

CONTENTS OF VOLUME 179

No. 1, OCTOBER 1971

Environmental Influences upon Drug-Induced Suppression of Operant Behavior. S. B. SPARBER AND H. A. TILSON.....	1
Localization and Persistence of Metaraminol and α -Methyl- <i>m</i> -Tyramine in Rat and Rabbit Brain. R. L. DORRIS AND P. A. SHORE.....	10
Amine Uptake and Storage Mechanisms in the Corpus Striatum of Rat and Rabbit. R. L. DORRIS AND P. A. SHORE.....	15
Effect of Lateral Hypothalamic Lesions on Uptake of Norepinephrine by Brain Homogenates. M. J. ZIGMOND, J. P. CHALMERS, J. R. SIMPSON AND R. J. WURTMAN..	20
An Analysis of the Uptake of 5-Hydroxytryptamine by the Myenteric Plexus of the Small Intestine of the Guinea Pig. MICHAEL D. GERSHON AND RONALD F. ALTMAN.....	29
Blockade of Effects of Angiotensin, Oxytocin, Norepinephrine, 5-Hydroxytryptamine and Acetylcholine by Guanacycline. MANUEL WORCEL, ANASTASIOS PAPADIMITRIOU AND PHILIPPE MEYER.....	42
Adrenergic Responses in the Human Eye. MAURICE E. LANGHAM, YOSHIAKI KITAZAWA AND ROBERT W. HART.....	47
The Nature of the Interaction of Amines with the Pancreatic <i>Beta</i> Cell to Influence Insulin Secretion. JEROME M. FELDMAN AND HAROLD E. LEBOVITZ.....	56
Effects of Methotrexate on Insulin Antibody Production in Guinea Pigs. DAVID R. MAKULU AND PETER H. WRIGHT.....	66
Renal Cortical Slice Accumulation of Iophenoxic Acid and Iopanoic Acid. W. O. BERNDT, D. N. WADE AND G. H. MUDGE.....	74
Hepatic Slice Accumulation of Iopanoic and Iophenoxic Acids. W. O. BERNDT, G. H. MUDGE AND D. N. WADE.....	85
Further Studies on the Effects of Metal Ions on Rat Liver Microsomal Reduced Nicotinamide Adenine Dinucleotide Phosphate-Cytochrome P-450 Reductase. JAMES R. FOOTS AND ROBERTA J. POHL.....	91
The Effects of Some Stimulators (Inducers) of Hepatic Microsomal Drug-Metabolizing Enzyme Activity on Substrate-Induced Difference Spectra in Rat Liver Microsomes. HENN KUTT, LYSLE WATERS AND JAMES R. FOOTS.....	101
Anti-Inflammatory and Analgetic Properties of <i>d</i> -2-(6'-Methoxy-2'-Naphthyl)-Propionic Acid (Naproxen). ADOLPH P. ROSZKOWSKI, WENDELL H. ROOKS II, ALBERT J. TOMOLONIS AND LOIS M. MILLER.....	114
The Effects of Antacids on the Absorption of Orally Administered Pentobarbital in the Rat. ARYEH HURWITZ AND MICHAEL B. SHEEHAN.....	124
The Distinct Nature of the Sustained Dilator System: Evidence against the Pseudotransmitter Hypothesis. A. A. POLLARD AND L. BECK.....	132
Effects of Intra-Arterial Ouabain on Mesenteric and Carotid Hemodynamics. ELMER TREAT, HARVEY B. ULANO AND EUGENE D. JACOBSON.....	144

