

## CONTENTS OF VOLUME 182

No. 1, JULY 1972

Renal Tubular Transport of Choline: Modifications Caused by Intrarenal Metabolism. MARGARET ACARA AND BARBARA RENNICK.....	1
Renal Tubular Transport of Acetylcholine and Atropine: Enhancement and Inhibition. MARGARET ACARA AND BARBARA RENNICK.....	14
Effect of Ethacrynic Acid on Bile Formation in Sheep, Dogs, Rats, Guinea Pigs and Rabbits. HELEN SHAW, IVAN CAPLE AND TREVOR HEATH.....	27
The Pharmacology of the Antimalarial Drug 4,4'-Diformamidodiphenylsulfone (DFD) in Dog and Monkey. ARCH C. SONNTAG, VINCENT G. STENGER, BETTY P. VOGH AND THOMAS H. MAREN....	34
The Pharmacology of the Antimalarial Drug 4,4'-Diformamidodiphenylsulfone (DFD) in Man. ARCH C. SONNTAG, VINCENT G. STENGER AND THOMAS H. MAREN.....	48
Clearance and Metabolism of Organic Nitrates. EUGENE M. JOHNSON, JR., ANNE B. HARKEY, DELORES J. BLEHM AND PHILIP NEEDLEMAN.....	56
Daunomycin and Adriamycin Metabolism <i>via</i> Reductive Glycosidic Cleavage. M. A. ASBELL, E. SCHWARTZBACH, F. J. BULLOCK AND D. W. YESAIR.....	63
Identification of New Metabolites of Daunomycin and Adriamycin. F. J. BULLOCK, R. J. BRUNI AND M. A. ASBELL.....	70
Extracellular Toxic Reactions of Some Sulfur and Nitrogen Mustards. CHARLES E. WILLIAMSON, ARNOLD M. SELIGMAN AND BENJAMIN WITTEN.....	77
Propranolol Metabolism in Man and Dog: Mass Spectrometric Identification of Six New Metabolites. THOMAS WALLE AND THOMAS E. GAFFNEY.....	83
Sulfhydryl Requirement of <i>Alpha</i> Adrenergic Receptor Activity and Melanophore Stimulating Hormone (MSH) Action on Melanophores. JOEL M. GOLDMAN AND MAC E. HADLEY.....	93
Steric Aspects of Adrenergic Drugs. XIX. Influence of Various Factors on the Stereoselectivity of Pre- and Postjunctional Sites to Norepinephrine Isomers in Isolated Rat Vasa Deferentia. R. D. KRELL AND P. N. PATIL.....	101
Induction of Dopamine- $\beta$ -Hydroxylase and Tyrosine Hydroxylase in Rat Hearts and Sympathetic Ganglia. PERRY B. MOLINOFF, STEPHEN BRIMIJOIN AND JULIUS AXELROD.....	116
Effect on the Sympathetic Nervous System of Chronic Treatment with Pargyline and <i>l</i> -Dopa. MARGARITA PUIG, ARUN R. WAKADE AND S. M. KIRPEKAR.....	130
Contribution of the Central Nervous System to the Action of Several Antihypertensive Agents (Methyldopa, Hydralazine and Guanethidine). THOMAS BAUM, ALLEN T. SHROPSHIRE AND LARRY L. VARNER.....	135
2,5-Dimethoxy-4-Methylamphetamine (DOM), a Neuropharmacological Examination. MARSHALL B. WALLACH, EITAN FRIEDMAN AND SAMUEL GERSHON.....	145
Influence of <i>p</i> -Chlorophenylalanine on Morphine Tolerance and Physical Dependence and Regional Brain Serotonin Turnover Studies in Morphine Tolerant-Dependent Mice. I. K. HO, S. E. LU, S. STOLMAN, H. H. LOH AND E. LEONG WAY.....	155
The Uptake of Cardiac Glycosides by Rabbit and Rat Myometrium. R. V. MURTHY, A. M. KIDWAI AND E. E. DANIEL.....	166
Lysosome Membrane Stabilization <i>in Vivo</i> : Effects of Steroidal and Nonsteroidal Anti-Inflammatory Drugs on the Integrity of Rat Liver Lysosomes. LOUIS J. IGNARRO.....	179

