

CONTENTS OF VOLUME 175

No. 1, OCTOBER 1970

Dedicated to WALTER F. RIKER, JR., M.D.	2
Species Differences in the Induction of Microsomal Hemoproteins and 3,4-Benzpyrene Hydroxylase by Phenobarbital and 3-Methylcholanthrene. A. P. ALVARES, G. SHILLING AND W. LEVIN.	4
The Effect of Starvation on the Kinetics of Drug Oxidation by Hepatic Microsomal Enzymes from Male and Female Rats. THEODORE E. GRAM, ANTHONY M. GUARINO, DAVID H. SCHROEDER, DONALD C. DAVIS, REGINALD L. REAGAN AND JAMES R. GILLETTE.	12
Effect of pH on Phenobarbital Extraction by Hemoperfusion over Anion Exchange Resins. HARVEY J. SUGERMAN AND THOMAS F. NEALON, JR.	22
Metabolic Fates of 3-Ethyl-5-Phenylhydantoin (Ethotoin, Peganone), 3-Methyl-5-Phenylhydantoin and 5-Phenylhydantoin. KENNETH H. DUDLEY, DANIEL L. BRUS AND THOMAS C. BUTLER.	27
Metabolism of Optically Active Barbiturates. II. S(-)-Pentobarbital. KEITH H. PALMER, MARY S. FOWLER AND MONROE E. WALL.	38
Absorption, Excretion and Metabolism of Pentaerythritol Tetranitrate by Humans. I. W. F. DAVIDSON, HENRY S. MILLER, JR. AND FREDERICK J. DICARLO.	42
The Biotransformation of Protriptyline in Man, Pig and Dog. SAMUEL F. SISENWINE, CESARIO O. TIO, STEPHEN R. SHRADER AND HANS W. RUELIUS.	51
Mechanisms of Neurotoxic Action of 1,1,1-Trichloro-2,2-Bis(p-Chlorophenyl)Ethane (DDT) in Immature and Adult Rats. GARY L. HENDERSON AND DOROTHY E. WOOLLEY.	60
Isolation of Morphine-3-Glucuronide from Urine and Bile of Rats Injected with Codeine. S. Y. YEH AND L. A. WOODS.	69
Active Removal of Morphine from the Cerebral Ventricles. KHURSHEED ASGHAR AND E. LEONG WAY.	75
Localization of <i>d</i> - and <i>l</i> -Methadone after Intraventricular Injection into Rat Brains. NICHOLAS A. INGOGLIA AND VINCENT P. DOLE.	84
Experimentally Induced Ethanol Dependence in Rhesus Monkeys. FRED W. ELLIS AND JAMES R. PICK.	88
Behavioral Studies of Sleep Patterns in Alcoholics during Intoxication and Withdrawal. NANCY K. MELLO AND JACK H. MENDELSON.	94
Ontogenesis of Drug-Induced Tremor in the Rat. GARY L. HENDERSON AND DOROTHY E. WOOLLEY.	113
The Possible Role of Brain Monoamines in the Acute Toxicity of Digitoxigenin. G. G. BUTERBAUGH AND J. L. SPRATT.	121
γ -Hydroxybutyrate-Induced Increase in Brain Dopamine: Localization by Fluorescence Microscopy. G. K. AGHAJANIAN AND R. H. ROTH.	131
Identification of a Central Site of Action of Angiotensin II. ROGER R. DEUBEN AND JOSEPH P. BUCKLEY.	139
Effects of N-Ethoxycarbonyl-2-Ethoxy-1,2-Dihydroquinoline (EEDQ) in Experimental Chloroform-Epinephrine and Digitalis Dysrhythmias. K. I. MELVILLE, H. Y. EU, J. M. BERGER AND A. DOOKHOO.	147
The Cardiovascular Pharmacology of Bunolol, a New <i>Beta</i> Adrenergic Blocking Agent. RONALD D. ROBSON AND HARVEY R. KAPLAN.	157
Antiarrhythmic Activity of Bunolol, a New <i>Beta</i> Adrenergic Blocking Agent. HARVEY R. KAPLAN AND RONALD D. ROBSON.	168
Drug-Induced Secretion of Catecholamines by the Perfused Adrenal Gland of the Dog during Nicotine Blockade. BEVERLY KOVACIC AND ROBERT L. ROBINSON.	178
Effects of Basal Anesthesia on the Response of Sympathetic Nervous Activity and Barostatic Reflexes to a Subsequent Administration of Halothane. PER SKOVSTED, MARY L. PRICE AND HENRY L. PRICE.	183

