CONTENTS OF VOLUME 172

No. 1, March 1970

The Effects of pH Gradients on the Action of Procaine and Lidocaine in Intact and	
Desheathed Sciatic Nerves. George E. Strobel and C. Paul Bianchi The Effects of pH Gradients on the Uptake and Distribution of C ¹⁴ -Procaine and Lidocaine in Intact and Desheathed Sciatic Nerve Trunks. George E. Strobel and	1
C. Paul Bianchi	18
BIANCHI	33
C. R. CRAWFORD AND C. C. LEE	44
humoral Mechanisms. Robert C. Boerth, Michael J. Ryan and Michael J. Brody	52
The Release of H ³ -Norepinephrine in Arterial Strips Studied by the Technique of Superfusion and Transmural Stimulation. CHE SU AND JOHN A. BEVAN	62
Comparison of Differential Secretion of Adrenal Catecholamines by Splanchnic Nerve Stimulation and Cholinergic Agents. LARRY R. KLEVANS AND GERARD L. GEBBER.	
The Effect of β-TM 10 on the Pharmacological, Biochemical and Morphological Changes Induced by Denervation of the Nictitating Membrane of the Cat. S. Pluchino,	69
L. S. VAN ORDEN, III, P. R. DRASKOĆZY, S. Z. LANGER AND U. TRENDELENBURG Methoxamine as a Tool to Assess the Importance of Intraneuronal Uptake of l-Nor-	77
epinephrine in the Cat's Nictitating Membrane. U. TRENDELENBURG, R. A. MAXWELL AND S. PLUCHINO	91
Guanethidine and Related Agents. I. Mechanism of the Selective Blockade of Adrenergic Neurons and Its Antagonism by Drugs. J. R. MITCHELL AND J. A. OATES.	100
Guanethidine and Related Agents. II. Metabolism by Hepatic Microsomes and Its Inhibition by Drugs. J. R. MITCHELL, J. H. CAVANAUGH, J. V. DINGELL AND	
J. A. OATES. The Metabolism of C ¹⁴ -ICI 54,450 (Myalex) in Various Species—An in Vivo NIH	
Shift. DAVID M. FOULKES	
CLAUDE MARCHAND	122
and Swine. R. P. SHARMA, C. M. STOWE AND A. L. GOOD	128
with a Species-Specific Effect on Basal Metabolism. Edward H. Wiseman, Edward J. Gralla, Josephine Chiaini, Joseph R. Migliardi and Yi-Han	
CHANG	138
and Smith Method. William D. Gray, Arnold C. Osterberg and Thomas J. Scuto	154
Development of Tolerance to and Physical Dependence on Barbiturates in Rhesus Monkeys. Tomoji Yanagita and Saburo Takahashi	163
Jumping Activity Induced by Sodium 5-(1,3-Dimethylbutyl)-5-Ethyl Barbiturate. I. The Role of the Sympathetic Nervous System. T. KOPPANYI, H. M. MALING,	
W. Saul and B. B. Brodie Effect of Cardiac Glycosides on Interaction of Ca ⁺⁺ with Mitochondria. Kwang S.	
LEE, SA A. HONG AND D. H. KANG	180
The Effects of Six Cardiac Glycosides on the Transmembrane Potential and Contractile Characteristics of the Right Ventricle of Guinea Pigs. M. Ito, P. B.	
HOLLANDER, B. H. MARKS AND S. DUTTA	
Letters to the Editor	r 2

CONTENTS

No. 2, APRIL 1970

The Role of Carbonic Anhydrase in Anion Secretion into Cerebrospinal Fluid. Thomas H. Maren and Lawrence E. Broder.	197
Studies of the Effect of Bendroflumethiazide on Sodium Transport and Metabolism	
in the Toad Bladder. BARBARA McDougal and Lawrence P. Sullivan	203
Drugs Affecting Sodium Transport in Human Erythrocyte Ghosts. A. Askari and	
S. N. RAO	211
Mechanism of the Renal Tubular Transport of Morphine and Morphine Ethereal Sul-	
	224
The Actions of Tetraethylammonium Ions on Potassium Fluxes in Frog Sartorius	
Muscle. Robert L. Volle	230
Effect of Lidocaine on Conduction in Canine Purkinje Fibers and at the Ventricular	
Muscle-Purkinje Fiber Junction. J. Thomas Bigger and William J. Mandel	239
Biphasic Effect of Nicotine on Action Potential Repolarization in Electrically Driven	
- -	255
The Sympathomimetic Effect of Gallamine on the Heart. Burnell R. Brown, Jr.	
AND J. RICHARD CROUT.	266
Blockade of the Cardiac Action of Phenylephrine by Bretylium or Cocaine. C. S.	200
	074
	274
The Effect of Bretylium on Amine Retention in Rat Heart. Kenneth R. Krauss,	
IRWIN J. KOPIN AND VIRGINIA K. WEISE	282
The Effects of Acidosis on Chronotropic Responses, Norepinephrine Storage and Re-	
lease in Isolated Guinea-Pig Atria. M. J. Peach, G. D. Ford, A. J. Azzaro and	
	289
An Evaluation of the Vasodilation Produced by Mephentermine and Certain Other	
Sympathomimetic Amines. R. William Caldwell and Leon I. Goldberg	297
The Antagonism of Phentolamine against Exogenously Administered and Endogenously	
Released Norepinephrine in Rabbit Aortic Strips. Pedro R. Urquilla, Robert	
· _ ·	310
Interactions between Potentiating Agents of Adrenergic Amines in Rabbit Aortic	
Strips. JEROME A. LEVIN AND ROBERT F. FURCHGOTT	320
Release of Norepinephrine from Isolated Rat Iris by Field Stimulation. LARS-OVE	0_0
	332
Effects of Metabolic Inhibitors on Norepinephrine Release from the Perfused Spleen	002
of the Cat. S. M. Kirpekar, J. C. Prat and H. Yamamoto	240
	344
Cholinergic Activities of Halogeno-Acetylcholines. C. Y. CHIOU AND B. V. RAMA	051
Sastry	351
Effects of Nicotine on Gastric Antral and Duodenal Contractile Activity in the Dog.	
G. M. CARLSON, R. W. RUDDON, C. C. HUG, JR. AND PAUL BASS.	367
Analysis of the Site of Nicotine Action on Gastric Antral and Duodenal Contractile	
Activity. G. M. CARLSON, R. W. RUDDON, C. C. HUG, JR., S. K. SCHMIEGE AND	
PAUL BASS	377
The Actions of γ-Aminobutyric Acid and Related Amino Acids on Mammalian Auto-	
nomie Ganglia. William C. de Groat	384
Effects of Some Benzodiazepines on Punished and Unpunished Behavior in the	
Pigeon. W. Wuttke and R. T. Kelleher	397
Potentiation and Inhibition of Some Central Actions of $L(-)$ -Dopa by Decarboxylase	
Inhibitors. Victor J. Lotti and Curt C. Porter	406
Daily Rhythm in the Accumulation of Brain Catecholamines Synthesized from Circu-	. 3
lating Ha-Tyrosine. Michael J. Zigmond and Richard J. Wurtman	416
Interactions of Anti-Inflammatory Drugs in Carrageenan-Induced Foot Edema of the	
Rat. Karl F. Swingle, Thomas J. Grant, Lowell W. Jaques and Donald C.	
KVAM	492
Index, Volume 172, March-April 1970.	497
Letters to the Editor	