

CONTENTS OF VOLUME 201

No. 1, APRIL 1977

Adjuvant Polyarthritis I: Incorporation of Quantitative Measurements of Humoral and Cellular Immune Response. YI-HAN CHANG	1
Identification of the Biologically Active Form of Sulindac. D. E. DUGGAN, K. F. HOOKE, E. A. RISLEY, T. Y. SHEN AND C. G. VAN ARMAN	8
Effects of Diazepam on the Biliary Excretion of Diphenylhydantoin in the Rat. A. MONAEM EL-HAWARI AND GABRIEL L. PLAA	14
Cannabidiol - Antiepileptic Drug Comparisons and Interactions in Experimentally Induced Seizures in Rats. PAUL CONSROE AND ANDREA WOLKIN	26
Effects of Cocaine and <i>d</i> -Amphetamine on Behavior Maintained under Various Schedules of Food Presentation in Squirrel Monkeys. FERNANDO A. GONZALEZ AND STEVEN R. GOLDBERG	33
A Comparison of the Effects of Naloxone upon Body Weight Loss and Suppression of Fixed-Ratio Operant Behavior in Morphine-Dependent Rats. VANCE F. GILLERT AND SHELDON B. SPARBER	44
Further Evaluation of the Discriminative Effects of Morphine in the Rat. HARLAN E. SHANNON AND STEPHEN G. HOLTZMAN	55
Discriminative Effects of Morphine in the Squirrel Monkey. GERALD J. SCHAEFER AND STEPHEN G. HOLTZMAN	67
Narcotics and the Hypothalamic-Pituitary-Gonadal Axis: Acute Effects on Luteinizing Hormone, Testosterone and Androgen-Dependent Systems. THEODORE J. CICERO, ROY D. BELL, EDWARD R. MEYER AND JOHN SCHWEITZER	76
Responsiveness to Various Dipsogenic Stimuli in Rats Treated Chronically with Norethylodrel, Ethinyl Estradiol and Both Combined. T. N. THRASHER AND M. J. FREGLY	84
Lithium: Modification of Behavioral Activity and Brain Biogenic Amines in Developing Hyperthyroid Rats. RAM B. RASTOGI AND RADHEY L. SINGHAL	92
Alterations in Brain Cyclic Guanosine 3':5'-Monophosphate Levels after Acute and Chronic Treatment with Ethanol. WALTER A. HUNT, JAMES D. REDOS, THOMAS K. DALTON AND GEORGE N. CATRAVAS	103
Modulation of Brain Tryptophan Hydroxylase Activity by Brain Tryptophan Content. L. M. NECKERS, G. BIGGIO, E. MOJA AND J. L. MEEK	110
Metabolite Studies of Methamphetamine Effects Based upon Mitochondrial Respiratory State in Rat Brain. A. L. SYLVIA, J. C. LAMANNA, M. ROSENTHAL AND F. F. JÖBSIS	117
Pharmacological Evaluation of New Calcium Antagonists: 2-Substituted 3-Dimethylamino-5,6-Methylenedioxyindenes. RALF G. RAHWAN, MARY M. FAUST AND DONALD T. WITIAK	126
The Mechanism of Action of Dantrolene Sodium. KATHLEEN G. MORGAN AND S. H. BRYANT	138
Effect of Polytoxin on Membrane Potential and Current of Frog Myelinated Fibers. J. M. DUBOIS AND J. B. COHEN	148
Active Form of Ketamine in Squid Giant Axons. BRIJ BHUSHAN SHRIVASTAV	156
Mechanism of Ketamine Block of Nerve Conduction. BRIJ BHUSHAN SHRIVASTAV	162
The Influence of Ketamine on Inotropic and Chronotropic Responsiveness of Heart Muscle. H. RICHARD ADAMS, JANET L. PARKER AND BABU P. MATHEW	171
Effect of Lidocaine and Methyl Lidocaine on Cardiac Conduction. RICKY Y. K. MAN AND PETER E. DRESEL	184
Inhibition of Norepinephrine Uptake by Phenoxybenzamine and Desmethylimipramine in the Isolated guinea-pig atrium. P. SÁNCHEZ-GARCÍA, R. MARTÍNEZ-SIERRA AND A. VELASCO-MARTÍN ..	192

