

The Journal of PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS

Contents

ANALGESIA AND DRUGS OF ABUSE

- Rapid *In Vivo* Metabolism of a Methylether Derivative of (\pm)-BW373U86: The Metabolic Fate of [3 H]SNC121 in Rats**
John A. Schetz, Silvia N. Calderon, Craig M. Bertha, Kenner Rice and Frank Porreca 1069
- Selective N-Type Neuronal Voltage-Sensitive Calcium Channel Blocker, SNX-111, Produces Spinal Antinociception in Rat Models of Acute, Persistent and Neuropathic Pain**
S. Scott Bowersox, Theresa Gadbois, Tejinder Singh, Mark Pettus, Yong-Xiang Wang and Robert R. Luther 1243
- Genetic Selection and Characterization of Mouse Lines for Acute Functional Tolerance to Ethanol**
V. Gene Erwin and Richard A. Deitrich 1310

AUTONOMIC PHARMACOLOGY

- Acute and Chronic Effects of Dexfenfluramine on the Porcine Coronary Artery**
Barnabas Desta, Daryl Schultz, Denis Ravel, Nicole Laudignon, Paul M. Vanhoutte and Chantal M. Boulanger 1077
- Influence of Endothelin-1 on Cholinergic Nerve-Mediated Contractions and Acetylcholine Release in Rat Isolated Tracheal Smooth Muscle**
Patrick G. Knott, Lynette B. Fernandes, Peter J. Henry and Roy G. Goldie 1142
- Inotropic and Coronary Vasodilatory Actions of the K-Adenosine Triphosphate Channel Modulator Nicorandil in Human Tissue**
Jochen Müller-Ehmsen, Klara Brixius, Susanne Hoischen and Robert H. G. Schwinger 1220
- The Interaction of the Enantiomers of Aceclidine with Subtypes of the Muscarinic Receptor**
Frederick J. Ehlert, Michael T. Griffin and Paul F. Glidden 1335

BEHAVIORAL PHARMACOLOGY

- Discriminative Stimulus Effects of Butorphanol: Influence of Training Dose on the Substitution Patterns Produced by *Mu*, *Kappa* and *Delta* Opioid Agonists**
Mitchell J. Picker, Steven Benyas, Jonas A. Horwitz, Kevin Thompson, Christopher Mathewson and Mark A. Smith 1130
- FK960, N-(4-acetyl-1-piperazinyl)-*p*-fluorobenzamide monohydrate, Ameliorates the Memory Deficits in Rats through a Novel Mechanism of Action**
Mayako Yamazaki, Nobuya Matsuoka, Noriaki Maeda, Yoshitaka Ohkubo and Isamu Yamaguchi 1157
- Differential Effects of Direct and Indirect Dopamine Agonists on Eye Blink Rate in Cynomolgus Monkeys**
Mark S. Kleven and Wouter Koek 1211
- Seroquel Restores Sensorimotor Gating in Phencyclidine-Treated Rats**
Neal R. Swerdlow, Vaishali Bakshi and Mark A. Geyer 1290
- Arterial and Venous Cocaine Plasma Concentrations in Humans: Relationship to Route of Administration, Cardiovascular Effects and Subjective Effects**
Suzette M. Evans, Edward J. Cone and Jack E. Henningfield 1345

CARDIOVASCULAR PHARMACOLOGY

- S-Nitrosylated Tissue-Type Plasminogen Activator Protects Against Myocardial Ischemia/Reperfusion Injury in Cats: Role of the Endothelium**
John A. Delyani, Tareck O. Nossuli, Rosario Scalia, George Thomas, David S. Garvey and Allan M. Lefler 1174
- Injured Erythrocytes Release Adenosine Deaminase Into the Circulation**
Edwin K. Jackson, Zaichuan Mi, Maria T. Koehler, Joseph A. Carcillo, Jr. and William A. Herzer 1250
- Biphasic Effects of Intrapipette Cyclic Guanosine Monophosphate on L-type Calcium Current and Contraction of Guinea Pig Ventricular Myocytes**
Takeshi Shirayama and Achilles J. Pappano 1274

