

CONTENTS OF VOLUME 189

No. 1, APRIL 1974

Selective Respiratory Stimulating Action of Doxapram Compared to Pentylene-tetrazol. KENNETH HIRSCH AND S. C. WANG.....	1
Behavioral Activities and Cardiovascular Function: Effects of Hexamethonium on Cardiovascular Changes during Strong Sustained Static Work in Rhesus Monkeys. P. B. DEWS AND J. A. HERD.....	12
Modification of the Effects of Chlorpromazine on Behavior in the Chimpanzee. LARRY D. BYRD..	24
Behavior as a Stimulus: Joint Effects of <i>d</i> -Amphetamine and Pentobarbital. MARC N. BRANCH..	33
A Comparison of Psychotomimetic Drug Effects on Rat Brain Norepinephrine Metabolism. JON M. STOLK, JACK D. BARCHAS, MICHAEL GOLDSTEIN, WILLIAM BOGGAN AND DANIEL X. FREEDMAN.....	42
Behavioral Effects of Separate and Combined Administration of Naloxone and <i>d</i> -Amphetamine. STEPHEN G. HOLTZMAN.....	51
Δ^9 -Tetrahydrocannabinol and 11-Hydroxy- Δ^9 -tetrahydrocannabinol: Behavioral Effects and Tolerance Development. D. S. KOSERSKY, D. E. McMILLAN AND L. S. HARRIS.....	61
Effect of Chronic Methadone Administration on Pregnant Rats and Their Offspring. DORIS BUCHENAUER, MARILYN TURNBOW AND MARVIN A. PETERS.....	66
<i>Alpha</i> Adrenergic Blocking Agents: Antinociceptive Activity and Enhancement of Morphine-Induced Analgesia. THEODORE J. CICERO, EDWARD R. MEYER AND BEN R. SMITHLOFF.....	72
Methadone Inhibition of ^3H -5-Hydroxytryptamine Uptake by Synaptosomes. FRANK R. CIOFALO.	83
The Effect of Low Environmental Temperature on the Tranylecypromine-Meperidine Interaction in Mice. PETER K. GESSNER, CAROLYN C. CLARKE AND MICHAEL ADLER.....	90
Potential Neurotransmitters and Receptor Mechanisms Involved in the Central Control of Body Temperature in Golden Hamsters. THOMAS G. REIGLE AND HAROLD H. WOLF.....	97
The Importance of Neuronal Uptake of Amines for Amphetamine-Induced Release of ^3H -Norepinephrine from Isolated Brain Tissue. ALBERT J. AZZARO, RONALD J. ZIANCE AND CHARLES O. RUTLEDGE.....	110
Effects of Adrenergic Agonists and Antagonists on Potassium Metabolism. RAYMOND H. LOCKWOOD AND BERT K. B. LUM.....	119
The Role of the Autonomic Nervous System in the Responses of the Perfused Canine Paw to Prostaglandins B ₁ and B ₂ . STANLEY GREENBERG, JAMES A. ENGELBRECHT AND WILLIAM R. WILSON.....	130
Effects of Locally Infused Serotonin on Canine Forelimb Weight and Segmental Vascular Resistances. GARY F. MERRILL, ROBERT I. KLINE, FRANCIS J. HADDY AND GEORGE J. GREGA....	140
Effect of Coenzyme Q ₁₀ on Experimental Hypertension in Rats and Dogs. TOSHIJI IGARASHI, YOSHIKAGE NAKAJIMA, MAMORU TANAKA AND SHINZABURO OHTAKE.....	149
Prevention of Acute Pulmonary Insufficiency by Eriodictyol. DOMINGO M. AVIADO, LEONARDO V. BACALZO, JR. AND MIROSLAW A. BELEJ.....	157
Studies on Carbuterol (SK&F 40383-A), a New Selective Bronchodilator Agent. J. R. WARDELL, JR., D. F. COLELLA, A. SHETZLINE AND P. J. FOWLER.....	167
The Absorption, Distribution and Excretion of K-Strophanthoside- ^3H in Guinea Pigs after Parenteral Administration. A. MARZO, P. GHIRARDI AND G. MARCHETTI.....	185
The Effect of Acetazolamide and Furosemide on Cerebrospinal Fluid Production and Choroid Plexus Carbonic Anhydrase Activity. KEN D. MCCARTHY AND DONAL J. REED.....	194
Site of Action of Dantrolene in Frog Sartorius Muscle. JAMES W. PUTNEY, JR. AND C. PAUL BIANCHI.....	202
Inhibition of Cartilage Macromolecular Synthesis by Prostaglandin A ₁ . GEORGE S. EISENBARTH, STEPHEN C. BEUTTEL AND HAROLD E. LEBOVITZ.....	213
Interaction of Toluidine Blue and Rat Mast Cells: Histamine Release and Uptake and Release of the Dye. ALICE R. JOHNSON AND NEIL C. MORAN.....	221
Effect of Oxygen on Cyanide Intoxication. IV. Reactivation of Cyanide-Inhibited Glucose Metabolism. GARY E. ISOM AND JAMES L. WAY.....	235