Role of Depolarization in Acetylcholine-Induced Contractions of Dog Trachealis Muscle. J. M. FARLEY AND P. R. MILES	199
Potassium Release from the Rat Submaxillary Gland <i>In Vitro</i> . III. Effects of Pretreatment with Reserpine. J. RICARDO MARTINEZ AND DAVID O. QUISELL	206
Uptake of Uric Acid by Separated Renal Tubules of the Rabbit. I. Characteristics of Transport. IAN KIPPEN, NAOMI NAKATA AND JAMES R. KLINENBERG	218
Uptake of Uric Acid by Separated Renal Tubules of the Rabbit. II. Effects of Drugs. IAN KIPPEN, NAOMI NAKATA, SANDRA HONDA AND JAMES R. KLINENBERG	226
Effect of Gentamicin on <i>p</i> -Aminohippurate Metabolism and Transport in Rat Kidney Slices. ROBERT LAPKIN, RALPH BOWMAN AND GEORGE J. KALOYANIDES	233
Effect of Acetazolamide and Parathyroid Hormone on HCO ₃ and PO ₄ Excretion. LUIZ NASCIMENTO, DONALD R. RADEMACHER, JOSE A. L. ARRUDA AND NEIL A. KURTZMAN	243
Study of the Sites and Mechanisms of Action of Bumetanide in Man. SUBRAMONIAM JAYAKUMAR AND JULES B. PUSCHETT	251
Cytotoxicity of Ricinoleic Acid (Castor Oil) and Other Intestinal Secretagogues on Isolated Intestinal Epithelial Cells. T. S. GAGINELLA, A. C. HADDAD, V. L. W. GO AND S. F. PHILLIPS	259

No. 2, MAY 1977

The Effects of Denervation, Cocaine, 6-Hydroxydopamine and Reserpine on the Characteristics of Drug-Induced Contractions of the Depolarized Smooth Muscle of the Rat and Guinea-Pig Vas Deferens. DAVID P. WESTFALL	267
Membrane Potential-Dependent and -Independent Tension in the Canine Tracheal Muscle. R. F. COBURN AND T. YAMAGUCHI	276
Motor Innervation of the Smooth Muscle of the Rat Seminal Vesicle. JEFFREY S. FEDAN, JOHN C. BESSE, FRANK G. CARPENTER AND ROBERT S. TEAGUE	285
Organ Culture of Rat Superior Cervical Ganglia. JOAN HELLER BROWN, D. L. NELSON AND P. B. MOLINOFF	298
The Release of Acetylcholine Elicited by Extracts of Black Widow Spider Glands: Studies Using Rat Superior Cervical Ganglia and Inhibitors of Electrically Stimulated Release. DAVID W. PUMPLIN AND WILLIAM O. McCLURE	312
Effects of Ethosuximide on Transmission of Repetitive Impulses and Apparent Rates of Transmitter Turnover in the Spinal Monosynaptic Pathway. RADAN ČAPEK AND BARBARA ESPLIN	320
The Binding of Strychnine and Strychnine Analogs to Synaptic Membranes of Rat Brainstem and Spinal Cord. CARL R. MACKERER, RONALD L. KOCHMAN, THERESA F. SHEN AND FRED M. HERSHENSON	326
A Calcium Reversible Action of Barbiturates on the Leech Retzius Cell. ANNA L. KLEINHAUS AND JAMES W. PRICHARD	332
Conduction-Blocking Concentrations of Anesthetics Increase with Nerve Axon Diameter: Studies with Alcohol, Lidocaine and Tetrodotoxin on Single Myelinated Fibers. ALLAN STAIMAN AND PHILIP SEEMAN	340
Serotonin and Dopamine as Neurotransmitters in <i>Mytilus</i> : Block of Serotonin Receptors by an Organic Mercurial. BETTY M. TWAROG, YOJIRO MUNEOKA AND MICHAEL LEDGERE	350
Differential Effects of Reserpine and Tetrabenazine on Rat Striatal Synaptosomal Dopamine Biosynthesis and Synaptosomal Dopamine Pools. RONALD KUCZENSKI	357
Comparison of the Effects of Morphine on Locomotor Activity, Analgesia and Primary and Protracted Physical Dependence in Six Mouse Strains. DAVID A. BRASE, H. H. LOH AND E. L. WAY	368
Dissociation of Changes in Enzymatic and Immunoreactive Rat Serum Dopamine β -Hydroxylase during Growth and Development. ADEOYE OLUKOTUN, JOEL DUNNETTE AND RICHARD WEINSHILBOUM	375
Effects of Dopaminergic Agonists and Antagonists on Feeding in Intact and 6-Hydroxydopamine-Treated Rats. THOMAS G. HEFFNER, MICHAEL J. ZIGMOND AND EDWARD M. STRICKER	386

