

CONTENTS OF VOLUME 178

No. 1, JULY 1971

Adenyl Cyclase in Human Leukocytes: Evidence for Activation by Separate <i>Beta</i> Adrenergic and Prostaglandin Receptors. HENRY R. BOURNE AND KENNETH L. MELMON.....	1
The Fate of Intracisternally Administered Norepinephrine- ³ H in the Brain and Spinal Cord of the Rabbit. J. P. CHALMERS AND R. J. WURTMAN.....	8
Studies on the Relationship between 5-Hydroxytryptamine Turnover in Brain and Tolerance and Physical Dependence in Mice. YUJI MARUYAMA, GORO HAYASHI, STEPHEN E. SMITS AND A. E. TAKEMORI.....	20
Ultrastructural Cytochemistry and Pharmacology of 5-Hydroxytryptamine in Adrenergic Nerve Endings. II. Accumulation of 5-Hydroxytryptamine in Nerve Vesicles Containing Norepinephrine in Rat Vas Deferens. LUIS MARÍA ZIEHER AND GUILLERMO JAIM-ETCHEVERRY.....	30
Ultrastructural Cytochemistry and Pharmacology of 5-Hydroxytryptamine in Adrenergic Nerve Endings. III. Selective Increase of Norepinephrine in the Rat Pineal Gland Consecutive to Depletion of Neuronal 5-Hydroxytryptamine. GUILLERMO JAIM-ETCHEVERRY AND LUIS MARÍA ZIEHER.....	42
Early Pre- and Postjunctional Effects of 6-Hydroxydopamine. G. HAEUSLER.....	49
Studies on the Intestinal Relaxation Produced by Dopamine. RICHARD D. HEILMAN AND BERT K. B. LUM.....	63
Autonomic Receptor Mechanisms in Embryonic Chick Myocardial Cell Cultures. ROBERT J. ERTTEL, DAVID E. CLARKE, JEAN C. CHAO AND FREDERICK R. FRANKE.....	73
Electrophysiologic Effects of Lidocaine on Isolated Canine and Rabbit Atrial Tissue. WILLIAM J. MANDEL AND J. THOMAS BIGGER, JR.....	81
Characteristics and Mechanism of Inotropic and Chronotropic Actions of Bretylium Tosylate. JOHN E. MARKIS AND JAN KOCH-WESER.....	94
Cardiovascular Actions of Saxitoxin. J. NAGASAWA, M. Y. SPIEGELSTEIN AND C. Y. KAO.....	103
Vasodilatory Effects of Tetrodotoxin in the Cat. C. Y. KAO, J. NAGASAWA, M. Y. SPIEGELSTEIN AND Y. N. CHA.....	110
Betahistine, Its Metabolites and Vascular Responses in the Forelimb of the Dog. HERIBERT KONZETT, ROBERT G. BOST, FAYE J. BOWMAN, EDWARD R. BOWMAN AND HERBERT MCKENNIS, JR.....	122
The Effect of Tolbutamide on Blood Pressure. JOHN K. WALES, ALISON M. GRANT AND FREDERICK W. WOLFF.....	130
Effects of Prolonged Administration of Vasopressin on Plasma Sodium and on Renal Excretion of Electrolytes and Water. W. Y. CHAN.....	141
Protective Effect of Ascorbic Acid, Isoascorbic Acid and Mannitol against Tetracycline-Induced Nephrotoxicity. ROMAN B. POLEC, SAMUEL D. J. YEH AND MAURICE E. SHILS.....	152
Excretion and Distribution of Iophenoxic Acid. GILBERT H. MUDGE, GORDON J. STREWLER, JR., NORMAN DESBIENS, WILLIAM O. BERNDT AND DENIS N. WADE.....	159
Metabolism of Iophenoxic Acid in the Dog. DENIS N. WADE, NORMAN DESBIENS, GORDON J. STREWLER, JR., WILLIAM O. BERNDT AND GILBERT H. MUDGE.....	173
On the Mechanisms of ¹⁴ C-Nicotine Distribution in Rat Submaxillary Gland <i>in Vitro</i> . JAMES W. PUTNEY, JR. AND JOSEPH F. BORZELLECA.....	180
Antinicotinic Action of Benzyltrimethylammonium Bromide (BTM). KENNETH DRETCHEN, M. D. SOKOLL AND J. P. LONG.....	192
Comparison of Pyrazole and 4-Bromopyrazole as Inhibitors of Alcohol Dehydrogenases: Their Potency, Toxicity and Duration of Action in Mice. DORA B. GOLDSTEIN AND NANDITA PAL.....	199
Diazepam Competes for Thyroxine Binding Sites. GEORGE C. SCHUSSLER.....	204
Adenine-, Guanine- and Uridine-5'-Phosphonucleotides in Blood Platelets and Storage Organelles of Various Species. U. GOETZ, M. DA PRADA AND A. PLETSCHER.....	210

