

## CONTENTS OF VOLUME 152

No. 1, APRIL 1966

Dependence of Hemicholinium Action on Calcium Concentration. FRANK F. VINCENZI AND THEODORE C. WEST. . . . .	1
Studies on the Decentralized Nictitating Membrane of the Cat. I. Effect of Postganglionic Electrical Stimulation on the Response to Exogenous Catecholamines. PETER CERVONI AND S. M. KIRPEKAR. . . . .	18
The Nicotinic Effects of Choline Esters and of Nicotine in Guinea Pig Atria. ALLEN BARNETT AND JOSEPH M. BENFORADO. . . . .	29
The Effect of Reserpine on Catecholamine Levels in the Gravid Rat and Its Offspring. BEVERLY KOVACIC AND ROBERT L. ROBINSON. . . . .	37
Evidence for the Active Transport of Epinephrine and Norepinephrine by the Uterus of the Rat. RICHARD D. GREEN, III AND JACK W. MILLER. . . . .	42
Subcellular Distribution and Release by Sympathetic Nerve Stimulation of Dopamine and $\alpha$ -Methyl Dopamine. JOSE M. MUSACCHIO, JOSEF E. FISCHER AND IRWIN J. KOPIN. . . . .	51
Inhibition of Dopamine- $\beta$ -Hydroxylase by Disulfiram <i>in Vivo</i> . J. M. MUSACCHIO, M. GOLDSTEIN, B. ANAGNOSTE, G. POCH AND I. J. KOPIN. . . . .	56
Effects of 5,5-Dimethyl-2,4-Oxazolidinedione (DMO) on Acid-Base and Electrolyte Equilibria. THOMAS C. BUTLER, YUKIO KUROIWA, WILLIAM J. WADDELL AND DORIS T. POOLE. . . . .	62
The Reactivity of Atrial and Ventricular Pacemakers to Quinidine. CHARLES ERIC NYE AND JAY ROBERTS. . . . .	67
Effect of Calcium, Strontium and Magnesium on the Positive Inotropic Action of Fluoride. DAVID A. BERMAN. . . . .	75
Sympathetic Vasodilatation in the Dog's Paw. BEN G. ZIMMERMAN. . . . .	81
Neural Factors Affecting Cardiac Arrhythmias Induced by Halopropane. RONALD L. KATZ. . . . .	88
Studies on Veratrum Alkaloids. XLI. The Action of Some Esters of Protoverine with Acetic Acid on the Sartorius Muscle of the Frog. PRAMOD K. GUJRAL AND WERNER FLACKE. . . . .	95
Gastric Antisecretory and Other Pharmacologic Studies on 2,2'-Bipyridine. PAUL BASS, R. A. PURDON, M. A. PATTERSON AND D. E. BUTLER. . . . .	104
Comparative Effect of Antirheumatic Drugs on Adjuvant-Induced Polyarthritis in Rats. JOHN R. WARD AND R. SIDNEY CLOUD. . . . .	116
The Accumulation of Chlorothiazide and Related Saluretic Agents by Isolated Renal Tubules. DANIEL E. DUGGAN. . . . .	122
The Relationship of the Intrarenal Distribution of Hg <sup>203</sup> -Chlormerodrin to the Diuretic Effect. EDWARD LITTMAN, MARVIN H. GOLDSTEIN, LEONARD KASEN, MARVIN F. LEVITT AND RICHARD P. WEDEEN. . . . .	130
Physiologic Disposition of 4',4''-Bis(1,4,5,6-Tetrahydro-2-Pyrimidinyl)Terephthalanilide and 4-(1,4,5,6-Tetrahydro-2-Pyrimidinyl)-4'-[p-(1,4,5,6-Tetrahydro-2-Pyrimidinyl)Phenyl]Carbamoylbenzanilide in Dogs, Monkeys, Rats, and Mice. W. I. ROGERS, D. W. YESAIR AND C. J. KENSLER. . . . .	139
Metabolism of Drugs and Carcinogens by Human Liver Enzymes. R. KUNTZMAN, L. C. MARK, L. BRAND, M. JACOBSON, W. LEVIN AND A. H. CONNEY. . . . .	151
The Accumulation of Synthetic Chelating Agents in Osseous Tissues. GAD SHTACHER AND MICHAEL ANBAR. . . . .	157
The Distribution of Tetracyclines in Tissues of Dogs after Repeated Oral Administration. M. SCHACH VON WITTENAU AND C. S. DELAHUNT. . . . .	164