No. 2, AUGUST 1972

Failure of an Opiate to Protect Mice against Naloxone-Precipitated Withdrawal. D. L. CHENEY, BARBARA A. JUDSON AND AVRAM GOLDSTEIN.....	189
Alcohol and Marihuana: A Comparison of Effects on a Temporally Controlled Operant in Humans. HOWARD CAPPELL, C. D. WEBSTER, BARBARA S. HERRING AND RONALD GINSBERG.....	195
Effects of Propranolol, Phentolamine and Methyl Atropine on Cardiovascular Function in the Squirrel Monkey during Behavioral Experiments. R. T. KELLEHER, W. H. MORSE AND J. ALAN HERD.....	204
Suppression by Clonidine (St-155) of Cardiac Arrhythmias Induced by Digitalis. RICHARD A. GILLIS, R. A. DIONNE AND FRANK G. STANDAERT.....	218

Effects of Exogenous and Immunologically Released Histamine on the Isolated Heart: A Quantitative Comparison. ROBERTO LEVI.....	227
Disposition of Histamine in Mammalian Blood Vessels. RICHARD D. HOWLAND AND SYDNEY SPECTOR.....	239
The Effects of Norepinephrine and Propranolol on Myocardial Subcellular Distribution of Triglycerides and Free Fatty Acids. T. N. MASTERS AND V. V. GLAVIANO.....	246
Selective <i>Beta</i> Adrenergic Receptor Blockade in the Rat. MARTIN A. WASSERMAN AND BERNARD LEVY.....	256
Contractile Response of Rat Aorta to Norepinephrine and Tyramine. V. S. R. KRISHNAMURTY AND ARTHUR GROLLMAN.....	264
Steric Aspects of Adrenergic Drugs. XX. Accumulation of (-)- and (+)-Norepinephrine- <sup>14</sup> C by Peripheral Tissues of the Rat. R. D. KRELL AND P. N. PATIL.....	273
Characteristics of Amphetamine-Induced Release of Norepinephrine from Rat Cerebral Cortex <i>in Vitro</i> . RONALD J. ZIANCE, ALBERT J. AZZARO AND CHARLES O. RUTLEDGE.....	284
Binding of Catecholamines to Human Serum Albumin. ABRAHAM DANON AND JOSEPH D. SAPIRA.....	295
A Comparison of the Action of Acetylcholine and Acetylcholine Mustard (Chloroethylmethylaminoethyl Acetate) on Muscarinic and Nicotinic Receptors. PATRICIA M. HUDGINS AND JAMES F. STUBBINS.....	303
A Sensitive Assay for the Hepatic N-Demethylation of Chlorethylazine <i>in Vitro</i> . MARTIN M. JACOBSON, IRENE TSAI, ALAN POLAND AND RONALD KUNTZMAN.....	312
<i>In Vitro</i> Inhibition of Drug Metabolism by Metabolites of Progesterone. LESTER F. SOYKA AND RONALD J. LONG.....	320
The Whole Body Distribution of Norethindrone, Ethynodiol Diacetate and Progesterone in the Pregnant Mouse. R. I. FREUDENTHAL, J. MARTIN AND M. E. WALL.....	328
Effect of an Oral Contraceptive on Spontaneous Running Activity, Salt Appetite and Blood Pressure of Ovariectomized Rats. MELVIN J. FREGLY.....	335
Inhibition of Sodium Urate-Induced Rat Hindpaw Edema by Colchicine Derivatives: Correlation with Antimitotic Activity. MARK H. ZWEIG, HARRIET M. MALING AND MARION E. WEBSTER.....	344
Cyclization of Three N- $\omega$ -Haloalkyl-N-Methylaminoaceto-2,6-Xylidide Derivatives in Relation to Their Local Anesthetic Effect <i>in Vitro</i> and <i>in Vivo</i> . SVANTE B. ROSS AND S. BENGT A. ÅKERMAN.....	351
Erratum.....	362

