

CONTENTS OF VOLUME 180

No. 1, JANUARY 1972

Interactions of Spironolactone and Hydrochlorothiazide with Aspirin in the Rat and Dog. LORENZ M. HOFMANN, MICHAEL I. KRUPNICK AND HIDANIA A. GARCIA.....	1
Effects of Metolazone on Renal Function in Normal Man. WADI N. SUKI, FOUAD DAWOUD, GARABED EKNOYAN AND MANUEL MARTINEZ-MALDONADO.....	6
Changes in Vascular Reactivity and Renal Hemodynamics Induced by Benzyltrimethylammonium Bromide (BTM). R. CRONNELLY, J. W. STRANDHOY, K. L. DRECHEN, C. S. SWEET AND J. P. LONG.....	13
Effects of Acetyl Strophanthidin on Cardiovascular Function in Intact, Conscious Dogs. RAJ KUMAR, WILLIAM B. HOOD, JR., DAVID P. GILMOUR AND WALTER H. ABELMANN.....	24
The Interaction of Acetylcholine and Norepinephrine on Heart Rate. GERALD O. CARRIER AND VERNON S. BISHOP.....	31
Interaction of Tyramine and Guanethidine in the Spleen of the Cat. S. M. KIRPEKAR AND ROBERT F. FURCHGOTT.....	38
Relationship between the Roles of Monoamine Oxidase and Sympathetic Nerves in the Vasoconstrictor Response of the Rabbit Ear Artery to Norepinephrine. I. S. DE LA LANDE AND L. B. JELLETT.....	47
Adrenergic and Cholinergic Receptors of Intestinal Villi in Dogs. ESZTER KOKAS AND HELMUT A. GORDON.....	56
Measurement of Drug-Induced Drug-Receptor Dissociation Constants of Muscarinic Agonists on Intestinal Smooth Muscle. R. B. PARKER.....	62
Inhibition of Norepinephrine Biosynthesis by α -Methyl Amino Acids in the Guinea-Pig Vas Deferens. NGUYEN B. THOA, DAVID G. JOHNSON AND IRWIN J. KOPIN.....	71
The Effect of Polyphloretin Phosphate on Some Smooth Muscle Actions of Prostaglandins in the Cat. R. VILLANUEVA, LLYNDA HINDS, R. L. KATZ AND K. E. EAKINS.....	78
Metabolic Control Mechanisms in Mammalian Systems. XV. Studies on the Role of Adenosine 3',5'-Monophosphate in Estrogen Action on the Uterus. RADHEY L. SINGHAL AND RONALD T. LAFRENIERE.....	86
Airway Dilatation and Constriction in Spontaneously Breathing Guinea Pigs. J. S. DOUGLAS, M. W. DENNIS, P. RIDGWAY AND A. BOUHUYS.....	98
Central Nervous System Effects of Fenfluramine Hydrochloride. RONALD J. ZIANCE, I. GLENN SIPES, WILLIAM J. KINNARD, JR. AND JOSEPH BUCKLEY.....	110
A Comparison of the Effects of Fenfluramine and Amphetamine on Uptake, Release and Catabolism of Norepinephrine in Rat Brain. RONALD J. ZIANCE AND CHARLES O. RUTLEDGE.....	118
Methamphetamine, Fenfluramine and Their N-Dealkylated Metabolites: Effect on Monoamine Concentrations in Rat Tissues. C. D. MORGAN, F. CATTABENI AND E. COSTA.....	127
Effects of <i>p</i> -Chlorophenylalanine and Cholinergic Antagonists on Body Temperature Changes Induced by the Administration of Morphine to Nontolerant and Morphine-Tolerant Rats. TETSUO OKA, MASAKO NOZAKI AND EIKICHI HOSOYA.....	136
Regional Localization of 3,4-Dimethoxyphenylethylamine- ^{14}C (DMPEA- ^{14}C) in Rabbit Brain: Effects of Reserpine and Iproniazid Pretreatment. NANDKUMAR S. SHAH, H. S. ALPERS AND H. E. HIMWICH.....	144
A Study of Some Possible Mechanisms by Which Glucose Inhibits Drug Metabolism <i>in Vivo</i> and <i>in Vitro</i> . MARVIN A. PETERS AND ALLEN STROTHIER.....	151
The Effects of Antimalarial Drugs on Uptake and Incorporation of Macromolecular Precursors by <i>Tetrahymena pyriformis</i> . K. A. CONKLIN AND S. C. CHOU.....	158

