CONTENTS OF VOLUME 215

No. 1, October 1980

Hydrolysis of Diacetyl morphine (Heroin) by Human Serum Cholinesterase. OKASANA 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 Effect of Arginine Vasopressin and Its Analogue on the Synthesis of Prostaglandin E2 by Rat Renal Medullary Interstitial Cells in Culture. THOMAS R. BECK, AVIV HARSH and MICHAEL J. DUNN 15

The Effects of Cocaine and Metanephrine on the Cardiac Responses to Norepinephrine Infusions. YUKITAKA MASUDA, YASUO MATSUEDA and MATTHEW N. LEVY 20

Effects of Lanthanum and Trifluoperazine on [3H]Calmodulin Binding to Rat Striatal Particulates. YUEN-SUM LAU and MARGARET E. GREGY 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

Presynaptic and Postsynaptic Neuromuscular Effects of a Specific Inhibitor of Acetylcholinesterase. RICHARD T. BOIS, RICK G. HUMMEL, WOLF D. DettiBARN and MICHAEL B. LASKOWSKI 53

Opiate Binding Sites in the Retina: Properties and Distribution. R. D. HOWELLS, J. GROOT, J. M. HILLER and E. J. SIMON 60

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-Piroxicam Interaction in Man. P. CHENNAVARIN, R. SEITWEIL 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

Oxyclobenzquinone 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, Ethosuximide and Carbamazepine on Neuromuscular Transmission. MARC T. ALDENDICE and BRAD A. TROMMER 92

The in Vitro Formation of Glutathione Conjugates with the Microsomal Activated Pulmonary Bronchial Alkylating Agent and Cytotoxin, 4-Ipomeanol. ALAN R. BUCKPIT and MICHAEL R. BOYD 97

Mechanism of Captopril-Induced Renal Vasodilatation in Anesthetized Dogs after Nonhypotensive Hemorrhage. P. C. WONG and B. G. ZIMMERMAN 104

Transit Patterns of Marker Compounds Given by Segmented Retrograde Intrahepatic 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 322-A on Morphine Disposition Studied by Segmented Retrograde Intrahepatic Injection (SRII) in the Isolated in Situ Perfused Rat Liver. TOSHIKO IMAMURA and JAMES M. FUJIMOTO 122

Behavioral and Biochemical Effects of the Antidepressant Buproprion (Wellbutrin): Evidence for Selective Blockade of Dopamine Uptake in Vivo. BARRETT C. COOPER, TERESA J. HESTER and ROBERT A. MAXWELL 127

Amphetamine-Haloperidol Interactions on Striatal and Mesotomolic Tyrosine Hydroxylase Activity and Dopamine Metabolism. RONALD KUCZENKI 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 WARBACT and PARKHURST A. SHORE 150

The Pulmonary Vascular Effects of Three Prostaglandin I2 Analogous in Conscious Newborn Lambs. JAMES E. LOCK, FLAVIO COCEANI, FRANCIS HAMILTON, ALISON GREENWAY-CATES and PETER M. OLLEY 156


Effect of Plasma Protein Binding on Quinidine Kinetics in the Rabbit. THEODOR W. GUENTERT and SVEIN OIE 165


Characterization of Alpha-1 Adrenergic Receptors in the Heart Using [3H]WB4101: Effect of 6-Hydroxydopamine Treatment. SHIZUO YAMADA, HENRY I. YAMAMURA and WILLIAM R. ROESER 176

Cephalosporin Nephrotoxicity. Transport, Cytotoxicity and Mitochondrial Toxicity of Cephaloglycin. BRICE M. TUNE and DORIS FRAVET 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-1-Acetyl methadol (LAAM). KIP L. MCGILLIARD and GEORGE D. OLSN 205

Regulation of Calcium Fluxes in Rat Pancreatic Islets: The Role of K+ Conductance. A. HERCHEZFA, N. THONNART, A. 209
Contents