## No. 3, SEPTEMBER 1972

A Specific and Sensitive Enzymatic Assay for Tryptamine in Tissues. JUAN M. SAAVEDRA AND JULIUS AXELROD.....	363
Quantitative Studies of Glucose Release from Rabbit Liver Slices Induced by Catecholamines and Their Antagonism by Propranolol and Phentolamine. ELFA MÜHLBACHOVÁ, PETER S. CHAN AND SYDNEY ELLIS.....	370
Ouabain Antagonism of Smooth Muscle Contraction. JAMES D. GRIFFIN, ROBERT P. SZARO AND JOEL K. WELTMAN.....	378
Effects of Therapeutic and Toxic Doses of Ouabain on Automaticity in the Blood-Perfused Canine Papillary Muscle Preparation. KOROKU HASHIMOTO, TOMOHIKO KIMURA AND MASAO ENDOH.....	388
<i>In Vitro</i> Myocardial Effects of 4-(3,4-Dimethoxybenzyl)-2-Imidazolidinone (Ro 7-2956). ROBERT L. KLINE AND JOSEPH P. BUCKLEY.....	399
The Mechanism of Action of Nicotine on Adrenergic Neurons in the Perfused Guinea-Pig Heart. THOMAS C. WESTFALL AND MARY BRASTED.....	409
Uptake of Nicotine by the Sympathetic Nerve Terminals in the Blood Vessel. JOHN A. BEVAN AND CHE SU.....	419
Mechanisms of Dual Action of Nicotine on End-Plate Membranes. CHING M. WANG AND TOSHIO NARAHASHI.....	427
Mechanism of Negative Temperature Coefficient of Nerve Blocking Action of Allethrin. CHING M. WANG, TOSHIO NARAHASHI AND MARIA SCUKA.....	442
Feedback Control of Dopamine Synthesis in Dopaminergic Terminals of the Rat Striatum. FRANCE JAVOY, YVES AGID, DOMINIQUE BOUVET AND JACQUES GLOWINSKI.....	454

CONTENTS

v

Evidence That in Rats 1-Benzyl- $\beta$ -Methoxy-3-Trifluoromethylphenethylamine (SK&F 1-39728) Dissociates Anorexia from Central Stimulation and Actions on Brain Monoamine Stores. A. GROPPETTI, A. MISHER, M. NAIMZADA, A. REVUELTA AND E. COSTA.....	464
Preparation of Lung Microsomes and a Comparison of the Distribution of Enzymes between Subcellular Fractions of Rabbit Lung and Liver. G. E. R. HOOK, J. R. BEND, D. HOEL, J. R. FOUTS AND T. E. GRAM.....	474
5,5'-Diphenyl-2-Thiohydantoin (DPTH): An Inducer of Microsomal Drug-Metabolizing Enzymes. COLIN DALTON, J. J. KAMM AND P. BARTL.....	491
Studies on the Microsomal Metabolism of <sup>3</sup> H-Reserpine. ROBERT E. STITZEL, LORIN A. WAGNER AND ROBERT J. STAWARZ.....	500
Studies on an Unusual N-Dealkylation Reaction. I. <i>In Vivo</i> and <i>in Vitro</i> N-Dealkylation of N- <i>t</i> -Butylnorchlorcyclizine to Norchlorcyclizine by the Rat. JEROME J. KAMM, ALICE SZUNA AND RONALD KUNTZMAN.....	507
Mechanisms of <sup>14</sup> C-Salicylic Acid Excretion by the Rat Submaxillary Gland. JAMES W. PUTNEY, JR. AND JOSEPH F. BORZELLECA.....	515
The Hypocalcemic Effect of Urethane in Rats. TAI-CHEN PENG, CARY W. COOPER AND PAUL L. MUNSON.....	522
Observations on the Interactions of Protamine with Mouse Whole Blood Components. DONALD S. AMATUZIO, HENRY A. BATES AND LYLE J. HAY.....	528
Index, Volume 182, July-September 1972.....	533