

## CONTENTS OF VOLUME 200

No. 1, JANUARY 1977

Mutagenic Activities <i>in Vitro</i> and <i>in Vivo</i> of Five Antischistosomal Compounds. ROBERT P. BATZINGER AND ERNEST BUEDING .....	1
Sodium Cyanate-Induced Ocular Lesions in the Beagle. HAROLD L. KERN, ROY W. BELLHORN AND CHARLES M. PETERSON .....	10
Potential of the Cytotoxic Action of Melphalan and "Activated" Cyclophosphamide against Cultured Tumor Cells by Centrophenoxine. N. E. SLADEK .....	17
Reduction of Tertiary Amine N-Oxides by Rat Liver Mitochondria. M. SUGIURA AND R. KATO .....	25
Clofibrate and Clofibric Acid: Comparison of the Metabolic Disposition in Rats and Dogs. M. N. CAYEN, E. S. FERDINANDI, E. GRESELIN, W. T. ROBINSON AND D. DVORNIK .....	33
The Influence of Fasting on the Disposition of Warfarin in Rats. REAL LALIBERTE, SAROJ CHAKRABARTI AND JULES BRODEUR .....	44
Metabolic Clearance of Furosemide in the Rat. JOHN D. WALLIN, PAULA RYALS AND NEIL KAPLOWITZ	52
Diuretic-Induced Uricosuria: Interaction with Pyrazinoate Transport in Man. D. R. PRASAD, I. M. WEINER AND T. H. STEELE .....	58
Glutathione S-Transferases: An Evaluation of Their Role in Renal Organic Anion Transport. DAVID G. PEGG AND JERRY B. HOOK .....	65
<i>In Vitro</i> Inhibition of <i>p</i> -Aminohippurate Transport by Halogenated Anesthetics. R. DENNIS BASTRON, FREDERICK M. PERKINS AND GEORGE J. KALOYANIDES .....	75
Clearance and Micropuncture Studies of the Effects of a New Indanyloxyacetic Acid Diuretic on Segmental Nephron Function in Rats. MICHAEL L. KAUKER .....	81
Diuretics and Small Intestinal Lymph Flow in the Dog. JAMES J. SZWED, DOUGLAS R. MAXWELL, ROGER ELLIOTT AND LEILA R. REDLICH .....	88
Effects of Carbamazepine on the Water Permeability and Short-Circuit Current of the Urinary Bladder of the Toad and the Response to Vasopressin, Adenosine 3',5'-Cyclic Phosphate and Theophylline. KATHRYN E. MEIER AND STANLEY A. MENDOZA .....	95
The Effect of Neonatal Sympathectomy on the Response of the Rat Submandibular Gland to Isoproterenol. EDWARD W. GRESIK AND TIBOR BARKA .....	101
Afterdischarge on Postganglionic Sympathetic Nerves following Repetitive Stimulation of the Preganglionic Nerve to the Rat Superior Cervical Ganglion <i>in Vitro</i> . ROBERT J. McISAAC .....	107
Possibilities for a Cholinergic Action on Smooth Musculature and on Sympathetic Axons in Brain Vessels Mediated by Muscarinic and Nicotinic Receptors. LARS EDVINSSON, BENGT FALCK AND CHRISTER OWMAN .....	117
Differential Effects of the Isomers of Tetramisole on Adrenergic Neurotransmission in Cutaneous Veins of Dog. PAUL M. VANHOUTTE, JAN M. VAN NUETEN, TONY J. VERBEUREN AND PIERRE M. LADURON	127
Enhancement of Phrenic Nerve Activity by Digoxin: An Effect Dependent upon Intact Ninth and Tenth Cranial Nerves. L. C. WEAVER, T. AKERA AND T. M. BRODY .....	141
Antiarrhythmic Properties of MJ 9067 in Acute Animal Models. JEFFREY E. BYRNE, A. W. GOMOLL AND G. R. MCKINNEY .....	147
Effects of Perhexiline on Survival Time and Infarct Size in Experimental Myocardial Infarction. HERMAN B. DANIELL, PHILIP J. PRIVITERA, SANDRA E. CONRADI AND THOMAS E. GAFFNEY .	155
The Effect of Tolbutamide on Contractility and Cyclic Adenosine 3':5'-Monophosphate Concentration in the Intact Beating Rat Heart. JOSEPH D. BROWN AND MARY E. BROWN .....	166
The Interaction of Histamine and Guanylnucleotides with Cardiac Adenylate Cyclase and Its Relationship to Cardiac Contractility. CARL L. JOHNSON AND HARUKO MIZOGUCHI .....	174
The Effect of Inotropic Agents on Glycerol Release and Protein Kinase Activity Ratios in the Isolated Perfused Rat Heart. GARY J. JESMOK, DEANE N. CALVERT AND JOHN J. LECH .....	187
The Cardiovascular Pharmacology of the Antibiotic Ionophore Ro 2-2985 (X537A). MELVILLE W. OSBORNE, JAMES J. WENGER AND MOTRIA T. ZANKO .....	195
Pharmacologically Induced Changes in 3':5'-Cyclic Guanosine Monophosphate Content of Rat Cerebellar Cortex: Difference between Apomorphine, Haloperidol and Harmaline. G. BIGGIO, E. COSTA AND A. GUIDOTTI .....	207

