

CONTENTS OF VOLUME 153

No. 1, JULY 1966

Antagonism of Lobeline by Ganglion-Blocking Agents at Afferent Nerve Endings. I. S. SUWANDI AND J. A. BEVAN.....	1
The Physiologic Disposition of H ³ -Histamine in the Rat Brain. SOLOMON H. SYNDER, JACQUES GLOWINSKI AND JULIUS AXELROD.....	8
Distribution of Metanephrine and Normetanephrine in Various Animals and Their Analysis in Diverse Biologic Material. A. H. ANTON AND D. F. SAYRE.....	15
Regional Studies of Catecholamines in the Rat Brain. IV. Effects of Drugs on the Disposition and Metabolism of H ³ -Norepinephrine and H ³ -Dopamine. JACQUES GLOWINSKI, JULIUS AXELROD AND LESLIE L. IVERSON.....	30
Submicroscopic Localization of Norepinephrine in Sympathetic Nerves of Rat Pineal. WILLIAM BONDAREFF AND BRUCE GORDON.....	42
Effect of Sympathetic Denervation on the <i>Alpha</i> Receptors of the Cat Nictitating Membrane. D. R. VARMA.....	48
The Blockade of the Pressor Response to Tyramine by Amphetamine in the Reserpine-Treated Dog. JOHN NELSON EBLE AND ALLAN D. RUDZIK.....	62
A Relatively Nonspecific Supersensitivity in Aortic Strips Resulting from Pretreatment with Reserpine. PATRICIA M. HUDGINS AND WILLIAM W. FLEMING.....	70
The Effects of Norepinephrine Isomers on Various Supersensitivities of the Cat Nictitating Membrane. R. J. SEIDHAMEL, P. N. PATIL, A. TYE AND J. B. LAPIDUS..	81
Theophylline as a Tool in Studies of the Role of Cyclic Adenosine 3',5'-Monophosphate in Hormone-Induced Lipolysis. S. HYNIE, G. KRISHNA AND B. B. BRODIE.....	90
Effect of Iproniazid Phosphate on the Intermediary Metabolism of Glucose by the Rabbit Heart. KENNETH F. TEMPERO AND GERALD A. KIEN.....	97
The Influence of Ouabain on Cholinergic Responses in the Sinoatrial Node. NOBORU TODA AND THEODORE C. WEST.....	104
Effects of the Cardiac Glycosides on the Ca ⁺⁺ Uptake of Cardiac Sarcoplasmic Reticulum. KWANG SOO LEE AND SIN JYOUNG CHOI.....	114
Effect of Ethanol on Plasma Corticosterone Levels. FRED W. ELLIS.....	121
Pharmacologic Definition of Neuronal Components Generating Spontaneous and Evoked Potentials in the Tectum of the Chick: Effect of γ -Hydroxybutyrate. NORMAN W. SCHOLES.....	128
Pharmacologic Studies on Analgesics—VII. Significance of the Calcium Ion in Morphine Analgesia. TAKEO KAKUNAGA, HIROSHI KANETO AND KOTOBUKI HANO....	134
The Renal Excretion of Ethylenediaminetetraacetate in the Dog. MARVIN FORLAND, THEODORE N. PULLMAN, A. R. LAVENDER AND IMPI AHO.....	142
Renal Sites of Action of Ethacrynic Acid. ROBERT Z. GUSSIN AND EDWARD J. CAFRUNY.....	148
Comparative Pharmacokinetics of Salicylate Elimination in Man and Rats. EINO NELSON, MANABU HANANO AND GERHARD LEVY.....	159
Binding of Sulfonamides to Serum Proteins: Physicochemical and Immunochemical Studies. JØRGEN CLAUSEN.....	167

No. 2, AUGUST 1966

Application of Steady State Kinetics to the Synthesis Rate and Turnover Time of Serotonin in the Brain of Normal and Reserpine-Treated Rats. THOMAS N. TOZER, NORTON H. NEFF AND BERNARD B. BRODIE.....	177
The Metabolism of Tyramine in Rabbits. L. LEMBERGER, A. KLUTCH AND R. KUNTZ-MAN.....	183
Factors Influencing the Depletion of Cardiac Norepinephrine by Tyramine. B. BHAGAT AND J. GILLIAM, JR.....	191
Chronotropic Action of Amino Acids. LIBI SHERF AND THOMAS N. JAMES.....	197
Normal and Arrhythmic Beating in Isolated Cultured Heart Cells and the Effects of	

