

CONTENTS OF VOLUME 203

No. 1, SEPTEMBER 1977

Modification of Airway Smooth Muscle Responses in the Guinea Pig by Hydrocortisone, <i>in Vitro</i> and <i>in Vivo</i> . CHARLES BRINK, PAMELA RIDGWAY AND JAMES S. DOUGLAS	1
Mechanism of Isoproterenol-Induced Desensitization of Tracheal Smooth Muscle. CHIH-SHION LIN, LEON HURWITZ, JOHN JENNE AND BARRY P. AVNER	12
Inactivation of Norepinephrine in an Isolated Vein. FERNANDO BRANDÃO	23
Histamine Mediation in Muscular Vasodilatation Induced by <i>Beta</i> Adrenoceptor Stimulation in Dogs. FRANCO RENGO, BRUNO TTRIMARCO, MASSIMO CHIARIELLO, MASSIMO VOLPE, BRUNO RICCIARDELLI, GERARDO RASETTI AND LUIGI SACCÁ	30
Dilatation of the Mesenteric Vascular Bed of the Dog Produced by a Peptide, Urotensin I. KEITH MACCANNELL AND KARL LEDERIS	38
Evidence for a Centrally Mediated Hypotensive Effect of <i>Escherichia Coli</i> Endotoxin in the Anesthetized Dog. DAVID E. DOBBINS, DOUGLAS L. MARCINIAK, EDWARD F. GERSABECK, JAMES J. MACIEJKO AND GEORGE J. GRAGA	47
Facilitation of Chemoreceptor-Induced Reflex Vasoconstriction by Intravertebral Arterial Administration of Clonidine. EDMUND J. SYBERTZ AND BEN G. ZIMMERMAN	56
Central Nervous System Sites Involved in the Cardiovascular Effects of Picrotoxin. JOSEPH A. DiMICCO, BETTY L. HAMILTON AND RICHARD A. GILLIS	64
Effect of Ortho-Iodo Sodium Benzoate on Hemoglobin-Oxygen Affinity in Normal and Ischemic Myocardium. GARRETT J. GROSS, DAVID C. WARLTIER AND HAROLD F. HARDMAN	72
Hemodynamic and Natriuretic Effects of Bumetanide and Furosemide in the Cat. PETER A. FRIEDMAN AND FRANCOISE ROCH-RAMEL	82
The Effect of Bumetanide on Cation Transport in Human Red Blood Cells. HERBERT LUBOWITZ	92
The Mode of Action of Bumetanide: Inhibition of Chloride Transport across the Amphibian Cornea. M. CHRISTINE McGAHAN, THOMAS YORIO AND P. J. BENTLEY	97
Effects of Adrenalectomy and Adrenergic Antagonists on Potassium Metabolism. RAYMOND H. LOCKWOOD AND BERT K. B. LUM	103
Pharmacodynamic Analysis of the Rat Isolated Vas Deferens after Transplantation to Intestinal Wall. N. H. JURKIEWICZ, A. JURKIEWICZ, C. B. GOMES AND J. G. AUCÉLIO	112
Dose-Response Behavior on the Isolated Rat Uterus of Oxytocin Analogs with Modifications at Binding Sites. CLARK W. SMITH, SUSANNA CHAN AND RODERICH WALTER	120
Central and Peripheral Adrenergic Mechanisms Regulating Gastric Secretion in the Rat. I. YAMAGUCHI, J. HIROI AND S. KUMADA	125
Effects of 6-Hydroxydopamine on the Development of the <i>Beta</i> Adrenergic Receptor/Adenylyl Cyclase System in Rat Cerebral Cortex. T. KENDALL HARDEN, BARRY B. WOLFE, JONATHAN R. SPORN, BRAD K. POULOS AND PERRY B. MOLINOFF	132
Is Calcium the Final Mediator of Exocytosis in the Rat Parotid Gland? JAMES W. PUTNEY, JR., STUART J. WEISS, BARBARA A. LESLIE AND SUSAN H. MARIER	144
Adjuvant Polyarthritis. II. Suppression by Tilorone. YI-HAN CHANG	156
Relationships, among the Steroids, of Anti-inflammatory Properties and Inhibition of Prostaglandin Production and Arachidonic Acid Release by Transformed Mouse Fibroblasts. STANELY TAM, SU-CHEN L. HONG AND LAWRENCE LEVINE	162
