Model of Ischemia and Reperfusion

VOLUME 279 OCTOBER 1996 **NUMBER 1**

The Journal of **PHARMACOLOGY**

AND EXPERIMENTAL THERAPEUTICS

Contents

ASPET COLLOQUIUM REPORT		
Effects of Gonadal Steroids on Vascular Function	Sue Piper Duckles, Diana N. Krause and Virginia M. Miller	1
ANALGESIA AND DRUGS OF ABUSE		
Mechanism of Clocinnamox Blockade of Opioid Receptors: Evidence from in Vitro and ex Vivo Binding and Behavioral Assays	Gerald Zernig, Timothy Burke, John W. Lewis and James H. Woods	23
Pretreatment with Pertussis Toxin Differentially Modulates Morphine- and β -Endorphin-induced Antinociception in the Mouse	Leon F. Tseng and Keith A. Collins	39
Gangliosides Reduce the Development of Ethanol Dependence Without Affecting Ethanol Tolerance	Lawrence D. Snell, Gyula Szabó, Boris Tabakoff and Paula L. Hoffman	128
Effects of the Androgenic/Anabolic Steroid Stanozolol on GABA _A Receptor Function: GABA-Stimulated ³⁶ Cl ⁻ Influx and [³⁵ S] TBPS Binding	A. E. Tory Masonis and Michael P. McCarthy	186
Corticotropin-Releasing Factor and Type 1 Corticotropin-Releasing Factor Receptor Messenger RNAs in Rat Brain and Pituitary During "Binge"-Pattern Cocaine Administration and Chronic Withdrawal	Yan Zhou, Rudolph Spangler, K. Steven LaForge, Christopher E. Maggos, Ann Ho and Mary Jeanne Kreek	351
AUTONOMIC PHARMACOLOGY		
Melatonin Modulation of Presynaptic Nicotinic Acetylcholine Receptors in the Rat Vas Deferens	Regina P. Markus, Wagner M. Zago and Regina C. G. Carneiro	18
Repetitive Administration of the 5-HT ₃ Receptor Antagonist Granisetron Reduces the Incidence of Delayed Cisplatin-Induced Emesis in the Piglet	Laurent Grélot, Hervé le Stunff, Stéphane Milano, Peter R. Blower and Didier Romain	255
Radioligand Binding, Autoradiographic and Functional Studies Demonstrate Tachykinin NK-2 Receptors in Dog Urinary Bladder	Christian J. Mussap, Chrissy Stamatakos and Elizabeth Burcher	423
BEHAVIORAL PHARMACOLOGY		
Differential Effects of Intra-Accumbens Sulpiride on Cocaine- Induced Locomotion and Conditioned Place Preference	David A. Baker, Taline V. Khroyan, Laura E. O'Dell, Rita A. Fuchs and Janet L. Neisewander	392
CARDIOVASCULAR PHARMACOLOGY		
Dilazep and Its Derivative, K-7259, Attenuate Mechanical Derangement Induced by Palmitoyl-L-carnitine in the Isolated, Perfused Rat Heart	Akiyoshi Hara, Hiroko Hashizume and Yasushi Abiko	32
Restoration of Ischemic Contractile Failure of Indo-1-Loaded Guinea Pig Heart by a Calcium Sensitizer, MCI-154	Yuji Abe, Kiyotsugu Sekioka, Ryoichi Ishisu, Katsuya Onishi, Yuji Ueda and Takeshi Nakano	47
Effects of Levosimendan on Myocardial Contractility and Oxygen Consumption	Koji Todaka, Jie Wang, Geng-Hua Yi, Richard Stennett, Mathias Knecht, Milton Packer and Daniel Burkhoff	120
Rhythm Anomalies Related to Delayed Repolarization in Vivo: Influence of Sarcolemmal Ca ⁺⁺ Entry and Intracellular Ca ⁺⁺ Overload	Leif Carlsson, Lissen Drews and Göran Duker	231
Proarrhythmic Actions of Flecainide in an Isolated Tissue	Benjamin E. Heisler and	317