Role of Central and Peripheral Mechanism in the Action of α -Methyldopa on Blood Pressure and Renin Secretion. RICHARD J. FRANKEL, IAN A. REID AND WILLIAM F. GANONG	400
Specific Enhancement of Norepinephrine-Induced Contraction in Rat Veins after <i>Beta</i> Adrenergic Antagonists. MARLENE L. COHEN AND KATHRYN S. WILEY	406
Vascular Responses to the Monoenoic Prostaglandin Precursor Dihomo- γ -Linolenic Acid in the Perfused Canine Lung. T. C. WICKS, P. W. RAMWELL, J. C. ROSE AND P. A. KOT	417
Prostaglandin and Histamine Involvement in the Gastric Vasodilator Action of Pentagastrin. JOHN F. GERKINS, CHARLES FLEXNER, JOHN A. OATES AND DAVID G. SHAND	421
Effects of Alcohol on the Hypothalamic-Pituitary-Gonadal Axis in the Male Rat. THEODORE J. CICERO AND THOMAS M. BADGER	427
Meperidine Effects on Schedule-Controlled Responding. J. DAVID LEANDER AND D. E. McMILLAN ..	434
Biliary Colic as a Model for Assessing Analgesic Activity in Man. G. SACCHETTI, G. CAPUTO, V. MANDELLI, R. FORNARI AND E. MAGNI	444
Mechanism of Protection from Alloxan Diabetes Provided by <i>n</i> -Butanol. CHARLES W. SCHAUBERGER, ROBERT L. THIES AND LAWRENCE J. FISCHER	450
Urinary Carbon Dioxide Tension in Lithium Carbonate-Treated Patients. GUIDO O. PEREZ, JAMES R. OSTER, ROBERT E. SONNEBORN, GASTON MAGRINAT AND CARLOS A. VAAMONDE	456
The Effects of Probenecid upon the Individual Components of Indomethacin Elimination. D. E. DUGGAN, K. F. HOOKE, S. D. WHITE, R. M. NOLL AND C. R. STEVENSON	463
Role of Liver Cytosolic Aldehyde Dehydrogenase Isozymes in Control of Blood Acetaldehyde Concentrations. DENNIS R. PETERSEN, ALLAN C. COLLINS AND RICHARD A. DEITRICH	471
Application of A.C.-Polarography in a Study of <i>p</i> -Nitroanisole Metabolism and Its Kinetic Properties. HAN BURGCHAT AND KARL J. NETTER	482
A Study of the Binding of Sulfur to Rat Liver Microsomes Which Occurs Concurrently with the Metabolism of O,O-Diethyl O- <i>p</i> -Nitrophenyl Phosphorothioate (Parathion) to O,O-Diethyl O- <i>p</i> -Nitrophenyl Phosphate (Paraoxon). JAMES E. DAVIS AND THOMAS J. MENDE	490
The Continuous Kinetic Determination of <i>p</i> -Nitroanisole O-Demethylation in Hemoglobin-Free Perfused Rat Liver. RONALD G. THURMAN, DONALD P. MARAZZO, LESLIE S. JONES AND FREDERICK C. KAUFFMAN	498
Effect of Warfarin on the Kinetics of the Vitamin K-Dependent Clotting Factors in Rats. HUMBERTO VAINIERI AND LEMUEL B. WINGARD, JR.	507
Potentiation of Antitumor Drug Action by Centrophenoxine: Specificity. N. E. SLADEK	518

