

## CONTENTS OF VOLUME 144

No. 1, APRIL 1964

Distribution and Metabolism of Mescaline-C <sup>14</sup> in the Cat Brain. N. NEFF, G. V. ROSSI, G. D. CHASE AND J. L. RABINOWITZ. . . . .	1
Use of Hindlimb Reflexes of the Chronic Spinal Dog for Comparing Analgesics. W. R. MARTIN, C. G. EADES, H. F. FRASER AND A. WIKLER. . . . .	8
The Analgesic Efficacy and Respiratory Effects in Man of a Benzomorphan "Narcotic Antagonist." LOUIS LASAGNA, THOMAS J. DE KORNFELD AND JOHN W. PEARSON. . . . .	12
Effects of Amphetamine, Chlorpromazine, Pentobarbital, and Ethanol on Operant Response Duration. BERNARD WEISS AND VICTOR G. LATIES. . . . .	17
Effect of Central Nervous System Lesions on Barbiturate Sleeping Time in the Rat. JOHN A. HARVEY, ALFRED HELLER, ROBERT Y. MOORE, HOWARD F. HUNT AND LLOYD J. ROTH. . . . .	24
An Electroencephalographic and Chemical Re-evaluation of the Central Action of Reserpine in the Rabbit. G. R. PSCHIEDT, W. G. STEINER AND H. E. HIMWICH. . . . .	37
The Role of Endogenous Norepinephrine in the Toxicity of <i>d</i> -Amphetamine in Aggregated Mice. KENNETH E. MOORE. . . . .	45
Effect of Epinephrine and Norepinephrine on Excitability of Central Nervous System of Mice. EWART A. SWINYARD, FRANCISCO C. B. BOSON AND LOUIS S. GOODMAN. . . . .	52
Adrenergic Mechanisms and the Outflow of Aqueous Humor from the Rabbit Eye. KENNETH E. EAKINS AND HELENA M. T. EAKINS. . . . .	60
The Turnover of Endogenously Labeled Catecholamine in Several Regions of the Sympathetic Nervous System. W. R. BURACK AND P. R. DRASKÓCZY. . . . .	66
A Study of the Mechanisms of the Modifying Actions of Cocaine, Ephedrine and Imipramine on the Cardiovascular Response to Norepinephrine and Epinephrine. JOHN NELSON EBLE. . . . .	76
The Chronotropic Action of Tyramine Studied by Direct Perfusion of the Sinus Node Through Its Artery. THOMAS N. JAMES AND REGINALD A. NADEAU. . . . .	83
Hemodynamic Effects of Tyramine. CONCETTA HARAKAL, ROGER W. SEVY AND BEN F. RUSY. . . . .	89
The Modification of Digitalis Intoxication by Excluding Adrenergic Influences on the Heart. DAVID ERLIJ AND RAFAEL MENDEZ. . . . .	97
Effect of Aldosterone, Ouabain and Deoxycorticosterone on Oxygen Uptake of Isolated Cardiac Muscle. JOSEPH V. LEVY AND VICTOR RICHARDS. . . . .	104
Studies of Some Cardiac Effects of Taurine. J. D. WELTY AND W. O. READ. . . . .	110
The Positive Inotropic Activity of Tetraethylammonium Ions and Their Effect on Radiocalcium Movement. W. G. NAYLER AND P. F. EMERY. . . . .	116
Sustained Hypertension in Dogs Following Chronic Administration of Ganglionic Blocking Agents. EFRAIN G. PARDO AND HORACIO VIDRIO. . . . .	124
Some Cardiovascular Actions of Benzquinamide. A. SCRIBABINE, K. D. BOOHER, W. K. McSHANE, J. W. CONSTANTINE AND S. MIKNIUS. . . . .	131
A Comparison of the Responses to <i>l</i> -Sparteine and Oxytocin in Isolated Human Uterine Muscles. IRA ROSENBLUM AND ARTHUR A. STEIN. . . . .	138

No. 2, MAY 1964

Comparative Bioassays and the Role of Parallelism. JEROME CORNFELD. . . . .	143
The Disposition of Catecholamines in the Rat Uterus and the Effect of Drugs and Hormones. RICHARD J. WURTMAN, JULIUS AXELROD AND LINCOLN T. POTTER. . . . .	150
<i>Alpha</i> and <i>Beta</i> Adrenergic Receptor Mechanisms in the Systemic Venous Bed. GERARD A. KAISER, JOHN ROSS, JR. AND EUGENE BRAUNWALD. . . . .	156
Blockade of Some Metabolic Effects of Catecholamines by <i>N</i> -Isopropyl Methoxamine (B.W. 61-43). J. J. BURNS, K. I. COLVILLE, L. A. LINDSAY AND R. A. SALVADOR. . . . .	163
Inhibition of Lipid Mobilization by <i>N</i> -Isopropyl Methoxamine (B.W. 61-43). R. A. SALVADOR, K. I. COLVILLE, S. A. APRIL AND J. J. BURNS. . . . .	172