A Re-Evaluation of the Importance of Partition Coefficients in the Gastrointestinal Absorption of Anutrients. J. B. HOUSTON, D. G. UPSHALL AND J. W. BRIDGES.....	244
Concomitant Association between High Plasma Levels of Growth Hormone and Low Hepatic Mixed-Function Oxidase Activity in the Young Rat. JOHN T. WILSON AND LAWRENCE A. FROHMAN.....	255
Bunolol Metabolism by Human and Rat Red Blood Cells and Extrahepatic Tissues. FRANZ-JOSEF LEINWEBER AND FREDERICK J. DI CARLO.....	271
Effects of Inhibitors of Protein and Ribonucleic Acid Synthesis on α -Naphthylisothiocyanate-Induced Hyperbilirubinemia, Sulfobromophthalein Retention and Prolongation of Pentobarbital Hypnosis. NINFA INDACOCEA-REDMOND, HANSPETER WITSCHI AND GABRIEL L. PLAA.....	278
Morphine Metabolism <i>in Vivo</i> and <i>in Vitro</i> by Homozygous Gunn Rats. LARRY S. ABRAMS AND HENRY W. ELLIOTT.....	285

No. 2, MAY 1974

Observations on the Vacuologenic Activity of Nicotine in Macrophages. SORELL L. SCHWARTZ AND JANE E. LUNDIN.....	293
The Effect of Drugs on the Eosinophilic Leukocyte Population of Rat Tissues. I. Dexamethasone. ATHOS OTTOLENGHI AND HUEY D. BARNETT.....	303
The Effect of Drugs on the Eosinophilic Leukocyte Population of Rat Tissues. II. Cyclophosphamide. ATHOS OTTOLENGHI AND HUEY D. BARNETT.....	312
Biochemical Pharmacology of the Fibrinolysin System of the Rat. I. The Effect of Alloxan-Induced Hyperglycemia. HOWARD B. LASSMAN, HANS J. WILKENS AND NATHAN BACK.....	317
Biochemical Pharmacology of the Fibrinolysin System of the Rat. II. The Effect of Insulin-Induced Hypoglycemia. HOWARD B. LASSMAN AND NATHAN BACK.....	327
Biochemical Pharmacology of the Fibrinolysin System of the Rat. III. The Mechanism of Phenformin [1-(β -Phenethyl)-Biguanide]-Induced Fibrinolytic Activity. HOWARD B. LASSMAN AND NATHAN BACK.....	333
Tryptamine Antagonists and Punished Behavior. F. G. GRAEFF.....	344
On the Cerebral Accumulation of Ketamine and the Relationship between Metabolism of the Drug and Its Pharmacological Effects. MARLENE L. COHEN AND ANTHONY J. TREVOR.....	351
Effect of α -Methyldopa on the Metabolism of Dopamine in the Striatum of the Rat. NORMAN J. URETSKY.....	359
Evidence for a Critical Period for Postnatal Elevation of Brain Tyrosine Hydroxylase Activity Resulting from Reserpine Administration During Embryonic Development. R. B. LYDIARD AND S. B. SPARBER.....	370
Effects of Ethanol on Central and Peripheral Noradrenergic Neurons. L. A. POHORECKY.....	380
Maintenance of Tonic Vasomotor Activity by <i>Alpha</i> and <i>Beta</i> Adrenergic Mechanisms in Medullary Cardiovascular Centers. AKIRA ITO AND SAUL M. SCHANBERG.....	392
The Cardiovascular Pharmacology of Methyldopa Using Graphic Segmental Circulatory Analysis. MELVILLE W. OSBORNE, JAMES J. WENGER, RICHARD J. BARRETT AND MOTRIA T. ZANKO.....	405
Effects of Verapamil on Electrophysiologic Properties of Canine Cardiac Purkinje Fibers. MICHAEL R. ROSEN, JOSEPH P. ILVENTO, HENRY GELBAND AND CHARLES MERKER.....	414
Structural Aspects of the Effect of Ethyl Aminobenzoates on Caffeine Contracture. HERBERT A. FRIEDMAN, C. PAUL BIANCHI AND STUART J. WEISS.....	423
The Nature of the Transport Adenosine Triphosphatase-Digitalis Complex. VII. Characteristics of Ouabagenin- Na^+ , K^+ -Adenosine Triphosphatase Interaction. EARL T. WALLICK, FRANK DOWD, JULIUS C. ALLEN AND ARNOLD SCHWARTZ.....	434
Cardiovascular and Bronchomotor Responses to Selective <i>Beta</i> Adrenergic Receptor Agonists in the Anesthetized Dog. MARTIN A. WASSERMAN AND BERNARD LEVY.....	445
Accumulation of Amines in the Isolated Perfused Rabbit Lung. M. W. ANDERSON, T. C. ORTON, R. D. PICKETT AND T. E. ELING.....	456
Adrenergic Receptors of Rat Esophageal Smooth Muscle. C. K. BUCKNER AND R. C. CHRISTOPHERSON.....	467
Modification of Intestinal Stimulatory Effects of 5-Hydroxytryptamine by Adrenergic Amines, Prostaglandin E_1 and Theophylline. MARGARET N. GRUBB AND THOMAS F. BURKS.....	476
Interaction Between Serotonin and Morphine in the Guinea-Pig Ileum. ALAN R. GINTZLER AND JOSÉ M. MUSACCHIO.....	484
Inhibition of Cholinesterase Activity after Postganglionic Denervation of the Rat Vas Deferens:	

