

The Journal of PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS

Contents

ANALGESIA AND DRUGS OF ABUSE

- Methcathinone: An Initial Study of Its Effects on Monoaminergic Systems** Melanie P. Gygi, James W. Gibb and Glen R. Hanson 1066
- Effect of Clonidine Pretreatment on Naloxone-Precipitated Opiate Withdrawal** Marc I. Rosen, Thomas J. McMahon, Faiq A. Hameedi, H. Rowland Pearsall, Scott W. Woods, Mary Jeanne Kreek and Thomas R. Kosten 1128
- Cromakalim Differentially Enhances Antinociception Induced by Agonists of α_2 Adrenoceptors, γ -Aminobutyric Acid_B, μ and κ Opioid Receptors** María Ocaña, Manuel Barrios and José M. Baeyens 1136
- Effects of Intravenous Nonsteroidal Antiinflammatory Drugs on a C-Fiber Reflex Elicited by a Wide Range of Stimulus Intensities in the Rat** Diego Bustamante, Carlos Paeile, Jean-Claude Willer and Daniel Le Bars 1232

AUTONOMIC PHARMACOLOGY

- Ontogenic Differences in the Functions of Myocardial α_1 Adrenoceptor Subtypes in Rats** Xing Fei Deng, Sylvain Chemtob, Guillermina Almazan and Daya R. Varma 1155
- Effects of Bombesin Family Peptides and Antagonists on Guinea Pig Nasal Mucosal Secretion** Mushtaq Ali, Aleksander Z. Gawin and James N. Baraniuk 1266

BEHAVIORAL PHARMACOLOGY

- Agonist Efficacy and the Behavioral Effects of Dopamine D_1 Receptor Ligands: Drug Interaction Studies in Squirrel Monkeys** Jack Bergman, R. D. Spealman, B. K. Madras and Sharon Rosenzweig-Lipson 942
- Effects of Repeated Administration of N-[1-(2-Benzo(b)-thiophenyl)Cyclohexyl]Piperidine and Cocaine on Locomotor Activity in C57BL/6 Mice** Eric P. M. Prinssen, Mark S. Kleven, Jacques Vignon, Jean-Marc Kamenka and Wouter Koek 904
- Comparison of the Effects of Typical and Atypical Anxiolytics on Learning in Monkeys and Rats** P. J. Winsauer, M. A. Bixler and P. C. Mele 1111
- Evidence for the Involvement of Phospholipase A_2 Mechanisms in the Development of Stimulant Sensitization** Malcolm S. Reid, Kang Hsu, Bryan K. Tolliver, Cynthia A. Crawford and S. Paul Berger 1244
- Development of Alcohol Tolerance in the Rat after a Single Exposure to Combined Treatment with Arginine⁸-Vasopressin and Ethanol** P. H. Wu, J.-F. Liu, W. L. Wu, A. J. Lança and H. Kalant 1283

CARDIOVASCULAR PHARMACOLOGY

- Functional Inhibition of Rat Polymorphonuclear Leukocyte B_2 Integrins by Hyperbaric Oxygen is Associated with Impaired cGMP Synthesis** Qiping Chen, Paul D. Banick and Stephen R. Thom 929
- The Vasorelaxing Action of Rutaecarpine: Direct Paradoxical Effects on Intracellular Calcium Concentration of Vascular Smooth Muscle and Endothelial Cells** Guei-Jane Wang, Jie Shan, Peter K. T. Pang, May C. M. Yang, Cheng-Jen Chou and Chieh-Fu Chen 1016
- DX 9065A, a Novel, Synthetic, Selective and Orally Active Inhibitor of Factor Xa: *In Vitro* and *In Vivo* Studies** J. M. Herbert, A. Bernat, F. Dol, J. P. Héroult, B. Crépon and J. C. Lorreau 1030
- Stimulation of Renin Secretion by the Phosphodiesterase IV Inhibitor Rolipram** Noel Chiu, Ina Park and Ian A. Reid 1073
- Selective Enhancement of 5-Hydroxytryptamine-Induced Contraction of Porcine Coronary Artery by Oxidized Low-Density Lipoprotein** David A. Cox and Marlene L. Cohen 1095