Temporal Pattern and Reversal of Impaired Hepatic Mono-oxygenases by Phenobarbital in Rats with Developing and Established Adjuvant Disease. PERSHOTTAM P. MATHUR, ROBERT D. SMYTH, CHARLOTTE M. WITMER, GARY S. CARR AND NELSON H. REAVEY-CANTWELL	169
Pharmacokinetics of Some Homologous Series of Barbiturates in the Intact Rat and in the Isolated Perfused Rat Liver. TJONG DING YIH AND JACQUES M. VAN ROSSUM	184
Enflurane Metabolism in Rats and Man. BEN A. HITT, RICHARD I. MAZZE, WILLIAM J. BEPPU, WENDELL C. STEVENS AND EDMOND I. EGER, II	193
Radioimmunoassay for Normeperidine: Studies on the N-Dealkylation of Meperidine and Anileridine. DAVID S. FREEMAN, HILDA B. GJKA AND HELEN VAN VUNAKIS	203
Opiate Tolerance: Independence from Immunological Mechanisms. CLARAMAE H. MILLER, WALLACE D. WINTERS AND ELIEZER BENJAMINI	213
Naloxone Antagonizes Narcotic Self-blockade of Emesis in the Cat. DONALD J. COSTELLO AND HERBERT L. BORISON	222
Phenytoin Teratogenesis: Correlation between Embryopathic Effect and Covalent Binding of Putative Arene Oxide Metabolite in Gestational Tissue. FRED MARTZ, CONRAD FAILINGER, III AND DAVID A. BLAKE	231
A Comparison of Thalidomide and Pentobarbital—New Methods for Identifying Novel Hypnotic	

Drugs. R. C. A. FREDERICKSON, I. H. SLATER, W. E. DUSENBERRY, C. R. HEWES, G. T. JONES AND R. A. MOORE	240	
No. 2, NOVEMBER, 1977		
An Extracorporeal Complexing Hemodialysis System for the Treatment of Methylmercury Poisoning.		
II. <i>In Vivo</i> Applications in the Dog. P. J. KOSTYNIAK, T. W. CLARKSON AND A. H. ABBASI	253	
Renal Tubular Sodium and Phosphate Transport: Inhibitory Mechanisms of Proximally Active Agents in the Dog. JULES B. PUSCHETT, JOHN SZRAMOWSKI, NAWAF NSEIR AND MARTIN KUHRMAN		264
The Interaction of Ethacrynic Acid, Dihydroethacrynic Acid and Certain Thiol Adducts of Ethacrynic Acid with Bovine Serum Albumin. DANIEL A. KOECHEL, SANDRA A. SMITH AND EDWARD J. CAFRUNY. See corrected article, p. 738		
Stimulating Effects of γ -Hydroxybutyrate on Dopamine Release from the Caudate Nucleus and the Substantia Nigra of the Cat. A. CHÉRAMY, A. NIEOULLON AND J. GLOWINSKI	283	
Development of Tolerance to the Disruptive Effects of Cocaine on Repeated Acquisition and Performance of Response Sequences. DONALD M. THOMPSON	294	
Ketamine Self-Administration by the Rhesus Monkey. J. EDWARD MORETON, RICHARD A. MEISCH, LINDA STARK AND TRAVIS THOMPSON	303	
Dose Preference during Pentobarbital Self-Administration by Humans. ROY PICKENS, MARILYN R. CUNNINGHAM, LEONARD L. HESTON, ELKE ECKERT AND LINDA K. GUSTAFSON	310	
The Effects of 6-Hydroxydopamine on Tolerance to and Dependence on Ethanol. BORIS TABAKOFF AND R. F. RITZMANN	319	
Studies on Tolerance. II. The Effect of Timing on Inhibition of Tolerance to Morphine by Cycloheximide. MICHAEL P. FEINBERG AND JOSEPH COCHIN	332	
The Effect of Maternally Administered Methadone on Brain Development in the Off-spring. MARVIN A. PETERS	340	
Circling Behavior and Stereotypy Induced by Intranigral Opiate Microinjections. EDGAR T. IWAMOTO AND E. LEONG WAY	347	
The Purification of Antimorphine Antibodies by Affinity Chromatography. MARY CLARE WALKER AND ERIC J. SIMON	360	
First-Pass Effect of Nalorphine in Rats. KIKUO IWAMOTO AND CURTIS D. KLAASSEN	365	