Supersensitivity of the Nictitating Membrane to 5-Hydroxytryptamine and Norepinephrine after Various Procedures. ARUN R. WAKADE, R. S. KANWAR AND O. D. GULATI.....	189
Regeneration of Sympathetic Nerves to the Vas Deferens and Spleen of the Cat. S. M. KIRPEKAR, ARUN R. WAKADE AND J. C. PRAT.....	197
Stabilization of Excitable Membrane by Chronic Administration of Diphenylhydantoin. ROBERT M. JULIEN AND LAWRENCE M. HALPERN.....	206
Ion Exchange Processes at the Neuromuscular Junction of Voluntary Muscle. DERMOT B. TAYLOR, JOSEPH STEINBORN AND TZU-CHIAU LU.....	213
Application of the Enzymatic Double Isotope Dilution Assay for the Study of Histamine in Plasma. RUSSELL L. MILLER, CLAY McCORD, MICHELE SANDA, HENRY R. BOURNE AND KENNETH L. MELMON.....	228
Erratum.....	235

No. 2, NOVEMBER 1970

The Effect of Ouabain and Acetazolamide on Transport of Sodium and Chloride from Plasma to Aqueous Humor. L. C. GARG AND W. W. OPPELT.....	237
Inhibition of Renal Tubular Transport of Catecholamines by Cocaine: An Organic Base Mechanism. ALOYSIUS QUEBBEMANN AND BARBARA RENNICK.....	248
Renal Effects of Uricosuric Agents in the <i>Cebus</i> Monkey. G. M. FANELLI, JR., D. L. BOHN AND S. S. REILLY.....	259
Stilboestrol Transport and Glucuronide Formation in Everted Sacs of Rat Intestine. L. J. FISCHER AND P. MILLBURN.....	267
A Study of the Mechanism Responsible for the Sensitivity of Newborn Rats to Pregnanolone. LESTER F. SOYKA, LASZLO GYERMEK AND PATRICIA CAMPBELL.....	276
Effect of Phenobarbital and SKF 525A Pretreatment on Diphenylhydantoin Teratogenicity in Mice. RAYMOND D. HARBISON AND BERNARD A. BECKER.....	283
Effects of Phenobarbital on the Plasma Disappearance and Biliary Excretion of Drugs in Rats. CURTIS D. KLAASSEN.....	289
The Role of Microsomal Drug-Metabolizing Enzymes in the Biliary Excretion of 3,4-Benzpyrene in the Rat. WALTER G. LEVINE.....	301
Induction of Hepatic Drug Metabolism in Rats by Methylchloroform Inhalation. GEORGE C. FULLER, ARNOLD OLSHAN, SURENDRA K. PURI AND HARBANS LAL.....	311
Effect of Chronic Intake of Ethanol on Pentobarbital Metabolism. H. KALANT, J. M. KHANNA AND JOAN MARSHMAN.....	318
The Metabolism of Cyclamates in Rats. W. C. WALLACE, E. J. LETHCO AND E. A. BROUWER.....	325
Daunomycin Metabolism in Rat Tissue Slices. N. R. BACHUR AND J. C. CRADOCK.....	331
The Metabolism and Distribution of the Selective Adrenergic <i>Beta</i> Blocking Agent, Practolol. B. SCALES AND M. B. COSGROVE.....	338
The Effect of Nicotinic Acid on the Caffeine-Induced Serum Free Fatty Acid Increase. SAMUEL BELLET, LAURIAN R. ROMAN, HERSCHEL SANDBERG AND JOHN B. KOSTIS.....	348
Radioimmunoassay for Serum Digitoxin Concentration: Methodology and Clinical Experience. THOMAS W. SMITH.....	352
Inotropic Actions of Dipolar Aprotic Solvents. BERT SPILKER.....	361
Cardiovascular Effects of Atelopidtoxin. BOBBETTE K. RANNEY, GERALDINE J. FUHRMAN AND FREDERICK A. FUHRMAN.....	368
Negative and Positive Inotropic Responses of the Blood-Perfused Canine Papillary Muscle to Acetylcholine. MASAO ENDOH, KIYOSHI TAMURA AND KOROKU HASHIMOTO.....	377
Effects of Ketamine on Contractile Performance and Excitability of Isolated Heart Muscle. ALAN H. GOLDBERG, PATRICK W. KEANE AND W. P. C. PHEAR.....	388
Effects of CL 1848C, a New Dissociative Anesthetic, on the Canine Cardiovascular and Respiratory Systems. D. L. TRABER, L. L. PRIANO AND R. D. WILSON.....	395
Kinetics of Serotonin Accumulation into Slices from Rat Brain: Relationship to Catecholamine Uptake. EDWARD G. SHASKAN AND SOLOMON H. SNYDER.....	404
<i>p</i> -Chloroamphetamine: <i>In Vivo</i> Investigations on the Mechanism of Action of the Selective Depletion of Cerebral Serotonin. E. SANDERS-BUSH AND F. SULSER.....	419

