CONTENTS OF VOLUME 157

No. 1, July 1967

The Relationship of Intracellular Depolarization Rates and Contractility in the Dog Ventricle in Situ: Effects of Positive and Negative Inotropic Agents. JACK K. PRUETT AND EUGENE F. WOODS	,
Calcium Movements in Resting and Stimulated Isolated Rabbit Atria. David G. Teiger and Alfred Farah	
Studies on the Cardiovascular Effects of Synthetic Vasopressin. JIRO NAKANO	19
Amines. Thomas Baum and Melvin I. Gluckman	32
H. Vidrio and E. G. Pardo The Negative Inotropic Action of Ephedrine and Its Modification by Various Agents. Alan M. Goldberg and F. E. Shideman	42
Studies on the Potentiation of the Inotropic Actions of Certain Catecholamines by U-0521 (3', 4'-Dihydroxy-α-Methyl Propiophenone). RALPH E. GILES AND JACK W. MILLER.	
The Effects of Triiodothyronine on Hemodynamic Responses to Epinephrine and Norepinephrine in Man. VINCENT S. AOKI, WILLIAM R. WILSON, ERNEST O. THEILEN, WILLIAM W. LUKENS-	•
MEYER AND PAUL E. LEAVERTON Localization of Norepinephrine and Acetylcholinesterase in Separate Neurons Supplying the	62
Guinea-Pig Vas Deferens. Christopher Bell and John R. McLean. The Influence of Sympathetic Nervous Activity on Cardiac Catecholamine Levels. B. Bhagat	
Monoamine Oxidase Inhibiting Properties of Su-11, 739 in the Rat. Comparison with Pargyline, Tranyleypromine and Iproniazid. L. MAÎTRE	81
by Isolated Rat Liver. Richard P. Zimon, Gertrude M. Tyce, Eunice V. Flock, Sheldon G. Sheps and Charles A. Owen, Jr	89
The Effect of Disulfiram on Catecholamine Levels in the Brain. Menek Goldstein and Kazuhiko Nakajima	96
The Sympathetic Nervous System as a Homeostatic Mechanism. I. Absolute Need for Sympathetic Nervous Function in Body Temperature Maintenance of Cold-Exposed Rats. R. P.	100
MAICKEL, N. MATUSSEK, D. N. STERN AND B. B. BRODIE	103
R. P. MAICKEL, D. N. STERN, E. TAKABATAKE AND B. B. BRODIE. Sympathetic Nerve-Free Vascular Muscle. J. A. Bevan and M. A. Verity	
Evidence that Blockade of Adrenergic Receptors Causes Overflow of Norepinephrine in Cat's Colon after Nerve Stimulation. David J. Boullin, E. Costa and B. B. Brodie	125
Mechanisms of Sympathomimetic Effects of Dichloroisoproterenol: Comparison with Tyramine, Nicotine and Norepinephrine. NARANJAN S. DHALLA Potentiation and Antagonism of Biogenic Amines. Felix J. Rauzzino and Joseph Seifter	
Effect of Morphine on Electrically-Induced Release of Autonomic Mediators in the Rabbit Sinoatrial Node. Barbara L. Kennedy and Theodore C. West	
Antiparasympathomimetic Effects of Cholinesterase Inhibitor Treatment. Laszlo Z. Bito, Kelly Hyslop and John Hyndman	
Localization of d-Tubocurarine-H ³ at the Motor Endplate. Ellis N. Cohen, Lucien J. Rubin- stein, Aldo N. Corbascio and Nancy Hood	170
Some Effects of Morphine and Morphine Antagonists on Schedule-Controlled Behavior. D. E. McMillan and W. H. Morse	178
TER, D. J. JENDEN AND PETER LOMAX	18
A. L. Aronson and W. C. Olson	196
Study Michael Arel and R B Talrot	207