This One



9YFC-9WF-66QA

Contents continued on ii

Cardiovascular Actions of Thrombin Receptor Activation <i>In Vivo</i>	Bruce P. Damiano, Wai-man Cheung, John A. Mitchell and Robert Falotico	1365
Partial Agonism of the Nonselective Adenosine Receptor Agonist 8-Butylaminoadenosine at the A₁ Receptor <i>In Vivo</i>	Ron A. A. Mathôt, Eleonora M. van der Wenden, Willem Soudijn, Douwe D. Breimer, Adriaan P. IJzerman and Meindert Danhof	1439
Vascular Expression of Inducible Nitric Oxide Synthase is Associated with Activation of Ca⁺⁺-Dependent K⁺ Channels	Hisao Taguchi, Donald D. Heistad, Yi Chu, C. David Rios, Hiroaki Ooboshi and Frank M. Faraci	1514
Isoform-Specific Biotransformation of Glyceryl Trinitrate by Rat Aortic Glutathione S-Transferases	Rita Nigam, Diane J. Anderson, She-fen Lee and Brian M. Bennett	1527
Inhibition of the Pharmacological Actions of Glyceryl Trinitrate after the Electroporetic Delivery of a Glutathione S-Transferase Inhibitor	W. Craig Simon, Diane J. Anderson and Brian M. Bennett	1535
CELLULAR AND MOLECULAR PHARMACOLOGY		
Differential Sensitivity of Recombinant <i>N</i>-Methyl-D-Aspartate Receptor Subunits to Inhibition by Dynorphin	Ulrike Brauneis, Murat Oz, Robert W. Peoples, Forrest F. Weight and Li Zhang	1063
Protracted Treatment with Diazepam Reduces Benzodiazepine₁ Receptor-Mediated Potentiation of γ-Aminobutyric Acid-Induced Currents in Dissociated Rat Hippocampal Neurons	Valerie Itier, Patrick Granger, Ghislaine Perrault, Henri Depoortere, Bernard Scatton and Patrick Avenet	1092
Potentiation of the Glycine-Activated Cl⁻ Current by Ethanol in Cultured Mouse Spinal Neurons	Luis G. Aguayo, Juan C. Tapia and Floria C. Pancetti	1116
Characterization of [³H]Ethynylbicycloorthobenzoate ([³H]EBOB) Binding and the Action of Insecticides on the γ-Aminobutyric Acid-Gated Chloride Channel in Cultured Cerebellar Granule Neurons	Jian Huang and John E. Casida	1191
Effects of ω-Agatoxin-IVA and ω-Conotoxin-MVIIIC on Perineurial Ca⁺⁺ and Ca⁺⁺-Activated K⁺ Currents of Mouse Motor Nerve Terminals	You-Fen Xu and William D. Atchison	1229
RJR-2403: A Nicotinic Agonist with CNS Selectivity I. <i>In Vitro</i> Characterization	M. Bencherif, M. E. Lovette, K. W. Fowler, S. Arrington, L. Reeves, W. S. Caldwell and P. M. Lippiello	1413
RJR-2403: A Nicotinic Agonist with CNS Selectivity II. <i>In Vivo</i> Characterization	P. M. Lippiello, M. Bencherif, J. A. Gray, S. Peters, G. Grigoryan, H. Hodges and A. C. Collins	1422
Mapping the Location of Functional Nicotinic and γ-Aminobutyric Acid_A Receptors on Hippocampal Neurons	Manickavasagom Alkondon, Edna F. R. Pereira and Edson X. Albuquerque	1491
CHEMOTHERAPY/GENE THERAPY		
The Role of Interferon-<i>Gamma</i> in Antiretroviral Activity of Methionine Enkephalin and AZT in a Murine Cell Culture	Joeng-Im Sin and Steven Specter	1268
Efficiency of Plasmid Delivery and Expression after Lipid-Mediated Gene Transfer to Human Cells <i>In Vitro</i>	Zsuzsa Bebök, Anna M. Abai, Jian-Yun Dong, Scott A. King, Kevin L. Kirk, Gabor Berta, Brian W. Hughes, Andrew S. Kraft, Stephen W. Burgess, Walter Shaw, Philip L. Felgner and Eric J. Sorscher	1462
Drug-Induced Changes of Carcinoembryonic Antigen Expression in Human Cancer Cells: Effect of 5-Fluorouracil	Salvatore P. Prete, Angelo Aquino, Giovanna Masci, Laura Orlando, Anna Giuliani, Stefano De Santis, Liana De Vecchis, Rosaria De Filippi, John W. Greiner, Enzo Bonmassar and Grazia Graziani	1574

DEVELOPMENTAL PHARMACOLOGY

Teratogenicity of Carbamazepine-10,11-epoxide and Oxcarbazepine in the SWV Mouse

Greg D. Bennett, Benny M. Amore, Richard H. Finnell, B. Wlodarczyk, Thomas F. Kalhorn, Gary L. Skiles, Sidney D. Nelson and John T. Slattery 1237