Gregory R. Ferrier

Contents continued on ii

Downloaded from jpet.aspetjournals.org at ASPET Journals on March 8, 2024

CELLULAR AND MOLECULAR PHARMACOLOGY		
Binding of the Volatile Anesthetic Halothane to the Hydrophobic Core of a Tetra- α -Helix-Bundle Protein	Jonas S. Johansson, Francesc Rabanal and P. Leslie Dutton	56
Glycine- and Calcium-Dependent Effects of Lead on N-Methyl- D-Aspartate Receptor Function in Rat Hippocampal Neurons	M. Marchioro, K. L. Swanson, Y. Aracava and E. X. Albuquerque	143
Agonist Potency at the Cloned Human <i>Beta-3</i> Adrenoceptor Depends on Receptor Expression Level and Nature of Assay	Shelagh Wilson, Jon K. Chambers, Janet E. Park, Andreas Ladurner, David W. Cronk, Conrad G. Chapman, Howard Kallender, Michael J. Browne, Gregory J. Murphy and Paul W. Young	214
Stable Expression and Characterization of Recombinant Human Heteromeric N-Methyl-D-Aspartate Receptor Subtypes NMDAR1A/2A and NMDAR1A/2B in Mammalian Cells	 M. A. Varney, C. Jachec, C. Deal, S. D. Hess, L. P. Daggett, R. Skvoretz, M. Urcan, J. Morrison, T. Moran, E. C. Johnson and G. Veliçelebi 	367
Lead (Pb ⁺⁺) Promotes Apoptosis in Newborn Rat Cerebellar Neurons: Pathological Implications	Alessandra Oberto, Neville Marks, Hugh L. Evans and Alessandro Guidotti	435
CHEMOTHERAPY/GENE THERAPY		
Endogenous Tumor Necrosis Factor Enhances Topoisomerase II Inhibitors Activity in Human Ovarian Cancer Cell Lines	Domizia Debernardis, Sabrina Stanzione, Cristina Ottoboni, Luana Clerico, Tommaso Mancuso, Silvio Parodi and Patrizia Russo	84
In Vitro Inactivation of Human O ⁶ -Alkylguanine DNA Alkyltransferase by Antitumor Triazene Compounds	Pedro Miguel Lacal, Stefania D'Atri, Laura Orlando, Enzo Bonmassar and Grazia Graziani	416
DRUG METABOLISM AND DISPOSITION		
In Vivo and In Vitro Characterization of CYP2E1 Activity in Japanese and Caucasians	Richard B. Kim, Hiroshi Yamazaki, Kan Chiba, Diarmuid O'Shea, Mayumi Mimura, F. Peter Guengerich, Takashi Ishizaki, Tsutomu Shimada and Grant R. Wilkinson	4
Inhalation Exposure to Volatilized Opioids Produces Antinociception in Mice	Aron H. Lichtman, Yun Meng and Billy R. Martin	69
Central Nervous System Pharmacologic Effect in Conscious Rats after Intravenous Injection of a Biotinylated Vasoactive Intestinal Peptide Analog Coupled to a Blood-Brain Barrier Drug Delivery System	Dafang Wu and William M. Pardridge	77
Species Differences in the Disposition and Metabolism of Nalidixic Acid	Amin A. Nomeir, Peter Markham, L. T. Burka, Robert J. Griffin and Burhan I. Ghanayem	222
The Systemic and Cerebral Kinetics of Thiopental in Sheep: Enantiomeric Analysis	L. E. Mather, R. N. Upton, J. L. Huang, G. L. Ludbrook, E. Gray and C. Grant	291
Ontogeny and Hormonal Basis of Female-Dominant Rat Hepatic Sulfotransferases	Lan Liu and Curtis D. Klaassen	386
ENDOCRINE PHARMACOLOGY		
Advantages of Raloxifene over Alendronate or Estrogen on Nonreproductive and Reproductive Tissues in the Long-term Dosing of Ovariectomized Rats	Masahiko Sato, Henry U. Bryant, Philip Iversen, Jeff Helterbrand, Frank Smietana, Kerry Bemis, Richard Higgs, Charles H. Turner, Ichiro Owan, Yuichi Takano and David B. Burr	298
GASTROINTESTINAL PHARMACOLOGY		
Effects of a Phorbol Ester and Isoquinoline Sulfonamides on Rabbit Parietal Cell Function	Jyotirmoy Nandi, Marjorie C. Bosche and Robert A. Levine	97
Platelet-Activating Factor (PAF) Stimulates Giant Migrating Contractions During Ileal Inflammation	Pauline Jouët and Sushil K. Sarna	207

