CONTENTS OF VOLUME 215

No. 1, October 1980

Hydrolysis of Diacetylmorphine (Heroin) by Human Serum Cholinesterase. Oksana Lockridge, Nancy Mottereshaw-Jackson, Harry W. Eckerson and Bert N. La Du
Effects of Drugs on Behavior in Rats Maintained on Morphine, Methadone or Pentobarbital. D. E. McMillan, W. T. McGivney and W. C. Hardwick
The Effects of Cocaine and Metanephrine on the Cardiac Responses to Norepinephrine Infusions. Yukitaka Masuda, Yasuo Matsuda and Matthew N. Levy
Effects of Lanthanum and Trifluoperazine on [125I]Calmodulin Binding to Rat Striatal Particles. Yuen-Sum Lau and Margaret E. Gnegy
Tolerance and Disposition of Tetrahydrocannabinol in Man. C. Anthony Hunt and Reese T. Jones
The Effects of Methadone on Respiration and Ventilation in Pygmy Goats. Richard C. Neal and George D. Olsen
The Role of Norepinephrine in the Regulation of Fluid Absorption in the Rat Proximal Tubule. Y. L. Chan
The Effect of Estradiol-17β Treatment on the Metabolism and Biliary Excretion of Phenytoin in the Isolated Perfused Rat Liver and In Vivo. Mary Vore and Christopher Montgomery
Live Protein Synthesis and Catabolism in Mirex-Pretreated Rats with Enlarging Livers. Keith M. Robinson and James D. Yarbrough
Oxazepam Kinetics: Effects of Age and Sex. David J. Greenblatt, Marcia Divoll, Jerold S. Hartzman and Richard I. Shader
Differential Effects of the Anticonvulsants, Phenobarbital, Ethoxyzide and Carbamazepine on Neuromuscular Transmission. Marc T. Alden and Brad A. Trommer
The in Vitro Formation of Glutathione Conjugates with the Microsomal Activated Pulmonary Bronchiolar Alkylating Agent and Cytotoxin, 4-Ipomeanol. Alan R. Buckpitt and Michael R. Boyd
Mechanism of Captopril-Induced Renal Vasodilation in Anesthetized Dogs after Nonhypotensive Hemorrhage. P. C. Wong and B. C. Zimmermann
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
Site of Action of Dehydrochlorate in Inhibiting the Biliary Excretion of Morphine in the Isolated in Situ Perfused Rat Liver. Toshiko Imamura and James M. Fujimoto
A New Mode of Action of SKF 522-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
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
Amphetamine-Haloperidol Interactions on Striatal and Mesolimbic Tyrosine Hydroxylase Activity and Dopamine Metabolism. Ronald Kuczynski
Potentiation of Responses to Adrenergic Nerve Stimulation in Isolated Rat Atria during Chronic Tricyclic Antidepressant Administration. Fulton T. Crews and Charles B. Smith
Pimozide: Delayed Onset of Action at Rat Striatal Pre- and Postsynaptic Dopamine Receptors. Brian A. McMillen, Dwight C. German, Manjit K. Sanghera, Worthy Warnack and Parkhurst A. Shore
The Pulmonary Vascular Effects of Three Prostaglandin I2 Analogs in Conscious Newborn Lambs. James E. Lock, Flavio Coccaian, Francis Hamilton, Alison Greenaway-Coates and Peter M. Olley
Ibuprofen Improves Survival from Endotoxic Shock in the Rat. W. C. Wise, J. A. Cook, T. Eller and P. V. Hallushka
Effect of Plasma Protein Binding on Quinidine Kinetics in the Rabbit. Theodore W. Guentert and Svein Øde
Cephalosporin Nephrotoxicity. Transport, Cytotoxicity and Mitochondrial Toxicity of Cephaloglycin. Bruce M. TUNE and Doris Fraverty
Changes in Cardiac Glycoside Activity Produced by Aminosugar Addition. L. Scott Cook, Robert W. Caldwell and Clinton B. Nash
Stereospecific Radioimmunossay of a-L-Acetylmethadol (LAAM). Kip L. McGillard and George D. Olsen
Regulation of Calcium Fluxes in Rat Pancreatic Islets: The Role of K+ Conductance. A. Herchuelz, N. Thonnart, A.
Studies on the Effect of Chronic Oral Administration of Minoxidil and Hydralazine on Vascular Function in Spontaneously Hypertensive Rats. STANLEY GREENBERG

