CONTENTS OF VOLUME 215

No. 1, October 1980

Hydrolysis of Diacetylmorphine (Heroin) by Human Serum Cholinesterase. ORSANA LOCKRIDGE, NANCY MOTTERSHAW-JACKSON, HARRY W. ECKEBORN 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 Effect of Arginine Vasopressin and Its Analog on the Synthesis of Prostaglandin E2 by Rat Renal Medullary Interstitial Cells in Culture. THOMAS R. BECK, AVIV HAASD AND MICHAEL J. DUNN

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

Effects of Lanthanum and Trifluoperazine on [125I]Calmodulin Binding to Rat Striatal Particulates. YUEN-SUM LAU AND MARGARET E. GREGY

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

Presynaptic and Postsynaptic Neuromuscular Effects of a Specific Inhibitor of Acetylcholinesterase. RICHARD T. BOIS, RICK G. HUMMER, WOLF D. DETTMANN AND MICHAEL B. LASKOWSKI


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

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

Pharmacokinetic-Dynamic Analysis of the Indomethacin-Furosemide Interaction in Man. P. CHENNAVASIN, R. SEIWEIL AND D. C. BRATER

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. HARMATZ AND RICHARD I. SHADE

Differential Effects of the Anticonvulsants, Phenobarbital, Ethosuximide and Carbamazepine on Neuromuscular Transmission. MARC T. ALDERICH 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. BUCKFITT AND MICHAEL R. BOYD

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

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 Dehydrocholesterol 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, TERRA J. HESTER AND ROBERT A. MAXWELL

Amphetamine-Haloperidol Interactions on Striatal and Mesolimbic Tyrosine Hydroxylase Activity and Dopamine Metabolism. RONALD KUCZENSKI

Potentiation of Responses to Adrenergic Neuro Vascular 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, MANIT K. SANGHERA, WORTHY WARNACK AND PARRHURST A. SHORE

The Pulmonary Vascular Effects of Three Prostaglandin I2 Analogs in Conscious Newborn Lambs. JAMES E. LOCK, FLAVIO COCEANI, FRANCIS HAMILTON, ALISON GREENAWAY-CATES AND PETER M. OLLEY

Ibuprofen Improves Survival from Endotoxic Shock in the Rat. W. C. WISE, J. A. COOK, T. ELLER AND P. V. HALLSHUIK

Effect of Plasma Protein Binding on Quinidine Kinetics in the Rabbit. THEODOR W. GUENTERT AND SVEIN ÖST


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

Cephalosporin Nephrotoxicity. Transport, Cytotoxicity and Mitochondrial Toxicity of Cephaloglycin. BRUCE M. TUNES AND DORIS FRAVET


Changes in Cardiac Glycoside Activity Produced by Aminosugar Addition. L. SCOTT COOK, ROBERT W. CALDWELL AND CLINTON B. NASH

Stereospecific Radioimmunoassay of α-1-Acetylmethadol (LAAM). KIP L. MCGILLARD AND GEORGE D. OLESEN

