

CONTENTS OF VOLUME 216

No. 1, January 1981

A Comparative Study of Two Parasympatholytic Bronchodilator Agents: Ipratropium Bromide and Diphemanil Methylsulfate. LOUIS DIAMOND AND MARGARET O'DONNELL	1
Maturation of Sympathetic Neurotransmission in the Rat Heart. VII. Suppression of Sympathetic Responses by Dexamethasone. CHRISTOPHER LAU AND THEODORE A. SLOTKIN	6
Enkephalin Analogs and Physical Dependence. E. T. WEI	12
Interaction of Ethanol and Inorganic Mercury: Generation of Mercury Vapor <i>in Vivo</i> . J. D. DUNN, T. W. CLARKSON AND L. MAGOS	19
6-Keto-Prostaglandin E ₁ is More Potent Than Prostaglandin I ₂ as a Renal Vasodilator and Renin Secretagogue. EDWIN K. JACKSON, WILLIAM A. HERZER, JEFFREY B. ZIMMERMAN, ROBERT A. BRANCH, JOHN A. OATES AND JOHN F. GERKENS	24
Effects of Prolonged Treatment with Lithium and Tricyclic Antidepressants on Discharge Frequency, Norepinephrine Responses and <i>Beta</i> Receptor Binding in Rat Cerebellum: Electrophysiological and Biochemical Comparison. J. E. SCHULTZ, G. R. SIGGINS, F. W. SCHOCKER, M. TÜRCK AND F. E. BLOOM	28
The Effects of Thioridazine on Electrical and Ischemic Ventricular Fibrillation in the Dog Heart <i>in Situ</i> . JESSE C. DAVIS AND J. THOMAS BIGGER, JR.	39
Operant Analysis of Human Heroin Self-Administration and the Effects of Naltrexone. NANCY K. MELLO, JACK H. MENDELSON, JOHN C. KUEHNLE AND MARGARET S. SELLERS	45
Pharmacokinetics, Covalent Binding and Subcellular Distribution of [³ H]Doxorubicin after Intravenous Administration in the Mouse. BENEDICT J. MARAFINO, JR., SHRI N. GIRI AND DAVID M. SIEGEL	55
Characterization of End-Plate Conductance in Transsected Frog Muscle: Modification by Drugs. JEREMY J. LAMBERT, NICHOLAS N. DURANT, LINDA S. REYNOLDS, ROBERT L. VOLLE AND EDWARD G. HENDERSON	62
HgCl ₂ Inhibition of Nutrient Transport in Teleost Fish Small Intestine. DAVID S. MILLER	70
The Metabolism of 5-Hydroxytryptamine in the Methionine Sulfoximine Epileptogenic Rat Brain. OTTO Z. SELLINGER AND DENNIS D. DIETZ	77
A Comparison of the Contractile Responses of the Rabbit Basilar and Pulmonary Arteries to Sympathomimetic Agonists: Further Evidence for Variation in Vascular Adrenoceptor Characteristics. JOHN A. BEVAN	83
Narcotic Effects on Phenol Red Disposition in Mice. ARYEH HURWITZ	90
The Effects of Adrenergic Agonists and Antagonists on Vesicourethral Smooth Muscle of Rabbits. OM P. KHANNA, EDWARD J. BARBIERI AND ROBERT F. MCMICHAEL	95
Phenytoin, Methylprednisolone Sodium Succinate and Graft Survival. C. SPEIER, J. M. BROMBERG AND N. LEMPERT	101
Role of Released Catecholamines in the Vascular Response to Injected Angiotensin II in the Dog. WILLIAM H. CLINE, JR.	104
Alteration of the Baroreceptor Reflex by an Effect of Propranolol on the Isolated Carotid Sinus. HAROLD D. SCHULTZ AND JOHN E. ZEHR	111
Decreased Cerebral Catabolism of [³ H]Histamine <i>in Vivo</i> after S-Adenosylmethionine Administration. ROBERT A. SCHATZ, GIORGIO STRAMENTINOLI AND OTTO Z. SELLINGER	118
Serotonin Uptake by Isolated Adipose Capillary Endothelium. AUDREY ROBINSON-WHITE, SCOTT PETERSON, H. B. HECHTMAN AND DAVID SHEPRO	125
Activation of Adenylate Cyclase by Ethanol in Mouse Striatal Tissue. RICHARD A. RABIN AND PERRY B. MOLINOFF	129
Development of Acute Tolerance to the Effects of Naloxone on the Hypothalamic-Pituitary-Luteinizing Hormone Axis in the Male Rat. DENNIS P. OWENS AND THEODORE J. CICERO	135