DRUG METABOLISM AND DISPOSITION

***In Vivo* ¹²⁵I-Erythropoietin Pharmacokinetics Are Unchanged After Anesthesia, Nephrectomy and Hepatectomy in Sheep**

John A. Widness, Peter Veng-Pedersen, Robert L. Schmidt, Lance S. Lowe, James A. Kisthard and Charles Peters 1205

Pyruvate Dehydrogenase Complex-Catalyzed Formation of N-Arylacetoxyhydroxamic Acids from Nitroso Aromatic Compounds in Rat Isolated Cells and Perfused Organs

Tadao Yoshioka, Hiroaki Ohno and Takayoshi Uematsu 1282

***In Vivo* Disposition and Metabolism by Liver and Enterocyte Microsomes of the Antitubercular Drug Rifabutin in Rats**

Tatiana Koudriakova, Eugenia Iatsimirskaia, Samir Tulebaev, Dan Spetie, Ilya Utkin, Daniel Mullet, Toni Thompson, Paul Vouros and Nicholas Gerber 1300

Identification of Human Cytochrome P450 Isoforms Involved in the 3-Hydroxylation of Quinine by Human Liver Microsomes and Nine Recombinant Human Cytochromes P450

Xue-Jun Zhao, Hiroyuki Yokoyama, Kan Chiba, Sompon Wanwimolruk and Takashi Ishizaki 1327

Mechanism of the Tissue Distribution and Biliary Excretion of the Cyclic Peptide Octreotide

Tadashi Yamada, Kayoko Niinuma, Michel Lemaire, Tetsuya Terasaki and Yuichi Sugiyama 1357

Enhanced Inhibition of Microsomal Cytochrome P450 3A2 in Rat Liver during Diltiazem Biotransformation

Michael Murray and Alison M. Butler 1447

ENDOCRINE PHARMACOLOGY

Identification of a Specific Binding Site for the Anabolic Steroid Stanozolol in Male Rat Liver Microsomes

Luis D. Boada, Leandro Fernández, Manuel Zumbado, Octavio P. Luzardo, Ricardo Chirino and Bonifacio N. Díaz-Chico 1123

GASTROINTESTINAL PHARMACOLOGY

Role of the Enteric Nervous System in Piglet Cryptosporidiosis

Robert A. Argenzio, Martha Armstrong and J. Marc Rhoads 1109

Pharmacological Profile of a New Serine Derivative Cholecystokinin Receptor Antagonist TP-680 on Pancreatic, Biliary and Gastric Function

Issei Tachibana, Kenji Kanagawa, Yoshimitsu Yamamoto and Makoto Otsuki 1404

IMMUNOPHARMACOLOGY

Pharmacological Profile of SB 203580, a Selective Inhibitor of Cytokine Suppressive Binding Protein/p38 Kinase, in Animal Models of Arthritis, Bone Resorption, Endotoxin Shock and Immune Function

Alison M. Badger, Jeremy N. Bradbeer, Bart Votta, John C. Lee, Jerry L. Adams and Don E. Griswold 1453

NEUROPHARMACOLOGY

Felbamate Decreases Synaptic Transmission in the CA1 Region of Rat Hippocampal Slices

Anna Maria Pugliese, M. Beatrice Passani, Giancarlo Pepeu and Renato Corradetti 1100

Functional Effects of GDNF in Normal Rat Striatum: Presynaptic Studies Using *In Vivo* Electrochemistry and Microdialysis

Meleik A. Hebert, Craig G. van Horne, Barry J. Hoffer and Greg A. Gerhardt 1181

Neuroendocrine Pharmacology of Three Serotonin Releasers: 1-(1,3-benzodioxol-5-yl)-2-(methylamino)butane (MBDB), 5-methoxy-6-methyl-2-aminoindan (MMAI) and *p*-methylthioamphetamine (MTA)

Qian Li, Ingrid Murakami, Scott Stall, Andrew D. Levy, Mark S. Brownfield, David E. Nichols and Louis D. Van de Kar 1261

Pharmacological Characterization of U-101387, A Dopamine D4 Receptor Selective Antagonist

Kalpana M. Merchant, Gurnam S. Gill, Douglas W. Harris, Rita M. Huff, Misty J. Eaton, Keith Lookingland, Barry S. Lutzke, Robert B. McCall, Montford F. Piercey, Peggy J. K. D. Schreur, Vimala H. Sethy, Martin W. Smith, Kjell A. Svensson, Andrew H. Tang, Philip F. VonVoigtlander and Ruth E. TenBrink 1392