iv contents

Induction of Periarthritis by Oral Administration of 6-Sulfanilamidoindazole and Its Treatment in Rats. E. B. Sigg, M. L. Graeme and M. John.	214
A Sensitive Method for the Determination and Isolation of Pentobarbital-C ¹⁴ Metabolites and Its Application to <i>in Vitro</i> Studies of Drug Metabolism. R. Kuntzman, M. Ikeda, M. Jacobson and A. H. Conney.	
The Effect of Phenobarbital on Drug Metabolic Enzyme Activity, Ultrastructure and Growth of a "Minimal Deviation" Hepatoma (Morris 7800). LARRY A. ROGERS, H. P. MORRIS AND JAMES R. FOUTS.	
Diffusion of Certain Weak Organic Acids and Bases across the Bovine Mammary Gland Membrane after Systemic Administration. G. E. MILLER, N. C. BANERJEE AND C. M. STOWE, JR.	
No. 2, August 1967	240
Time Course of the Development of Supersensitivity to Various Amines in the Nictitating Mem-	
brane of the Pithed Cat after Denervation or Decentralization. S. Z. LANGER, P. R. DRAS-	~==
KÓCZY AND U. TRENDELENBURG. Histochemical and Fine Structural Aspects of the Onset of Denervation Supersensitivity in the Nictitating Membrane of the Spinal Cat. L. S. VAN ORDEN, HI, K. G. BENSCH, S. Z. LAN-	
GER AND U. TRENDELENBURG	2/4
Catecholamines from the Denervated Nictitating Membrane of the Cat. N. WEINER, S. Z.	
LANGER AND U. TRENDELENBURG	284
Heart. Charles O. Rutledge and Norman Weiner.	290
Autoinhibition in Rabbit Aortic Strips after Epinephrine. Efraín G. Pardo, Enrique Hong	000
AND JACQUES LELORIER	303
SAUL M. SCHANBERG, JOSEPH J. SCHILDKRAUT AND IRWIN J. KOPIN. Acetylcholine Release from the Cat Superior Cervical Ganglion by Carbachol. Doris N. Mc-	
KINSTRY AND GEORGE B. KOELLE	319
and by Preganglionic Stimulation. Doris N. McKinstry and George B. Koelle	328
bamoyloxy)-2-Butynyltrimethylammonium Chloride (McN-A-343). JORGE JARAMILLO AND ROBERT L. VOLLE	337
Actions of Lithium Ions in Mammalian Sympathetic Ganglia. Achilles J. Pappano and Ro-	
BERT L. VOLLE	340
R. BALDESBERGER, J. B. LaPidus and P. N. Patil	356
	363
Insulin Stimulation of Lactate Oxidation and Incorporation into Glycogen in Frog Skel-	
etal Muscle. D. R. H. GOURLEY AND TAE KYU SUH	371
ylic Acid. Joseph N. Pereira and Gerald F. Holland	
Action of Local Anesthetics on Coupling Systems in Muscle. C. PAUL BIANCHI AND T. C. BOLTON 3 Entry of Labeled Carbachol in Brain Slices of the Rat and the Action of d-Tubocurarine and	388
Strychnine. R. Creese and D. B. Taylor.	106
The Human Pharmacology and Abuse Potential of N-Allylnoroxymorphone (Naloxone). D. R.	
Effects of Serotonin on the Toxin of Clostridium Botulinum. Daniel A. Boroff and Ursula	120
Prophylaxis against Sarin Poisoning in the Rat by Oral Administration of Pralidoxime Chlo-	127
ride. Peter Zvirblis and Albert A. Kondritzer 4	132
Effect of Pretreatment of Rabbits with Phenobarbital or 3-Methylcholanthrene on the Distribution of Drug-Metabolizing Enzyme Activity in Subfractions of Hepatic Microsomes.	405
THEODORE E. GRAM, LARRY A. ROGERS AND JAMES R. FOUTS	135
AND W. W. WESTERFELD	146