[³ H]Mianserin: Differential Labeling of Serotonin ₂ and Histamine ₁ Receptors in Rat Brain. STEPHEN J. PEROUTKA AND SOLOMON H. SNYDER	142
Characterization of Phospholipase A Inhibition of Sterospecific Opiate Binding and Its Reversal by Bovine Serum Albumin. HUNG-KUANG LIN, MARY-JEAN C. HOLLAND AND ERIC J. SIMON	149
Characterization of Microsomal Aryl Hydrocarbon Hydroxylase of Rat Brain. MUKUL DAS, PRAHLAD K. SETH AND HASAN MUKHTAR	156
Cocaine and Amphetamine Antagonize the Decrease of Noradrenergic Neurotransmission Elicited by Oxymetazoline but Potentiate the Inhibition by α -Methylnorepinephrine in the Perfused Cat Spleen. S. Z. LANGER AND M. L. DUBOCOVICH	162
Sodium-2 Chloropropionate: Its Effects on Experimental Hyperlactatemia in the Dog. G. RIBES, G. VALETTE, J. F. VALETTE AND M. M. LOUBATIERES-MARIANI	172
Action Potential, Membrane Currents and Force of Contraction in Mammalian Heart Muscle Fibers Treated with Quinidine. HERMANN NAWRATH	176
Identification of Two Benzodiazepine Binding Sites on Cells Cultured from Rat Cerebral Cortex. KEN D. MCCARTHY AND T. KENDALL HARDEN	183
Centrally Induced Cardiovascular and Sympathetic Nerve Responses to Bradykinin in Rats. HAKUO TAKAHASHI AND RUBEN D. BÚNAG	192
Pharmacological Responses to Pentobarbital in Different Strains of Mice. T. NABESHIMA AND I. K. HO	196
Erratum	204

No. 2, February 1981

Methohexital-Reinforced Responding in Rats: Effects of Fixed Ratio Size and Injection Dose. ROY PICKENS, DAVID MUCHOW AND VICTOR DENOBLE	205
An <i>in Vitro</i> Quantitative Analysis of the <i>Alpha</i> Adrenoceptor Partial Agonist Activity of Dobutamine and Its Relevance to Inotropic Selectivity. TERRY P. KENAKIN	210

The Effects of Amrinone on Transport and Cyclic AMP Metabolism in Toad Urinary Bladder. SHERMAN D. LEVINE, MONICA JACOBY, JOSEPH A. SATRIANO AND DETLEF SCHLONDORFF	220
Antihypertensive Activity of Captopril (SQ 14,225), an Orally Active Inhibitor of Angiotension Converting Enzyme in Conscious Two-Kidney Perinephritic Hypertensive Dogs. REGIS R. VOLLMER, JOSEPH A. BOCCAGNO, THOMAS E. STEINBACHER, ZOLA P. HOROVITZ AND VISHNUBHAKTA S. MURTHY	225
Human Placental Cholinergic System: Depression of the Uptake of α -Aminoisobutyric Acid in Isolated Human Placental Villi by Choline Acetyltransferase Inhibitors. PETER P. ROWELL AND B. V. RAMA SASTRY	232
Comparison of Degree of Dependence of Canine Renal Arteries and Veins on High and Low Affinity Calcium for Responses to Norepinephrine and Potassium. R. KELLY HESTER AND GEORGE B. WEISS	239
The Cardiovascular and Autonomic Effects of Repeated Administration of Δ -9 Tetrahydrocannabinol to Rhesus Monkeys. ALICE B. FREDERICKS, NEAL L. BENOWITZ AND CHIN Y. SAVANAPRIDI	247
Effects of Adenosine on Mechanical Performance and Electrical Activity in the Canine Heart. FERDINAND URTHALER, W. THOMAS WOODS, THOMAS N. JAMES AND ALFRED A. WALKER	254
Actions of Verapamil on Purkinje Fibers from Normal and Infarcted Heart Tissues. GEORGE H. DERSHAM AND JACK HAN	261
β -1 Receptor Mediation of Renin Secretion Elicited by Low-Frequency Renal Nerve Stimulation. JEFFREY L. OSBORN, GERALD F. DiBONA AND MARC D. THAMES	265
Modification of Spinal Cord Transmission by an Interaction of Chlorpromazine and Phenytoin. JONATHAN S. CARP AND REBECCA J. ANDERSON	270
