

## CONTENTS

### NUMBER 1, JANUARY, 1956

I. Abstracts of Papers, Iowa City Meeting.....	1
II. Metabolism of Pentaquine in the Rhesus Monkey. Carl C. Smith.....	67
III. The Distribution and Fate of Morphine in the Non-Tolerant and Tolerant Monkey. L. B. Mellett and L. A. Woods.....	77
IV. Serotonin as a Mediator of Reserpine Action in Brain. Alfred Pletscher, Parkhurst A. Shore and Bernard B. Brodie.....	84
V. Autonomic Postganglionic Innervation of the Nictitating Membrane of the Cat. Peter Cervoni, Theodore C. West and Lewis D. Fink.....	90
VI. Effect of Adrenalectomy and Replacement with Adrenocortical Steroids on Barbital Anesthesia in Mice. Atsushi Komiya and Katsuhiko Shibata..	98
VII. Effects of Variations in Stimulus Intensity on Maximal Electroshock Seizure Pattern, Recovery Time, and Anticonvulsant Potency of Pheno- barbital in Mice. David H. Tedeschi, Ewart A. Swinyard and Louis S. Goodman.....	107
VIII. The Effect of Acetylcholine on the Cholinesterases of Chick Embryo Intes- tine Cultured <i>In Vitro</i> . Marion Jones, R. M. Featherstone and S. L. Bonting.....	114
IX. Observations on the Effect of Chemical Configuration on the Edema-Pro- ducing Potency of Acids, Aldehydes, Ketones and Alcohols. P. S. Larson, J. K. Finnegan and H. B. Haag.....	119
X. The Anti-Emetic Activity of Alkaloids of <i>Rauwolfia Serpentina</i> . C. L. Malhotra and R. K. Sidhu.....	123

### NUMBER 2, FEBRUARY, 1956

XI. The Pharmacology of Spermine and Spermidine. Distribution and Excre- tion. Sanford M. Rosenthal and Celia W. Tabor.....	131
XII. Pharmacology of Spermine and Spermidine. Some Effects on Animals and Bacteria. Celia W. Tabor and Sanford M. Rosenthal.....	139
XIII. Cardiac Arrhythmias Induced by Tolazoline (Priscoline). Bert K. B. Lum and Mark Nickerson.....	156
XIV. Methylserotonins as Potent Antimetabolites of Serotonin Active Both <i>In Vitro</i> and <i>In Vivo</i> . E. N. Shaw and D. W. Woolley.....	164
XV. The Cholinolytic Action of Substituted Dialkylaminoalkanes and Di- alkylaminoalkanols. A. M. Lands and F. P. Luduena.....	177
XVI. The Chemoceptor Stimulant Action of Serotonin in Dogs. J. W. McCubbin, J. H. Green, G. C. Salmoiraghi and I. H. Page.....	191
XVII. Effects of Scopolamine and Atropine on Electroencephalographic and Be- havioral Reactions due to Hypothalamic Stimulation. V. G. Longo....	198
XVIII. Effect of Repeated Exposures of GB Vapor on Erythrocyte and Brain Cho- linesterases in Rats. B. Stanley Cohen, Fred W. Oberst, James W. Crook and Charles Harris.....	209
XIX. Regeneration of Erythrocyte and Brain Cholinesterase Activity in Rats after Sublethal Exposures to GB Vapor. Fred W. Oberst and Milton K. Christensen.....	216
XX. Adaptation to Constant Concentrations of Acetylcholine. William A. Krivoy and J. H. Wills.....	220
XXI. The Neurotoxicity and Anticholinesterase Properties of Some Substituted Phenyl Phosphates. Charles H. Hine, Mary K. Dunlap, Evelyn G. Rice, Margarita M. Coursey, Richard M. Gross and Hamilton H. Anderson..	227