Regulation of Calcium Fluxes in Rat Pancreatic Islets: The Role of K+ Conductance. A. HERCHELZ, N. THONNART, A.
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. STRUYK-BOUDIER .................................................. 221
Adrenergic Regulation of Blood Glucose Levels: Possible Involvement of Postsynaptic Alpha-2 Type Adrenergic Receptors Regulating Insulin Release. TEOU KAKATE, YOSHIO 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
Prostaglandin and Thromboxane A2 Synthesis by Rabbit Pulmonary Artery. PHILLIS M. SALZMAN, JOHN A. SALMON and SALVADOR MONCADA .................................................. 240
The Binding of Drugs to Muscle Tissue: Dependence on Drug Concentration and Lipid Content of Tissue. BURKHARDT FICHTL, BRIGITTA BONDY and HERMAN KURZ .................................................. 248
Interaction of Calcium and Mitotubules in the Action of Cyclic AMP on the Road Urinary Bladder. SHIGEKAZU YUASA, YOSHIHIRO TAKIMATSU, SHIGEHIRO MIKI, YOSHIMASA ORITA, HIROSHI ABE and TAKEHIKO WATANABE .................................................. 254
Comparative Cardiac Contractile Actions of Six Narcotic Analgesics: Morphine, Meperidine, Pentazocine, Fentanyl, Methadone and D-α-Acetylmethadol (LAAM). STEPHEN V. RENDIC, ERIA 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 EUGEN H. 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 Content of the Rat Superior Cervical Ganglion. LINDA P. QUERZER, BRIAN A. PATTERSON and ROBERT L. VOLLE .................................................. 297
Phentolam, Renal Function and Renin Release. STEPHEN D. MIGDAL, GARY L. SICKE, DAVID A. BRIAN 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. CARNY 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 Acetylsphosphatidin 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. SLOTIN .................................................. 342
Mucocarmin Antagonism of the Effects of a Phosphodiesterase Inhibitor (Methylisobutyloxanthine) in Embryonic Chick Ventricle. REBECCA L. BIEGON, PAUL M. EPSTEIN and ACHILLE J. PAPPANO .................................................. 348
Possible Generation of Potent Vasoconstricting Substance from Prostaglandin Endoperoxide Analogs, Human Platelets Mixture. SHOJI SHIBATA, W. K. WO and U. IHIDA .................................................. 357
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 .................................................. 363
Stereoselectivity of the Stimulus Effects of Morphine and Cyclazocine in the Squirrel Monkey. JANICE J. TEAL and STEPHEN G. HOLTMAN .................................................. 369
Potentiative Effects of Alpha Agonistic Symptomimetic Amines on Vasocostriction by Adrenergic Nerve Stimulation. CHE SU .................................................. 377
Comparative Study of the Electrophoreocryograph 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 NAAM KHAN .................................................. 382
Gentamicin Uptake by Renal Tubule Brush Border Membrane Vesicles. JAMES J. LIPSKY, LINDA CHENG, BERTRAM SACKTOR and PAUL S. LIETZ .................................................. 390
Differing Electrophysiologic Effects of Slow Response Inhibiting Agents Manganese and Verapamil on Ischemic, Infarcted and Normal Tissue in Situ. JOEL KUPERSMITH and ROBERT COHEN .................................................. 394
Metabolism of Benzidine by a Prostaglandin-Mediated Process in Renal Inner Medullary Slices. NEVILLE S. RAPP, TERRY V. ZENZER, WENDY W. BROWN and BERNARD B. DAVIS .................................................. 401
Effect of the Angiotensin Converting Enzyme Inhibitor, Captopril, on NaCl Appetite of Rats. MELVIN J. FREGLY .................................................. 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 418
Response and Sensitivity of Female Guinea-Pig Respiratory Tissues to Agonists during Ontogenesis. CHARLES BRINE, PAMELA G. DUNCAN, MALINDA MIDENZEN and JAMES S. DOUGLAS 426
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 434
Mechanism of Renal Tubular Secretion of Norepinephrine in the Rabbit. RODNEY W. LAPPÉ, DAVID P. HENRY and LYNN R. WILLS 443
Regulatory Role of Glutathione and Soluble Sulphydryl Groups in the Toxicity of Adriamycin. RICHARD D. OLSIN, JAMES S. MACDONALD, CHRIS J. VAN BOXTIEL, ROBERT C. BOERTH, 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. KARCZMAR 455
The Presence of the Type A Form of Monoamine Oxidase within Nigrostriatal Dopamine-Containing Neurons. KEITH T. DEMAREST, DAVID J. SMITH and JEREMY J. AZZARO 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. KIYOSHI HASHIMOTO, REIKO OHKI, KOBURO HASHIMOTO, JUN INUI and YUDJI MIURA 479
Presynaptic Effects of 2-Aminotetralines on Striatal Dopaminergic Neurons. IRENE S. HOFFMAN, ROBERT J. NAYLOR and LIU X. CUBEDDU 486
Antidopaminergic Properties of Yohimbine. BERNARD SCATTONE, BRANIMIR ZIVKOVIC and JAROSLAV DEDEK 494
Effects of Acebutolol and Other Structurally Related beta Adrenergic Blockers on Transmembrane Action Potential in Guinea-Pig Papillary Muscles. HIROYUKI SADA and TAKASHI BAN 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 Depressor Function 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. MAGORIEN, RICHARD CROSSBERRY, JOHN R. SIRVEL, ALBERT J. KOLBAS, MICHAEL R. DICK, JOSEPH A. MEACHAM and NOBUHIRO 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. JACOB K. PRUETT, THOMAS WALLACE and U. KRISTINA WALLACE 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 Choline 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 BENTOLLIA 569
Phenylthiocarbonyl 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 Amitriptyline. STEPHEN J. PEROUTKA and SOLOMON H. SNYDER 582
Three Day Pleural Inflammation: A New Model to Detect Drug Effects on Macrophage Accumulation. N. ACKERMAN, A. TOMOLONI, L. MIRAM, J. KEIPHERS, S. MARTINEZ and A. CARTER 588
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. 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. JWAHRALI MARWARA, MICHAEL R. PALMER, DONALD J. WOODWARD, BARRY J. HOFER and ROBERT FREEDMAN 606
Estrogen-Induced Alterations in the Autonomic Responses of the Rabbit Uterine Bladder. ROBERT M. LEVIN, FRANCES S. SHOFER 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-
broventricular Injection of Naloxone. JOSEPH C. YEUNG AND THOMAS A. RUDY ........................................... 626
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 ............................................. 633
Stereospecific Assay for (-) - and (+)-Propranolol in Human and Dog Plasma. BERNIE SILBER AND SIDNEY RIEGELMAN .................................................... 643
Consistent Unmasking of Dopamine-Induced Dilation of the Canine Femoral Vascular Bed. JAY J. LISTINSKY, JAI D. KOHL 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. TAKEKI KATSURAGI AND CHE SU .............................................. 685
Effects of Vaccination with Haemophilus Influenzae on Adrenoceptor Function of Tracheal and Parenchymal Strips. A. J. M. SCHREUERS, G. K. TERPSTRA, J. A. M. RAALMakers and F. P. NIJKAMP .................................................. 691
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 ........................................ 697
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. OEWUASSABA AND M. A. COOK ........................................... 704
Neuronal Uptake of Choline Following Release of Acetylcholine in the Perfused Heart. RUTH LINDMAR, KONRAD LOPFELHOLZ, WOLFGANG WNE AND JUTTA WITZKE ......................... 710
Specific Changes in the Cholinergic System in Guinea-Pig Vas Deferens after Denervation. FUMIAKI HATA, KUNIO TAKAYABU, YOSHIRO MORI KAWA, RON-TAN LAI, HAJIME ISHIDA AND HIROSHI YOSHIDA ........................................ 716
Index, Volume 215, October–December, 1980 .......................................................... 723