CONTENTS OF VOLUME 171

NO. 1, JANUARY 1970

Correlation between the Inotropic Action of Ouabain and Its Effects on Subcellular Enzyme Systems from Canine Myocardium. HENRY R. BESCH, JR., JULIUS C. ALLEN, GERALD Glick and ARNOLD SCHWARTZ .......................................................... 1


Effect of Tetraodotaxin on Transmembrane Potential of Atrial Muscle. TAKASHI YANAGA and WILLIAM C. HOLLAND .......................................................... 20

Quinidine Contractures and Ca++ Movements of Frog Sartorius Muscles as Affected by pH. A. ISACKSON, K. YAMAJI and A. SANDOW .............................. 26

The Site of Action and Active Form of Local Anesthetics. I. Theory and pH Experiments with Tertiary Compounds. TOSHIO NARAHASHI, DONALD T. FRAZIER and MINORU YAMADA ........................................................................................................ 32

The Site of Action and Active Form of Local Anesthetics. II. Experiments with Quaternary Compounds. DONALD T. FRAZIER, TOSHIO NARAHASHI and MINORU YAMADA ........................................................................................................ 45

Analysis of Beta Receptor Drug Interactions in Isolated Rabbit Atrium, Aorta, Stomach and Trachea. M. BRISTOW, T. R. SHERROD and R. D. GREEN .................. 52

Kinetic and Thermodynamic Considerations Regarding the Inhibition by Tricyclic Antidepressants of the Uptake of Tritiated Norepinephrine by the Adrenergic Nerves in Rabbit Aortic Strips. R. A. MAXWELL, S. BATMAN and ECKHARDT and G. HITE ........................................................................................................ 62

Norepinephrine Concentrating Mechanisms in Sympathetic Nerve Trunks. L. STJARNE, R. H. ROTH, F. E. BLOOM and N. J. GARMAN ...................................... 70

In Vivo Inhibition of Dopamine-β-Hydroxylase by 1-Phenyl-3-(2-Thiazolyl)-2-Thiourea (U-14,624). G. A. JOHNSON, S. J. BOUeka and E. G. KIM ...................... 80

Nonmast-Cell Histamine Kinetics. III. Uptake, Metabolism and Decline of H3-Histamine in the Female Rat and Effects of Endogenous Histamine Release. HOWARD L. JOHNSON ........................................................................................................ 88

Tolerance to the Vascular Effects of Glycerol Trinitrate. P. NEEDLEMAN ........................................................................................................ 98

Maturation of Renal Organic Acid Transport: Substrate Stimulation by Penicillin and 2- Aminohippurate (PAH). G. H. HIRSCH and J. B. HOOK ......................... 103

Effects of Thalidomide and Chlorcyclizine on the Biosynthesis of Nucleic Acids and Proteins in Fetal and Maternal Tissues of the Rat. BORDOB BAKAY and WILLIAM L. NYHAN ........................................................................................................ 109

Norchlorcyclizine Analogues: Relationship of Teratogenic Activity to in Vitro Cartilage Binding. A. L. WALT, A. J. STEFFEY and C. T. G. KING ........................................................................................................ 118

Diphenylhydantoin Effect on Neonatal and Adult Rat Hepatic Drug Metabolism. THOMAS E. ELING, RAYMOND D. HARRISON, BERNARD A. BECKER and JAMES R. FOUTS ........................................................................................................ 127

Inhibition of Lipolysis in Isolated Fat Cells by Sulphydryl Reagents. DEANE N. CALVET and JOHN J. LECR ............................................................................ 135

The Subcellular Distribution of Free H3-Glutamic Acid in Rat Cerebral Cortical Slices. MICHAEL J. KHUR and SOLOMON H. SNYDER ........................................................................................................ 141

Effect of Environmental Temperature on the Toxicity of Caffeine and Dextroamphetamine in Mice. PATRICIA J. MULLER and JOAN VERNIKOS-DANELIUS ........................................................................................................ 153

NO. 2, FEBRUARY 1970

The Effects of Ethyl Alcohol on Temporally Spaced Responding in Humans. D. E. McMillan ........................................................................................................ 159

Effects of Nicotine on Fixed-Interval Behavior and Their Modification by Cholinergic Antagonists. MAXINE STITZER, JOHN MORRISON and EDWARD F. DOMINO ........................................................................................................ 166
The Mechanisms by Which Amphetamine Inhibits Oxidative Deamination of Norepinephrine in Brain. Charles O. Rutledge ........................................ 188
Regional Distribution and Metabolism of H3-Tyramine in the Rat Brain. Menek Goldstein, Berta Anagnoste, Aziko Yamamoto and William C. Felch, Jr. ........ 196
An Analysis of Ephedrine Mydriasis in Relationship to Iris Pigmentation in the Guinea-Pig Eye in Vitro. R. J. Seidelhamel, A. Ty and P. N. Patil ...................... 205
Influence of Sympathetic Nerve Stimulation on Conversion of H3-Tyrosine to H3-Catecholamine and on H3-Norepinephrine Disposition in Rabbit Pulmonary Artery. A. Kupferman, C. N. Gillis and R. H. Roth ........................................ 214
The Neuromuscular Pharmacology of Germine-3-Acetate and Germine-3,16-Diacetate. Frank G. Standaert and Peter B. Detwiler ........................................ 223
Ryanodine-Induced Contractile Failure of Skeletal Muscle. Norman L. Katz, Alphonse Ingenito and Leonard Procita ........................................ 242
Relationship among Contraction, Drug Binding and Positive Inotropic Action of Digoxin. Barbara F. Roth-Schechter, George T. Okita, Douglas Anderson and Florence Richardson ........................................ 249
The Acute Effects of Mefruside in Man: A New Diuretic Compound. Curtis B. Wilson and Walter M. Kirkendall ........................................ 288
Differential Effect of Furosemide on Renal and Limb Blood Flows in the Conscious Dog. James H. Ludens, David C. Heitz, Michael J. Brody and Harold E. Williamson ........................................ 300
The Metabolism of 4-C14-Warfarin Sodium by the Rat. W. M. Barker, M. A. Hermodson and K. P. Link ........................................ 307
Teratogenic Effects in the Chick Embryo Caused by Esters of Phthalic Acid. Raymond K. Bower, Sol Haberman and Paul D. Minton ........................................ 314
Index, Volume 171, January-February 1970 ........................................ 325