No. 2, MAY 1966

Observations on the Role of Calcium Ions in Ganglionic Responses to Acetylcholine. ACHILLES J. PAPPANO AND ROBERT L. VOLLE. . . . .	171
---	-----

iii

This One



DTYN-LF8-HT7J

Ganglionic Blocking Action of Some Methylpiperidines. K. VIDAL-BERETERVIDE, J. M. MONTI, R. RUGGIA AND H. TRINIDAD.....	181
The Antagonism by Atropine of the Response of the Nictitating Membrane to Sympathetic Nerve Stimulation. H. W. REAS AND T. H. TSAI.....	186
Demonstration of Catecholamines and 5-Hydroxytryptamine in the Human Carotid Body. BERTIL HAMBERGER, MARTIN RITZÉN AND JAN WERSÄLL.....	197
Effect of Catecholamines on Smooth Muscle Motility and Phosphorylase Activity. JACK DIAMOND AND THEODORE M. BRODY.....	202
Relationship between Smooth Muscle Contraction and Phosphorylase Activity. JACK DIAMOND AND THEODORE M. BRODY.....	212
Postganglionic Sympathetic Delay in Vascular Smooth Muscle. JOHN A. BEVAN AND M. ANTHONY VERITY.....	221
Effects of Cesium, Potassium and Rubidium on Development of Tension in Isolated Human Uterine Muscle. IRA ROSENBLUM, ARTHUR A. STEIN AND JOYCE L. STORY.....	231
Blockade of Epinephrine- and Ouabain-Induced Cardiac Arrhythmias in the Dog Heart-Lung Preparation. P. SOMANI AND BERT K. B. LUM.....	235
Hypotensive Activity of $\beta$ -Heptamethyleniminoethylaminoguanidine Sulfate. IRVING BOTTON, WILLIAM J. KINNARD AND JOSEPH P. BUCKLEY.....	243
Regional Pharmacologic Responses of the Vertebral and Internal Carotid Arteries. JYOJI HANDA, JOHN S. MEYER AND KOUZO YOSHIDA.....	251
The Cardiovascular Pharmacology of Lidoflazine, a Long-Acting Coronary Vasodilator. WOLFGANG K. A. SCHAPER, RAYMOND XHOENNEUX, ANTON H. M. JAGENEAU AND PAUL A. J. JANSSEN.....	265
Thrombohemorrhagic Lesions Induced by Combined Treatment with Rare Earth Metals and Epinephrine. G. GABBIANI, M. L. JACQMIN AND H. SELYE.....	275
Subcellular Localization of H <sup>3</sup> -Norepinephrine in the Rat Brain and the Effect of Drugs. J. GLOWINSKI, S. H. SNYDER AND J. AXELROD.....	282
The Effect of Disulfiram on the Restoration of the Response to Tyramine by Dopamine and $\alpha$ -Methyl dopa in the Reserpine-Treated Cat. JOSE M. MUSACCHIO, B. BHAGAT, C. J. JACKSON AND IRWIN J. KOPIN.....	293
Effects of Melatonin and Related Compounds on the Release of Glycerol from Rat Adipose Tissue <i>in Vitro</i> . MARTHA VAUGHAN AND JACK BARCHAS.....	298
A Comparison of the Effects of Neuromuscular Blocking Agents and Cholinesterase Inhibitors on the Tibialis Anterior and Superior Rectus Muscles of the Cat. RONALD L. KATZ AND KENNETH E. EAKINS.....	304
Effects of Coniine on Peripheral and Central Synaptic Transmission. S. R. SAMPSON, DON W. ESPLIN AND BARBARA ZABLOCKA.....	313
Participation of a CNS-Thyroid Neural Pathway in Epinephrine-Induced Hyperglycemia in the Cat. LOUIS P. GANGAROSA AND VICTOR DI STEFANO.....	325
The Neuropharmacology of 2-( <i>o</i> -Chlorophenyl)-2-Methylaminocyclohexanone Hydrochloride. GRAHAM CHEN, CHARLES R. ENSOR AND BARBARA BOHNER.....	332
The Role of Brain Serotonin in the Mechanism of the Central Action of Reserpine. B. B. BRODIE, M. S. COMER, E. COSTA AND A. DLABAC.....	340
Acute Tolerance Indices for Pentobarbital in Male and Female Rats. ROY ASTON.....	350
Differential Effects of Two Phenothiazines on Chain and Tandem Schedule Performance. JOHN R. THOMAS.....	354