CARPINELLI, A. SENER and W. J. MALAISSE ........................................ 213
Is the Antihypertensive Effect of Propranolol Caused by an Action within the Central Nervous System? Jos F. M. SMITS, HELMA VAN ESSEN and HARRY A. J. STRUYKER-BODDIER ........................................ 221
Adrenergic Regulation of Blood Glucose Levels: Possible Involvement of Postsynaptic Alpha-2 Type Adrenergic Receptors Regulating Insulin Release. TERUO NAKADATE, TOSHIHIKO NAKAI, TAKAMURA MURAI and RYUCHI KATO ............... 226
Dose-Dependent Pharmacokinetics of Ticlopidine in the Rat. RAMAN VENKATARAMANAN and JAMES E. AXELSON ............... 231
The Effect of Phenobarbital and SKF 555A on Ticlopidine Pharmacokinetics in the Rat. RAMAN VENKATARAMANAN and JAMES E. AXELSON ........................................ 235
Prostacyclin and Thromboxane A2 Synthesis by Rabbit Pulmonary Artery. PHYLLIS M. SALZMAN, JOHN A. SALMON and SALVADOR MONCADA ........................................ 240
Binding of Drugs to Muscle Tissue: Dependence on Drug Concentration and Lipid Content of Tissue. BURCKHARD FICHTL, BRIGITTA BONDY and HERMANN KURZ ............... 248
Interaction of Calcium and Microtubules in the Action of Cyclic AMP on the Road Urinary Bladder. SHIGEKAZU YUASA, YOSHITOSHI TAKAMITSU, SHIGEHIO MIKI, YOSHIMASA ORITA, HIROSHI ABE and TAKEHIKO WATANABE ............... 254
Comparative Cardiac Contractile Actions of Six Narcotic Analgesics: Morphine, Meperidine, Pentazocine, Fentanyl, Methadone and 1α-Acetylmethadol (LAAM). STEPHEN V. RENDIC, EIZA A. AMSTERDAM, GARY L. HENDERSON and DEAN T. MASON ............... 259
Cardio-Selective Beta Adrenergic Stimulation with Prenalterol in the Conscious Dog. W. THOMAS MANDERS, STEPHEN F. VATNER and EUGENE BRAUNWALD ............... 266
The Beneficial Effects of Oral Ibuprofen on Coronary Artery Thrombosis and Myocardial Ischemia in the Conscious Dog. JOSEPH L. ROMSON, LARRY R. BUSH, DAVID W. HAACK and BENEDICT R. LUCCHESI ............... 271

No. 2, November 1980

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 of the Rat Superior Cervical Ganglion. LINDA F. QUENZER, BRIAN A. PATTERSON and ROBERT L. VOLLE ............... 297
Phenytoin, Renal Function and Renin Release. STEPHEN D. MCGIDAL, GARY L. SLICK, DAOU D. ABU-HAMDAN and FRANKLIN D. McDoNALD ............... 304
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 ............... 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 NEWMAN ............... 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 L. 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 Antagonism of the Effects of a Phosphodiesterase Inhibitor (Methylisobutylxanthine) in Embryonic Chick Ventricles. REBECCA L. BIEGON, PAUL M. EPSITN and ACHILLEES J. PAPPANO ............... 348
Possible Generation of Potent Vasoconstricting Substance from Prostaglandin Endoperoxide Analogs, Human Platelets Mixture. SHOJI SHIBATA, W. K. W. HO and U. IBIDA ............... 357
Dissociation of Varied Actions of Norepinephrine on 45Ca Uptake and Release at Different Sites in Rabbit Aortic Smooth Muscle. HIDEAKI KARAKI and GEORGE B. WEISS ............... 363
Stereoselectivity of the Stimulus Effects of Morphine and Cyclazocine in the Squirrel Monkey. JANICE J. TEAL and STEPHEN G. HOLTZMAN ............... 369
Potentiative Effects of Alpha Agonist Symptomimetic Amines on Vasoconstriction by Adrenergic Nerve Stimulation. CHE SSSSU ............... 377
Comparative Study of the Electroencephalographic and Behavioral Effects of 1α-Acetylmethadol (LAAM), Two of Its Metabolites and Morphine and Methadone in the Rat. SCOTT E. LUKAS, J. EDWARD MORETON and NAIM KHAZAN ............... 382
Gentamicin Uptake by Renal Tubule Brush Border Membrane Vesicles. JAMES J. LIPSKY, 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. JESUS KUPERSMITH and ROBERT COHEN ............... 394
Metabolism of Benzidene by a Prostaglandin-Mediated Process in Renal Inner Medullary Slices. NEVILLE S. RAPP, TERRY V. ZENSER, WENNY 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 γ-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 MIDERENZ 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. LAPPE, 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 BOXTEL, ROBERT C. BOERTH, RAYMOND D. HARISON, ALFRED E. SLONIM, RICHARD W. FREEMAN and JOHN A. OATES
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 JAMES J. AZZARO
Hydrocortisone and Human Lymphocytes: Increases in Cyclic Adenosine 3’5′-Monophosphate and Potentiation of Adenylate Cyclase-Activating Agents. GIAMMI 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. KEIKO HASHIMO, REIKO OCHI, KOBOKU HASHIMO, JUN INUI and YUJUI MIURA
Presynaptic Effects of 2-Aminotetralins on Striatal Dopaminergic Neurons. IRENE S. HOFFMAN, ROBERT J. NAYLOR and LIUI X. CUBEDDU
Antidopaminergic Properties of Yohimbine. BERNARD SCATTON, BRANIMIR ZIVKOVIĆ and JAROSLAV DEDEK
Effects of Acebutolol and Other Structurally Related Beta Adrenergic Blockers on Transmembrane Action Potential in Guinea-Pig Papillary Muscles. HIREDAI SADA and TAKASHI BAN
Tolerance to the Effects of Morphine on Intestinal Motility of Unanesthetized Dogs. NORMAN W. WEISSROD, PIOTR J. THOR, E. M. COPELAND and THOMAS F. BURKS
Effects of Alpha Adrenergic Blockade, Combined Nicotinic and Muscarinic Ganglion Blockade and Spinal Anesthesia upon Norepinephrine Depression of Humanization in the Dog. JAMES G. HILTON
Improvement of Human Myocardial Mitochondria after Dobutamine: A Quantitative Ultrastructural Study. DONALD V. UNVERFERTH, CARL V. LIEZ, RAYMOND D. MAGORIE, RICHARD CROSBRY, JOHN R. WILBERG, ALBERT J. KOLIBASH, MICHAEL R. DICK, JOSEPH A. MEACHAM and NOBUHISA BABA
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. PUETT, THOMAS WALL and U. KRISTINA WALL

