CONTENTS OF VOLUME 156

No. 1, APRIL 1967

Cholinergic Properties of the Relay Junctions of the Primary Afferent Pathway. D. T. Frazier and L. L. Boyarsky	1
Monoamine Levels and Neuronal Degeneration in Rat Brain following Lateral Hypo	
thalamic Lesions. ROBERT Y. MOORE AND ALFRED HELLER	12
Localization of Tritiated Serotonin in Rat Brain by Electron-Microscopic Autoradiog-	~
raphy. George K. Aghajanian and Floyd E. Bloom	23
Tissues by Electrical Stimulation in Vitro. Ross J. Baldessarini and Irwin J.	01
KOPIN	31
Neurons in Deiters' Nucleus and the Cerebellum. C. Yamamoto	39
Drug Modification of the Schiff-Sherrington Phenomenon. EUGENE H. HERMAN AND	
Charles D. Barnes	48
Interaction between Facilitating and Depolarizing Drugs at the Neuromyal Junction	
of the Cat. L. C. Blaber and A. G. Karczmar	55
Modification of the Effects of Tranquilizers in Animals Treated with α-Methyl-l-Tyro-	~~
sine. M. K. Menon, P. C. Dandiya and J. S. Bapna	63
amine Depletion and Behavioral Depression. Kenneth E. Moore and Richard	
H. RECH.	70
Maze Learning after the Administration of Antidepressant Drugs. Arje Latz, G.	••
BAIN, M. GOLDMAN AND C. KORNETSKY	76
Tolerance to the Lenticular Effects of Opiates. Alfred A. Smith, Meta Karmin and	
JoAnn Gavitt	85
Morphine and the Incorporation of Pi ²² into Brain Phospholipids of Nontolerant, Tol-	
erant and Abstinent Guinea Pigs. S. J. Mult	92
Comparative Effects of Codeine and Morphine in Man. D. C. KAY, C. W. Goro-	
DETZKY AND W. R. MARTIN	101
Adrenergic Blocking Agents. Arnold J. Eisenfeld, Julius Axelrod and	
LAWRENCE KRAKOFF	107
Histamine in Isolated Small Nerve Endings and Synaptic Vesicles of Rat Brain Cortex.	101
K. Kataoka and E. De Robertis.	114
Changes in the Sensitivity of the Sweat Glands of the Cat after Denervation. H. W.	
REAS AND U. TRENDELENBURG	126
The Relation between Norepinephrine Content and Response to Sympathetic Nerve	
Stimulation of Various Organs of Cats Pretreated with Reserpine. F. L. LEE	137
Gastric Secretory Responses to Drugs Affecting Adrenergic Mechanisms in Rats. PAUL	
Bass and Margaret A. Patterson	142
A Pharmacologic Analysis on the Significance of the Chemical Functional Groups of	
Oxytocin to Its Oxytocic Activity and on the Effect of Magnesium on the in Vitro and in Vivo Oxytocic Activity of Neurohypophysial Hormones. W. Y. CHAN AND	
Nancy Kelley	150
The Capacity of Different Digitalis Materials to Induce Ventricular Rhythm Disturb-	100
ances in the Reserpine-Pretreated Cat. Barrie Levitt and Jay Roberts	159
A Mathematical Analysis of the Interval-Strength Relationship in the Rat Ventricle	-00
Strip and Its Modification by Fluoroacetate. Christian J. Posner and David	
	166
The in Vivo Effects of Beta Adrenergic Stimulation and Blockade on the Human Uterus	
at Term. W. A. Mahon, D. W. J. REID AND R. A. DAY	178
Effects of Dopamine on Renal Function and Hemodynamics in the Dog. M. B. MEYER,	
JOHN L. McNay AND LEON I. GOLDBERG	186