Prednisolone Clearance at Steady State in Dogs. FELIX J. FREY, BRIGITTE M. FREY, ANDREAS GREITHER AND LESLIE Z. BENET

Disposition of Enflurane in Obese Patients. MATTHEW S. MILLER, A. JAY GANDOLFI, ROBERT W. VAUGHAN AND JOHN B. BENTLEY

The Cyclic Nucleotide Content of the Rat Superior Cervical Ganglion. LINDA F. QUENZER, BRIAN A. PATTERSON AND ROBERT L. VOLLE

Phenyltoin, Renal Function and Renin Release. STEPHEN D. MIGDAL, GARY L. SLICK, DAOUID ABD-HAMIDAN AND FRANKLIN D. Mc Donald

Modulatory Effect of Brain Acetylcholine on Reflex-Induced Bradycardia and Tachycardia in Conscious Rats. A. P. CAPUTI, F. ROSSI, K. CARNEY AND H. E. BREZENOFF

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 NEWMAN

Antagonist Dissociation Constants and Relative Agonist Efficacies for Compounds Interacting with Beta-1 and Beta-2 Adrenergic Receptors in the Rat Jugal Vein. MARLENE L. COHEN, ROBERT R. RUFFOLO, JR. AND KATHRYN S. WILKIE

Effects of Transmembrane Potential on Oscillatory Afterpotentials Induced by Acetylsalicylic acid in Canine Ventricular Tissues. GREGORY R. FERRIER

Maturation of Sympathetic Neurotransmission in the Rat Heart. VI. The Effect of Neonatal Central Cathecolaminergic Lesions. RANDY DESKIN, ELLIOTT MILLS, WILLIAM L. WHITMORE, FREDERIC J. SEIDLER AND THEODORE A. SLOTKIN

Muscarnic Antagonist of the Effects of a Phosphodiesterase Inhibitor (Methylisobutylxanthine) in Embryonic Chick Ventricle. REBECCA L. BIEGON, PAUL M. EPSTEIN AND ACHILLES J. PAPPANO

Possible Generation of Potent Vasoconstricting Substance from Prostaglandin Endoperoxide Analogs, Human Platelets Mixture. SHOJI SHIBATA, W. K. W. HO AND U. IBIDA

Dissociation of Varied Actions of Norepinephrine on 4Ca uptake and Release at Different Sites in Rabbit Aortic Smooth Muscle. HIDEAKI KARAKI AND GEORGE E. WEISS

Stereoselectivity of the Stimulus Effects of Morphine and Cyclazocine in the Squirrel Monkey. JANICE J. TEAL AND STEPHEN G. HOLTZMAN

Potentiative Effects of Alpha Agonistic Symptomimetic Amines on Vasoconstriction by Adrenergic Nerve Stimulation. CHE SU

Comparative Study of the Electroencephalographic and Behavioral Effects of I-α-Acetylmethadol (LAAM), Two of Its Metabolites and Morphine and Methadone in the Rat. SCOTT E. LUKAS, J. EDWARD MORETON AND NAIM KHAN

Centamicin Uptake by Renal Tubule Brush Border Membrane Vesicles. JAMES L. LIPSKY, LINDE CHENG, BERTRAM SACKTOR AND PAUL S. LIETMAN

Differing Electrophysiologic Effects of Slow Response Inhibiting Agents Manganese and Verapamil on Ischemic, Infarcted and Normal Tissue in Situ. JOEL KUPERSMITH AND ROBERT COHEN