Reserpine as an Antagonist of Tyramine. D. R. VARMA, R. A. GILLIS AND B. G. BENFEY.....	181
Effects of Reserpine and Chlorpromazine on the Vasomotor Center in the Medulla Oblongata of the Dog. HSUEH-HWA WANG, TATSUYA KANAI, SHIRLEY MARKEE AND S. C. WANG.....	186
Antagonism of Certain Effects of Catecholamine-Depleting Agents by Antidepressant and Related Drugs. CLEMENT A. STONE, CURT C. PORTER, JOHN M. STAVORSKI, CARL T. LUDDEN AND JAMES A. TOTARO.....	196
The Action of Ouabain on Cardiac Muscle Treated With Reserpine and Dichloroisoproterenol. RALPH D. TANZ.....	205
Vasopressor Activity of Cycloalkane Carbonylcholines. M. E. COLEMAN AND W. C. HOLLAND.....	214
The Cardiovascular Effects of 6,7-Dimethoxy-4-Hydroxyquinoline Hydrochloride (U-558). R. K. BICKERTON, R. F. DAILEY, W. T. ROCKHOLD AND R. H. BULLER....	218
The Stabilizing Actions of Adenosine Triphosphate and Related Nucleotides on Calcium-Deficient Nerve. MICHIKO OKAMOTO, AMIR ASKARI AND ALBERT S. KUPERMAN.....	229
The Blocking Action of Hexafluorenum on Neuromuscular Transmission and Its Interaction With Succinylcholine. W. L. NASTUK AND J. H. KARIS.....	236
An Electrographic Study of Bufotenin and 5-Hydroxytryptophan. ARLENE K. SCHWEIGERDT AND HAROLD E. HIMWICH.....	253
Possible Sites of Action of the Respiratory Stimulant Effect of Doxapram Hydrochloride. HITOSHI KATO AND JOSEPH P. BUCKLEY.....	260
Studies on the Enzymatic N- and O-Demethylation of Narcotic Analgesics and Evidence for the Formation of Codeine From Morphine in Rats and Dogs. CHRISTIAN ELISON AND HENRY W. ELLIOTT.....	265
Potentialiation of Diuretic Effects of Methyl Xanthines and Pyrimidines by Carbonic Anhydrase Inhibitors. BOHDAN R. NECHAY.....	276
Studies on the Renal Pharmacology of Diazoxide, an Antidiuretic Benzothiadiazine. RICHARD M. TAYLOR AND ALAN A. RUBIN.....	284

## No. 3, JUNE 1964

Effect of Curare Concentration, Temperature and Potassium Ion Concentration on the Rate of Uptake of a Neuromuscular Blocking Agent Labeled With Radioactive Iodine. D. B. TAYLOR, R. CREESE AND N. W. SCHOLES.....	293
Some Effects of Soman on Neuromuscular Function and on Acetylcholinesterase in the Rat. T. A. LOOMIS AND B. SALAFSKY.....	301
The Effect of Topically Applied Substances on the Blood-Brain Barrier. S. I. RAPOPORT.....	310
Effects of Cortisol and Diphenylhydantoin on Spinal Cord Convulsions in Developing Rats. ANTONIA VERNADAKIS AND DIXON M. WOODBURY.....	316
The Action of Desmethylimipramine in Counteracting Sedation and Cholinergic Effects of Reserpine-Like Drugs. FRIDOLIN SULSER, MARCEL H. BICKEL AND BERNARD B. BRODIE.....	321
The Influence of Carbon Tetrachloride on Thiopental Sleeping Time and Distribution in the Rat. ROBERT MEGIRIAN.....	331
The Relative Analgesic and Respiratory Effects of Phenazocine and Morphine. RAYMOND W. HOUDE, STANLEY L. WALLENSTEIN, J. WELDON BELLVILLE, ADA ROGERS AND LOURDES AGUTO ESCARRAGA.....	337
Antagonism of Morphine-Induced Respiratory Depression and Analgesia and Inhibition of Narcotic N-Demethylation <i>in vitro</i> by N-Substituted Analogues of <i>l</i> -3-Hydroxymorphinan and by N-Allyl-Normorphine. A. RUBIN, H. I. CHERNOV, J. W. MILLER AND G. J. MANNERING.....	346
Meperidine N-Demethylase Activity in Rat Liver. DORIS H. CLOUET.....	354
The Effect of Altering Liver Microsomal N-Demethylase Activity on the Development of Tolerance to Morphine in Rats. DORIS H. CLOUET AND M. RATNER.....	362
The Fate of C <sup>14</sup> -Histamine in Animal Tissues. SOLOMON H. SNYDER, JULIUS AXELROD AND HUGO BAUER.....	373

<i>In vitro</i> Histamine Release from Rat Peritoneal Cells by <i>Beta</i> -Mercaptoethylamine and Cystamine. GALE E. DEMAREE, ROY L. MUNDY, MELVIN H. HEIFFER AND DAVID P. JACOBUS.....	380
The Presence of Norepinephrine and 5-Hydroxytryptamine in Vesicles from Disrupted Nerve-Ending Particles. E. W. MAYNERT, ROBERTO LEVI AND A. J. D. DE LORENZO.....	385
The Hydroxylation of Tyramine in the Isolated Canine Heart. C. A. CHIDSEY, G. A. KAISER AND B. LEHR.....	393
On the Mechanism of Heart Norepinephrine Depletion by Tyramine, Guanethidine and Reserpine. RONALD KUNTZMAN AND MARTIN M. JACOBSON.....	399
Mode of Action of Imipramine and 5-(3'-Methylaminopropyliden)-Dibenzo[a,e]-Cyclohepta[1,3,5]Trien Hydrochloride (Ro 4-6011), a New Antidepressant Drug, on Peripheral Adrenergic Mechanisms. H. THOENEN, A. HUERLIMANN AND W. HAEFELY.....	405
Adrenocortical Suppression: Blood Pressure Responses Under Hemorrhagic and Surgical Stress. CHARLES A. PAPACOSTAS, MYRON L. KANIS AND JASPER P. REED.....	415
The Influence of the Cardiac Glycoside Ouabain on the Intraocular Pressure and Dynamics of the Rabbit and the Cat. MAURICE E. LANGHAM AND KENNETH E. EAKINS.....	421
Teratogenic Interaction of Chemical Agents in the Rat. JAMES G. WILSON.....	429
Index, Volume 144, April-June 1964.....	437