No. 2, NOVEMBER 1971

Ultrastructural Identification of Non-Adrenergic Inhibitory Nerve Fibers. PETER M. ROBINSON, JOHN R. MCLEAN AND GEOFFREY BURNSTOCK.....	149
The Effect of 4,4'-Biphenylenebis-[(2-Oxoethylene)-Bis-(2,2-Diethoxyethyl)]-Dimethylammonium Dibromide (DMAE) on the Responses of Tissues Innervated by Short Adrenergic Neurons to Catecholamines and Ionic Stimulants. S. GREENBERG, J. P. LONG AND F. P. J. DIECKE.....	161
Interactions of Bretylium and Other Drugs on Guinea-Pig Atria: Evidence for Inhibition of Neuronal Monoamine Oxidase by Bretylium. ROBERT F. FURCHGOTT, PEDRO SANCHEZ GARCIA, ARUN R. WAKADE AND PETER CERVONI.....	171
The Fate of 3 H-Norepinephrine Released from Isolated Atria and Vas Deferens: Effect of Field Stimulation. SUZANNE ROFFLER TARLOV AND S. Z. LANGER.....	186

Influence of Cocaine and Desipramine on the Contractile Response of Isolated Rabbit Pulmonary Arteries and Aortae to Transmural Stimulation. NOBORU TODA....	198
The Distribution of 5-Hydroxyindoleacetic Acid in Various Animals and Its Fluorometric Analysis in Diverse Biological Material. AARON H. ANTON AND DAVID F. SAYRE.....	207
The Effect of Intrahypothalamically Injected Sympathomimetic Amines on Temperature Regulation in the Cat. THOMAS A. RUDY AND HAROLD H. WOLF.....	218
Hallucinogenic Drugs of the Indolealkylamine Type and Central Monoamine Neurons. NILS-ERIK ANDÉN, HANS CORRODI AND KJELL FUXE.....	236
Tetrahydroisoquinoline Alkaloids: Uptake by Rat Brain Homogenates and Inhibition of Catecholamine Uptake. RICHARD HEIKKILA, GERALD COHEN AND DOROTHY DEMBIEC.....	250
Effect of Morphine on the Catecholamine Content of Midbrain Nerve Cell Groups in Rat and Mouse. U. HENRICH, W. LICHTENSTEIGER AND H. LANGEMANN.....	259
Aversive Properties of Nalorphine and Naloxone in Morphine-Dependent Rhesus Monkeys. STEVEN R. GOLDBERG, FRIEDRICH HOFFMEISTER, UTA SCHLICHTING AND WOLFGANG WUTTKE.....	268
A Comparison of Pentobarbital and Cocaine Self-Administration in Rhesus Monkeys: Effects of Dose and Fixed-Ratio Parameter. STEVEN R. GOLDBERG, FRIEDRICH HOFFMEISTER, UTA U. SCHLICHTING AND WOLFGANG WUTTKE.....	277
Impairment of Avoidance Learning by Prolonged Ethanol Consumption in Mice. GERHARD FREUND AND DON W. WALKER.....	284
