

## CONTENTS

### NUMBER 1, JANUARY, 1954

I. Abstracts, New Haven Meeting.....	1
II. The Pharmacological Activity of DL-Alpha, Alpha-Diphenyl, Gamma-Dimethylaminovaleramide (Centrine). J. B. Hoekstra, D. E. Tisch, N. Rakieten and H. L. Dickison.....	55
III. The Action of Veratrum on the Renal Circulation of the Dog. William C. Nungesser and E. P. Hiatt.....	68
IV. Effect of Drugs and Metabolic Alterations on Brain Stem Arousal Mechanism. A. Arduini and M. G. Arduini.....	76
V. The Anti-emetic Activity of 10-( $\gamma$ -Dimethylaminopropyl)-2-Chlorophenothiazine (Chlorpromazine) in Dog and Cat. E. D. Brand, T. D. Harris, H. L. Borison and L. S. Goodman.....	86
VI. Effects of Acute and Chronic Denervation of the Hind Leg of the Dog on the Blood Flow Responses in the Vascular Beds of Skin and Muscle to Adrenergic Blockade. Paul P. Griffin, Harold D. Green, Paul L. Youmans and Hooper D. Johnson.....	93
VII. <i>In Vitro</i> Studies on the Diphasic Action of Methadone. J. W. Miller and H. W. Elliott.....	106
VIII. The Effect of Certain Antibiotics on the Formation of an Adaptive Enzyme in a Strain of <i>Pseudomonas Aeruginosa</i> . Frederick Bernheim.....	115
IX. A Pharmacological Comparison of the Optical Isomers of 5-Ethyl-5-Phenyl Hydantoin (Nirvanol) and of 3-Methyl-5-Ethyl-5-Phenyl Hydantoin (Mesantoin). Thomas C. Butler and William J. Waddell.....	120

### NUMBER 2, FEBRUARY, 1954

X. The Cholinergic Activity of Tetrakis-(Dimethylaminomethyl)-methane Tetramethobromide. C. J. Kensler, H. Langemann and C. L. Zirkle... ..	127
XI. Synthetic Analgesics. III. Methadols, Isomethadols, and Their Acyl Derivatives. Dorothy G. Leimbach and Nathan B. Eddy.....	135
XII. Barbiturates and Oxidative-Phosphorylation. T. M. Brody and J. A. Bain.....	148
XIII. Blocking Effects of a Series of Substituted Piperazines. L. W. Roth.....	157
XIV. The Action of Iodoacetate on the Isolated Rabbit Auricle. E. A. Gardner, M. Wilson and A. Farah.....	166
XV. Pharmacologic Studies on a New Central Stimulant, $\alpha$ -(2-Piperidyl) Benzhydrol Hydrochloride (MRD-108). Barbara B. Brown and Harold W. Werner.....	180
XVI. Pharmacology of Pamine Bromide. F. E. Visscher, P. H. Seay, A. P. Tazeelaar, Jr., W. Veldcamp and M. J. Vander Brook.....	188
XVII. Cardiovascular and Respiratory Effects of Serpasil, a New Crystalline Alkaloid from <i>Rauwolfia Serpentina</i> Benth, in the Dog. J. H. Trapold, A. J. Plummer and F. F. Yonkman.....	205
XVIII. The Effect of Induced Failure and Digitalization on the Excitability and Rhythmicity of the Dog's Heart. Harry Woske, F. N. Fastier, Julius Belford and Chandler McC. Brooks.....	215
XIX. The Effect of Xenon and Nitrous Oxide on <i>In Vitro</i> Guinea Pig Brain Respiration and Oxidative Phosphorylation. Louis Levy and R. M. Featherstone.....	221
XX. The Effect of Intravenously Administered Fructose on the Ketone Bodies of the Depancreatized Dog. Philip Whittlesey and Charles G. Zubrod....	226

- XXI. Studies on the Mechanism of Action of DFP and TEPP. B. P. McNamara, E. F. Murtha, A. D. Bergner, E. M. Robinson, C. W. Bender and J. H. Wills..... 232
- XXII. The Role of the Liver in the Demethylation of N-Methyl Derivatives of Hydantoin and of 2,4-Oxazolidinedione. Thomas C. Butler and William J. Waddell..... 241
- XXIII. Biosynthesis and Isolation of Carbon-14 Labeled Digitoxin. G. T. Okita, F. E. Kelsey, E. J. Walaszek and E. M. K. Geiling..... 244

