

# CONTENTS OF VOLUME 198

No. 1, JULY 1976

Dedicated to Edward J. Cafruny, M.D., Ph.D. ....	2
Effects of <i>d</i> -Amphetamine, Pentobarbital, Chlorpromazine and Promazine on Electric Shock Postponement Responding by the Pigeon. J. DAVID LEANDER .....	4
An Inhibitory Role for Brain Serotonin-Containing Systems in the Locomotor Effects of <i>d</i> -Amphetamine. ALAN S. HOLLISTER, GEORGE R. BREESE, CYNTHIA MORETON KUHN, BARRETT R. COOPER AND SAUL M. SCHANBERG .....	12
Behavioral Evidence for Supersensitivity following Destruction of Central Serotonergic Nerve Terminals by 5,7-Dihydroxytryptamine. MICHAEL E. TRULSON, EDWIN E. EUBANKS AND BARRY L. JACOBS .....	23
The Correlation between Antinociceptive Activity of Narcotics and Their Antagonists as Measured in the Mouse Tail-Flick Test and Increased Synthesis of Brain Catecholamines. ALAN S. BLOOM, WILLIAM L. DEWEY, LOUIS S. HARRIS AND KEITH K. BROSIUS .....	33
Operant Acquisition of Marihuana in Man. JACK H. MENDELSON, JOHN C. KUEHNLE, ISAAC GREENBERG AND NANCY K. MELLO .....	42
Evaluation of the Discriminative Effects of Morphine in the Rat. HARLAN E. SHANNON AND STEPHEN G. HOLTZMAN .....	54
The Effects of Morphine- and Nalorphine-Like Drugs in the Nondependent, Morphine-Dependent and Cyclazocine-Dependent Chronic Spinal Dog. P. E. GILBERT AND W. R. MARTIN .....	66
Influence of the Frequency of Nerve Stimulation on the Metabolism of <sup>3</sup> H-Norepinephrine Released from the Perfused Cat Spleen: Differences Observed during and after the Period of Stimulation. MARGARITA L. DUBOCOVICH AND S. Z. LANGER .....	83
Inactivation of Neural and Exogenous Norepinephrine in Rat Tail Artery Studied by the Oil Immersion Technique. D. GEORGE WYSE .....	102
Differential Effects of Nerve Impulses on Adrenergic Storage Vesicles in Rat Heart. D. L. NELSON AND P. B. MOLINOFF .....	112
Coincidence of Blockade of Synaptosomal 5-Hydroxytryptamine Uptake and Decrease in Tryptophan Hydroxylase Activity: Effects of Fenfluramine. SUZANNE KNAPP AND ARNOLD J. MANDELL .....	123
Carbon-11 Labeled Aliphatic Amines in Lung Uptake and Metabolism Studies: Potential for Dynamic Measurements <i>in Vivo</i> . JOANNA S. FOWLER, BRIAN M. GALLAGHER, ROBERT R. MACGREGOR AND ALFRED P. WOLF .....	133
A Study of the Effects of <i>p</i> -Chloromercuribenzenesulfonic Acid on Acetylcholine-Induced Responses of Molluscan Neurons. H. R. GUY AND J. A. CONNOR .....	146
Electrophysiological Observations on the Action of the Purified Scorpion Venom, Tityustoxin, on Nerve and Skeletal Muscle of the Rat. J. E. WARNICK, E. X. ALBUQUERQUE AND C. R. DINIZ .....	155
Alteration by Phosphatidyl Serine of Tension Responses and <sup>45</sup> Ca Distribution in Aortic Smooth Muscle. FRANK R. GOODMAN, GEORGE B. WEISS AND ANDRES GOTH .....	168
A Comparative Study between the Cardiovascular Effects of Cetedil, a New Vasodilator, and Papaverine and Aminophylline. J. A. SIMAAN AND D. M. AVIADO .....	176
Microcirculatory Approach to the Treatment of Circulatory Shock with a New Analog of Vasopressin, [2-Phenylalanine,8-Ornithine] Vasopressin. BURTON M. ALTURA .....	187
Respiratory and Cardiovascular Effects of Prostaglandins in the Conscious Guinea Pig. R. M. WEISSBERG, J. MARIAN AND J. BRADSHAW .....	197
Effects of Ethacrynic Acid and Furosemide on Isolated Rat Kidney Mitochondria: Inhibition of Electron Transport in the Region of Phosphorylation Site II. M. ARIFIE MANUEL AND MICHAEL W. WEINER .....	209
Effect of Paraquat (Methyl Viologen) on Liver Function in Mice. S. Z. CAGEN, A. S. JANOFF, J. S. BUS AND J. E. GIBSON .....	222
Hepatic Uptake and Biliary Excretion of <i>d</i> -Tubocurarine and Trimethyltubocurarine in the Rat <i>in Vivo</i> and in Isolated Perfused Rat Livers. D. K. F. MEIJER, J. G. WEITERING AND R. J. VONK .....	229
Cholestyramine-Induced Inhibition of Salicylazosulfapyridine (Sulfasalazine) Metabolism by Rat Intestinal Microflora. HENRY J. PIENIASZEK, JR. AND THEODORE R. BATES .....	240
Toxicity of Antitumor Agents on Hemopoietic Colony Forming Cells. EDWIN M. UYEKI, THOMAS L. PAZDERNIK AND AHMED EL ASHKAR .....	246