The Possible Relationship between Metabolism and Cardiac Toxicity of Daunomycin and Related Compounds. R. MHATRE, E. HERMAN, A. HUIDOBRO AND V. WARAVDEKAR.	216
Adjuvant-Induced Arthritis in Rats. II. Drug Effects on Physiologic, Biochemical and Immunologic Parameters. D. T. WALZ, M. J. DiMARTINO AND A. MISHNER.	223
The Effects of Morphine, Pentobarbitol and Chlorpromazine on Bioelectrical Potentials Evoked in the Brain Stem of the Cat by Electrical Stimulation of the Gingiva and Tooth Pulp. JAMES NAKAMURA AND C. L. MITCHELL.	232
Effects of <i>l</i> - Δ^9 - and <i>l</i> - Δ^8 - <i>trans</i> -Tetrahydrocannabinol and Cannabinol on Schedule-Controlled Behavior of Pigeons and Rats. J. M. FRANKENHEIM, D. E. McMILLAN AND L. S. HARRIS.	241

No. 2, AUGUST 1971

Quantitative Determination of Morphine in Serum by Radioimmunoassay. SYDNEY SPECTOR.	253
The Effect of Ouabain on the Washout and Uptake of Calcium in the Isolated Cat Heart. LESLIE E. BAILEY AND HAROLD A. SURES.	259
The Effect of Acute Hypokalemia on the Myocardial Concentration and Body Distribution of Tritiated Digoxin in the Dog. FRANK I. MARCUS, LANA NIMMO, GEETA G. KAPADIA AND CARL GOLDSMITH.	271
Zinc and Smooth Muscle Contractility. I. Study of the Mechanisms of Zinc-Induced Contractility Changes in Rat Uteri. E. E. DANIEL, SYLVIA FAIR, A. M. KIDWAI AND I. POLACEK.	282
Zinc and Smooth Muscle Contractility. II. Zinc Content and Accumulation in Rat Uterus and Their Relation to Contractility Changes from Zinc and Ouabain. E. E. DANIEL, SYLVIA FAIR AND A. M. KIDWAI.	290
The Activation of Glycogen Phosphorylase in Arterial Smooth Muscle. DONALD H. NANN.	299
Synthesis and Uptake of 5-Hydroxytryptamine by the Myenteric Plexus of the Guinea-Pig Ileum: A Histochemical Study. ROBERT G. ROBINSON AND MICHAEL D. GERSEON.	311
Stimulation of Serotonin Synthesis by Lithium. JORGE PEREZ-CRUET, ALESSANDRO TAGLIAMONTE, PAOLA TAGLIAMONTE AND GIAN L. GESSA.	325
The Pharmacology of <i>d</i> - and <i>l</i> -Carnitine and <i>d</i> - and <i>l</i> -Acetylcarnitine: Comparison with Choline and Acetylcholine. K. BLUM, E. SEIFTER AND J. SEIFTER.	331
Depolarizing Neuromuscular Block. ANIBAL GALINDO.	339
Locus of Action of Centrally Acting Muscle Relaxants, Diazepam and Tybamate. TSUI-CHIN TSENG AND S. C. WANG.	350
Regulation of Hepatic Cholesterol Biosynthesis by Clofibrate Administration. LAWRENCE W. WHITE.	361
<i>In Vitro</i> Metabolism of the N-Methylcarbamates, Zectran and Mesurol, by Liver, Kidney and Blood of Dogs and Rats. LARRY WHEELER AND ALLEN STROTHER.	371
Effects of Carbon Tetrachloride on the Metabolism of Liver Glycogen in the Rat. R. S. HICKENBOTTOM AND K. R. HORN BROOK.	383
The Effect of Chlorpromazine on the Toxicity and Biotransformation of Parathion in Mice. R. A. VUKOVICH, A. J. TRIOLO AND J. M. COON.	395
The Antischistosomal Activity of a Nitrovinylfuran Derivative (SQ 18,506) in Mice and Hamsters. ERNEST BUEDING, CÉSAR NÁQUIRA, SYLVELIN BOUWMAN AND GERALDINE ROSE.	402
Antischistosomal Activity of a Nitrovinylfuran Derivative (SQ 18,506) in Rhesus Monkeys. D.G. ERICKSON, J. G. BOURGEOIS, E. H. SADUN AND E. BUEDING.	411

No. 3, SEPTEMBER 1971

Effects of 6-Hydroxydopamine on the Activity of Tyrosine Hydroxylase and Dopamine- β -Hydroxylase in Sympathetic Ganglia of the Rat. STEPHEN BRIMIJOIN AND PERRY B. MOLINOFF.	417
A Sensitive Enzymatic Assay for Dopamine- β -Hydroxylase. PERRY B. MOLINOFF, RICHARD WEINSHILBOUM AND JULIUS AXELROD.	425