Blood Methanol Concentrations during Experimentally Induced Ethanol Intoxication in Alcoholics. EDWARD MAJCHROWICZ AND JACK H. MENDELSON.....	293
Excitation by Ethanol of Rat Muscle Spindles. JAN KUCERA AND CEDRIC M. SMITH..	301
Interactions of Tricyclic Antidepressants and 5-Hydroxyindolealkylamine Precursors on Spinal Monosynaptic Reflex Transmission. B. V. CLINESCHMIDT, J. E. PIERCE AND ALBERT SJOERDSMA.....	312
The Site of Action of Caffeine and Procaine in Skeletal Muscle. WILLIAM R. THORPE AND PHILIP SEEMAN.....	324
Potentiation of the Inotropic Effects of Glucagon by Theophylline. MELVIN L. MARCUS, C. LYNN SKELTON, KIRK H. PRINDLE, JR. AND STEPHEN E. EPSTEIN....	331
Pharmacologic Production of Atrioventricular Block with and without Initial Bundle Branch Block. THOMAS N. JAMES, EDWARD S. BEAR, RICHARD J. FRINK AND FERDINAND URTHALER.....	338
The Metabolic Pathway in the Degradation of Glyceryl Trinitrate. PHILIP NEEDLEMAN, DELORES J. BLEHM, ANNE B. HARKEY, EUGENE M. JOHNSON, JR. AND STANLEY LANG.....	347
Metabolism of a Beta Blocking Drug, Oxprenolol. D. A. GARTEIZ.....	354
Metabolism of a New Hypolipidemic Agent, 2-Acetamidoethyl(<i>p</i> -Chlorophenyl)(<i>m</i> -Trifluoromethylphenoxy)Acetate (Halofenate) in the Rat, Dog, Rhesus Monkey and Man. H. B. HUCKER, L. T. GRADY, B. M. MICHEWIWICZ, S. C. STAUFFER, S. E. WHITE, G. E. MAHA AND F. G. McMAHON.....	359
Effects of Enzyme Induction on Synthesis and Catabolism of Corticosterone in Rats. Analysis by Means of Steady-State Kinetics. DONALD F. BOGDANSKI, THOMAS P. BLASZKOWSKI AND B. B. BRODIE.....	372
Oxygen-18 Studies on the Chemical Mechanisms of the Mixed Function Oxidase Catalyzed Desulfuration and Dearylation Reactions of Parathion. KAY A. PTASHNE, ROBERT M. WOLCOTT AND ROBERT A. NEAL.....	380
Disposition of 5-(3,3-Dimethyl-1-Triazeno)Imidazole-4-Carboxamide, a New Antitumor Agent. GLENN E. HOUSHOLDER AND TI LI LOO.....	386
Metabolic Factors Which Influence Triethyl Phosphate-Induced Narcosis in Rats. DAVID R. BROWN AND SHELDON D. MURPHY.....	396
The Potentiation of Barbiturates by Desipramine in the Mouse: Mechanism of Action. HASMUKH C. SHAH AND HARBANS LAL.....	404
Acetylsalicylic Acid: Inhibition of Platelet Aggregation in the Rabbit. F. J. ROSENBERG, P. E. GIMBER-PHILLIPS, G. E. GROBLEWSKI, C. DAVISON, D. K. PHILLIPS, S. J. GORALNICK AND E. D. CAHILL.....	410