Effect of Narcotics on the Uptake of Serotonin Precursors by the Rat Brain. ALICE A. LARSON AND A. E. TAKEMORI .....	216
Pharmacokinetics of Morphine by Radioimmunoassay: The Influence of Immunochemical Factors. DON H. CATLIN .....	224
First-Pass Effect of Morphine in Rats. KIKUO IWAMOTO AND CURTIS D. KLAASSEN .....	236
Propoxyphene and Norpropoxyphene: Pharmacologic and Toxic Effects in Animals. RODNEY NICKANDER, STEPHEN E. SMITS AND MITCHELL S. STEINBERG .....	245

## No. 2, FEBRUARY 1977

Prenatal Administration of Levorphanol or Dextrorphan to the Rat: Analgesic Effect of Morphine in the Offspring. JAMES P. O'CALLAGHAN AND STEPHEN G. HOLTZMAN .....	255
9- <i>nor</i> -9 $\beta$ -Hydroxyhexahydrocannabinol, a Cannabinoid with Potent Antinociceptive Activity: Comparisons with Morphine. ALAN S. BLOOM, WILLIAM L. DEWEY, LOUIS S. HARRIS AND KEITH K. BROSIUS .....	263
Dopaminergic Mechanisms in Precipitated Withdrawal in Morphine-Dependent Rats. MARYLOUISE ARY, BARRY COX AND PETER LOMAX .....	271
Application of Principles of Steady-State Kinetics to the Estimation of $\gamma$ -Aminobutyric Acid Turnover Rate in Nuclei of Rat Brain. LEIF BERTILSSON, CHI-CHIANG MAO AND ERMINIO COSTA .....	277
Net Uptake of $\gamma$ -Aminobutyric Acid by a High Affinity Synaptosomal Transport System. LESLIE D. RYAN AND ROBERT ROSKOSKI, JR. ....	285
Effects of Maternal Ethanol Ingestion on Amine Uptake into Synaptosomes of Fetal and Neonatal Rat Brain. PUSHPA V. THADANI, CHRISTOPHER LAU, THEODORE A. SLOTKIN AND SAUL M. SCHANBERG .....	292
Effects of Acute and Chronic Ethanol Administration and Withdrawal on Adenosine 3':5'-Monophosphate and Guanosine 3':5'-Monophosphate Levels in the Rat Brain. L. VOLICER AND B. P. HURTER .....	298
Absence of Formation of Brain Salsolinol in Ethanol-Dependent Mice. PATRICK J. O'NEILL AND RALF G. RAHWAN .....	306
Neurochemical Aspects of Ethanol Dependence and Withdrawal Reactions in Mice. C. T. CHOPDE, D. M. BRAHMANKAR AND V. N. SHRIPAD .....	314
Stimulus-Bound Repetitive Synaptic Firing Caused by Ethanol in Sympathetic Ganglion. GONZALO A. MONTOYA, WILLIAM K. RIKER AND NANCY J. RUSSELL .....	320
The Presynaptic Site of Action of Norepinephrine in the Superior Cervical Ganglion of Guinea Pig. N. DUN AND A. G. KARCZMAR .....	328