iii

This One



9JYS-RZL-NEZO

Digoxin, Quinidine and Procaine Amide. EDWARD N. MERCER AND GORDON E. DOWER	203
Interaction of Pronethalol and Ouabain on Cardiac Rhythm and Automaticity. RONALD R. TUTTLE AND I. R. INNES	211
Potentialiation of the Cardiac and Pressor Responses to Electrical Stimulation of the Cardiac Sympathetic Nerves by Cocaine in Open-Chest Dogs. JOANNE I. MOORE..	218
Effects of the Insecticide Endrin on the Cardiovascular System of the Dog. LERNER B. HINSHAW, LURA A. SOLOMON, DALE A. REINS, VINCENT FIORICA AND THOMAS E. EMERSON	225
Studies on the Absorption, Distribution and Excretion of Indomethacin in Various Species. H. B. HUCKER, A. G. ZACCHEI, S. V. COX, D. A. BRODIE AND N. H. R. CANTWELL	237
The Effect of Phenobarbital Administration on the Control of Coagulation Achieved during Warfarin Therapy in Man. DONALD S. ROBINSON AND MURDO G. MACDONALD	250
Metabolism of Pentaerythritol Tetranitrate by Patients with Coronary Artery Disease. FREDERICK J. DICARLO, MALCOLM C. CREW, NANCY J. SKLOW, CLAUDE B. COUTINHO, PAUL NONKIN, FRANKLIN SIMON AND ARTHUR BERNSTEIN	254
On the Pharmacology of 2-(1-Piperazinyl)Quinoline. E. HONG AND E. G. PARDO	259
Observations on the Selectivity of Stimulant Action of 4-(<i>m</i> -Chlorophenylcarbamoyloxy)-2-Butynyltrimethylammonium Chloride on Sympathetic Ganglia. JAMES C. SMITH	266
Pharmacologic Interactions with 4-(<i>m</i> -Chlorophenylcarbamoyloxy)-2-Butynyltrimethylammonium Chloride, a Sympathetic Ganglion Stimulant. JAMES C. SMITH	276
Effects of Ganglion- and Parasympathetic-Blocking Drugs upon the Pressor Response Elicited by Elevation of the Intracranial Fluid Pressure. JAMES G. HILTON AND MARSHALL STEINBERG	285
Gastric Antisecretory and Other Pharmacologic Studies of 3-Methylamino-2,1-Benzisothiazole. PAUL BASS, R. A. PURDON AND M. A. PATTERSON	292
Fluorometric Assay of Quindonium Bromide and Identification of a Glucuronide as the Major Metabolite. BERNARD DUBNICK, D. FAY MORGAN, CAROL A. TOWNE AND GEORGE E. PHILLIPS	301
Quindonium and Its Glucuronide: Tissue Distribution in Normal and Stressed Mice and Metabolic Interactions Involving Biogenic Amines and Glycogen. BERNARD DUBNICK, CAROL A. TOWNE, D. FAY MORGAN AND GEORGE E. PHILLIPS	307
Inhibition of Toad Bladder and Rat Uterus Responses to Oxytocin and Other Agents by Toad Bladder Extracts. NORBERT I. A. OVERWEG	314
Ouabain-Induced Changes in Sodium and Potassium Content and Respiration of Cerebral Cortex Slices: Dependence on Medium Calcium Concentration and Effects of Protamine. P. D. SWANSON AND K. ULLIS	321
Renal Effects of Exogenous Adenosine Derivatives in the Chicken. BOHDAN R. NECHAY	329
Anticonvulsant Activity of Steroids: Separability of Anticonvulsant from Hormonal Effects. CHARLES R. CRAIG	337
Effect of Diazepam and Other Central Nervous System Depressants on Spinal Reflexes in Cats: A Study of Site of Action. S. H. NGAI, DOROTHY T. C. TSENG AND S. C. WANG	344
The Effects of 5-Hydroxytryptophan and <i>l</i> -Tryptophan on Spinal Synaptic Activity. EDMUND G. ANDERSON AND TAKESHI SHIBUYA	352
Pre- and Postjunctional Effects of Diphenylhydantoin at the Cat Soleus Neuromuscular Junction. ARTHUR RAINES AND FRANK G. STANDAERT	361
Curare-Like Activity of Polybutylene Adducts. LESLIE P. McCARTY AND MAYNARD B. CHENOWETH	367
Mycobacterial Adjuvant Periarthritis in Rodents and Its Modification by Antiinflammatory Agents. M. L. GRAEME, E. FABRY AND E. B. SIGG	373
Effect of Oxygen on Cyanide Intoxication. I. Prophylactic Protection. JAMES L. WAY, STANLEY L. GIBBON AND MAUREEN SHEEHY	381