Mechanisms of Action of Cholecystokinin in the Canine	P. Vergara, Z. Woskowska, S. Cipris,	306
Gastrointestinal Tract: Role of Vasoactive Intestinal Peptide and Nitric Oxide	J. E. T. Fox-Threlkeld and E. E. Daniel	300
IMMUNOPHARMACOLOGY		
Evaluation of Sex- and Strain-Dependency of Cocaine-Induced Immunosuppression in B6C3F1 and DBA/2 Mice	Ray A. Matulka, Stephen D. Jordan, Eric D. Stanulis and Michael P. Holsapple	12
Changes in Opioid Receptor Density on Murine Splenocytes Induced by in Vivo Treatment with Morphine and Methadone	Gabriela Patrini, Paola Massi, Giovanni Ricevuti, Antonino Mazzone, Gianluca Fossati, Iolanda Mazzucchelli, Enzo Gori and Daniela Parolaro	172
Interleukin-5 Production by Peripheral Blood Mononuclear Cells of Asthmatic Patients is Suppressed by T-440: Relation to Phosphodiesterase Inhibition	Osamu Kaminuma, Akio Mori, Matsunobu Suko, Hideo Kikkawa, Katsuo Ikezawa and Hirokazu Okudaira	240
Soluble Cytokine Receptors as Carrier Proteins: Effects of Soluble Interleukin-4 Receptors on the Pharmacokinetics of Murine Interleukin-4	Yuhe Ma, Harrell E. Hurst and Rafael Fernandez-Botran	340
NEUROPHARMACOLOGY		
[³ H]MDL 105,519, a High-Affinity Radioligand for the N- Methyl-D-aspartate Receptor-Associated Glycine Recognition Site	Bruce M. Baron, Barry W. Siegel, Boyd L. Harrison, Raymond S. Gross, Calvin Hawes and Pat Towers	62
Enhancement of Acetylcholine Release by SA4503, a Novel σ_1 Receptor Agonist, in the Rat Brain	Tetsuya Kobayashi, Kiyoshi Matsuno, Katsuhiko Nakata and Shiro Mita	106
Inhibition of N-Methyl-D-Aspartate Receptors by Haloperidol: Developmental and Pharmacological Characterization in Native and Recombinant Receptors	David R. Lynch and Michael J. Gallagher	154
Effect of the Highly Selective and Nonpeptide δ Opioid Receptor Agonist TAN-67 on the Morphine-Induced Place Preference in Mice	Tsutomu Suzuki, Minoru Tsuji, Tomohisa Mori, Miwa Misawa, Takashi Endoh and Hiroshi Nagase	177
Recovery of Dopamine Transporter Binding and Function after Intrastriatal Administration of the Irreversible Inhibitor RTI-76 {3β-(3p-Chlorophenyl)Tropan-2β-Carboxylic Acid p-Isothiocyanatophenylethyl Ester Hydrochloride}	Annette E. Fleckenstein, Sakire Pögün, F. Ivy Carroll and Michael J. Kuhar	200
Effects of Dopamine Antagonists on Neuronal Histamine Release in the Striatum of Rats Subjected to Acute and Chronic Treatments with Methamphetamine	Chihiro Ito, Kenji Onodera, Eiko Sakurai, Mitsumoto Sato and Takehiko Watanabe	271
Effects of Repeated Administration of 3,4- Methylenedioxymethamphetamine on 5-Hydroxytryptamine Neuronal Activity and Release in the Rat Brain in Vivo	S. E. Gartside, R. McQuade and T. Sharp	277
Evaluation of Cerebral Pharmacokinetics of the Novel Antidepressant Drug, BMS-181101, by Positron Emission Tomography	Bradley T. Christian, Eli Livni, John W. Babich, Nathaniel M. Alpert, Douglas D. Dischino, Edward Ruediger, Daniel E. Salazar, Neville F. Ford and Alan J. Fischman	325
Neural Stimulation of Egr-1 Messenger RNA Expression in Rat Adrenal Gland: Possible Relation to Phenylethanolamine N-Methyltransferase Gene Regulation	Kyoji Morita, Rose Ann Bell, Brenda J. Siddall and Dona L. Wong	379
Glutamate Ameliorates Experimental Vincristine Neuropathy	Frances M. Boyle, Helen R. Wheeler and Gillian M. Shenfield	410
PROSTAGLANDINS, LEUKOTRIENES AND OTHER EICOSANO	IDS	
Characterization of Receptor Subtypes Involved in Prostanoid- Induced Conjunctival Pruritus and Their Role in Mediating Allergic Conjunctival Itching	David F. Woodward, Amelia L. Nieves and Mitchell H. Friedlaender	137
Pharmacological Modulation of Myocardial Tumor Necrosis Factor α Production by Phosphodiesterase Inhibitors	Marina R. Bergman and Bethany J. Holycross	247
Characterization of the Prostanoid TP Receptor Population in Human Nonpregnant Myometrium	Michelle Senchyna and D. J. Crankshaw	262
. •	Conte	nte continua