No. 3, JUNE 1977

The Effect of Ascorbic Acid Deficiency on Extrahepatic Microsomal Metabolism of Drugs and Carcinogens in the Guinea Pig. W. KUENZIG, V. TRACZEWSKI, J. J. KAMM, A. H. CONNEY AND J. J. BURNS	527
Hexobarbital Pharmacokinetics in Rats after Ligation of the Common Bile Duct. R. DREW, B. G. PRIESTLY AND W. J. O'REILLY	534
Mechanism of Action of anticoagulants: Correlation between the Inhibition of Prothrombin Synthesis and the Regeneration of Vitamin K ¹ from Vitamin K ₁ Epoxide. P. REN, P. Y. STARK, R. L. JOHNSON AND R. G. BELL	541
Studies in Rats on the Mechanism by which 6-Mercaptopurine Inhibits the Anticoagulant Effect of Warfarin. ALBRECHT MARTINI AND EBERHARD JÄHNCHEN	547
Complex Inhibition of Thymidylate Synthetase by Aromatic Diamidines: Evidence for Both Rapid, Freely Reversible and Slowly Progressive, Nonequilibrium Inhibition. HENRY G. KAPLAN AND CHARLES E. MYERS	554
Methanol Poisoning. V. Role of Formate Metabolism in the Monkey. K. E. McMARTIN, G. MARTIN-AMAT, A. B. MAKAR AND T. R. TEPHLY	564
Immunosuppressive Effects of 8,9-Epoxyhexahydrocannabinol (EHC). P. C. KLYKKEN, S. H. SMITH, J. A. LEVY, R. RAZDAN AND A. E. MUNSON	573