iv CONTENTS

A Biochemical Basis for the Renal Activity of N-7-Acetylchlorothiazide. D. E. Duggan	
No. 2, May 1967	
A Comparison of Certain Properties of Catechol-O-Methyl Transferase to Those of Adrenergic Beta Receptors. RALPH E. GILES AND JACK W. MILLER	
Agonist-Antagonist Interactions in the Normal and Supersensitive Nictitating Membrane of the Spinal Cat. RICHARD D. GREEN, III AND WILLIAM W. FLEMING	207
Effect of Sympathectomy and Adrenalectomy upon Ganglion Blockade. Marshall Steinberg and James G. Hilton	
Mechanism of the Vasodilator Response to Pheniprazine. SHAKIL MOHAMMED, HAROLD F. HARDMAN AND ALBERT C. YARD	
The Stimulation of Canine Prostatic Secretion by Sympathomimetic Amines. EMIL R. SMITH	
Investigation of Sympathetic Activity Resulting from a Dose of Acetylcholine Producing a Hypertensive Response. V. L. Carter, Jr., D. L. Traber and R. W. Gardier.	232
Structure-Activity Relationships among a Series of Acetylenic Carbamates Related to McN-A-343. Adolph P. Roszkowski and John Yelnosky	
Quantitative Aspects of the Replacement of Norepinephrine by Dopamine as a Sympathetic Transmitter after Inhibition of Dopamine-8-Hydroxylase by Disulfiram.	
H. THOENEN, W. HAEFELY, K. F. GEY AND A. HUERLIMANN Stimulation of the Catecholamine Output of the Isolated, Perfused Adrenal Gland of	
the Dog by Angiotensin and Bradykinin. Robert L. Robinson	ı
Rats. W. LIPPMANN, R. LEONARDI, J. BALL AND J. A. COPPOLA	
Burks and J. P. Long	267
Inhibition of Gluconeogenesis by Hydrazine Administration in Rats. SIDNEY R. FORT- NEY, DALE A. CLARK AND EDUARDO STEIN	
Pharmacokinetics of Salicylamide Elimination in Man. GERHARD LEVY AND TAI MATSUZAWA	
The Effect of Stress upon the Performance of the Amine-Depleted Heart. C. R. Bariso, T. E. Gaffney, H. Fukusumi, J. Holmes, N. O. Fowler and E. C.	
CONRADI	
ALLEN W. GOMOLL Effects of Dopamine and α-Methyl-Dopamine on Smooth Muscle and on the Cardiac	
Pacemaker. T. H. Tsai, S. Z. Langer and U. Trendelenburg	310
Cardiovascular and Myocardial Metabolic Effects of Infusions of Phenylephrine. PHILIP J. PRIVITERA AND IRA ROSENBLUM	
A Comparison of the Antiarrhythmic Actions of Two New Synthetic Compounds, Iproveratril and MJ 1999, with Quinidine and Pronethalol. JACK R. SCHMID AND	
CALVIN HANNA	
Boadle	
Reactivation by Pyridinium Aldoxime Methochloride (PAM) of Inhibited Cholinesterase Activity in Dogs after Poisoning with Pinacolyl Methylphosphonofluoridate (Soman). Joseph H. Fleisher, Larrel W. Harris and Edmund F.	
MURTHA Malathion Inhibition of Esterases as a Determinant of Malathion Toxicity. Sheldon	
D. Murphy	352
Chlorothiazide-Induced Kaliuresis after Adrenalectomy. JAY Y. GILLENWATER AND GEORGE D. WEBSTER	366
The Use of a Clinical Whole-Body Counter in Long-Term Exchangeable Sodium Studies for the Comparison of the Effect of Different Diuretics. C. Constanti-	