Metabolism of Benzidine by a Prostaglandin-Mediated Process in Renal Inner Medullary Slices. NEVILLE T. RAPP, TERRY V. ZENZER, WENDY W. BROWN AND BERNARD B. DAVIS

Effect of the Angiotensin Converting Enzyme Inhibitor, Captopril, on NaCl Appetite of Rats. MELVIN J. FREELY

Increase of Neutrotenin Content Elicited by Neuroleptics in Nucleus Accumbens. S. GOVONI, J. S. HONG, H. Y. T. YANG AND E. COSTA

Inhibition of Depressor Cardiovascular Reflexes by a Derivative of γ-Aminobutyric Acid (GABA) and by General Anesthetics.

iv Contents Vol. 215

CARPINELLI, A. SEHER AND W. J. MALAISSE

Is the Antihypertensive Effect of Propranolol Caused by an Action within the Central Nervous System? JOSE F. M. SMITH, HELMA VAN ESSER AND HARRY A. J. STRUYKER-BOUIDER

Adrenergic Regulation of Blood Glucose Levels: Possible Involvement of Postynaptic Alpha-2 Type Adrenergic Receptors Regulating Insulin Release. TERUO NAKADATE, TOSHIO NAKAI, TAKUMA MURAI AND RYUCHI KATO

Dose-Dependent Pharmacokinetics of Tocainide in the Rat. RAMAN VENKATRAMAN AND JAMES E. AXELSON

The Effect of Phenobarbital and SKF 555A on Tocainide Pharmacokinetics in the Rat. RAMAN VENKATRAMAN AND JAMES E. AXELSON

Prostacyclin and Thromboxane A2 Synthesis by Rabbit Pulmonary Artery. PHYLLIS M. SALMAN, JOHN A. SALMON AND SALVADOR MONCADA

Binding of Drugs to Muscle Tissue: Dependence on Drug Concentration and Lipid Content of Tissue. BURKHARD FICHTL, BRIGITTA BONDY AND HERMAN KURZ

Interaction of Calcium and Microtubules in the Action of Cyclic AMP on the Road Urinary Bladder. SHIGEKAZU YUASA, YOSHIO TAKAMITSU, SHIGEHIRO MIKI, YOSHIMASA ORITA, HIROSHI ABE AND TAKEHIKO WATANABE

Comparative Cardiac Contractile Actions of Six Narcotic Analgesics: Morphine, Meperidine, Pentazocine, Fentanyl, Methadone and I-α-Acetylmethadol (LAAM). STEPHEN V. RENDIC, ERIA A. AMSTRED, GARY L. HENDERSON AND DEAN T. MAISON

Cardio-Selective Beta Adrenergic Stimulation with Prenalterol in the Conscious Dog. W. THOMAS MANDERS, STEPHEN F. VATNER AND EUGENE BRAWNLD

The Beneficial Effects of Oral Ibuprofen on Coronary Artery Thrombosis and Myocardial Ischemia in the Conscious Dog. JOSEPH L. ROMON, LARRY R. BUSI, DAVID W. HAACK AND BENEDIKT R. LUCCHESI