Metabolic Fates of N-Methyl- α -Phenylsuccinimide (Phensuximide, Milontin) and of α -Phenylsuccinimide in the Dog. KENNETH H. DUDLEY, DANIEL L. BIUS AND MICHAEL E. GRACE.....	167
Pathways of Medazepam Metabolism in the Dog and Rat. MORTON A. SCHWARTZ AND STANLEY J. KOLIS.....	180
No. 2, FEBRUARY 1972	
A Microanalysis of Drug Effects on Fixed-Ratio Performance in Pigeons. BERNARD WEISS AND C. THOMAS GOTTE.....	189
Relationship of Alcohol Dose to Intensity of Withdrawal Signs in Mice. DORA B. GOLDSTEIN.....	203
A Comparison of Techniques to Induce Alcohol Dependence and Tolerance in the Mouse. HIROSHI OGATA, FUMILO OGATO, JACK H. MENDELSON AND NANCY K. MELLO.....	216
Anticonvulsant Properties of the Ketogenic Diet in Mice. EDWARD R. UHLEMANN AND ALLEN H. NEIMS.....	231
Anticonvulsant Action of Diphenylhydantoin in Mice with Genetic Cerebellar Degeneration. ROBERT M. JULIEN.....	239
The Effects of Germine-3-Acetate on Neuromuscular Transmission. PETER B. DETWILER.....	244
Effects of <i>d</i> -Tubocurarine on the Frog Sympathetic Ganglion Cell and on Synaptic Function. SEZEN KOSAY, WILLIAM K. RIKER AND SERGIO GUERRERO.....	255
Regulation of Norepinephrine Contents in Neuronal Cell Bodies and Terminals during and after Cessation of Preganglionic Stimulation. R. K. BHATNAGAR AND K. E. MOORE.....	265
Regional Effects of L-Dihydroxyphenylalanine (L-Dopa) on Norepinephrine Metabolism in Rat Brain. J. A. ROMERO, J. P. CHALMERS, K. COTTMAN, L. D. LYTHE AND R. J. WURTMAN.....	277
Metabolism of Norepinephrine Released by Phenoxybenzamine in Isolated Guinea-Pig Atria. E. ADLER-GRASCHINSKY, S. Z. LANGER AND M. C. RUBIO.....	286
Effect of <i>o</i> -2-Hydroxy-3-(<i>tert</i> -Butylamino) Propoxybenzonitrile HCl (KO 1366) on Beta Adrenergic Receptors in the Cardiovascular System. WINIFRED G. NAYLER AND JANNIE TAY.....	302
A Quantitative Study of Alpha Adrenergic Receptors in the Spleen and Aorta of the Rabbit. E. M. SHEYS AND R. D. GREEN.....	317
Dissociation Constants of D- and L-Lactoylcholines and Related Compounds at Cholinergic Receptors. B. V. RAMA SAstry AND H. C. CHENG.....	326
Sodium-Dependent Depolarization of Noninnervated Embryonic Chick Heart by Acetylcholine. ACHILLES J. PAPPANO.....	340
Effect of Metabolic Inhibitors on the Accumulation of Digitaloids by the Isolated Guinea-Pig Heart. S. DUTTA, H. M. RHEE AND B. H. MARKS.....	351
Local and Neurally Mediated Effects of Morphine on Skeletal Muscle Vascular Resistance. EDWARD LOWENSTEIN, RICHARD B. WHITING, DAVID A. BITTAR, CHARLES A. SAUNDERS AND WILLIAM JOHN POWELL, JR.....	359
Effects of Diazoxide and Ethacrynic Acid on Sequential Vascular Segments in the Canine Gracilis Muscle. R. I. OGILVIE AND E. MIKULIC.....	368
Renal Excretion and Uricosuric Properties of Halofenate, a Hypolipidemic-Uricosuric Agent, in the Chimpanzee. G. M. FANELLI, JR., D. L. BOHN, S. S. REILLY AND J. E. BAER.....	377
Uricosuric Potency of 2-Substituted Analogs of Probenecid. K. C. BLANCHARD, DIETER MAROSKE, DAVID G. MAY AND I. M. WEINER.....	397
Pharmacology of Pyrazinamide: Metabolic and Renal Function Studies Related to the Mechanism of Drug-Induced Urate Retention. I. M. WEINER AND JAMES P. TINKER.....	411
Urinary Metabolite of 1,1-Trimethylene-bis(4-Alodoximinopyridinium)Dibromide (TMB-4) in the Rat. I. Trimethylene-1-(4-Alodoximinopyridinium)-1'-(4-Cyanopyridinium)Dibromide. PAULO DE MIRANDA, URSULA F. FEITKNECHT, STANLEY L. GIBBON, GEORGE E. BURROWS AND JAMES L. WAY.....	435

