CONTENTS OF VOLUME 175

No. 1, OCTOBER 1970

110. 1, OULDER 1010	
Dedicated to Walter F. Riker, Jr., M.D	2
SHILLING AND W. LEVIN	4
DAVID H. SCHROEDER, DONALD C. DAVIS, REGINALD L. REAGAN AND JAMES R.	
GILLETTE	10
Effect of pH on Phenobarbital Extraction by Hemoperfusion over Anion Exchange	12
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. Bius	
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 Co-	
deine. 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 d- and l-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	00
AND JAMES R. PICK.	88
Behavioral Studies of Sleep Patterns in Alcoholics during Intoxication and Withdrawal.	04
NANCY K. MELIO AND JACK H. MENDELSONOntogenesis of Drug-Induced Tremor in the Rat. Gary L. Henderson and Dorothy	94
	110
E. Woolley	113
BUTERBAUGH AND J. L. SPRATT	101
γ-Hydroxybutyrate-Induced Increase in Brain Dopamine: Localization by Fluores-	121
cence Microscopy. G. K. Aghajanian and R. H. Roth	121
Identification of a Central Site of Action of Angiotensin II. ROGER R. DEUBEN AND	101
JOSEPH P. BUCKLEY	130
Effects of N-Ethoxycarbonyl-2-Ethoxy-1,2-Dihydroquinoline (EEDQ) in Experimental	100
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 Beta Adrenergic Blocking Agent.	
Ronald D. Robson and Harvey R. Kaplan	157
Antiarrhythmic Activity of Bunolol, a New Beta Adrenergic Blocking Agent. HARVEY	
R. Kaplan and Ronald D. Robson.	168
Drug-Induced Secretion of Catecholamines by the Perfused Adrenal Gland of the Dog	_00
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 SKOV-	
	183

iv contents

Supersensitivity of the Nictitating Membrane to 5-Hydroxytryptamine and Norepinephrine after Various Procedures. Arun R. Wakade, R. S. Kanwar and O. D. Gulati	
Regeneration of Sympathetic Nerves to the Vas Deferens and Spleen of the Cat. S. M. KIRPEKAR, ARUN R. WAKADE AND J. C. PRAT.	
Stabilization of Excitable Membrane by Chronic Administration of Diphenylhydan-	191
toin. 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.	
Application of the Enzymatic Double Isotope Dilution Assay for the Study of Hist- amine in Plasma. Russell L. Miller, Clay McCord, Michele Sanda, Henry	
R. BOURNE AND KENNETH L. MELMON	
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	
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 Cebus Monkey. G. M. Fanelli, Jr., D. L. Bohn and S. S. Reilly	
Stilboestrol Transport and Glucuronide Formation in Everted Sacs of Rat Intestine.	
L. J. Fischer and P. Millburn.	
A Study of the Mechanism Responsible for the Sensitivity of Newborn Rats to Preg-	
nanolone. Lester F. Soyka, Laszlo Gyermek and Patricia Campbell	
Effect of Phenobarbital and SKF 525A Pretreatment on Diphenylhydantoin Terato-	
genicity in Mice. RAYMOND D. HARBISON AND BERNARD A. BECKER	283
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.	911
Khanna and Joan Marshman	318
The Metabolism of Cyclamates in Rats. W. C. Wallace, E. J. Lethco and E. A.	
Brouwer.	
Daunomycin Metabolism in Rat Tissue Slices. N. R. BACHUR AND J. C. CRADOCK The Metabolism and Distribution of the Selective Adrenergic Beta Blocking Agent,	
Practolol. B. Scales and M. B. Cosgrove	
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 Ex-	050
perience. Thomas W. Smith	
Cardiovascular Effects of Atelopidtoxin. Bobbette K. Ranney, Geraldine J.	901
	368
Negative and Positive Inotropic Responses of the Blood-Perfused Canine Papillary	
Muscle to Acetylcholine. Masao Endoh, Kiyoshi Tamura and Koroku Hashi-	
MOTO	377
Effects of Ketamine on Contractile Performance and Excitability of Isolated Heart	200
Muscle. Alan H. Goldberg, Patrick W. Keane and W. P. C. Phear Effects of CL 1848C, a New Dissociative Anesthetic, on the Canine Cardiovascular	388
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 Cate-	
cholamine Uptake. Edward G. Shaskan and Solomon H. Snyder	404
p-Chloroamphetamine: In Vivo Investigations on the Mechanism of Action of the	440
Selective Depletion of Cerebral Serotonin. E. Sanders-Bush and F. Sulser	419