CONTENTS V

Intracellular Disposition of H ³ -Morphine in the Brain and Liver of Nontolerant and Tolerant Guinea Pigs. S. J. Mulé, C. M. Redman and J. W. Flesher. The Potassium-Sparing and Natriuretic Activity of N-Amidino-3,5-Diamino-6-Chloropyrazinecarboxamide Hydrochloride Dihydrate (Amiloride Hydrochloride). J. E. Baer, C. B. Jones, S. A. Spitzer and H. F. Russo	. 459 -
Erratum	
N . 0 C 1007	
No. 3, September 1967	
Photic and Neural Control of the 24-Hour Norepinephrine Rhythm in the Rat Pineal Gland Richard J. Wurtman, Julius Axelrod, Göran Sedvall and Robert Y. Moore Metabolic Pathways of Dopamine and Norepinephrine in Rabbit Brain in Vitro. Charles O.	. 487
RUTLEDGE AND JAN JONASON	f
BERNARD B. BRODIE. Uptake, Storage and Metabolism of Norepinephrine in Tissues of the Developing Rat. Leslie L. Iversen, Jacques de Champlain, Jacques Glowinski and Julius Axelrod	C
Influence of Metanephrine on Responses of the Nictitating Membrane of the Pithed Cat to Sympathomimetic Amines. S. Z. Langer, M. G. Bogaert and A. F. de Schaepdryver	- 517
The Effects of Sympathetic Stimulation and Epinephrine on the Superior Rectus Muscle of the Cat. Kenneth E. Eakins and Ronald L. Katz	524
Sympathetic Nerve Stimulation. H. Thoenen, W. Haefely and H. Staehelin Effects on Temperature of Scrotonin and Epinephrine Injected into the Lateral Cerebral Ven-	532 -
tricle of the Cat. A. S. Kulkarni Some Correlations between Picrotoxin-Induced Seizures and γ-Aminobutyric Acid in Animal Brain, Shoji Saito and Yukiko Tokunaga	l
Effect of Strychnine Convulsions upon the Entry of S35 Sulfate into the Cat Central Nervous System. Antonio V. Lorenzo and Charles F. Barlow	555
Dependence of m-Fluorophenylalanine Toxicity on Phenylalanine Hydroxylase Activity. B. Kenneth Koe and Albert Weissman	565
and Its Effect on Excretion of Metabolites. Kenneth C. Leibman and William J. Mc-Allister, Jr	574
CLARKSON, W. W. OPPELT AND P. BYVOET. Further Studies on the Urinary Metabolites of Thiamine Propyl Disulfide in Rats. Kohei Nishikawa, Suzuoki-Ziro and Mitsuo Numata.	I
The Problem of Na ⁺ + K ⁺ Adenosine Triphosphatase as the Receptor for Diuretic Action of Mercurials and Ethacrynic Acid. Bohdan R. Nechay, Roger F. Palmer, David A. Chinoy and Virginia A. Posey.	f
Effects of Angiotensin and Renal Artery Constriction on Erythropoietin Production. James W. Fisher, A. I. Samuels and J. W. Langston	618
The Tubular Transport and Metabolism of Morphine-N-Methyl-C ¹⁴ by the Chicken Kidney. DAVID G. MAY, JAMES M. FUJIMOTO AND CHARLES E. INTURRISI	626
VAILLANT Effects of a Hydrazine Monoamine Oxidase Inhibitor (Phenelzine) on Isoproterenol-Induced	636 l
Myocardiopathies in the Rat. H. C. Stanton and A. Schwartz	•
Effects of Acetylsalicylic Acid on the Canine Response to Endotoxin. L. B. Hinshaw, L. A. Solomon, E. G. Erdös, D. A. Reins and B. J. Gunter	665
Study of the Mechanism of Action of Vitamin K and Coumarin Anticoagulants. Julius Lowenthal and J. A. MacFarlane	3
Index, Volume 157, July-September 1967	681