Effects of Halothane on Ganglionic Discharges. DARYL CHRIST .....	336
The Effects of Acute and Chronic Botulinum Toxin Treatment on Receptor Number, Receptor Distribution and Tissue Sensitivity in Rat Diaphragm. LANCE L. SIMPSON .....	343
Cardiac Histamine Receptors: Differences between Left and Right Atria and Right Ventricle. SUBHASH C. VERMA AND JOHN H. MCNEILL .....	352
The Effects of Grayanotoxin I and $\alpha$ -Dihydrograyanotoxin II on Guinea-Pig Myocardium. DAVID K. KU, TAI AKERA, MARTIN FRANK, THEODORE M. BRODY AND JUNKICHI IWASA .....	363
Accelerated Ventricular Escapes Induced in the Intact Dog by Barium, Strontium and Calcium. PETER R. FOSTER, VICTOR ELHARRAR AND DOUGLAS P. ZIPES .....	373
Studies of the Fate of Tyramine in Dogs: The Effect of Monoamine Oxidase Inhibition, Portafemoral Shunt and Coronary Artery Ligation on the Kinetics of Tyramine. B. A. FARAJ, P. G. DAYTON, V. M. CAMP, J. P. WILSON, E. J. MALVEAUX AND R. C. SCHLANT .....	384
Disposition of <sup>14</sup> C-Mescaline by Rabbit Lung. ROBERT A. ROTH, JR., JEROME A. ROTH AND C. N. GILLIS .....	394
Saluretic and Uricosuric Effects of (6,7-Dichloro-2-Methyl-1-Oxo-2-Phenyl-5-Indanyloxy) Acetic Acid (MK-196) in the Chimpanzee. G. M. FANELLI, JR., D. L. BOHN, A. SCRIBINE AND K. H. BEYER, JR. ....	402
Renal Excretion of a Saluretic-Uricosuric Agent (MK-196) and Interaction with a Urate-Retaining Drug, Pyrazinoate, in the Chimpanzee. G. M. FANELLI, JR., D. L. BOHN AND A. G. ZACCHEI ...	413
Prediction of Hepatic Extraction Ratio from <i>in Vitro</i> Measurement of Intrinsic Clearance. A. RANE, G. R. WILKINSON AND D. G. SHAND .....	420
Hepatic Uptake of Foreign Compounds: Influence of Acute Extrahepatic Biliary Obstruction. JOHN YAM AND ROBERT J. ROBERTS .....	425
Inhibition of Carbonic Anhydrases of Rat Liver by Halides. LAL C. GARG .....	434
Thioacetamide-Induced Hepatic Necrosis. I. Involvement of the Mixed-function Oxidase Ezyme System. A. L. HUNTER, M. A. HOLSCHER AND R. A. NEAL .....	439
The Effects of Dopamine on Human Platelet Aggregation, <i>in Vitro</i> . KENNETH M. BRAUNSTEIN, KAY E. SARJI, JAMES KLEINFELDER, HELEN B. SCHRAIBMAN, JOHN A. COLWELL AND KARL EURENIUS ....	449