Effect of Alteration of Metabolism on the Analgesic Activity, Toxicity Distribution and Excretion of <i>l</i> - α -Acetylmethadol in the Rat. DAVID L. ROERIG, ANDREW T. HASEGAWA AND RICHARD I. H. WANG	377	
Inhibition of Hepatic Microsomal Enzymes by Chloramphenicol. H. RICHARD ADAMS, ELIZABETH L. ISAACSON AND BETTIE SUE SILER MASTERS	388	
The Hepatic Microsomal Mixed-Function Oxidase System in Man: Cofactor Effects and the Influence of Cholestasis. NASIM AHMAD AND MARTIN BLACK	397	
The <i>In Vitro</i> Metabolism of Halothane (2-Bromo-2-Chloro-1,1,1-Trifluoroethane) by Hepatic Microsomal Cytochrome P-450. DALJI KARASHIMA, YOICHIRO HIROKATA, AKIO SHIGEMATSU AND TETSUJI FURUKAWA	409	
The Contribution of Cholinergic Postganglionic Neurotransmission to Contractions of Rabbit Detrussor. J. W. DOWNIE AND D. M. DEAN	417	
Acetylcholine Stimulation of the Sympathetic Ganglia: Effects of Taurine and Nicotinic and Muscarinic Ganglion Block. JAMES G. HILTON	426	
Radioimmunoassay of Atropine in Plasma. ROBERT J. WURZBURGER, RUSSELL L. MILLER, HAROLD G. BOXENBAUM AND SYDNEY SPECTOR	435	
Effect of Dipivalyl Derivatives of Catecholamines on Cardiovascular Function in the Conscious Dog. BIN C. WANG, DON D. BLOXHAM AND KENNETH L. GOETZ	442	
The Effects of Temperature Acclimation on Monoamine Metabolism. GEORGE B STEFANO AND EDWARD J. CATAPANE	449	
The Effect of Temperature on Cardiac Adrenoceptors. TERRY T. MARTINEZ AND JOHN H. MCNEILL	457	
Correlation of Ouabain-Induced Arrhythmia and Nonuniformity in the Histamine-Evoked Discharge of Cardiac Sympathetic Nerves. CLAIRE M. LATHERS, JAY ROBERTS AND GERALD J. KELLIHER	467	
The Influence of Prostaglandins E ₁ and E ₂ on Ouabain Cardiotoxicity in the Cat. JOHN C. SOMBERG, HELENE BOUNOUS, NORMAN CAGIN, CONSTANTINE ANAGNOSTOPOULOS AND BARRIE LEVITT	480	
Renin Inhibitory Effect of 2-[4-(4'-Chlorophenoxy)Phenoxyacetylaminol]-Ethylphosphorylethanolamine (PE-104) <i>in Vitro</i> and <i>in Vivo</i> . KANOO HOSOKI, MIZUO MIYAZAKI AND KENJIRO YAMAMOTO ..	485	
No. 3, DECEMBER 1977		
Stereoselective Metabolism, Pharmacokinetics and Biliary Elimination of Phenylethylhydantoin (Nirvanol) in the Dog. ADRIAN KÜPFER, JOHANNES BIRCHER AND RUDOLF PREISIG		493

Plasma Protein Binding and Metabolic Clearance of Phenytoin in the Rat. WAYNE A. COLBURN AND MILO GIBALDI	500
Effect of the Duration of Infusion on the Disposition of Lidocaine in Dogs. J. LELORIER, R. MOISAN, J. GAGNE AND G. CAILLE	507
The Pharmacology of SC-27166: A Novel Antidiarrheal Agent. ESAM Z. DAJANI, ROBERT G. BIANCHI, PETER F. EAST, JAMES L. BLOSS, GILBERT W. ADELSTEIN AND CHUNG H. YEN	512
Antidiarrheal and Central Nervous System Activities of SC-27166 (2-[3-(5-Methyl-1,3,4-Oxadiazol-2- yl)-3,3-Diphenylpropyl]-2-Azabicyclo[2.2.2]Octane). A New Antidiarrheal Agent, Resulting from Binding to Opiate Receptor Sites of Brain and Myenteric Plexus. CARL R. MACKERER, LINDA R. BROUGHAM, PETER F. EAST, JAMES L. BLOSS, ESAM Z. DAJANI AND GEORGE A. CLAY	527
Nitrous Oxide Analgesia: Reversal by Naloxone and Development of Tolerance. BARRY A. BERKOWITZ, A. DONALD FINCK AND S. H. NGAI	539
Morphine Decreases Luteinizing Hormone by an Action on the Dypothalamic-Pituitary Axis. THEODORE J. CICERO, THOMAS M. BADGER, CAROL E. WILCOX, ROY D. BELL AND EDWARD R. MEYER ..	548