Investigations of the Analgesic and Morphine-like Properties of Azidomorphine. R. C. HILL, D. ROEMER AND H. BUESCHER	580
Miosis and Fluctuation in the Rabbit Pupil: Effects of Morphine and Naloxone. RONALD J. TALLARIDA, MARK S. KRAMER, JOHN W. ROY, ROBERT A. KESTER, RODNEY B. MURRAY AND MARTIN W. ADLER	587
Long-term Behavioral Changes in the Rhesus Monkey after Multiple Daily Injections of <i>d</i> -Methylamphetamine. MARIAN W. FISCHMAN AND CHARLES R. SCHUSTER	593
Antiseizure Activity of γ -Acetylenic γ -Aminobutyric Acid: A Catalytic Irreversible Inhibitor of γ -Aminobutyric Acid Transaminase. PAUL J. SCHECHTER, YVETTE TRANIER, MICHEL J. JUNG AND ALBERT SJOERDSMA	606
Actions of Iontophoretic Phenytoin and Medazepam on Hippocampal Neurons. WILLIAM D. MATTHEWS AND JOHN D. CONNOR	613
Unusual <i>Alpha</i> Adrenergic Receptor Potency of Methyldopa Metabolites on Melanocyte Function. WILLIAM A. PETTINGER	622
Induction of Membrane Alterations by Norepinephrine: Studies with Macrophages and Phospholipid Monolayers. NANCY J. BALTER, MARK W. COWDEN AND SORELL L. SCHWARTZ	627
Accumulation of Norepinephrine by Macrophages and Relationships to Known Uptake Processes. NANCY J. BALTER AND SORELL L. SCHWARTZ	636
<i>Beta</i> Adrenergic Receptor Labeling in Intact Animals with ¹²⁵ I-Hydroxybenzylpindolol. DAVID B. BYLUND, MICHAEL E. CHARNESSE AND SOLOMON H. SNYDER	644
Trans-Synaptic Modulation of Dopamine Metabolism in the Rat Superior Cervical Ganglion. F. KAROUM, C. K. GARRISON, N. NEFF AND R. J. WYATT	654
Antimuscarinic and Noncompetitive Antagonist Properties of Dicyclomine Hydrochloride in Isolated Human and Rabbit Bladder Muscle. J. W. DOWNIE, D. A. S. TWIDDY AND S. A. AWAD	662
Effects of Acetylcholine on Potassium Movements in the Guinea-Pig Sinus Node. STEPHEN L. LIPSIUS AND MARIO VASSALLE	669
Possible Involvement of Cyclic Adenosine 3':5'-Monophosphate in the Genesis of Catecholamine-Induced Tachycardia in Isolated Rabbit Sinoatrial Node. TAKASHI TANGUCHI, MOTOHATSU FUJIWARA AND KIYOSHI OHSUMI	678
The Effect of Antiarrhythmic Drugs on Triggered Sustained Rhythmic Activity in Cardiac Purkinje Fibers. MORTON F. ARNSDORF	689
Effects of Disopyramide on Electrophysiologic Properties of Canine Cardiac Purkinje Fibers. PETER DANILO, JR., ALLAN J. HORDOF AND MICHAEL R. ROSEN	701
Studies on Digitalis-Induced Arrhythmias in Glucose- and Insulin-Induced Hypokalemia. ROGER J. HALL, ALEX GELBART, MICHAEL SILVERMAN AND ROBERT H. GOLDMAN	711
Effect of Verapamil on Left Ventricular Performance in Conscious Dogs. RONALD K. NEWMAN, VERNON S. BISHOP, D. FRED PETERSON, EDMOND J. LEROUX AND LAWRENCE D. HORWITZ	723
Vasodilation Due to Urokinase in the Canine Femoral Circulation. NELSON J. GURLL, MICHAEL J. ZINNER, WILLIAM CALLAHAN AND DAVID G. REYNOLDS	731
Vasodilation Produced by Apomorphine in the Hindleg of the Dog. WALTER A. BUYLAERT, JAN L. WILLEMS AND MARC G. BOGAERT	738
<i>Alpha</i> Blocking Action of the Antihypertensive Agent, Prazosin. ROBERT M. GRAHAM, HELEN F. OATES, LYNETTE M. STOKER AND GORDON S. STOKES	747
Possible Role for Prostaglandins in the Production of Alterations in Pulmonary Function during Splanchnic Arterial Occlusion Shock. R. DOUGLAS WILKERSON	753
Mexrenoate Potassium: A Steroidal Aldosterone Antagonist and Antihypertensive. LORENZ M. HOFMANN, RICHARD M. WEIER, OSMAN D. SULEYMANOV AND HIDANIA A. PEDRERA	762
Measurement of Prostaglandin E ₂ in an Inflammatory Exudate: Effects of Nonsteroidal Anti-Inflammatory Agents. EDWARD J. BARBIERI, RAYMOND F. ORZECZOWSKI AND G. VICTOR ROSSI	769
Nephrotoxicity of Cephaloridine in Newborn Rabbits: Role of the Renal Anionic Transport System. J. S. WOLD, R. R. JOOST AND N. V. OWEN	778
Index, Volume 201, April-June 1977	787