Pharmacological Studies on 5-Methoxymethyl-2'-Deoxyuridine: a New Antiviral Agent. J. BLAIR MELDRUM, V. SAGAR GUPTA, ASHOK K. TANEJA AND CHATUR S. SISODIA	275
Pharmacokinetics and Bioavailability of Acyclovir in the Dog. HARVEY C. KRASNY, PAULO DE MIRANDA, M. ROBERT BLUM AND GERTRUDE B. ELION	281
Intrastratial Kainic Acid: Acute Effects on Electrophysiological and Biochemical Measures of Nigrostriatal Dopaminergic Activity. JAN J. BRASZKO, MICHAEL J. BANNON, BENJAMIN S. BUNNEY AND ROBERT H. ROTH	289
Mechanisms of Organic Cation Transport in Kidney Plasma Membrane Vesicles: 2. Δ pH Studies. PETER D. HOLOHAN AND CHARLES R. ROSS	294
The Effects of <i>Levo</i> - α -Acetylmethadol and Its Metabolites on Schedule-Controlled Behavior in the Pigeon. W. T. MCGIVNEY AND D. E. MCMILLAN	299
Effects of Acute and Chronic 1,3-Butanediol Treatment on Central Nervous System Function: A Comparison with Ethanol. G. D. FRYE, R. E. CHAFIN, R. B. MAILMAN, C. D. KILTS, R. A. MUELLER AND G. R. BREESE	306
Evidence for a Role of Endogenous Histamine in Central Cardiovascular Regulation: Inhibition of Histamine-N-Methyltransferase by SKF 91488. M. C. KLEIN AND S. B. GERTNER	315
A Comparative Study on the Effects of Morphine on Central, Peripheral and Ganglionic Stores of Catecholamines. FAROUK KAROUM, RICHARD JED WYATT AND ERMINIO COSTA	321
Characteristics of the Transport of Pteroylglutamate and Amethopterin in Rat Jejunum. WILLIAMSON B. STRUM	329
Quinacrine-Blocked Desensitization of Adrenoceptors after Immobilization Stress or Repeated Injection of Isoproterenol in Rats. TICHOMIR TORDA, ISAMU YAMAGUCHI, FUSSAO HIRATA, IRWIN J. KOPIN AND JULIS AXELROD	334
Retrograde Perfusion to Probe the Heterogeneous Distribution of Hepatic Drug Metabolizing Enzymes in Rats. K. SANDY PANG AND JULIA A. TERRELL	339
Effects of Sotalol and Vagal Stimulation on Ischemic Myocardial Blood Flow Distribution in the Canine Heart. JAMES D. BUCK, DAVID C. WARLTIER, HAROLD F. HARDMAN AND GARRETT J. GROSS	347
On the Use of a Dynamic Approach to the Estimation of Dissociation Constants for Reversible Competitive Antagonists. G. L. AMIDON AND C. K. BUCKNER	352
Identification of Desethyl Procainamide in Patients: A New Metabolite of Procainamide. TSUEN L. RUO, YOSHIO MORITA, ARTHUR J. ATKINSON, JR., THOMAS HENTHORN AND JEAN-PAUL THENOT	357
Regional Renal and Splanchnic Blood Flows during Nicotine Infusion: Effects of β Adrenergic Blockade. H. FRED DOWNEY, GEORGE J. CRYSTAL AND FOUAD A. BASHOUR	363
Pharmacological Studies of a Novel Dopamine-Sensitive Receptor Mediating Burst-Firing Inhibition of Neurosecretory Cell R 15 in <i>Aplysia californica</i> SIDNEY M. GOSPE, JR. AND WILKIE A. WILSON, JR.	368
Inhibition of Human Sperm Motility by Inhibitors of Choline Acetyltransferase. B. F. RAMA SASTRY, V. E. JANSON AND A. K. CHATURVEDI	378
Interaction of D-LSD with Blood Platelets of Rabbits: Shape Change and Specific Binding. ANDREAS LAUBSCHER, ALFRED PLETSCHER AND HANS NOLL	385
Studies on the Direct Vasodilator Effect of Hydralazine in the Isolated Rabbit Renal Artery. M. KHAYYAL, F. GROSS AND V. A. W. KREYE	390
A Study Designed to Explore the Hypothesis that β -1 Adrenoceptors are "Innervated" Receptors and β -2 Adrenoceptors are "Hormonal" Receptors. LESLEY J. BRYAN, JULIANNE J. COLE, STELLA R. O'DONNELL AND JANET C. WANSTALL	395
