CONTENTS OF VOLUME 202

No. 1, July 1977

The Pharmacokinetics of d-Tubocurarine in Man with and without Renal Failure. RONALD D. MILLER, RICHARD S. MATTEO, LESLIE Z. BENET AND YUNG J. SOHN .............................................................. 1
Hepatic Uptake and Biliary Excretion of Dibromosulphthalein. Albumin Dependence, Influence of Phenobarbital and Nafenopin Pretreatment and the Role of Y and Z Protein. DIRK K. F. MEIJER, ROEL J. VONE, KATJA KEULEMANS AND JEANNET G. WEITERING .............................................................. 8
The Influence of Ingestion of Environmentally Encountered Levels of a Commercial Polychlorinated Biphenyl Mixture (Aroclor 1254) on Drug Metabolism in the Rat. JAMES V. BRUCKNER, WEN-DEI JANG, JAMES M. BROWN, LAKSHMI PUTCHA, C. K. CHU AND VAL J. STELLA .............. 22
Association of in Vivo and in Vitro Propranolol Levels in Canine Purkinje Fibers with Antiarrhythmic Effects. JACK K. PRUETT, THOMAS WALLE AND ERVIN E. BAGWELL ......................................................... 45
Mechanism of Cardiovascular Effects of Clonidine in Conscious and Anesthetized Rabbits. K. K. TANGHI, MARGARET PETTY, L. M. H. WING AND J. L. REID ......................................................... 69
Ultrastructural Changes in Guinea-pig Myocardium after Acute Ouabain Treatment. JOHN O. LINDOVER AND BERNARD H. MARES ......................................................... 76
A Comparison of the Effect of Theophylline and Cyclic Adenosine 3':5'-Monophosphate on the Superior Cervical Ganglion of the Rabbit by Means of the Sucrose-Gap Method. N. J. DUN AND A. G. KARCZMAR ......................................................... 89
Inhibition of Canine Adrenergic Transmission by an Analog of Dopamine GJH-166. F. M. SHARABI, J. P. LONG AND J. G. CANNON ......................................................... 97
Relationships between the Chemical Structure and PharmacologicalActivities of d-(−)-S- and l(+)R-Tropinolcholines at Cholinergic Sites. B. V. RAMA SASTRY AND H. C. CHENG ......................................................... 105
Airway Responses of Guinea Pig in Vivo and in Vitro. JAMES S. DOUGLAS, PAMELA RIDGWAY AND CHARLES BRINK ......................................................... 116
Activity and Energy Turnover in Airway Smooth Muscle: Influence of Acetylcholine and Isoprenaline. M. ASHWINI KUMAR ......................................................... 125
The Role of Calcium Ions in Accumulations of Cyclic Adenosine Monophosphate Elicited by Alpha and Beta Adrenergic Agonists in Rat Brain Slices. U. SCHWABE AND J. W. DALY ......................................................... 134
Plasma Catecholamine Concentrations in Unanesthetized Rats during Sleep, Wakefulness, Im mobilization and after Decapitation. CHARLES W. POPPER, CHUANG C. CHIUEH AND IRWIN J. KOPIN ......................................................... 144
A Comparison of the Effects of Haloperidol on Dopamine Turnover in the Striatum, Olfactory Tubercle and Median Eminence. GARY A. GUDELSKY AND KENNETH E. MOORE ......................................................... 149
On the Pharmacology of the Ketamine Enantiomorphs in the Rat. MICHAEL P. MARIETTA, WALTER L. WAY, NEAL CASTAGNOLO, JR. AND ANTHONY J. TREVOR ......................................................... 157
Effects of Na+, K+, Mg2+ and Ca2+ on the Saturable Binding of 3H-Dihydromorphine and 3H-Naloxone in Vitro. CHENG-YI LEE, TAI AKERA AND THEODORE M. BRODY ......................................................... 166
Centrally Mediated Intestinal Stimulation by Morphine. JOHN J. STEWART, NORMAN W. WEISSBROD AND THOMAS F. BURKS ......................................................... 174
Motility Response to Morphine and Amphetamine during Chronic Inhibition of Tyrosine Hydroxylase or Dopamine β-Hydroxylase. J. H. KHALSE AND W. M. DAVIS ......................................................... 182
Stimulation of Erythropoiesis by Beta Adrenergic Agonists. I. Characterization of Activity in Polycythemic Mice. GREGORY D. FINK AND JAMES W. FISHER ......................................................... 192
Stimulation of Erythropoiesis by Beta Adrenergic Agonists. II. Mechanism of Action. GREGORY D. FINK AND JAMES W. FISHER ......................................................... 199
Effect of L-Dopa on Plasma Renin Activity with and without Inhibition of Extracerebral Dopa Decarboxylase in Dogs. MARTHA L. BLAIR, IAAN A. REID AND WILLIAM F. GANONG .............. 209