Genetics, Neuroleptic Response and the Organization of Cholinergic Neurons in the Mouse Striatum	Katherine Dains, Barbara Hitzemann and Robert Hitzemann	1430
Serotonin Activates the Mitogen-Activated Protein Kinase Pathway in Vascular Smooth Muscle: Use of the Mitogen-Activated Protein Kinase Kinase Inhibitor PD098059	Stephanie W. Watts	1541
Chronic Antidepressant Exposure Enhances 5-Hydroxytryptamine₂ Receptor-Mediated Cyclic Adenosine Monophosphate Accumulation in Rat Frontocortical Astrocytes	Masami Shimizu, Akira Nishida, Hidenobu Zensho and Shigeto Yamawaki	1551
PROSTAGLANDINS, LEUKOTRIENES AND OTHER EICOSANOIDS		
Inhibition of Testosterone 5α-Reductase: Evidence for Tissue-Specific Regulation of Thromboxane A₂ Receptors	Katsuhiko Higashiura, Bernard Blaney, Elizabeth Morgan, Rajesh S. Mathur and Perry V. Halushka	1386
2,3,7,8-Tetrachlorodibenzo-<i>p</i>-dioxin Modulates Expression of the Prostaglandin G/H Synthase-2 Gene in Rat Thymocytes	Matthew J. Olnes, Mukesh Verma and Rabinder N. Kurl	1566
PULMONARY PHARMACOLOGY		
<i>In Vivo</i> Role of the Adenosine A₃ Receptor: N⁶-2-(4-Aminophenyl)ethyladenosine Induces Bronchospasm in BDE Rats by a Neurally Mediated Mechanism Involving Cells Resembling Mast Cells	Christopher J. Meade, Joachim Mierau, Independencia Leon and Helmut A. Ensinger	1148
Differential Formation of 1,1-Dichloroethylene-Metabolites in the Lungs of Adult and Weanling Male and Female Mice: Correlation with Severities of Bronchiolar Cytotoxicity	P. G. Forkert, T. F. Dowsley, R. P. Lee, J.-Y. Hong and J. B. Ulrich	1484
RENAL PHARMACOLOGY		
The Basolateral Organic Cation Transport System of Rabbit Kidney Proximal Tubules. Influence of Anorganic Anions	H. Hohage, I. U. Querl, D. M. Mörth and J. Greven	1086
Treatment with the Type IV Phosphodiesterase Inhibitor Ro 20-1724 Protects Renal and Mesenteric Blood Flow in Endotoxemic Rats Treated with Norepinephrine	Joseph A. Carcillo, William A. Herzer, Zaichuan Mi, Neal J. Thomas and Edwin K. Jackson	1197
Model Development and Analysis of Tenidap-Induced Proteinuria in the Rat	Michael D. Aleo, Tong Wang, Gerhard Giebisch, Martin J. Sanders, Alexander H. Walsh and Arturo Lopez-Anaya	1318
Differential Effects of Fedotozine Compared to Other κ Agonists on Diuresis in Rats	C. D. Soulard, S. Guerif, A. Payne and S. G. Dahl	1379
Uptake of the Mycotoxin Ochratoxin A in Liver Cells Occurs via the Cloned Organic Anion Transporting Polypeptide	Maria Kontaxi, Uta Eckhardt, Bruno Hagenbuch, Bruno Stieger, Peter J. Meier and Ernst Petzinger	1507
Effects of Silibinin and Antioxidants on High Glucose-Induced Alterations of Fibronectin Turnover in Human Mesangial Cell Cultures	Simone Wenzel, Hilmar Stolte and Mechthild Soose	1520
Interaction of Fluorescein with the Dicarboxylate Carrier in Rat Kidney Cortex Mitochondria	Rosalinde Masereeuw, William C. Saeming, David S. Miller and Frans G. M. Russel	1559
Single-Domain Angiotensin I Converting Enzyme (Kininase II): Characterization and Properties	Peter A. Deddish, Li-Xiu Wang, Herbert L. Jackman, Bruno Michel, Julia Wang, Randal A. Skidgel and Ervin G. Erdös	1582
TOXICOLOGY		
Protection of Acetaminophen-Induced Hepatocellular Apoptosis and Necrosis by Cholesteryl Hemisuccinate Pretreatment	Sidhartha D. Ray, Virgil R. Mumaw, Ravindra R. Raje and Marc W. Fariss	1470
Erratum		1589
Index, Volume 279, October–December, 1996		1590