CONTENTS

Brain Serotonin Turnover in Morphine Tolerant and Dependent Mice. Fu-HSIUNG SHEN, HORACE H. LOH AND E. LEONG WAY	497
The Effect of Various Neurohumoral Modulators on the Activity of Morphine and the	721
Narcotic Antagonists in the Tail-Flick and Phenylquinone Tests. WILLIAM L. DEWEY, LOUIS S. HARRIS, JOHN F. HOWES AND JO ANN NUITE	435
Antagonism of the Behavioral Effects of Morphine and Methadone by Narcotic An-	100
tagonists 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-In-	460
duced Fevers in Cats. Wesley G. Clark	409
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	400
Specific Subsensitivity of the Rat Atrium to Cholinergic Drugs. Sharon E. Perrine	489
AND JOSEPH J. MCPHILLIPS.	496
On the Mechanism of Supersensitivity to Norepinephrine in the Denervated Cat	
Spleen. Stephen Brimijoin, Salvatore Pluchino and Ullrich Trendelen-	
BURG	503
Effect of Intermittent Nerve Stimulation on Norepinephrine Synthesis and Mobilization in the Perfused Cat Spleen. George P. Gewirtz and Irwin J. Kopin	E14
The Effect of Intraneuronal Inactivation on the Transmembranal Uptake of l- and	514
d-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, Phenoxybenz-	
amine 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
Sociation Companies. C. D. Thiori	711
No. 3, December 1970	
Effects of Glyceryl Trioleate on the Reticuloendothelial System and Survival after	
Experimental Shock. Burton M. Altura and S. G. Hershey	
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 Beta Adrenergic	<i>7</i> 11
Blockade on Myocardial Hemodynamics and Rubidium-86 Extraction in the Iso-	
lated 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	rno
Greater Effectiveness of Phenoxybenzamine in Blocking Vasoconstrictor Responses to	993
Central Sympathetic Stimulation than to Norepinephrine Administration in the	
Cat. Paulo M. S. Miranda and Bernardino Gómez	300
Further Studies on the Effects of Reserpine Pretreatment on Rabbit Aorta: Calcium	
and Histologic Changes. Patricia M. Hudgins and Thomas M. Harris 6	309
Altered Reflex Vasodilatation in the Hypertensive Rat: Possible Role of Histamine.	
A. J. Tobia, M. D. Adams, T. S. Miya and W. F. Bousquet	519
Selective Release of Histamine from Rat Mast Cells by Several Drugs. Harry V. Ellis III, Alice R. Johnson and Neil C. Moran	R27
Inhibition of the Release of Historine 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	
Repeated Injections of Histamine. DAVID J. SMITH AND ROBERT L. ROBINSON Studies on the Decentralized Nictitating Membrane of the Cat. II. Uptake and Retention of Norepinephrine and Epinephrine. Peter Cervoni, Ernest Reit	641
AND JOHN McCullough	649
lease of Transmitter at the Neuromuscular Junction of the Cat. L. C. Blaber. The Site and Mechanism of the Control of Cholinergic Sensitivity. Laszlo Z. Bito	664
	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	
Spontaneous Activity of the Putamen after Chronic Interruption of the Dopaminergic Pathway: Effect of L-Dopa. Chihiro Ohye, Rámi Bouchard, Rená Boucher	
	700
Stereospecificity of Anesthetic Activity, Distribution, Inactivation and Protein Binding of the Optical Antipodes of Two N-Methylated Barbiturates. H. BUCH, J.	
Knabe, W. Buzello and W. Rummel	709
Renal Ouabain-Sensitive Adenosine Triphosphatase Activity and Na+ Reabsorption.	
	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	
	749
Effects of Corticosteroids on Ocular Dynamics in Rabbits. O. J. LORENZETTI	763
Index, Volume 175, October-December 1970	