Aldosterone Antagonism Studies in the Rhesus Monkey LORENZ M. HOFMANN, HIDANIA A. PEDREZA AND OSMAN D. SULEYMANOV .............. 216

The Role of the Kidney in the Early Nondiuretic Action of Furosemide to Reduce Elevated Left Atrial Pressure in the Hypervolemic Dog. WILLIAM A. BOURLAND, DANIEL K. DAY AND HAROLD E. WILLIAMSON .............. 221

The Effects of Haloperidol, Chlorpromazine and Propranolol on Acute Amphetamine Poisoning in the Conscious Dog. JOHN D. CATRAVAS, I. W. WATERS, JOHN P. HICKENBOTTEM AND W. MARVIN DAVIS .............. 230

No. 2, AUGUST 1977

Carbon Disulfide. I. The Metabolism of Inhaled Carbon Disulfide in the Rat. MICHAEL J. MCKENNA AND VICTOR DI STEFANO .............. 245

Carbon Disulfide. II. A Proposed Mechanism for the Action of Carbon Disulfide on Dopamine β-Hydroxylase. MICHAEL J. MCKENNA AND VICTOR DI STEFANO .............. 253

Inhibition of Norepinephrine Accumulation by Amphetamine Derivatives: Studies with Rat Brain and Rabbit Aorta. GLENN S. TAKIMOTO, ARTHUR K. CHO AND JAMES C. SCHAEFFER .............. 267

Kinetics of Accumulation, Efflux and the Pharmacological Effects of Trinitiated Dihydroazapetine on the Rabbit Aorta. ROBERT R. RUFFOLO, JR., JOHN W. FOWBLE, DUANE D. MILLER AND POPAT N. PATIL .............. 278

The Site and the Mechanism of Phenoxbenzamine Potentiation of the Pressor Response to Oxytocin and Vasopressin: In Vivo and Isolated Aortic Strips Studies. EDWARD F. ERKER AND W. Y. CHAN .............. 287

Requirements for Angiotensin Tachyphylaxis in Smooth Muscles. THEREZINHA B. PAIVA, MARIA E. MIYAMOTO, LUZ JULIANO AND ANTONIO C. M. PAIVA .............. 294

Adrenergic Receptor Mechanisms Involved in the Hyperglycemia and Hyperlactacidemia Produced by Sympathomimetic Amines in the Cat. SHU-HUI KUO, JOSEPH K. KAMAKA AND BERT K. B. LUM .............. 301

Central Depression of Carotid Baroreceptor Pressor Response, Arterial Pressure and Heart Rate by 5-Hydroxytryptophan: Influence of Supracollicular Areas of the Brain. A. S. TADEPALLI, E. MILLIS AND S. M. SCHANBERG .............. 310

Leakage of dl-Propranolol from Cerebrospinal Fluid to the Bloodstream in the Rabbit. WARWICK P. ANDERSON, PAUL I. KORNER, ALEX BOBIK AND JOHN P. CHALMERS .............. 320

Pharmacological Studies of OPC-2009, a Newly Synthesized Selective β-Adrenoceptor Stimulant, in the Bronchomotor and Cardiovascular System of the Anesthetized Dog. YOUSHI YAMASHITA AND SEI-SO TEL .............. 326

Differences in Pulmonary and Cardiovascular β Receptors in the Guinea Pig and Rabbit. R. M. WEISSBERG, J. BRADSHAW AND R. ALVAREZ .............. 337