## No. 2, AUGUST 1976

A Comparison of the Abilities of Chlorpromazine and Molindone to Interact Adversely with Guanethidine. DAVID A. GILDER, WENDY FAIN AND LANCE L. SIMPSON	255
Pharmacokinetics of Methyl dopa in Man. K. C. KWAN, E. L. FOLTZ, G. O. BREAU, J. E. BAER AND J. A. TOTARO	264
Stimulatory Effect of Vegetables on Intestinal Drug Metabolism in the Rat. E. J. PANTUCK, K.-C. HSIAO, W. D. LOUB, L. W. WATTENBERG, R. KUNTZMAN AND A. H. CONNEY	278
Effect of Route of Administration on Competitive Drug Biotransformation Interaction: Salicylamide-Ascorbic Acid Interaction in Rats. J. BRIAN HOUSTON AND GERHARD LEVY	284
Ascorbic Acid and Hepatic Drug Metabolism. PAUL H. SATO AND VINCENT G. ZANNONI	295
Effects of Desipramine Treatment on the Biliary, Fecal and Urinary Excretion of Methadone in the Rat. SHEAN-JANG LIU, KENNETH Z. C. CHEN AND RICHARD I. H. WANG	308
Studies on Tolerance Development to Single Doses of Morphine in Mice. F. HUIDOBRO, J. P. HUIDOBRO-TORO AND E. LEONG WAY	318
A Comparative Study of the Analgesic and Respiratory Effects of N-Allylnorcodeine (Nalodeine), Nalorphine, Codeine and Morphine. JEAN RUNDLETT BEYER AND HENRY W. ELLIOTT	330
Acute Reductions in Serum Testosterone Levels by Narcotics in the Male Rat: Stereospecificity, Blockade by Naloxone and Tolerance. THEODORE J. CICERO, CAROL E. WILCOX, ROY D. BELL AND EDWARD R. MEYER	340
Stereoselective and Calcium-dependent Contractile Effects of Narcotic Antagonist Analgesics in the Vascular Smooth Muscle of the Rat. CHI-HO LEE AND BARRY A. BERKOWITZ	347
Influence of Inhibitors of Prostaglandin Synthesis on Venoconstrictor Responses to Bradykinin. MICHAEL R. GOLDBERG, BARRY M. CHAPNICK, PAUL D. JOINER, ALBERT L. HYMAN AND PHILIP J. KADOWITZ	357
Distribution of a Lanthanide ( <sup>147</sup> Pm) in Vascular Smooth Muscle. GEORGE B. WEISS AND FRANK R. GOODMAN	366
Biphasic Modulation of Potassium Release in Rat Parotid Gland by Carbachol and Phenylephrine. JAMES W. PUTNEY, JR.	375
Potassium Release from the Rat Submaxillary Gland <i>in Vitro</i> . I. Induction by Catecholamines. J. RICARDO MARTINEZ, DAVID O. QUISSELL AND MARILYN GILES	385
Comparison of Uptake and Binding of Disodium Cromoglycate and Phenol Red in Rat Lung. THOMAS H. GARDINER AND FRANK R. GOODMAN	395
Effect of <i>Alpha</i> and <i>Beta</i> Adrenergic Blockade on Oxygen Transport in Rat Skeletal Muscle and Brain. HARVEY R. WEISS, J. A. LIPP, JUDITH A. NEUBAUER AND RUTH S. FELDMAN	403
Regulation of Cyclic Nucleotide Levels and Glycogen Phosphorylase Activity by Acetylcholine and Epinephrine in Perfused Rat Hearts. RUSSELL M. GARDNER AND DONALD O. ALLEN	412
The Isolated Supported Canine Heart: A Model for the Evaluation of Drug Effects on Regional Myocardial Blood Flow. DAVID C. WARTIER, GARRETT J. GROSS AND HAROLD F. HARDMAN	420
Effect of Propranolol on Regional Myocardial Blood Flow and Oxygen Consumption. DAVID C. WARTIER, GARRETT J. GROSS AND HAROLD F. HARDMAN	435
Effects of Calcium Antagonist, 6-(N,N-Diethylamino)Hexyl-3,4,5-Trimethoxybenzoate, on Digitalis-Induced Arrhythmias and Cardiac Contractions. C. Y. CHIOU, M. H. MALAGODI, B. V. R. SASTRY AND P. POSNER	444
Organ Specificity of Angiotensin II and Des-aspartyl Angiotensin II in the Conscious Rat. WILLIAM B. CAMPBELL AND WILLIAM A. PETTINGER	450
The Effect of Indomethacin on Renal Function in Pentobarbital-Anesthetized Dogs. L. P. FEIGEN, E. KLAINER, B. M. CHAPNICK AND P. J. KADOWITZ	457
Effect of Sympathetic Blocking Agents on the Antinatriuresis of Reflex Renal Nerve Stimulation. EDWARD J. ZAMBRASKI, GERALD F. DiBONA AND GEORGE J. KALOYANIDES	464
The Pharmacology of Flazalone: A New Class of Anti-inflammatory Agent. L. LEVY AND D. McCLURE	473
Effects of Anti-inflammatory Agents and Some Other Drugs on Prostaglandin Biotransport. L. Z. BITO AND ERICA V. SALVADOR	481
Effects of Prostaglandins A <sub>2</sub> , E <sub>2</sub> and F <sub>2α</sub> on Erythropoietin Production. DENNIS M. GROSS, JESSE BROOKINS, GREGORY D. FINK AND JAMES W. FISHER	489
A Computer Program for Parallel Line Bioassays. D. J. FINNEY	497