CONTENTS

v

No. 3, SEPTEMBER 1966

Anticonvulsant and Convulsant Effects of Chemically Related Thiosemicarbazide, Thiourea and Urea Derivatives. KEICA NISHIE, MARLYS WEARY AND ARTHUR BERGER.....	387
Time Course of Altered Sensitivity to Flurothyl Following Cortical Ablations in Rats. MARTIN W. ADLER.....	396
The Effects of Reserpine on Behavior and on Brain Concentrations of Serotonin and Norepinephrine in Control Rats and Rats with Hypothalamic Lesions. FRANK GRABARITS AND JOHN A. HARVEY.....	401
Alterations in Behavior and Brain Catecholamine Levels in Rats Treated with α -Methyltyrosine. R. H. RECH, H. K. BORYS AND K. E. MOORE.....	412
Responses of Spinal Cord Interneurons to Acetylcholine, Norepinephrine and Serotonin Administered by Microelectrophoresis. F. F. WEIGHT AND G. C. SALMOIRAGHI.....	420
Sensitivities of the Brains of Infant and Adult Rats to the Catecholamine-Depleting Actions of Reserpine and Tetrabenazine. A. S. KULKARNI AND F. E. SHIDEMAN.....	428
Retention of Exogenous Norepinephrine and Recovery of the Responses to Tyramine and 1,1-Dimethyl-4-Phenylpiperazinium Iodide after Reserpine. B. BHAGAT, I. C. BHATTACHARYA AND N. S. DHALLA.....	434
Increased Synthesis of Norepinephrine and Epinephrine in the Intact Rat during Exercise and Exposure to Cold. ROBERT GORDON, SYDNEY SPECTOR, ALBERT SJOERDSMA AND SIDNEY UDENFRIEND.....	440
Subcellular Sites of the Catecholamine-Depleting Action of Reserpine in the Heart. H. A. CAMPOS, R. E. STITZEL AND F. E. SHIDEMAN.....	448
A Comparison of the Effect of Hemorrhage and Infused Catecholamines on Ventricular Performance, Coronary Flow and Myocardial Oxygen Consumption. R. GRIER MONROE, W. J. GAMBLE, C. G. LA FARGE, S. R. AGUILAR AND A. GOLDBLATT.....	455
The Relationships between Electrical and Mechanical Events in Rabbit Aortic Strips. S. SHIBATA AND A. H. BRIGGS.....	466
Combined Positive Inotropic Interaction of Quinonium and Ouabain. MARTIN M. WINBURY AND BURTON B. HOWE.....	471
The Effect of Pronethalol and Propranolol on Lipid-Facilitated Transport of Calcium Ions. WINIFRED G. NAYLER.....	479
Centrally Mediated Cardiovascular Effects of Angiotensin II. HAROLD H. SMOOKLER, WALTER B. SEVERS, WILLIAM J. KINNARD AND JOSEPH P. BUCKLEY.....	485
Effects of Anesthetics on Circulatory Regulatory Mechanisms in the Dog. S. H. NGAI AND PER BOLME.....	495
Influence of Anesthetics and of Arterial Blood Pressure on the Functional Refractory Period of Atrioventricular Conduction. J. D. KOHLI, RONALD R. TUTTLE, PETER E. DRESEL AND I. R. INNES.....	505
Actions of 5-(1,3-Dimethylbutyl)-5-Ethyl Barbituric Acid, Pentobarbital, Amobarbital and Thiopental on the Sino-Atrial Nodal Activity of the Isolated Heart. HANSJÜRIG SCHAER.....	511
Quinidine-Induced Tachycardia in Dogs with Bundle Branch Block. ELTON L. McCAWLEY, H. LENOX H. DICK, MELVIN M. REEVES AND ANDREW N. URBANC.....	515
Interactions of Bretylium and Acetylcholine at Sympathetic Nerve Endings. JOSEF E. FISCHER, VIRGINIA K. WEISE AND IRWIN J. KOPIN.....	523
Interrelationship Between Angiotensin II and the Sympathetic Nervous System. WALTER B. SEVERS, ANNE E. DANIELS, HAROLD H. SMOOKLER, WILLIAM J. KINNARD AND JOSEPH P. BUCKLEY.....	530
Specificity of Antihistamine Drugs and Involvement of the Adrenergic System in Histamine Deaths in the Guinea Pig. P. M. LISH, S. I. ROBBINS AND E. L. PETERS.....	538
A Sensitive and Specific Enzymatic Isotopic Assay for Tissue Histamine. SOLOMON H. SNYDER, ROSS J. BALDESSARINI AND JULIUS AXELROD.....	544
The Diuretic Effects of Cyclophosphamide and Nor-Nitrogen Mustard: Relationship to Antidiuretic Hormone. MORRIS S. ZEDECK, L. B. MELLETT AND EDWARD J. CAFRUNY.....	550
Effect of Hydrazine on Liver Glycogen, Arterial Glucose, Lactate, Pyruvate and Acid-Base Balance in the Anesthetized Dog. SIDNEY R. FORTNEY.....	562

Effects of Theophylline and Catecholamines on Lipolysis and Glycogenolysis <i>in Vivo</i> . L. TRINER AND G. G. NAHAS.....	569
A Flexible Computer Program for the Composite Analysis of Symmetrical and Asymmetrical Biologic Assays of Parallel-Line Type. J. W. MCARTHUR, H. ULFELDER AND D. J. FINNEY.....	573
Index, Volume 153, July-September 1966.....	581