The Relationship between Cyclic Nucleotide Levels and Glycogen Phosphorylase Activity in Isolated Rat Hearts Perfused with Epinephrine and Acetylcholine. RUSSELL M. GARDNER AND DONALD O. ALLEN .............. 346

Binding and Effect of Trinitiated Quinidine on Cardiac Subcellular Enzyme Systems: Sarcolplasmic Reticulum Vesicles, Mitochondria and Na‘,K’-Adenosine Triphosphatase. HENRY R. BEISH, JR. AND AUGUST M. WATANABE .............. 354

Pharmacokinetics of Quinidine in Humans after Intravenous, Intramuscular and Oral Administration. DAVID J. GREENBLATT, HENRY J. PFEIFER, HERMANN R. OCHS, KATE FRANKE, DEAN S. MACLAUGHLIN, THOMAS W. SMITH AND JAN KOCH-WESER .............. 365

Epinephrine and Recovery from Punishment. WILLIAM C. HOLT, ROBERT G. PENDLETON, WILLIAM T. FRY AND CHARLES A. GILL .............. 379

Theophylline Action on Sodium Fluxes in Frog Striated Muscle. E. T. HAYS, P. HOBOWICZ AND J. G. SWIFT .............. 388

Facilitatory and Inhibitory Effects of γ-Aminobutyric Acid on Ganglionic Transmission in the Sympathetic Cardiac Nerves of the Dog. TOMOHIKO KIMURA, HIROSHI IMAMURA AND KOROKU HASHIMOTO .............. 397

Motor Nerve Terminal Facilitatory Action of SQ 20009: An Inhibitor of Cyclic Nucleotide Phosphodiesterase. ROBERT S. JACOBS AND DAWN M. MCNIECE .............. 404

Studies on the Direct Spinal Action of Narcotics in the Production of Analgesia in the Rat. TONY
Shock

Electric

Single-Dose Tolerance

Calcium Antagonist Activity of Methadone, l-Acetylmethadol and l-Pentazocine in the

Studies on the Interactions of Propranolol with Adrenergic Neurons. DAVID A.

Release of Endogenous Norepinephrine and Dopamine from Cerebral Cortex

The

Subsensitivity of

Lanthanum Block of Contraction and of Relaxation in Response to Serotonin and Dopamine in Mol-

Studies on the Mechanism of Stimulation of Dopamine Synthesis by Amphetamine in Striatal Slices. R. MARTIN BARTHOLOW, LEE B. ARNOLD, PERRY HERB, J. GLOWINSKI AND M. HAMON

Acute Changes in Central Serotonin Metabolism Induced by the Blockade or Stimulation of Serotone-

Receptors during Ontogenesis in the Rat. S. BOURGOIN, F. ARTAUD, A. ENJALBERT, F. HERY, J. GLOWINSKI AND M. HAMON

Conformationally defined Adrenergic Agents. II. The Effect of Endo- and Exo-2-Aminobenzicabicyc-

[2.2.2.]Octene, Conformationally Defined Amphetamines Analogs, on the Uptake and Release of

Central Catecholamines. R. MARTIN BARTHOLOW, Lee E. EIDEN, James A. RUTH, GARY L.

GRUNEWALD, JANE SIEBERT AND CHARLES O. RUTLEDGE

The Release of Endogenous Norepinephrine and Dopamine from Cerebral Cortex by Amphetamine.

ELLEN B. ARNOLD, PERRY B. MOLINOFF AND CHARLES O. RUTLEDGE

Participation of an Endogenous Ca++-Binding Protein Activator in the Development of Drug-Induced

Supersensitivity of Striatal Dopamine Receptors. M. GNERY, P. UZUNOV AND E. COSTA

Studies on the Mechanism of Stimulation of Dopamine Synthesis by Amphetamine in Striatal Slices.