Errata

442

PULMONARY PHARMACOLOGY 402 Inhibitory Mechanism of CO₂ Inhalation on Slowly Adapting Shigeji Matsumoto, Hirooki Okamura, Pulmonary Stretch Receptors in the Anesthetized Rabbit Kazunori Suzuki, Naonori Sugai and Tsuvoshi Shimizu RENAL PHARMACOLOGY Nitric Oxide Generation by Renal Proximal Tubules: Role of Linda A. Traylor, Joel W. Proksch, 91 Nitric Oxide in the Cytotoxicity of Lipid A Victor C. Beanum and Philip R. Mayeux The Inhibitory Effect of Angiotensin II on Stimulus-Induced Subhash J. Vyas, Zaichuan Mi and 114 Release of cAMP Is Augmented in the Genetically Edwin K. Jackson Hypertensive Rat Kidney Disposition of Oligonucleotides in Isolated Perfused Rat Kenzo Sawai, Ram I. Mahato, 284 Kidney: Involvement of Scavenger Receptors in Their Renal Yoshikazu Oka, Yoshinobu Takakura and Uptake Mitsuru Hashida TOXICOLOGY Pharmacological Advantages of Conjugation of Cu, Zn-Junichiro Noda, Masaki Otagiri, 162 **Superoxide Dismutase with Succinylated Keratin Fragment:** Takaaki Akaike and Hiroshi Maeda Improvement of Biological Properties and Resistance to Oxidative Damage Carnitine and Choline Derivatives Containing a María-Dolores Miñana, 194 Trimethylamine Group Prevent Ammonia Toxicity in Mice Carlos Hermenegildo, Marta Llansola, and Glutamate Toxicity in Primary Cultures of Neurons Carmina Montoliu, Santiago Grisolía and Vicente Felipo Gail D. Zeevalk and William J. Nicklas Hypothermia and Metabolic Stress: Narrowing the Cellular 332 Site of Early Neuroprotection Cocaine-Induced Peroxidative Stress in Rat Liver: Antioxidant Bheemappa G. Devi and 359 Arthur W. K. Chan **Enzymes and Mitochondria**