CONTENTS

v

Prenatal Toxicity, Maternal Distribution and Placental Transfer of Tetrahydrocannabinol. RAYMOND D. HARBISON AND BERNARDO MANTILLA-PLATA.....	446
The Tissue Distribution, Metabolism and Excretion of Lidocaine in Rats, Guinea Pigs, Dogs and Man. J. B. KEENAGHAN AND R. N. BOYES.....	459
Metabolism of Chlorpheniramine Maleate in Man. E. A. PEETS, M. JACKSON AND S. SYMCHOWICZ.....	464
The Effect of Phenobarbital or Diethylaminoethyl-2,2-Diphenylvalerate on the Activation of Cyclophosphamide <i>in Vivo</i> . RUTH B. FIELD, MIRIAM GANG, I. KLINE, J. M. VENDITTI AND V. S. WARAVDEKAR.....	475
Hypotriglyceridemic Activity of 5,5'-Diphenyl-2-Thiohydantoin (DPTH). COLIN DALTON AND KARL VEREBELY.....	484
Mechanism of the Inhibitory Effects of Cardiac Glycosides on Lipolysis. DAI HYON YU, SHARON TRIESTER AND M. I. GLUCKMAN.....	492
Immunopharmacologic Effects of Cycloleucine. MARVIN E. ROSENTHALE, LOUIS J. DATKO, JACOB KASSARICH AND EUGENE I. ROSANOFF.....	501
Specificities of Antibodies to Morphine. HELEN VAN VUNAKIS, ELEANOR WASSERMAN AND LAWRENCE LEVINE.....	514

No. 3, MARCH 1972

Steric Requirements for Catecholamine Uptake by Rat Brain Synaptosomes: Studies with Rigid Analogs of Amphetamine. ALAN S. HORN AND SOLOMON H. SNYDER..	523
The Effects of Chronic Imipramine Administration on Rat Brain Levels of Serotonin, 5-Hydroxyindoleacetic Acid, Norepinephrine and Dopamine. HILMA S. ALPERS AND HAROLD E. HIMWICH.....	531
5-Hydroxyindole Levels in Rat Brain after Inhibition of Dopamine β -Hydroxylase. G. A. JOHNSON, E. G. KIM AND S. J. BOUKMA.....	539
Morphine-Induced Increases in the Incorporation of ^{14}C -Tyrosine into ^{14}C -Dopamine and ^{14}C -Norepinephrine in the Mouse Brain: Antagonism by Naloxone and Tolerance. C. B. SMITH, M. I. SHELDON, J. H. BEDNARCZYK AND J. E. VILLARREAL..	547
Reserpine-Induced Alterations in Brain Amines and their Relationship to Changes in the Incidence of Minimal Electroshock Seizures in Mice. A. J. AZZARO, G. R. WENGER, C. R. CRAIG AND R. E. STITZEL.....	558
Behavioral and Morphine-Antagonist Effects of the Optical Isomers of Pentazocine and Cyclazocine. D. E. McMILLAN AND LOUIS E. HARRIS.....	569
Effects of Tetrodotoxin on Medullary Vasomotor and Respiratory Control Mechanisms. H. H. WANG, T. F. HUANG, N. KAHN AND S. C. WANG.....	580
Central Actions of 6-Hydroxydopamine and Other Phenylethylamine Derivatives on Body Temperature in the Rat. GEORGE R. BREESE, RONALD A. MOORE AND JAMES L. HOWARD.....	591
The Antipyretic Effect of Sodium Acetylsalicylate on Pyrogen-Induced Fever in Rabbits. M. T. LIN AND C. Y. CHAI.....	603
The Effect of Cervical Spinal Section on the Ability of Morphine to Elevate the Jaw Jerk Threshold to Electrical Stimulation of the Tooth Pulp in Cats. L. A. RIBLET AND C. L. MITCHELL.....	610
Hyperthermia in <i>d</i> -Amphetamine Toxicity in Aggregated Mice of Different Strains. ARTHUR L. CRAIG AND HARVEY J. KUPFERBERG.....	616
Degenerative and Nondegenerative Effects of 6-Hydroxydopamine on Adrenergic Nerves. GÖSTA JONSSON AND CHARLOTTE SACHS.....	625
A Receptor Kinetic Model of a Vascular Neuroeffector. BÖRJE JOHANSSON, STEN R. JOHANSSON, BENGT LJUNG AND LARS STÅGE.....	636
Effect of Propranolol upon the Hemoglobin-Oxygen Dissociation Curve. ROBERT G. PENDLETON, DAVID J. NEWMAN, SHELDON S. SHERMAN, EDWARD G. BRANN AND WILLIAM E. MAYA.....	647
<i>In Vitro</i> Cellular Dynamics by Radioautography: Calcium-45 in Rat Salivary Glands. R. TAUGNER AND R. H. DREISBACH.....	657
Cholinergic Transmission in the Hypoglossal Reinnervated Nictitating Membrane of the Cat: An Enzymatic, Histochemical and Physiological Study. STEPHEN H. KOSLOW, EZIO GIACOBINI, SANDOR KERPEL-FRONIUS AND LARS OLSON.....	664