## NUMBER 3, MARCH, 1954

- XXIV. A Search for More Effective Muscle Relaxants Among the Glycerol Ethers and Dioxolanes. J. S. Goodsell, J. E. P. Toman, G. M. Everett and R. K. Richards..... 251
- XXV. The Fate of the Optical Isomers of Alpha-Acetylmethadol. Chen-Yü Sung and E. Leong Way..... 260
- XXVI. Potentiation of Drug-Produced Ejaculation by  $\beta$ -Diethylaminoethyl-diphenylpropylacetate (SKF No. 525A). S. Loewe..... 271
- XXVII. The Effect of a Dibenzazepine Derivative (Ilidar) on Renal Function. Carroll A. Handley and John H. Moyer..... 277
- XXVIII. An Investigation of the Pharmacological Actions of Three Potent Antispasmodic Compounds and Their Corresponding Metho-Salts. F. P. Luduena and A. M. Lands..... 282
- XXIX. Studies on the Effect of Hydrocholeretic Agents on Hepatic Excretory Mechanisms. D. L. Cook, Coleta A. Lawler and D. M. Green..... 293
- XXX. Coronary Dilator Action. III. Effect of Several Antihistamine Compounds on Coronary Blood Flow in the Intact Dog. Martin M. Winbury..... 300
- XXXI. The Evaluation of Some N-Substituted Arterenol Derivatives as Bronchodilators. R. A. Seibert and Carroll A. Handley..... 304
- XXXII. Renal Tubular Secretion of Tetraethylammonium in the Dog and the Chicken. Barbara R. Rennick, Dorothy M. Calhoon, Hector Gandia and Gordon K. Moe..... 309
- XXXIII. Studies on Sympathomimetic Amines. II. The Biotransformation and Physiological Disposition of D-Amphetamine, D-P-Hydroxyamphetamine and D-Methamphetamine. Julius Axelrod..... 315
- XXXIV. The Enhancement of Chlortetracycline Absorption by Citric Acid. William D. Gray, Ronald T. Hill, Robert Winne and Raymond W. Cunningham... 327
- XXXV. The Influence of Heart Rate upon the Lethal Dose of Veratridine in the Heart-Lung Preparation of the Dog. Joseph M. Benforado and Peter N. Witt..... 334
- XXXVI. Quantitative Aspects of Inhibition of Thermal Panting by Pyrogen. David P. Rall and J. A. Wells..... 339
- XXXVII. Antagonism of Three Homologous Monofluorinated Fatty Acids by Several Fatty Acids. Leland C. Hendershot and Maynard B. Chenoweth..... 344
- XXXVIII. Comparative Effects of Epinephrine and Levarterenol in the Intact Anesthetized Dog. Raymond P. Ahlquist, James P. Taylor, Clarence W. Rawson, Jr. and Virginia L. Sydow..... 352
- XXXIX. The Influence of Plasma Electrolyte Concentration on Mercurial Diuresis in the Dog. A. Farah and F. Koda..... 361

## NUMBER 4, APRIL, 1954

- XL. An Evaluation of the Factors Favorable for Acetylcholine-like Stimulation by Employing a Series of Quaternary Ammonium Alkyl Sulfide and Sulfoxide Compounds. A. M. Lands and C. J. Cavallito..... 369

<b>XXI. The Mechanism of Action of Anticholinesterase Compounds on the Patellar Reflex.</b> E. M. Robinson, R. Beck, B. P. McNamara, L. J. Edberg and J. H. Wills .....	385
<b>XLII. Excretion of Succinylcholine in Urine of Cat and Mouse.</b> Stata Norton and E. J. de Beer .....	392
<b>XLIII. The Effect of Levarterenol (L-Norepinephrine) on Hepatic Blood Flow in the Normal, Anesthetized Dog.</b> Cheves McC. Smythe, Joseph P. Gilmore and Stanley W. Handford .....	398
<b>XLIV. Anticonvulsant Properties of 5,5-Diphenyl-Tetrahydroglyoxaline-4-one (SKF No. 2599).</b> L. S. Goodman, E. A. Swinyard, W. C. Brown and D. O. Schiffman .....	403
<b>XLV. The Relationship of the Sugar Moieties of the Cardiac Glycosides to Their Toxicity on the Intact Embryonic Chick Heart.</b> Alexander C. Keyl and Carl A. Dragstedt .....	411
<b>XLVI. The Pharmacological Actions of Andromedotoxin, an Active Principle from Rhododendron Maximum.</b> Neil C. Moran, Peter E. Dresel, Marjorie E. Perkins and Arthur P. Richardson .....	415
<b>XLVII. The Influence of pH on the Ionization and Biological Activity of d-Tubocurarine.</b> Werner Kalow .....	433
<b>XLVIII. The Lack of Effect of Codeine Phosphate and Dihydrocodeinone Bitartrate upon the Volume Output, Specific Gravity, Relative Viscosity and Chloride Content of Respiratory Tract Fluid.</b> Eldon M. Boyd and Irene E. Millar .....	443
<b>XLIX. The Inhibiting Effect of Epinephrine and Norepinephrine on Secretion Induced by Histamine in Separated Pouches of Dogs.</b> Andrew P. M. Forrest and Charles F. Code .....	447
<b>L. The Physiologic Disposition of Phenylindanedione in Man.</b> Arthur R. Schulert and Murray Weiner .....	451
<b>LI. Xenon Concentration Changes in Brain and Other Body Tissues of the Dog During Inhalation of the Gas.</b> C. B. Pittinger, R. M. Featherstone, E. G. Gross, E. E. Stickley and L. Levy .....	458
<b>LII. Oral and Intravenous Adrenolytic Activity of a Number of N-Benzyl-N-Phenoxyethyl and N-Benzyl-N-Phenoxyisopropyl-<math>\beta</math>-Chlorethylamines.</b> E. J. Fellows, R. A. McLean, E. Macko, J. F. Kerwin, G. C. Hall, F. J. Milnes, I. H. Witt and G. E. Ulyot .....	463
<b>LIII. Index .....</b>	471