No. 2, November 1980
with Suspected GABA-Mimetic Effects. PETER M. LALLEY 418
Response and Sensitivity of Female Guinea-Pig Respiratory Tissues to Agonists during Ontogenesis. CHARLES BRINK, PAMELA G. DUNCAN, MALINDA MIDZENSKI AND JAMES S. DOUGLAS 426
Cyclic Nucleotides and Contraction/Relaxation in Airway Muscle: H1 and H2 Agonists and Antagonists. PAMELA G. DUNCAN, CHARLES BRINK, RICHARD L. ADOLPHSON AND JAMES S. DOUGLAS 434
Mechanism of Renal Tubular Secretion of Norepinephrine in the Rabbit. RODNEY W. LAFPE, DAVID P. HENRY AND LYNN R. WILLIS 443
Regulatory Role of Glutathione and Soluble Sulfhydryl Groups in the Toxicity of Adriamycin. RICHARD D. OLSON, JAMES S. MACDONALD, CHRIS J. VAN BOXTEL, ROBERT C. BOERSTH, RAYMOND D. HARRISON, ALFRED E. SLONIM, RICHARD W. FREEMAN AND JOHN A. OATES 450
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. KARCIKAR 455
The Presence of the Type A Form of Monoamine Oxidase within Nigrostriatal Dopamine-Containing Neurons. KEITH T. DEMAREST, DAVID J. SMITH AND JAMES A. ZAZZARO 461
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 469
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, KOBOKU HASHIMOTO, JUN INUI AND YUJU MIURA 479
Presynaptic Effects of 2-Aminotetrinal on Strial Dopaminergic Neurons. IRENE S. HOFFMAN, ROBERT J. NAYLOR AND LUIGI X. CUBEDDU 486
Antidopaminergic Properties of Yohimbine. BERNARD SCATTON, BRANIMIR ZIVKOVIC AND JAROSLAV DEDEK 494
Effects of Acebutolol and Other Structurally Related Beta Adrenergic Blockers on Transmembrane Action Potential in GuineaPig Papillary Muscles. HIDEAKI SADA AND TAKASHI HAN 507
Tolerance to the Effects of Morphine on Intestinal Motility of Unanesthetized Dogs. NORMAN W. WEISBRODT, PIOTR J. THOR, E. M. COPELAND AND THOMAS F. BURKS 515
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 522
Improvement of Human Myocardial Mitochondria after Dobutamine: A Quantitative Ultrastructural Study. DONALD V. UNVERFERTH, CARL V. LIEBER, RAYMOND D. MAGORIER, RICHARD CROSBREY, JOHN R. SIVERTS, ALBERT J. KOLIBASH, MICHAEL R. DICK, JOSEPH A. MEACHAM AND NOBUCHA BABA 527
Does Histamine Influence Vasodilation Caused by Prolonged Arterial Occlusion or Heavy Exercise? ALAN DANIEL AND CARL R. HONG 533
Propranolol Effects on Membrane Repolarization Time in Isolated Canine Purkinje Fibers: Threshold Tissue Content and the Influence of Exposure Time. JAC K. PRUETT, THOMAS WALL AND U. KRISTINA WALL 539