NORMAN J. URETSKY AND S. ROBERT SNOGDRASS

Comparison between the Neurotoxic and Serotonin-Depleting Effects of Various Halogenated Deriva-

tives of Amphetamine in the Rat. JOHN A. HARVEY, SCOTT E. McMaster AND RAY W. FULLER

Endogenous Inhibitors of Dopamine β-Hydroxylase: Separation of Multiple Forms and Access to the

Enzyme. J. C. ORCUTT AND P. B. MOLINOFF

Lanthanum Block of Contraction and of Relaxation in Response to Serotonin and Dopamine in Mol-

luscan Catch Muscle. YOJIRO MUNEOKA AND STEFANO J. E. LUCHELLI-FORTIS

Delay in Nerve Degeneration after Sympathectomy of the Submaxillary Gland of the Rat by Treat-

ment with Pargyline, Nialamide or β-TM-10. SONIA ARRILLA, CARLOS J. PEREZ AND FRANCISCO

J. E. STEFANO

Studies on the Interactions of Propranolol with Adrenergic Neurons. DAVID A. SAELENS, HERMAN B.

DANIELL AND JERRY G. WEBB

Calcium Antagonist Activity of Methadone, l-Acetylmethadol and l-Pentazocine in the Rat Aortic

Strip. CHI-HO LEE AND BARRY A. BERKOWITZ

Single-Dose Tolerance to Morphine Hypothermia in the Rat: Differentiation of Acute from Long-Term

Tolerance. GARY C. ROSENFELD AND RICHARD L. KEMPSON

Electric Shock Titration: Effects of Morphine, Methadone, Pentazocine, Nalorphine, Naloxone, Diaz-
pam and Amphetamine. LINDA A. DYKSTRA AND D. E. Mc MILLAN

CONTENTS

1977

No. 3, September 1977

L. YARSH AND THOMAS A. RUDY

Effects of Morphine and Haloperidol on the Electrical Activity of Rat Nigrostriatal Neurons. KATSUMA

IWATSUBO AND DORIS H. CLOUET

The Analgesic Action of Baclofen [β-(4-Chlorophenyl)-γ-Aminobutyric Acid]. RICHARD A. LEVY AND

HERBERT K. PROUDFIT

Antiproliferative Activity of Anti-Inflammatory Drugs in Two Mammalian Cell Culture Lines. VAL-

DEMAR HIAL, MARIA C. F. DE MELLO, ZDENKA HORAKOVA AND MICHAEL A. BEAVEN

Alteration of δ-Tetrahydrocannabinol-Induced Teratogenicity by Stimulation and Inhibition of Its

Metabolism. RAYMOND D. HARRISON, BERNARDO MANTILLA-PLATA AND DAVID J. LUBIN

Inhibition of Transport and Prevention of Toxicity of Cephaloridine in the Kidney. Dose-Responsi-

vness of the Rabbit and Guinea Pig to Probencid. BRUCE M. TUNE, KAI YIN WU AND RICHARD

L. KEMPSON

Transport and Toxicity of Cephaloridine in the Kidney. Effect of Furosemide, p-Aminohippurate

and Saline Diuresis. BRUCE M. TUNE, KAI YIN WU, DORIS F. LONGEBEAM AND RICHARD L. KEMPSON

Evaluation of Anticonvulsants in Barbiturate Withdrawal. MICHIKO OKAMOTO, HOWARD A. ROSENFELD

AND THOMAS R. ROSENBERG AND NORMAN R. BOISSE

Erratum

490
Effects of Acute Alcohol Intake on Pituitary-Gonadal Hormones in Normal Human Males. Jack H. Mendelson, Nancy K. Mello and James Ellingboe .................................................. 676
Inosine as a Cardiotonic Agent That Reverses Adrenergic Beta Blockade. Alexander Juhasz-Nagy and Domingo M. Aviado ................................................................. 683
Interaction of Spironolactone and Digoxin in Dogs. G. E. Musgrave, C. K. Born, C. P. Davidson and M. E. Hamrick ................................................................. 696
Transport Ontogeny and Selective Substrate Stimulation As Models for Identification of Multiple Renal Organic Anion Transport System. William R. Hewitt, Peggy A. Wagner, Eileen F. Bostwick and Jerry B. Hook ................................................................. 711
The Rapid Reduction of Diosulfiram in Blood and Plasma. John Cobby, Michael Mayersohn and Sathi Selliah ................................................................. 724
Increased Biliary Tree Permeability Produced in Rats by Hepatoactive Agents. Richard E. Peterson and John M. Fujimoto ................................................................. 732
Index, Volume 202, July-September 1977 ................................................................. 741