Brain Serotonin Turnover in Morphine Tolerant and Dependent Mice. FU-HSIUNG SHEN, HORACE H. LOH AND E. LEONG WAY	427
The Effect of Various Neurohumoral Modulators on the Activity of Morphine and the Narcotic Antagonists in the Tail-Flick and Phenylquinone Tests. WILLIAM L. DEWEY, LOUIS S. HARRIS, JOHN F. HOWES AND JO ANN NUIE	435
Antagonism of the Behavioral Effects of Morphine and Methadone by Narcotic Antagonists in the Pigeon. D. E. McMILLAN, P. S. WOLF AND R. A. CARCHMAN	443
Inhibitory Effects of Indomethacin, Aspirin and Certain Other Drugs on Inflammations Induced in Rat and Dog by Carrageenan, Sodium Urate and Ellagic Acid. C. G. VAN ARMAN, R. P. CARLSON, E. A. RISLEY, R. H. THOMAS AND G. W. NUSS	459
The Antipyretic Effects of Acetaminophen and Sodium Salicylate on Endotoxin-Induced Fevers in Cats. WESLEY G. CLARK	469
Muscle Membrane Depolarization by Acetylcholine, Choline and Carbamylcholine, Near and Remote from Motor End-Plates. A. PORTELA, R. J. PEREZ, J. VACCARI, J. C. PEREZ AND P. STEWART	476
Cesium Effects on Muscle Membrane Responses to Quaternary Ammonium Ions. A. PORTELA, J. VACCARI, P. A. STEWART, R. J. PEREZ AND J. C. PEREZ	483
Effects of Tyramine on Responses to and Inactivation of Histamine in Aortic Strips. STANLEY KALSNER	489
Specific Subsensitivity of the Rat Atrium to Cholinergic Drugs. SHARON E. PERRINE AND JOSEPH J. McPHILLIPS	496
On the Mechanism of Supersensitivity to Norepinephrine in the Denervated Cat Spleen. STEPHEN BRIMIJOIN, SALVATORE PLUCHINO AND ULLRICH TRENDELENBURG	503
Effect of Intermittent Nerve Stimulation on Norepinephrine Synthesis and Mobilization in the Perfused Cat Spleen. GEORGE P. GEWIRTZ AND IRWIN J. KOPIN	514
The Effect of Intraneuronal Inactivation on the Transmembranal Uptake of <i>l</i> - and <i>d</i> -Norepinephrine. U. TRENDELENBURG AND P. R. DRASKÓCZY	521
On the Possible Existence of a New Intraneuronal Monoamine in the Spinal Cord of the Rat. ANDERS BJÖRKLUND, BENGT FALCK AND ULF STENEVI	525
Blockade of the Nicotine-Induced Norepinephrine Release by Cocaine, Phenoxybenzamine and Desipramine. C. SU AND J. A. BEVAN	533
Graphical and Weighted Regression Analyses for the Determination of Agonist Dissociation Constants. C. D. THRON	541