Chemical and Histochemical Studies on the Sympathetic Innervation of the Vas Deferens and Seminal Vesicle of the Guinea Pig. ARUN R. WAKADE AND S. M. KIRPEKAR.....	432
Acceleration of Catecholamine Formation in the Guinea-Pig Vas Deferens after Hypogastric Nerve Stimulation: Roles of Tyrosine Hydroxylase and New Protein Synthesis. NGUYEN B. THOA, DAVID G. JOHNSON, IRWIN J. KOPIN AND NORMAN WEINER.....	442
Effects of Electrical Stimulation, α -Methyltyrosine and Desmethylimipramine on the Norepinephrine Contents of Neuronal Cell Bodies and Terminals. R. K. BHATNAGAR AND K. E. MOORE.....	450
The Effect of Tyramine, Amphetamine and Metaraminol on the Metabolic Disposition of 3 H-Norepinephrine Released from the Adrenergic Neuron. F. H. LEITZ AND F. J. E. STEFANO.....	464
Concerning the Molecular Requirements for the Inhibition of the Uptake of Racemic 3 H-Norepinephrine into Rat Cerebral Cortex Slices by Tricyclic Anti-depressants and Related Compounds. A. I. SALAMA, J. R. INSALACO AND R. A. MAXWELL....	474
An Evaluation of the Inability of Cocaine to Potentiate the Responses to Cardiac Sympathetic Nerve Stimulation in the Dog. ROBERT L. KOERKER AND NEIL C. MORAN..	482
Adrenergic Mechanisms in the Relaxation of Guinea-Pig <i>Taenia Coli in Vitro</i> . L. M. WEISENTHAL, C. C. HUG, JR., N. W. WEISBRODT AND P. BASS.....	497
Unique <i>Beta</i> Adrenergic Stimulation and Blockade by Quinterenol. LOUIS C. IORIO AND PETER F. MOORE.....	509
The Cardiovascular Pharmacology of L(-)-Dopa: Peripheral and Central Effects. MELVILLE W. OSBORNE, JAMES J. WENGER AND WILHELMINA WILLEMS.....	517
Molecular CO ₂ Is Inert on Carotid Chemoreceptor: Demonstration by Inhibition of Carbonic Anhydrase. DAVID M. TRAVIS.....	529
Bronchodilator Activity of the Prostaglandins E ₁ and E ₂ . MARVIN E. ROSENTHALE, ALPHONSE DERVINIS AND JACOB KASSARICH.....	541
Pulmonary Vascular Responses to Adenosine Diphosphate. A. L. HYMAN, W. C. WOOLVERTON, D. G. PENNINGTON AND W. E. JAQUES.....	549
The Route of Absorption of Intraperitoneally Administered Compounds. GEORGE LUKAS, SHIRLEY D. BRINDLE AND PAUL GREENGARD.....	562
Study of Dose-Dependent Metabolism of 5,5-Diphenylhydantoin in the Rat Using New Methodology for Isolation and Quantitation of Metabolites <i>in Vivo</i> and <i>in Vitro</i> . N. GERBER, W. L. WELLER, R. LYNN, R. E. RANGNO, B. J. SWEETMAN AND M. T. BUSH.....	567
Oxidative Drug Metabolism in Human Liver Microsomes. EDWARD B. NELSON, P. PRITHVI RAJ, KENDRA J. BELFI AND BETTIE SUE SILER MASTERS.....	580
Effect of Carbon Tetrachloride-Induced Liver Damage on Hepatic Transport of Ouabain in the Rat. RICHARD H. REUNING AND LEWIS S. SCHANKER.....	589
The Effect of Hemorrhage on the Rate of Hexobarbital Biotransformation in the Dog. JAMES F. CUMMING, HAROLD W. McCLUNG AND GILBERT J. MANNERING.....	595
The Interaction of Drugs with the Conjugation of Tetrahydrocortisone and a Method for the Measurement of the Formation of its Glucuronide, <i>in Vitro</i> . KENNETH W. MILLER AND JAMES V. DINGELL.....	602
Studies on the Acute Inflammatory Response. III. Glucocorticoids and Vitamin E (<i>in Vivo</i>) Attenuate Thermal Labilization of Isolated Hepatic Lysosomes. STANLEY H. POLLOCK AND JOHN H. BROWN.....	609
Action of Ouabain on Submaxillary Secretion in the Dog. J. RICARDO MARTÍNEZ.....	616
Tolerance to a Behavioral Effect of Lysergic Acid Diethylamide and Cross-Tolerance to Mescaline in the Rat: Absence of a Metabolic Component. J. C. WINTER.....	625
Twitch Potentiation, Contractures and Alterations in Calcium Fluxes Produced by Tetraalkylammonium Ions. EDWARD G. HENDERSON AND ROBERT L. VOLLE.....	631
Index, Volume 178, July-September 1971.....	649