Intrarenal Distribution of Penicillin, Cephalothin, Ampicillin and Oxytetracycline during Varied States of Hydration. ANDREW WHELTON, DANIEL G. SAPIR, GORDON G. CARTER, JULIAN KRAMER AND W. GORDON WALKER.....	419
Studies on Renal Urate Secretion in the Dog. R. P. NOLAN AND E. C. FOULKES....	429
Effects of the Chronic Administration of Amiloride Hydrochloride (N-Amidino-3,5-Diamino-6-Chloropyrazinecarboxamide Hydrochloride Dihydrate) on Electrolyte Balance in the Dog. W. J. GOLDMAN, H. R. SKEGGS, W. SCOTT, J. E. BAER AND P. A. MATTIS.....	438
Effect of Acute Renal Failure on the Development of Ouabain-Induced Arrhythmias JOHN F. WILLIAMS AND DANIEL L. BOYD.....	447

No. 3, DECEMBER 1971

Effect of Phenobarbital, Chlorpromazine, Actinomycin D and Chronic α -Naphthylisothiocyanate Administration on α -Naphthylisothiocyanate- 14 C Disposition and α -Naphthylisothiocyanate-Induced Hyperbilirubinemia. F. CAPIZZO AND R. J. ROBERTS.....	455
The Effect of Carbon Monoxide Inhalation on <i>in Vivo</i> Drug Metabolism in the Rat. MARK R. MONTGOMERY AND ROBERT J. RUBIN.....	465
Pharmacokinetics of Fentanyl in Rabbits in View of the Importance for Limiting the Effect. R. HESS, A. HERZ AND K. FRIEDEL.....	474
The Effects of Antacids on Gastrointestinal Drug Absorption. II. Effect on Sulfadiazine and Quinine. ARYEH HURWITZ.....	485
The Influence of High Sugar Consumption by Mice on the Duration of Action of Barbiturates and <i>in Vitro</i> Metabolism of Barbiturates, Aniline and <i>p</i> -Nitroanisole. A. STROTHER, J. K. THROCKMORTON AND C. HERZER.....	490
The Action of Testosterone on the Assimilation of Nonmetabolizable Hexoses by the Prostate. J. A. THOMAS, M. G. MAWHINNEY, C. G. SMITH AND T. J. LEE.....	499
Chemical Studies of Potential Relevance to Penicillan Hypersensitivity: The Fate of Benzylpenicillic Acid in Aqueous Buffer Solutions. KENNETH H. DUDLEY, THOMAS C. BUTLER AND DOROTHY JOHNSON.....	505
Angiotensin Tachyphylaxis in Guinea-Pig Aortic Strips. DJURO PALAIC AND PATRICK LEMORVAN.....	522
Release of Catecholamines during the Induction of and Recovery from Tachyphylaxis to Angiotensin II. WILLIAM H. CLINE, JR.....	532
Interaction between Angiotensin and Neurally Released Norepinephrine on the Cat Nictitating Membrane <i>in Vivo</i> . PETER CERVONI AND ERNEST REIT.....	543
Relationship between Furosemide-Induced Volume Depletion and Reduction in Hind Limb Blood Flow. LYNN R. WILLIS, KEVIN P. O'BRIEN AND HAROLD E. WILLIAMSON.....	555
Blockade of Adrenergic Vasoconstrictor Responses in the Dog by Prostaglandins E ₁ and A ₁ . PHILIP J. KADOWITZ, CHARLES S. SWEET AND MICHAEL J. BRODY....	563
Enhancement of Coronary Vasodilator Action of Nicotinamide Adenine Dinucleotide by Lidoflazine. SKODA AFONSO, GEORGE S. O'BRIEN, THEODORE B. BERNDT, THOMAS J. ANSFIELD AND GEORGE G. ROWE.....	573
The Acute Antiarrhythmic and Toxic Effects in Mice and Dogs of 2-Ethylamino-2',6'-Acetoxylidine (L-86), a Metabolite of Lidocaine. EMIL R. SMITH AND BENJAMIN R. DUCE.....	580
Effects of Phentolamine on Electrophysiologic Properties of Isolated Canine Purkinje Fibers. MICHAEL R. ROSEN, HENRY GELBAND AND BRIAN F. HOFFMAN.....	586
Myocardial Na/K Adenosine Triphosphatase Activity during Reversal of Ouabain Toxicity with Diphenylhydantoin. ROBERT C. SPAIN AND CHARLES A. CHIDSEY..	594
Depression of Cardiac Sympathetic Nerve Activity by Diphenylhydantoin. RICHARD A. GILLIS, JOSEPH R. McCLELLAN, THOMAS S. SAUER AND FRANK G. STANDAERT..	599
Distribution of Diphenylhydantoin in Rat Organs: Study with Neuron-Glia and Subcellular Fractions. TAKEHIKO YANAGIHARA AND ANDERS HAMBERGER.....	611
Histamine in Rat Brain: Sensitive Assay of Endogenous Levels, Formation <i>in Vivo</i> and Lowering by Inhibitors of Histidine Decarboxylase. KENNETH M. TAYLOR AND SOLOMON H. SNYDER.....	619

Evidence Against a Role of Brain 5-Hydroxytryptamine in the Development of Phys- ical Dependence upon Morphine in Mice. IAN MARSHALL AND D. G. GRAHAME- SMITH.....	634
Potentiation and Reduction of the Analgesia of Morphine in the Rat by Pargyline. S. Y. YEH AND C. I. MITCHELL.....	642
Antinociceptive Activity of the Narcotic Antagonist Analgesics and Antagonistic Activity of Narcotic Analgesics in Rodents. WILLIAM L. DEWEY AND LOUIS S. HARRIS.....	652
Effects of a Convulsant Barbiturate on Dorsal Root Ganglion Cells and Dorsal Root Discharges. HALL DOWNES AND DONALD N. FRANZ.....	660
Index, Volume 179, October-December 1971.....	iii