Possible Involvement of Adenine Nucleotides in Sympathetic Neuroeffector Mechanisms of Dog Basilar Artery. IKUNOBU MURAMATSU, MOTOHATSU FUJIWARA, AKIRA MIURA AND YOSHIHIKO SAKAKIBARA	401
Reduction in Immunogenicity and Clearance Rate of <i>Escherichia coli</i> L-Asparaginase by Modification with Monomethoxypolyethylene Glycol. YOSHINORI KAMISAKI, HIROSHI WADA, TAKAYASU YAGURA, AYAKO MATSUSHIMA AND YUJI INADA	410
The Influence of Endotoxin-Induced Pyrexia on the Pharmacokinetics of Gentamicin in the Rabbit. HILLEL HALKIN, MOSHE LIDJI AND ETHAN RUBINSTEIN	415
Changes in β Adrenergic Receptors in Submaxillary Glands of Chronically Reserpine- or Isoproterenol-Treated Rats. ADELBERT A. ROSCHER, ULRICH N. WIESMANN AND ULRICH E. HONEGGER	419
Multiple Benzodiazepine Receptor Localization by Light Microscopic Radiohistochemistry. W. SCOTT YOUNG, III, DEBRA NIEHOFF, MICHAEL J. KU HAR, BERNARD BEER AND ARNOLD S. LIPPA	425
Errata	431

Sex- and Age-Related Mouse Toxicity and Disposition of the Amino Acid Antitumor Agent, Acivicin. J. PATRICK MCGOVREN, GARY L. NEIL, PHILIP CHAN CHEE SEM AND JULIANNA C. STEWART	433
The Acute Effects of Furosemide, Ethacrynic Acid and Chlorothiazide on the Renal Tubular Handling of Uric Acid in the Chicken. J. R. SHIDEMAN, M. J. ZMUDA AND A. J. QUEBBEMANN	441
Effect of Reserpine Pretreatment on <i>in Vivo</i> Femoral Arterial Responses to Vasodilator Agents. CYNTHIA A. CAUVIN, CARLOS J. DEVIA AND PAUL L. KIRKENDOL	447
Postmyocardial Infarction Re-Entrant Ventricular Arrhythmias in Conscious Dogs: Suppression by Bretylium Tosylate. EUGENE PETERSON, JOHN K. GIBSON AND BENEDICT R. LUCCHESI	453
Ethanol and Functional Tolerance: Interactions with Pimozide and Clonidine. MICHAEL J. MULLIN AND ANDREW P. FERKO	459
Inhibition of Placental Valine Uptake after Acute and Chronic Maternal Ethanol Consumption. GEORGE I. HENDERSON, DAN TURNER, RASHMI V. PATWARDHAN, LAWRENCE LUMENG, ANASTACIO M. HOYUMPA AND STEVEN SCHENKER	465
Postnatal Development of Mixed-Function Oxidation and Conjugation in Hemoglobin-Free Perfused Rat Liver. BABASAHEB R. SONAWANE, SUMNER J. YAFFE, LESTER A. REINKE AND RONALD G. THURMAN	473
Disposition of Furosemide in Functionally Hepatectomized Dogs. ROGER K. VERBEECK, JOHN F. GERKENS, GRANT R. WILKINSON AND ROBERT A. BRANCH	479
Behavioral Effects of Nicotine: Schedule-Controlled Responding by Squirrel Monkeys. ROGER D. SPEALMAN, STEVEN R. GOLDBERG AND MICHAEL L. GARDNER	484
Effect of Hypophysectomy and Castration on Hepatic, Pulmonary and Intestinal Aryl Hydrocarbon Hydroxylase Activities in the Rat. WALID A. AL-TURK, SIDNEY J. STOHS AND EDWARD B. ROCHE	492
Effect of Morphine Exposure on Mouse Liver Triglyceride Formation. ROBERT G. LAMB AND WILLIAM L. DEWEY	496
Acute and Chronic Effects of Naltrexone and Naloxone on Schedule-Controlled Behavior of Squirrel Monkeys and Pigeons. S. R. GOLDBERG, W. H. MORSE AND D. M. GOLDBERG	500
Differential Biosynthesis of Prostaglandins by Hydronephrotic Rabbit and Cat Kidneys. DIANE FELSEN REINGOLD, KARIN WATTERS, SANDRA HOLMBERG AND PHILIP NEEDLEMAN	510
Renal Excretion of Cimetidine. I. M. WEINER AND L. ROTH	516
Interactions of Reserpine and Morphine on Rat Intestinal Transit. JOHN J. STEWART	521
The Interaction of Lisuride, An Ergot Derivative, with Serotonergic and Dopaminergic Receptors in Rabbit Brain. MYRNA R. ROSENFELD AND MAYNARD H. MAKMAN	526