## No. 3, SEPTEMBER 1976

The Role of Acetylcholine Receptors and Acetylcholinesterase Activity in the Development of Denervation Supersensitivity. MARJORIE GELLER MCCONNELL AND LANCE L. SIMPSON	507
--	-----

On the Statistics of Drug-Receptor Constants for Partial Agonists. M. MARANO AND A. J. KAUMANN . . . . .	518
Stimulation of Glycogenolysis by <i>Beta</i> Adrenergic Agonists in Skeletal Muscle of Mice with the Phosphorylase Kinase Deficiency Mutation (I Strain). STEPHEN R. GROSS, STEVEN E. MAYER AND MARGARET A. LONGSHORE . . . . .	526
Isoproterenol-Induced Relaxation, Phosphorylase Activation and Cyclic Adenosine Monophosphate Levels in the Polarized and Depolarized Rat Uterus. SUBHASH C. VERMA AND JOHN H. MCNEILL . . . . .	539
Serotonin Accumulation in the Guinea-Pig Myenteric Plexus: Ion Dependence, Structure-Activity Relationship and the Effect of Drugs. MICHAEL D. GERSHON, ROBERT G. ROBINSON AND LEONARD L. ROSS . . . . .	548
Functional Evaluation of 6-Hydroxydopamine-Induced Sympathectomy in the Liver of the Cat. W. WAYNE LAUTT AND MICHAEL B. CÔTÉ . . . . .	562
<i>In Vitro</i> Denervation of the Portal Vein and Caudal Artery of the Rat. OCTAVIO APRIGLIANO AND KENT HERMSMEYER . . . . .	568
Adrenergic Neuronal Degeneration Induced in Portal Vein and Caudal Artery by 6-Hydroxydopamine <i>in Vitro</i> . OCTAVIO APRIGLIANO, KENNETH E. RYBARCZYK, KENT HERMSMEYER AND LUCAS S. VAN ORDEN III . . . . .	578
Effect of Dopamine- $\beta$ -Hydroxylase Inhibitors on Blood Pressure and Cardiac Norepinephrine Levels in Rats Subjected to Immobilization Stress. YASUO ISHII, CHIYOKO MIMURA AND MASAKO HOMMA . . . . .	589
Regulation in the Central Norepinephrine Neurotransmission Induced <i>in Vivo</i> by <i>Alpha</i> Adrenoceptor Active Drugs. CLAUS BRAESTRUP AND MOGENS NIELSEN . . . . .	596
Influence of Neonatal and Adult Hyperthyroidism on Behavior and Biosynthetic Capacity for Norepinephrine, Dopamine and 5-Hydroxytryptamine in Rat Brain. RAM B. RASTOGI AND RADHEY L. SINGHAL . . . . .	609
Tryptoline Inhibition of Serotonin Uptake in Rat Forebrain Homogenates. KENNETH J. KELLAR, GLEN R. ELLIOTT, R. BRUCE HOLMAN, JOAN VERNIKOS-DANELIS AND JACK D. BARCHAS . . . . .	619
