nerves by High Potassium and a Calcium Ionophore, A-23187. Takeshi Katsuragi and Che Su 685
The Effect of Theophylline and Other Methylxanthines on Pressynaptic Inhibition of the Longitudinal Smooth Muscle of the Guinea-Pig Ileum Induced by Purine Nucleotides. F. K. Okwuassaba and M. A. Cook 704
Neuronal Uptake of Choline Following Release of Acetylcholine in the Perfused Heart. Ruth Lindmar, Konrad Löffelholz, Wolfgang Weide and Jutta Witze 710
Specific Changes in the Cholinergic System in Guinea-Pig Vas Deferens after Denervation. Fumiaki Hata, Kunio Takeyasu, Yoshiro Morikawa, Ron-Tuan Lai, Hajime Ishida and Hiroshi Yoshida 716
Index, Volume 215, October–December, 1980 723