CONTENTS

Differential Effect of Verapamil on Excitation-Contraction Coupling in Smooth Muscle and on Excitation-Secretion Coupling in Adrenergic Nerve Terminals. G. HAEUSLER.....	672
The Pharmacology of Batrachotoxin. IV. Interaction with Tetrodotoxin on Innervated and Chronically Denervated Rat Skeletal Muscle. E. X. ALBUQUERQUE AND J. E. WARNICK.....	683
Modification by Ca ⁺⁺ Removal, Mg ⁺⁺ and Sr ⁺⁺ of the Membrane Effect and the Inotropic Effect of Norepinephrine in Rabbit Left Atria. NORORU TODA.....	698
Correlation of the Electrophysiologic Action of Digoxin with Serum Digoxin Concentration. I. BARR, T. W. SMITH, M. D. KLEIN, F. HAGEMEIJER AND B. LOWN.....	710
Effect of Chlorthalidone on Blood Vessels. THOMAS T. ZSOTÉR, FRED HART, I. C. RADDE AND L. ENDRENYI.....	723
Systemic and Coronary Vascular Effects of the 2- and the 5-Mononitrate Esters of Isosorbide. ROBERT L. WENDT.....	732
Effects of Sympathetic and Central Nervous System Alterations on the Blood Pressure Responses to Phenotolamine. CLIFFORD C. HILLIARD, ERVIN E. BAGWELL AND HERMAN B. DANIELL.....	743
Diuretic Therapy in Experimental Right Heart Failure of the Rhesus Monkey. S. G. HASTINGS, D. J. JOHNSTON AND L. T. BLOUIN.....	748
Studies on the Mechanism of Folate-Induced Growth in Rat Kidneys. H. G. PREUSS, F. R. WEISS, R. H. JANICKI AND H. GOLDIN.....	754
Effects of Mercurial Diuretics on the Renal Tubular Transport of <i>p</i> -Aminohippurate and Diodrast in the Chimpanzee. GEORGE M. FANELLI, JR., DENNIS L. BOHN AND SHEILA S. REILLY.....	759
Effects of Diphenylhydantoin on Active Sodium Transport in Frog Skin. EILEEN L. WATSON AND D. M. WOODBURY.....	767
Structural Specificity in the Intestinal Transport of Hexoses, Tyrosine Derivatives and Electrolytes in Freshwater Catfish. THERESA S. T. CHEN AND K. C. HUANG..	777
Studies of Human Urinary and Biliary Metabolites of Nortriptyline with Stable Isotope Labeling. DANIEL R. KNAPP, THOMAS E. GAFFNEY, ROBERT E. McMAHON AND GLENN KIPLINGER.....	784
Effects of Microsomal Mono-Oxygenase Inhibitors upon the <i>in Vivo</i> Metabolism and Duration of Action of 1-Ethynylelohexyl Carbamate. C. JOHN PARLI, NANCY WANG AND ROBERT E. McMAHON.....	791
Transport of Drugs, Hormones and Fatty Acids in Lipemic Serum. DANIEL RUDMAN, BETTYE HOLLINS, THOMAS J. BIXLER II AND ROBERT C. MOSTELLER.....	797
Index, Volume 180, January–March 1972.....	811