Sel-Administration of Cocaine Derivatives by Squirrel Monkeys. ROGER D. SPEALMAN AND R. T. KELLEHER	532
Pharmacologic Determinants of Ototoxicity of Furosemide in the Chinchilla. THOMAS P. GREEN, LEONARD P. RYBAK, BERNARD L. MIRKIN, S. K. JUHN AND TETSUO MORIZONO	537
Evaluation of Phencyclidine Analogs on the Basis of Their Discriminative Stimulus Properties in the Rat. HARLAN E. SHANNON	543
Effect of N-[(S)-1-Carboxy-3-Phenylpropyl]-L-Ala-L-Pro and Its Ethyl Ester (MK-421) on Angiotensin Converting Enzyme <i>in Vitro</i> and Angiotensin I Professor Responses <i>in Vivo</i> . DENNIS M. GROSS, CHARLES S. SWEET, EDGAR H. ULM, ELIZABETH P. BACKLUND, AUDREY A. MORRIS, DAVID WEITZ, DENNIS L. BOHN, HERBERT C. WENGER, THEODORE C. VASSIL AND C. A. STONE	552
Antihypertensive Activity of N-[(S)-1-(Ethoxycarbonyl)-3-Phenylpropyl]-L-Ala-L-Pro (MK-421), An Orally Active Converting Enzyme Inhibitor. CHARLES S. SWEET, DENNIS M. GROSS, PHYLLIS T. ARBEGAST, S. LEE GAUL, PATRICIA M. BRITT, CARL T. LUDDEN, DAVID WEITZ AND C. A. STONE	558
Hypotensive Action of Synthetic Fragments of Parathyroid Hormone. PETER K. T. PANG, MAY C. M. YANG, THOMAS E. TENNER, JR., J. K. CHANG AND M. SHIMIZU	567
Interaction of Ethanol and Nutrition during Gestation: Influence on Maternal and Offspring Development in the Rat. SANDRA G. WIENER, WILLIAM J. SHOEMAKER, LEONARD Y. KODA AND FLOYD E. BLOOM	572
Influence of Dietary Sodium on Renin Angiotensin System Involvement in Sodium Nitroprusside Hypotension in Conscious Rats. REGIS R. VOLLMER, EUGENE N. BUSH AND MAHMOUD M. ABUKHRES	580
Inhibition of Two Monomeric Butyrylcholinesterases from Rabbit Liver by Chlorpromazine and Other Drugs. R. S. RUSH, A. R. MAIN, B. F. KILPATRICK AND G. D. FAULKNER	586
Presynaptic Modulation of the Release of Dopamine from the Rabbit Caudate Nucleus: Differences between Electrical Stimulation, Amphetamine and Tyramine. LINDA A. KAMAL, SONIA ARBILLA AND S. Z. LANGER	592
Analysis of the Cerebrovascular Effects of 5-Hydroxytryptamine in Unanesthetized Goats. G. DIEGUEZ, B. GOMEZ AND S. LLUCH	599
Pharmacological Characterization of the ϵ -Opiate Receptor. RÜDIGER SCHULZ, MICHAEL WÜSTER AND ALBERT HERZ	604
Postsynaptic α -2 Adrenergic Receptors in Isolated Rat Islets of Langerhans: Inhibition of Insulin Release and Cyclic 3':5'-Adenosine Monophosphate Accumulation. TOSHIO NAKAKI, TERUO NAKADATE, KUNIO ISHII AND RYUICHI KATO	607
Interaction between Phenytoin, 5-(P-Hydroxyphenyl-5-Phenylhydantoin) and Valproate in the Rat. THOMAS DENIS O'LEARY AND LLOYD N. SANSOM	613
Renal Excretion of Levamisole. GÉRARD E. PLANTE, RALPH ERIAN AND CLAUDE PETITCLERC	617
Cardiovascular Effects of a Novel Vasoactive Antihypertensive Agent, Ro 12-4713. M. GEROLD, R. EIGENMANN, F. HEFTI, A. DAUM AND G. HAEUSLER	624
Uptake of Galactose, Ouabain and Taurocholate into Centrilobular and Periportal Enriched Hepatocyte Subpopulations. NEILL H. STACEY AND CURTIS D. KLAASSEN	634
Renal Toxicity Due to Reactive Metabolites <i>in Situ</i> in the Kidney: Investigations with 4-Ipomeanol in the Mouse. MICHAEL R. BOYD AND JOHN S. DUTCHER	640
Tyrosine Hydroxylase: Studies on the Phosphorylation of a Purified Preparation of the Brain Enzyme by the Cyclic AMP-Dependent Protein Kinase. ARTHUR M. EDELMAN, JOACHIM D. RAESE, MITCHELL A. LAZAR AND JACK D. BARCHAS	647
Index, Volume 216, January-March, 1981	655