Effects of Propranolol on Behavior Maintained under Fixed-Ratio Schedules of Cocaine Injection or Food Presentation in Squirrel Monkeys. STEVEN R. GOLDBERG AND FERNANDO A. GONZALEZ . . . . .	626
The Existence of Tolerance to and Cross-Tolerance between <i>d</i> -Amphetamine and Methylphenidate for Their Effects on Milk Consumption and on Differential-Reinforcement-of-Low-Rate Performance in the Rat. RONALD G. PEARL AND LEWIS S. SEIDEN . . . . .	635
Studies on the Effect of 5,5'-Diphenylhydantoin on <i>in Vitro</i> Protein Synthesis in Rat Brain. MICHAEL S. STEINBERG AND B. P. DOCTOR . . . . .	648
Anticonvulsant Action of Acute Morphine Administration in Rats. MARTIN W. ADLER, CHEN-HO LIN, SUSAN H. KEINATH, SHIRLEY BRAVERMAN AND ELLEN B. GELLER . . . . .	655
Effect of Histamine and Antihistamines on Renal Hemodynamics and Functions in the Isolated Perfused Canine Kidney. WILLIAM B. CAMPBELL AND HAROLD D. ITSKOVITZ . . . . .	661
Action of Anaphylaxis and Histamine on Isolated Mammalian Ventricles: Contractile Hyperactivation and Changes of Membrane Potentials. JOCHEN SENGENS, HUGO KATUS AND WOLFGANG KÜBLER . . . . .	668
Influence of Calcium Concentration on the Rate of Onset of Cardiac Glycoside and Aglycone Inotropism. MYUNG K. PARK AND FRANK F. VINCENZI . . . . .	680
A Comparison of Effects of SKF 525-A and Procaine on Excitation-Contraction Coupling in Single Crayfish Muscle Fibers. GUILHERME SUAREZ-KURTZ . . . . .	687
Studies on the Comparative Pharmacology and Selective Toxicity of Tricaine Methanesulfonate: Metabolism as a Basis of the Selective Toxicity in Poikilotherms. KIM A. WAYSON, HALL DOWNES, ROBERT K. LYNN AND NICHOLAS GERBER . . . . .	695
Mechanism of Action of Spironolactone on Adrenocortical Function in Guinea Pigs. J. W. GREINER, R. E. KRAMER, J. JARRELL AND H. D. COLBY . . . . .	709
Metabolism of Prostaglandins A <sub>1</sub> and E <sub>1</sub> in the Perfused Rabbit Lung and the Effects of Selected Inhibitors. KENNETH B. GROSS AND C. N. GILLIS . . . . .	716
Index, Volume 198, July-September 1976 . . . . .	725