No. 3, December 1980

The Effects of Chronic Methylphenidate Treatment on Growth and Endocrine Function in the Developing Rat. GEORGE H. GREELEY, JR. and J. S. KEIZER
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 Cerebral Erospinal Fluid Spaces of the Rabbit. ROBERT C. LANMAN and LEWIS S. SCHRANKER
Sodium Dependence of the Positive Inotropic Effect of Cardiac Glycosides. JAY R. WIGGINS and JUAN JOSÉ BENTOLILA
Phenylthio 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 [3H]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. MIRAM, J. KHEIFETS, S. MARTINEZ and A. CARTER
Maturation of Sympathetic Neurotransmission in the Rat Heart. V. Development of Baroreceptor Control of Sympathetic Tone. JORGE BARTOLOME, ELLIOTT MILLS, CHRISTOPHER LAU and THEODORE A. SLOTSKIN
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
Electrophysiological Evidence for Presynaptic Actions of Phencyclidine on Noradrenergic Transmission in Rat Cerebellum. JWAHARLAL MARWARA, MICHAEL R. PALMER, DONALD J. WOODWARD, BARRY J. HOPPER and ROBERT FREEDMAN
Estrogen-Induced Alterations in the Autonomic Responses of the Rabbit Uterine Bladder. ROBERT M. LEVIN, FRANCES S. SHOFER and ALAN J. WEIN
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. KINER
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

Multiplicative Interaction between Narcotic Agonisms 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

Stereospecific Assay for (−)- and (+)-Propranolol in Human and Dog Plasma. BERNIE SILBER AND SIDNEY RIEGELMAN


Consistent Unmasking of Dopamine-Induced Dilation of the Canine Femoral Vascular Bed. JAY J. LISTINSKY, JAI D. KOHLI AND LEON I. GOLDBERG

Comparative Studies of the Pharmacological Effects of the d- and l-Isomers of Codeine. THUY T. CHAU AND LOUIS S. HARRIS

Effect of Carbonic Anhydrase Inhibitors and Acidosis on Choroid Plexus Epithelial Cell Sodium and Potassium. QUENTIN R. SMITH AND CONRAD E. JOHANSON

The Renal Clearance of Digoxin is Dependent upon the Serum Digoxin Concentration. THOMAS P. GIBSON AND ANTONIO P. QUINTANILLA

Purine Release from Vascular Adrenergic Nerves by High Potassium and a Calcium Ionophore, A-23187. TAKESHI KATSURAGI AND CHE SU


Actions of Mu, Kappa, Sigma, Delta and Agonist/Antagonist Opiates on Striatal Dopaminergic Function. PAUL L. WOOD, M. STOTLAND, J. W. RICHARD AND A. RACKHAM

The Effect of Theophylline and Other Methyloxanthines on Presynaptic Inhibition of the Longitudinal Smooth Muscle of the Guinea-Pig Ileum Induced by Purine Nucleotides. F. K. OEWUASSABA AND M. A. COOK

Neuronal Uptake of Choline Following Release of Acetylcholine in the Perfused Heart. RUTH LINDMAR, KONRAD LÖFFELHOLZ, WOLFGANG WEIDE AND JUTTA WITZKE

Specific Changes in the Cholinergic System in Guinea-Pig Vas Deferens after Denervation. FUMIAKI HATA, KUNIO TAKEYASU, YOSHIH MORIKAWA, RON-TAN LAI, HIJIME ISHIDA AND HIROSHI YOSHIDA

Index, Volume 215, October–December, 1980