Evidence for Prejunctional Supersensitivity to Acetylcholine. DAVID P. WESTFALL, JOSEPH J. McPHILLIPS AND DENNIS J. FOLEY.....	493
A Study of the Irreversible Cholinesterase Inhibitor, Diisopropylfluorophosphate, on Time Course of End-Plate Currents in Frog Sartorius Muscle. K. KUBA, E. X. ALBUQUERQUE, J. DALY AND E. A. BARNARD.....	499
Effect of Histronicotoxin on the Ionic Conductance Modulator of the Cholinergic Receptor: A Quantitative Analysis of the End-Plate Current. E. X. ALBUQUERQUE, K. KUBA AND J. DALY.....	513
The Pharmacology of Batrachotoxin. VI. Effects on the Mammalian Motor Nerve Terminal. S.-E. JANSSON, E. X. ALBUQUERQUE AND J. DALY.....	525
Effects of Carbamazepine on the Ionic Conductances of <i>Myxicola</i> Giant Axons. C. L. SCHAUF, FLOYD A. DAVIS AND J. MARDER.....	538
Kinetics of Succinylthiocholine Hydrolysis by Serum Cholinesterase: Comparison to Dibucaine and Succinylcholine Numbers. LOUIS B. HERSH, P. PRITHVI RAJ AND DAVID OHLWEILER.....	544
Radioimmunoassay for Hepatic N-demethylation of Metharbital <i>in Vitro</i> . EDWARD J. FLYNN AND SYDNEY SPECTOR.....	550
The Effect of Sex Hormones on Rat Liver Carbonic Anhydrase. LAL C. GARG.....	557
Effects of Verapamil on the Short-Circuit Current of an Epithelial Membrane: The Toad Urinary Bladder. P. J. BENTLEY.....	563
Effect of Hemicholinium-3 on Tubular Transport and Metabolism of Choline in the Perfused Rat Kidney. MARY ELLEN TRIMBLE, MARGARET ACARA AND BARBARA RENNICK.....	570