No. 3, December 1980

The Effects of Chronic Methylenidate Treatment on Growth and Endocrine Function in the Developing Rat. GEORGE H. GREELEY, JR. AND J. S. KIZER 545
Histaminergic Mechanisms Involved in the Centrally Mediated Effects of Ouabain. RANDALL L. TACKETT AND J. E. HOLL 552
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 557
Transport of Chloride Out of the Cranial Cerebrospinal Fluid Spaces of the Rabbit. ROBERT C. LANMAN AND LEWIS S. SCHANKER 563
Sodium Dependence of the Positive Inotropic Effect of Cardiac Glycosides. JAY R. WIGGINS AND JUAN JOSE BENTOLILLA 569
Phenytoin Inhibition of Cyclic Guanosine 3'-5'-Monophosphate (cGMP) Accumulation in Neuroblastoma Cells by Calcium Channel Blockade. ROBERT E. STUDY 575
Regulation of Serotonin (5-HT) Receptors Labeled with [3H]Spiroperidol by Chronic Treatment with the Antidepressant Amtriptyline. STEPHEN J. PEROUTKA AND SOLOMON H. SNYDER 582
Three Day Pleural Inflammation: A New Model to Detect Drug Effects on Macrophage Accumulation. N. ACKOFF, A. TOMOLONIS, L. MIYAM, J. KHEIFETS, S. MARTINEZ AND A. CARTER 588
Maturation of Sympathetic Neurotransmission in the Rat Heart. V. Development of Baroreceptor Control of Sympathetic Tone. JORGE BARTOLOME, ELOTT WILLS, CHRISTOPHER LAU AND THEODORE A. SLOTKIN 596
Induction of Aryl Hydrocarbon Hydroxylase Activity in the Rat Prostate Glands by 2,3,7,8-Tetrachlorodibenzo-p-Dioxin. I. P. LEE AND K. SUZUKI 601
Electrophysiological Evidence for Presynaptic Actions of Phencyclidine on Noradrenergic Transmission in Rat Cerebellum. JWABARU MWARA, MICHAEL R. PALMER, DONALD J. WOODWARD, BARRY J. HOFFER AND ROBERT FREEDMAN 606
Estrogen-Induced Alterations in the Autonomic Responses of the Rabbit Uterine Bladder. ROBERT M. LEVIN, FRANCES S. SHOFFER AND ALAN J. WEIN 614
Alterations in Pentobarbital and Meperidine Pharmacokinetics Induced by Bile Duct Ligation in the Rat. ROBERT G. KNODELL, DAVID A. BROOKS, RICHARD C. ALLEN AND WALTER T. KYNER 619
Sites of Antinociceptive Action of Systemically Injected Morphine: Involvement of Supraspinal Loci as Revealed by Intracere-
<table>
<thead>
<tr>
<th>Title</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broventricular Injection of Naloxone. Joseph C. Yeung and Thomas A. Rudy</td>
<td>626</td>
</tr>
<tr>
<td>Multiplicative Interaction between Narcotic Agonisms Expressed at Spinal and Supraspinal Sites of Antinoceptive Action as Revealed by Concurrent Intrathecal and Intracerebroventricular Injections of Morphine. Joseph C. Yeung and Thomas A. Rudy</td>
<td>633</td>
</tr>
<tr>
<td>Stereospecific Assay for (−)- and (−)-Propranolol in Human and Dog Plasma. Bernie Silver and Sidney Riegelman</td>
<td>643</td>
</tr>
<tr>
<td>Consistent Unmasking of Dopamine-Induced Dilation of the Canine Femoral Vascular Bed. Jay J. Listinsky, Jai D. Kohli and Leon I. Goldberg</td>
<td>662</td>
</tr>
<tr>
<td>Comparative Studies of the Pharmacological Effects of the d- and l-Isomers of Codeine. Thuy T. Chau and Louis S. Harris</td>
<td>668</td>
</tr>
<tr>
<td>Effect of Carbonic Anhydrase Inhibitors and Acidosis on Choroid Plexus Epithelial Cell Sodium and Potassium. Quentin R. Smith and Conrad E. Johansen</td>
<td>673</td>
</tr>
<tr>
<td>The Renal Clearance of Digoxin is Dependent upon the Serum Digoxin Concentration. Thomas P. Gibson and Antonio P. Quintana</td>
<td>681</td>
</tr>
<tr>
<td>Purine Release from Vascular Adrenergic Nerves by High Potassium and a Calcium Ionophore, A-23187. Takeshi Katsuragi and Che Su</td>
<td>685</td>
</tr>
<tr>
<td>The Effect of Theophylline and Other Methylxanthines on Presynaptic Inhibition of the Longitudinal Smooth Muscle of the Guinea-Pig Ileum Induced by Purine Nucleotides. F. K. Okwussesaba and M. A. Cook</td>
<td>704</td>
</tr>
<tr>
<td>Neuronal Uptake of Choline Following Release of Acetylcholine in the Perfused Heart. Ruth Lindmar, Konrad Löffelholz, Wolfgang Werde and Jutta Witze</td>
<td>710</td>
</tr>
<tr>
<td>Specific Changes in the Cholinergic System in Guinea-Pig Vas Deferens after Denervation. Fumiaki Hata, Kunio Takeyasu, Yoshih Morikawa, Ron-Tsan Lai, Hajime Ishida and Hiroshi Yoshida</td>
<td>716</td>
</tr>
<tr>
<td>Index, Volume 215, October–December, 1980</td>
<td>723</td>
</tr>
</tbody>
</table>