No. 3, DECEMBER 1970

Effects of Glyceryl Trioleate on the Reticuloendothelial System and Survival after Experimental Shock. BURTON M. ALTURA AND S. G. HERSHEY	555
The Pharmacology of Isolated Sheep Umbilical Cord Blood Vessels. DONALD C. DYER	565
An Investigation of the Mechanism of Potentiation by Cocaine of Responses to Serotonin in Sheep Umbilical Blood Vessels. DONALD C. DYER	571
Nutritional Circulation in the Heart. III. Effect of Isoproterenol and <i>Beta</i> Adrenergic Blockade on Myocardial Hemodynamics and Rubidium-86 Extraction in the Isolated Supported Heart Preparation. PITAMBAR SOMANI, ATUL R. LADDU AND HAROLD F. HARDMAN	577
A Centrally Mediated Peripheral Hypotensive Effect of α -Methyldopa. ALPHONSE J. INGENITO, JAMES P. BARRETT AND LEONARD PROCITA	593
Greater Effectiveness of Phenoxybenzamine in Blocking Vasoconstrictor Responses to Central Sympathetic Stimulation than to Norepinephrine Administration in the Cat. PAULO M. S. MIRANDA AND BERNARDINO GÓMEZ	600
Further Studies on the Effects of Reserpine Pretreatment on Rabbit Aorta: Calcium and Histologic Changes. PATRICIA M. HUDGINS AND THOMAS M. HARRIS	609
Altered Reflex Vasodilatation in the Hypertensive Rat: Possible Role of Histamine. A. J. TOBIA, M. D. ADAMS, T. S. MIYA AND W. F. BOUSQUET	619
Selective Release of Histamine from Rat Mast Cells by Several Drugs. HARRY V. ELLIS III, ALICE R. JOHNSON AND NEIL C. MORAN	627
Inhibition of the Release of Histamine from Rat Mast Cells: The Effect of Cold and	

Adrenergic Drugs on Release of Histamine by Compound 48/80 and Antigen. ALICE R. JOHNSON AND NEIL C. MORAN.....	632
The Dwindling Secretory Response of the Perfused Adrenal Medulla of the Cat to Repeated Injections of Histamine. DAVID J. SMITH AND ROBERT L. ROBINSON..	641
Studies on the Decentralized Nictitating Membrane of the Cat. II. Uptake and Re- tention of Norepinephrine and Epinephrine. PETER CERVONI, ERNEST REIT AND JOHN McCULLOUGH.....	649
The Effect of Facilitatory Concentrations of Decamethonium on the Storage and Re- lease of Transmitter at the Neuromuscular Junction of the Cat. L. C. BLABER..	664
The Site and Mechanism of the Control of Cholinergic Sensitivity. LASZLO Z. BITO AND M. JOAN DAWSON.....	673
Effects of Morphine and Levorphanol on Brain Acetylcholine Content in Mice. JUDITH A. RICHTER AND AVRAM GOLDSTEIN.....	685
A Study of the Excitatory Effects of Barbiturates. HALL DOWNES, ROGER S. PERRY, RICHARD E. OSTLUND AND RALPH KARLER.....	692
Spontaneous Activity of the Putamen after Chronic Interruption of the Dopaminergic Pathway: Effect of L-Dopa. CHIHIRO OHYE, RÉMI BOUCHARD, RENÉ BOUCHER AND LOUIS J. POIRIER.....	700
Stereospecificity of Anesthetic Activity, Distribution, Inactivation and Protein Bind- ing of the Optical Antipodes of Two N-Methylated Barbiturates. H. BÜCH, J. KNABE, W. BUZELLO AND W. RUMMEL.....	709
Renal Ouabain-Sensitive Adenosine Triphosphatase Activity and Na ⁺ Reabsorption. BOHDAN R. NECHAY AND JAMES ARLY NELSON.....	717
Effects of Cardiac Glycosides on Renal Adenosine Triphosphatase Activity and Na ⁺ Reabsorption in Dogs. JAMES ARLY NELSON AND BOHDAN R. NECHAY.....	727
Diuretic Response to Mercuric Cysteine: Dependency on Urinary pH. V. NIGROVIC, K. C. CHO AND E. J. CAFRUNY.....	741
The Renal Tubular Transport and Metabolism of Serotonin (5-HT) and 5-Hydroxyin- doleacetic Acid (5-HIAA) in the Chicken. RAMSES HAKIM, WILLIAM M. WATROUS AND JAMES M. FUJIMOTO.....	749
Effects of Corticosteroids on Ocular Dynamics in Rabbits. O. J. LORENZETTI.....	763
Index, Volume 175, October-December 1970.....	773