A Benzo[a]Quinolizine Derivative with a Neuroleptic-Like Action on Cerebral Monoamine Turnover. A. SANER AND A. PLETSCHER	556
Autoradiographic Localization of [³ H]Reserpine Binding Sites in Rat Brain. L. CHARLES MURRIN, S. J. ENNA AND MICHAEL J. KUHAR	564
Vesicular and Juxtavesicular Serotonin Effects of Lysergic Acid Diethylamide and Reserpine. ANGELOS E. HALARIS AND DANIEL X. FREEDMAN	575
Adrenal Origin of the Increase in Plasma Dopamine β -Hydroxylase and Catecholamines Induced by Hemorrhagic Hypotension in Dogs. L. CUBEDDU, X., E. SANTIAGO, R. TALMACIU AND G. PINARDI	587
The Effect of Monoamine Oxidase and Catechol O-Methyltransferase Inhibitors on the Accumulation and Metabolism of [<i>l</i> - ³ H]Norepinephrine by the Adventitia and Media of Rabbit Aorta. JEROME A. LEVIN AND SUSAN E. WILSON	598
Control of Cyclic Adenosine 3':5'-Monophosphate-Evaluating Effect of Adenosine in C-1300 Murine Neuroblastoma in Tissue Culture. RICHARD D. GREEN	610
Studies on the Uptake and Binding of Propranolol by Rat Tissues. DENNIS W. SCHNECK, J. FREDERICK PRITCHARD AND ARTHUR H. HAYES, JR.	621
Cytotoxic Activity of Alkylating Agents in the Presence of Centrophenoxyne and Its Hydrolysis Products. N. E. SLADEK	630
A pH-Dependent, Carrier-Mediated Transport System for the Folate Analog, Amethopterin, in Rat Jejunum. W. B. STRUM	640
Effect of Indometacin and Aspirin on Gastric Blood Flow and Acid Secretion. JOHN F. GERKENS, DAVID G. SHAND, CHARLES FLEXNER, ALAN S. NIES, JOHN A. OATES AND JOANN L. DATA	646
Effects of 4-Aminopyridine at the Frog Neuromuscular Junction. JORGE MOLGO, MADELEINE LEMEIG- NAN AND PAUL LECHAT	653
Endocardial Viability Ratio on Effect of Nitroglycerin and Propranolol on Regional Myocardial Blood Flow in Intact Canine Hearts. GARRETT J. GROSS AND DAVID C. WARLTIER	664
Development of the Positive Inotropic Action of Ouabain: Effects of Transmembrane Sodium Move- ment. TAI AKERA, MARK K. OLGAARD, KYOSUKE TEMMA AND THEODORE M. BRODY	675
Direct Effects of the Monovalent Cation Ionophores Monensin and Nigericin on Myocardium. JOHN L. SUTKO, HENRY R. BESCH, JR., JOHN C. BAILEY, GERALD ZIMMERMAN AND AUGUST M. WATANABE	685
Pharmacologic Studies on W10,294A, A New Bronchodilator. R. E. GILES, J. C. WILLIAMS AND M. P. FINKEL	701
Tetrachlorodibenzo- <i>p</i> -Dioxin Induction of Renal Microsomal Enzyme Systems: Ultrastructural Effects on Pars Recta (S ₃) Proximal Tubule Cells of the Rat Kidney. BRUCE A. FOWLER, GARY E. R. HOOK AND GEORGE W. LUCIER	712
Pharmacologic Stimulation of Erythrocyte 2,3-Diphosphoglycerate Production <i>in Vivo</i> . LORNA G. MOORE, GEORGE J. BREWER, FRED J. OELSHLEGEL, JR., LUCIA F. BREWER AND ERIC B. SCHOOMAKER	722
Effect of Ring Substitution on the Metabolic Fate and Anti-inflammatory Activity of Some Prodolic Acid Analogs. W. T. ROBINSON, R. R. MARTEL, E. FERDINANDI AND M. KRAML	729
Errata	737
The Interaction of Ethacrynic Acid, Dihydroethacrynic Acid and Certain Thiol Adducts of Ethacrynic Acid with Bovine Serum Albumin. DANIEL A. KOECHEL, SANDRA A. SMITH AND EDWARD J. CAFRUNY	738
Index, Volume 203, October-December 1977	749