XXII. The Renal Vascular Response to Vasodepressor Sympathomimetics. Merrill P. Spencer . . . . .	237
XXIII. Changes in Transport Cholinesterase Levels and Responses to Intravenously Administered Acetylcholine and Benzoylcholine. Alexander G. Karczmar and Theodore Koppányi . . . . .	245
NUMBER 3, MARCH, 1956	
XXIV. The Role of Acetylcholine in Hydrocarbon-Epinephrine Arrhythmias. Joseph R. DiPalma . . . . .	255
XXV. Effect of Reserpine on the Hypothalamic Pressor Response. Frank Harrison and Andres Goth . . . . .	262
XXVI. The Evaluation of Two Halogenated Sulfolanes and Pentylene-tetrazol as Antagonists to Pentobarbital. Lawrence C. Weaver, William M. Alexander, Benedict E. Abreu and George R. Burch . . . . .	268
XXVII. The Effect of Drugs Injected into Limited Portions of the Cerebral Circulation. Eugene R. Jolly and John E. Steinhaus . . . . .	273
XXVIII. Abolition of Epinephrine Inactivating Properties of Liver by Inhibitors of Monoamine Oxidase. E. C. Griesemer and J. A. Wells . . . . .	282
XXIX. Studies on the Renal Tubular Transport of Tetraethylammonium Ion in the Dog. B. Rennick and A. Farah . . . . .	287
XXX. Ammonia Cough Elicited Through a Tracheal Side Tube in Unanesthetized Dogs. Comparative Antitussive Bioassay of Four Morphine Derivatives and Methadone in Terms of Ammonia Thresholds. C. E. Rosiere, C. V. Winder and J. Wax . . . . .	296
XXXI. Methitural, a New Intravenous Anesthetic: Comparison with Thiopental in the Cat, Dog and Monkey. Samuel Irwin, Richard D. Stagg, Ethel Dunbar and William M. Govier . . . . .	317
XXXII. The Metabolic Hydroxylation of Phenobarbital. Thomas C. Butler . . . . .	326
XXXIII. Central Depressant and Anticonvulsant Activity of Compounds Isomeric with 2-Methyl-2- <i>n</i> -Propyl-1,3-Propanediol Dicarbamate (Miltown). F. M. Berger, C. D. Hendley, B. J. Ludwig and T. E. Lynes . . . . .	337
XXXIV. A Comparison of the Relative Toxic, Emetic and Convulsive Actions of a Series of Methylated Xanthine Derivatives. J. D. McColl, J. M. Parker and J. K. W. Ferguson . . . . .	343
XXXV. Plasma Concentrations of Epinephrine and Arterenol Following the Actions of Various Agents on the Adrenals. E. F. Woods, J. A. Richardson, A. K. Richardson and R. F. Bozeman, Jr. . . . .	351
XXXVI. Observations on the Histaminolytic Activity of Dog Thoracic Duct Lymph. R. M. Gesler, Michio Matsuba and Carl A. Dragstedt . . . . .	356
XXXVII. The Production of Poikilothermia in Mice by Oxazole Quaternary Salts. C. C. Lushbaugh, F. Newton Hayes, W. H. Langham, Donald G. Ott and Phyllis Sanders . . . . .	366
NUMBER 4, APRIL, 1956	
XXXVIII. Pharmacologic Actions of Ethyl-Methyl-Isooctenyl Amine (EMOA), a New Parasympathetic Ganglionic Blocking Agent. E. G. Pardo, I. Méndez, R. Vargas, J. Cato and J. Laguna . . . . .	377
XXXIX. The Effect of Certain Biphenyl Compounds on the Metabolism of Two Strains of Mycobacteria. Frederick Bernheim and William E. DeTurk . . . . .	387
XL. Observations on the Toxicity of a New Urographic Contrast Medium, Sodium 3,5-Diacetamido-2,4,6-Triiodobenzoate (Hypaque Sodium) and Related Compounds. James O. Hoppe, A. A. Larsen and F. Coulston . . . . .	394
XLI. Differential Action of Anesthetics and Interneuron Depressants upon EEG Arousal and Recruitment Responses. Ellen Eva King . . . . .	404

CONTENTS

v

XLII. The Interaction Between Cholinesterases and a Series of Local Anesthetics. W. Kalow and M. O. Maykut.....	418
XLIII. The Effect of Epinephrine, Levarterenol, and dl-Isoproterenol on Transmission in the Superior Cervical Ganglion of the Cat. Richard John Matthews, Jr.....	433
XLIV. Synthetic Esters of Dimethylaminoethanol Exhibiting Positive Inotropic Cardiac Activity. Frederick C. Uhle, Betty A. Mitman and Otto Kraye..	444
✓ XLV. Tolerance to the Pyretogenic Effects of Lysergic Acid Diethylamide. John H. Gogerty and James M. Dille.....	450
XLVI. The Use of Serial Carotid Occlusion, Nictitating Membrane and Cross-Circulation Technics in the Investigation of the Central Hypotensive Activity of Ganglionic Blocking Agents. Harlan E. Lape and James O. Hoppe.....	453
XLVII. Observations on the Ganglionic Blocking Properties of a Series of Bis-Quaternary Tropane Derivatives. Harlan E. Lape, Dorothy J. Fort and James O. Hoppe.....	462
XLVIII. The Effect of Ethanol on Cerebral Cortex Metabolism <i>In Vitro</i> . V. C. Sutherland, C. H. Hine and T. N. Burbridge.....	469
✓ XLIX. On the Mechanism of Drug Potentiation by Iproniazid (2-Isopropyl-1-Isonicotinyl Hydrazine). J. R. Fouts and Bernard B. Brodie.....	480
L. The Rate of Disappearance of Thiopental from the Plasma in the Dog and in Man. Irvin C. Plough, Sheldon S. Waldstein, Timothy G. Barila and Leo R. Goldbaum.....	486
I.I. Index.....	490