## No. 3, MARCH 1977

Concentration-Time Effects on Quinidine Disposition Kinetics in Rhesus Monkeys. CLARENCE T. UEDA, BERTON E. BALLARD AND MALCOLM ROWLAND .....	459
A Model for the Kinetics of Distribution of Actinomycin-D in the Beagle Dog. R. J. LUTZ, W. M. GALBRAITH, R. L. DEDRICK, R. SHRAGER AND L. B. MELLETT .....	469
Interaction of Azathioprine and Glutathione in the Liver of the Rat. NEIL KAPLOWITZ .....	479
The Metabolism of <i>d</i> -, <i>l</i> - and <i>dl</i> -Methadone in the Isolated Perfused Rat Liver. N. GERBER, R. M. LEGER, P. GORDON, R. G. SMITH, J. BAUER AND R. K. LYNN .....	487
Orientation of the Oxygen Atom at C-6 as a Determinant of Agonistic Activity in the Oxymorphone Series. ANDRAS Z. RONAI, FRANCIS F. FOLDES, ELLIOT F. HAHN AND JACK FISHMAN .....	496
Flunixin Meglumine: A Non-Narcotic Analgesic. V. B. CIOFALO, M. B. LATRANYI, J. B. PATEL AND R. I. TABER .....	501
Effects of Morphine, Methadone, Nalorphine and Naloxone on Responding under Schedules of Electric Shock Titration. JAMES B. SMITH AND JAMES W. MCKEARNEY .....	508
Reinforcing Properties of Perphenazine, Haloperidol and Amitriptyline in Rhesus Monkeys. FRIEDRICH HOFFMEISTER .....	516
Tyrosine Hydroxylase: Delayed Activation in Central Noradrenergic Neurons and Induction in Adrenal Medulla Elicited by Stimulation of Central Cholinergic Receptors. TOMMY LEWANDER, TONG HYUB JOH AND DONALD J. REIS .....	523
Involvement of Cholinergic Presynaptic Receptors of Nicotinic and Muscarinic Types in the Control of the Spontaneous Release of Dopamine from Striatal Dopaminergic Terminals in the Rat. M. F. GIORGUEFF, M. L. LE FLOC'H, J. GLOWINSKI AND M. J. BESSON .....	535
Is 2-Dimethylaminoethanol (Deanol) Indeed a Precursor of Brain Acetylcholine? A Gas Chromatographic Evaluation. NANCY R. ZAHNISER, DAVID CHOU AND ISRAEL HANIN .....	545
Phenobarbital Actions <i>in Vivo</i> : Effects on Extracellular Potassium Activity and Oxidative Metabolism in Cat Cerebral Cortex. JOSEPH C. LAMANNA, GARY CORDINGLEY AND MYRON ROSENTHAL .....	560
Anticonvulsant Activity of Phenobarbital and Phenytoin in Combination. ILO E. LEPPIK AND ALLAN L. SHERWIN .....	570
The Effects of Neomycin upon Transmitter Release and Action. J. M. WRIGHT AND B. COLLIER .....	576
Regulation of Catecholamine Biosynthesis in a Transplantable Rat Pheochromocytoma. MARTIN CHALFIE AND ROBERT L. PERLMAN .....	588
Differential Inhibition of Lipolysis in Human Adipose Tissue by Adrenergic <i>Beta</i> Receptor Blocking Drugs. MARIANNE FRISK-HOLMBERG AND JAN ÖSTMAN .....	598
Influence of Prostaglandin Precursors and Synthesis Inhibitors in Vascular Bed Perfused without a Pump. M. J. RYAN, E. KRAFT, K. SUGAWARA AND B. G. ZIMMERMAN .....	606
Prostaglandins and the Renin-Angiotensin System in Canine Endotoxemia. PETER C. ISAKSON, FRANK SHOFER, ROBERT C. MCKNIGHT, ROBERT A. FELDHAUS, AMIRAM RAZ AND PHILIP NEEDLEMAN .....	614
Inhibition of Renal Adenosine Triphosphatase by Cadmium. BOHDAN R. NECHAY AND J. PALMER SAUNDERS .....	623
Norepinephrine- and Isoproterenol-Induced Changes in Cardiac Contractility and Cyclic Adenosine 3':5'-Monophosphate Levels during Early Development of the Embryonic Chick. JAMES B. POLSON, NELSON D. GOLDBERG AND FREDERICK E. SHIDEMAN .....	630
Digitalis Toxicity: Lack of Marked Effect on Brain Na <sup>+</sup> ,K <sup>+</sup> -Adenosine Triphosphatase in the Cat. L. C. WEAVER, T. AKERA AND T. M. BRODY .....	638
Modulation of Phagocytosis by and Lysosomal Enzyme Secretion from Guinea-Pig Neutrophils: Effect of Nonsteroid Anti-Inflammatory Agents and Prostaglandins. ROBERT J. SMITH .....	647
The Site of Action of the Histamine Releaser Compound 48/80 in Causing Mast Cell Degranulation. RONALD H. HINO, CLIFFORD K. H. LAU AND GEORGE W. READ .....	658
Index, Volume 200, January-March 1977 .....	665