## No. 3, JUNE 1966

Time Course Differences in the Metabolism of Drugs by Hepatic Microsomes from Rats, Rabbits and Mice. THEODORE E. GRAM AND JAMES R. FOUTS.....	363
The Metabolism of Tritiated Digoxin in Renal Insufficiency in Dogs and Man. FRANK I. MARCUS, ANN PETERSON, ANTON SALEL, JAY SCULLY AND GEETA G. KAPADIA.....	372
The Comparative Metabolism of <i>d</i> -Amphetamine-C <sup>14</sup> in the Rat, Dog and Monkey. THEODORE ELLISON, LOUIS GUTZAIT AND EDWARD J. VAN LOON.....	383
Influence of Drugs on Behavior Controlled by Internal and External Stimuli. VICTOR G. LATIES AND BERNARD WEISS.....	388
Actions of Acetylcholine on Mammalian Motor Nerve Terminal. WALTER F. RIKER, JR.....	397

Adrenalectomy in Rats and Its Influence on Local Anesthesia of Peripheral Nerves. G. A. CONDOURIS AND W. E. LAGOMARSINO.....	417
Adrenergic <i>Beta</i> Receptors and Plasma Free Fatty Acids. T. ZSOTER, HELEN TOM, M. KRAML AND D. DVORNIK.....	425
The Influence of the Dopa Decarboxylase Inhibitor Ro4-4602 on the Urinary Excretion of Catecholamines in Cold-Stressed Rats. G. E. JOHNSON AND K. PRITZKER..	432
The Effect of Various Substances on the Efflux of Labeled Catecholamines from the Uterus of the Rat. RICHARD D. GREEN, III AND JACK W. MILLER.....	439
Concurrent Changes in Hypothalamic and Cardiac Catecholamine Levels after Anesthetics, Tranquilizers and Stress in a Subhuman Primate. J. M. ORDY, T. SAMORAJSKI AND D. SCHROEDER.....	445
Cocaine and Antihistaminic Compounds: Comparison of Effects on Some Cardiovascular Actions of Norepinephrine, Tyramine and Bretylium. G. L. JOHNSON AND J. B. KAHN, JR.....	458
The Effects of Desmethyylimipramine on Uptake of <i>dl</i> -Norepinephrine-7- $H^3$ in the Heart. ELWOOD O. TITUS, NORBERT MATUSSEK, HERBERT E. SPIEGEL AND BERNARD B. BRODIE.....	469
The Effect of Antihistaminics, Cocaine and Reserpine on Amine-Induced Rat Cardiac Phosphorylase Activation. JOHN H. MCNEILL AND THEODORE M. BRODY.....	478
Cardiovascular Function, Oxygen Extraction and Labile Nucleotide Content of Cardiac Muscle during Norepinephrine-Induced Depression of Digitalized, Hypothermic Dog Heart Muscle. JOANNE I. MOORE AND MARION DE V. COTTEN.....	488
Structure-Activity Correlation of the Lethality and Central Effects of Selected Cardiac Glycosides. G. L. LAGE AND J. L. SPRATT.....	501
Effect of Probenecid on Indocyanine Green Clearance. E. E. VOGIN, W. SCOTT, J. BOYD, W. T. BEAR AND P. A. MATTIS.....	509
Inhibition of Contraction and Calcium Exchangeability in Rat Uterus by Local Anesthetics. MAURICE B. FEINSTEIN.....	516
Species Differences in the <i>in Vitro</i> Sensitivity of Lymphocytes to Prednisolone and X-Rays. KARAM V. BATRA, LLOYD M. ELROD AND ROBERT SCHREK.....	525
Effects of Hydrazine on Fat Transport as Affected by Blood Glucose Concentration. DAVID L. TROUT.....	529
Index, Volume 152, April-June 1966.....	535