No. 3, JUNE 1974

Studies with Intravenous Sodium Cyanate in Patients with Sickle Cell Anemia. CHARLES M. PETERSON, YANG S. LU, JOHN T. HERBERT, ANTHONY CERAMI AND PETER N. GILLETTE.....	577
Relative Toxicity of Methotrexate in Several Tissues of Mice Bearing Lewis Lung Carcinoma. D. S. ZAHARKO, R. L. DEDRICK, A. L. PEALE, J. C. DRAKE AND R. J. LUTZ.....	585
Effect of 5-Methoxytryptamine on Serum Calcium and Phosphate in Rats. JAE-YNE CHOE AND TAI-CHAN PENG.....	593
Effect of Reserpine on Serum Gastrin Concentration and on Mucosal Amines and Amino Acid Decarboxylase Activities in Rat Stomach. R. HÅKANSON, G. LIEBERG, J. F. REHFELD, F. SUNDLER AND L. E. ERICSON.....	603
Studies on the Effects of Enantiomers of Soterenol, Trimetoquinol and Salbutamol on <i>Beta</i> Adrenergic Receptors of Isolated Guinea-Pig Atria and Trachea. C. K. BUCKNER AND P. ABEL.....	616
Cardiovascular Actions of a New Metabolite of Propranolol: Isopropylamine. TAKASHI ISHIZAKI, PHILIP J. PRIVITERA, THOMAS WALLE AND THOMAS E. GAFFNEY.....	626
Effects of 6-Hydroxydopamine on Cardiovascular Responses in Adrenal Denervated Dogs. NICK C. TRIPPODO AND DANIEL TRABER.....	633
Selective Suppression of Neural Excitation by Tetrodotoxin Injected into the Canine Atrioventricular Node Artery. TOSHIHIKO IJIMA, SHIGERU MOTOMURA, NORIO TAIRA AND KOROKU HASHIMOTO.....	638
Absence of Degeneration of Adrenergic Neurons after Prolonged Treatment with Debrisoquin. G. HAEUSLER, H. P. LOREZ, G. BARTHOLINI, R. KETTLER AND J. P. TRANZER.....	646
Specificity of Blockade of the Nicotine-Induced Release of ³ H-Norepinephrine from Adrenergic Neurons of the Guinea-Pig Heart by Various Pharmacological Agents. THOMAS C. WESTFAEL AND MARY BRASTED.....	659
A Role for Nicotinic Receptors in the Adenylate Cyclase of Adrenal Medulla. A. GUIDOTTI AND E. COSTA.....	665
Effects of Amphetamines on Regional Tryptophan Hydroxylase Activity and Synaptosomal Conversion of Tryptophan to 5-Hydroxytryptamine in Rat Brain. SUZANNE KNAPP, ARNOLD J. MANDELL AND MARK A. GEYER.....	676
Diazepam Inhibition of Post-Tetanic Potentiation in Bullfrog Sympathetic Ganglia: Possible Role of Prostaglandins. AMIN SURIA AND E. COSTA.....	690
Noncholinergic Mechanism of Action of Cholinergic Drugs on Squid Axon Membranes. J. Z. YEH AND TOSHIO NARAHASHI.....	697
Comparative Effects of <i>dl-p</i> -Methoxyamphetamine and <i>d</i> -Amphetamine on Catecholamine Release and Reuptake <i>in Vitro</i> . L.-F. TSENG, R. J. HITZEMANN AND H. H. LOH.....	708
Significance of Dopamine Receptor Activity in <i>dl-p</i> -Methoxyamphetamine- and <i>d</i> -Amphetamine Induced Locomotor Activity. L.-F. TSENG AND H. H. LOH.....	717

A Comparison of the Effects of Amphetamine and its Metabolites, <i>p</i> -Hydroxyamphetamine and <i>p</i> -Hydroxynorephedrine, on Uptake, Release and Catabolism of ³ H-Norepinephrine in Cerebral Cortex of Rat Brain. GALEN R. WENGER AND CHARLES O. RUTLEDGE.....	725
The Monoamine Oxidases of Brain: Selective Inhibition with Drugs and the Consequences for the Metabolism of the Biogenic Amines. H.-Y. T. YANG AND N. H. NEFF.....	733
The Effects of 3,4-Dimethoxyphenylethylamine in Rats Trained with Mescaline as a Discriminative Stimulus. J. C. WINTER.....	741
The Effects of Some Drugs on an Evoked Response Sensitive to Tetrahydrocannabinols. EUGENE S. BOYD, ELEANOR H. BOYD AND LAWRENCE E. BROWN.....	748
Morphine Physical Dependence in the Dog. W. R. MARTIN, C. G. EADES, W. O. THOMPSON, J. A. THOMPSON AND H. G. FLANARY.....	759
Index, Volume 189, April-June 1974.....	773