CONTENTS V

A Method for the Evaluation of Hypnotic Agents in Man. The Comparative Hypnotic Effects of Secobarbital, Methaqualone and a Placebo in Normal Subjects and in Psychiatric Patients. S. S. BLOOMFIELD, L. TETREAULT, B. LAFRENIER AND	275
J. M. Bordeleau. The Anticonvulsant Action of Inhibitors of Carbonic Anhydrase: Site and Mode of Action in Rats and Mice. William D. Gray and Charles E. Rauh	
Relation of Chlorpromazine-Evoked Hypothermia to Disruption of Conditioned Avoidance-Escape Behavior. Thomas A. Rudy and Harold H. Wolf	
No. 3, June 1967	
Electron-Microscopic Localization of Tritiated Norepinephrine in Rat Brain: Effect	
of Drugs. G. K. AGHAJANIAN AND F. E. BLOOM The Effect of Variations of pH upon the Activation of Phosphorylase by Epineph-	407
rine in Perfused Contracting Heart, Liver Slices and Skeletal Muscle. ROBERT C. REYNOLDS AND NIELS HAUGAARD Effect of Ethanol Intoxication and Catecholamines on Cardiac Lipoprotein Lipase	417
Activity in Rats. Samuel Mallov and Frank Cerra. Steric Aspects of Adrenergic Drugs. V. Beta Adrenergic Blocking Effects of Optical Isomers of Methoxamine and Isopropylmethoxamine. P. N. Patil, A. Tye	426
AND J. B. LaPidus	445
phenyl)-2-Isopropylamino-Propanol-HCl and Propranolol. Bernard Levy The Mechanism of the Potentiation of Norepinephrine by Antihistaminics. Law-	452
RENCE ISAAC AND ANDRES GOTH	463
Potentiation of Actions of Catecholamines by a Derivative of Hemicholinium. S. Wong and J. P. Long	469
A New Effect of Reserpine: Accumulation of Glycoprotein in the Submaxillary Gland.	
PALMER W. TAYLOR, JR., KEITH C. RICHARDSON, PATRICIA M. RODDY AND EL- WOOD TITUS	483
The Anti-Monoamine Oxidase Effects of Furazolidone. Ivan J. Stern, Richard	
D. HOLLIFIELD, SHERWIN WILK AND JAMES A. BUZARD	
A Radiometric Microassay of Acetylcholinesterase. Lincoln T. Potter	500
Resistance to the Effect of Carbachol on the Cardiovascular System and on the Iso-	
lated Ileum of Rats after Subacute Administration of an Organophosphorus Cholinesterase Inhibitor. Joseph J. McPhillips and Mohammed S. Dar	E07
The Action of Imidazole on the Effects of Methylxanthines and Catecholamines on	507
Cardiac Contraction and Phosphorylase Activity. Walther R. Kukovetz	E14
Drug-Induced Release and Pharmacodynamic Effects of Histamine in the Guinea-Pig	514
Heart. Gerald Pöch and Walther R. Kukovetz	522
Sympathetically Mediated Effects of Angiotensin on the Dog Heart in Situ. WILLIAM	
C. Farr and Gunther Grupp. Cardiovascular Effects of Prostaglandin E ₁ . Jiro Nakano and J. Richard	
McCurdy The Metabolic Fate of Tritiated Digoxin in the Dog: A Comparison of Digitalis Ad-	538
ministration with and without a "Loading Dose." Frank I. Marcus, Josee	F 40
PAVLOVICH, LINDA BURKHALTER AND CAROL CUCCIA	048
Imai and Keisuke Takeda	557
Neuromuscular Blocking Activity and other Pharmacologic Properties of Various	001
Carnitine Derivatives. E. A. Hosein, Sandra J. Booth, Ivan Gasoi and Gabor	
Като	565
Differences in the Tubocurarine Antagonism of the Activation of Muscle Spindle Afferents by Succinylcholine, Acetylcholine and Nicotine. Cedric M. Smith	
AND EDWIN X. ALBUQUERQUE.	573
Studies on Morphine Tolerance in Mice. I. In Vivo N-Demethylation of Morphine and	
N- and O-Demethylation of Codeine. T. K. ADLER	585

An Effect of Diphenylhydantoin on Posttetanic Hyperpolarization of Intrame Nerve Terminals. Arthur Raines and Frank G. Standaert	
A Comparsion of the Effects of Phenobarbital and Pentobarbital on Motor (-
Threshold and Righting Reflex Response in the Cat. ROBERT N. STRAW	
L. Mitchell.	
Chloral Alcoholate: Reevaluation of Its Role in the Interaction between the H	ypnotic
Effects of Chloral Hydrate and Ethanol. Peter K. Gessner and Bern	IARD E.
Cabana	602
Alkylating Agents and the Effects of Antidiuretic Hormone in the Toad I	Bladder
ROBERT Z. GUSSIN, ULRIKE MIKSCHE AND ALFRED FARAH	606
Furosemide and Hydrochlorothiazide Do Not Have a Common Mode of	Action.
Alfred Small and Edward J. Cafruny	616
Erratum	622
Index, Volume 156, April-June 1967	623