This One



OYBH-4WC-NN3T

Contents continued on ii

Evaluation of Activated Protein C on Canine Infarct Size in a Nonthrombotic Model of Myocardial Reperfusion Injury	Richard A. Hahn, Brian R. MacDonald, Marcia Chastain, Brian W. Grinnell and Paul J. Simpson	1104
Enantioselective Inotropic Actions of the Na⁺-channel Activators BDF 9148, BDF 9196 and BDF 9167 in Human Failing and Nonfailing Myocardium	Robert H. G. Schwinger, Jochen Müller-Ehmsen, Michael Böhm and Erland Erdmann	1180
Imidazoline Receptors and Agmatine in Blood Vessels: A Novel System Inhibiting Vascular Smooth Muscle Proliferation	S. Regunathan, C. Youngson, W. Raasch, H. Wang and D. J. Reis	1272
CELLULAR AND MOLECULAR PHARMACOLOGY		
Calcium Dependence of Indolactam-Mediated Contractions in Resistance Vessels	Michael A. Hill, Michael J. Davis, Jianben Song and Hui Zou	867
Localization and Characterization of the Subtype(s) of Muscarinic Receptor Involved in Prostacyclin Synthesis in Rabbit Heart	H. Kan, Y. Ruan and K. U. Malik	934
Intracellular [Mg⁺⁺] Determines Specificity of K⁺ Channel Block by a Class III Antiarrhythmic Drug	Gisele Zapata Sudo and Michael C. Sanguinetti	951
Inhibitory Action of Palytoxin on Ascorbic Acid Transport into Cultured Bovine Adrenal Chromaffin Cells	Kyoji Morita, Kazuhiko Teraoka, Motoo Oka and Mark Levine	996
Histamine Homologues Discriminating between Two Functional H₃ Receptor Assays. Evidence for H₃ Receptor Heterogeneity?	R. Leurs, M. Kathmann, R. C. Vollinga, W. M. P. B. Menge, E. Schlicker and H. Timmerman	1009
Tachykinin Peptides Affect Differently the Second Messenger Pathways after Binding to CHO-Expressed Human NK-1 Receptors	Sandrine Sagan, Gérard Chassaing, Laurent Pradier and Solange Lavielle	1039
Dual Actions of the Novel Class III Antiarrhythmic Drug NE-10064 on Delayed Potassium Channel Currents in Guinea Pig Ventricular and Sinoatrial Node Cells	Michael P. Davies, Lisa C. Freeman and Robert S. Kass	1149
CHEMOTHERAPY/GENE THERAPY		
Modulation of Glutathione by a Cysteine Pro-Drug Enhances <i>in Vivo</i> Tumor Response	Taiqi Wang, Xiang Chen, Robyn L. Schechter, Sylvain Baruchel, Moulay Alaoui-Jamali, David Melnychuk and Gerald Batist	1169
DRUG METABOLISM AND DISPOSITION		
Theophylline Metabolism in Human Liver Microsomes: Inhibition Studies	J. F. Tjia, J. Colbert and D. J. Back	912
Altered Disposition and Antidepressant Activity of Imipramine in Transgenic Mice with Elevated <i>Alpha</i>-1-Acid Glycoprotein	Sun D. Yoo, John W. Holladay, Timothy K. Fincher, Heinz Baumann and Michael J. Dewey	918
Isoenzyme-Selective Inhibition of Glutathione Conjugation <i>in Vivo</i>: Selective Inhibition of the Conjugation of <i>S</i>-2-Bromoisovalerylurea in the Rat	Sivi Ouwerkerk-Mahadevan, Jacques H. van Boom and Gerard J. Mulder	923
Uptake of Valproic Acid into Rat Brain is Mediated by a Medium-Chain Fatty Acid Transporter	Kimberly D. K. Adkison and Danny D. Shen	1189
GASTROINTESTINAL PHARMACOLOGY		
The Effect of <i>Beta</i> Adrenoceptor Stimulation of Canine Stomach on Pentagastrin-Stimulated Histamine Release	N. A. Payne and J. G. Gerber	984
Identification of Putative 5-Hydroxytryptamine₄ (5-HT₄) Receptors in Guinea Pig Stomach: The Effect of TKS159, a Novel Agonist, on Gastric Motility and Acetylcholine Release	Shogo Matsuyama, Hideyo Sakiyama, Koji Nei and Chikako Tanaka	989
Isolated Rat Gastric Mucosal Cells: Optimal Conditions for Cell Harvesting, Measures of Viability and Direct Cytoprotection	Gary B. Glavin, Sandor Szabo, Brett R. Johnson, P. L. Xing, Romeo E. Morales, Mario Plebani and Lajos Nagy	1174

IMMUNOPHARMACOLOGY

- Tumor Necrosis Factor Production in the Perfused Mouse Liver and Its Pharmacological Modulation by Methylxanthines** Marcel Leist, Sigrid Auer-Barth and Albrecht Wendel 968
- Mixed Agonist/Antagonist Activity of an FK-506-Related Immunosuppressant: Biological and Biochemical Characterization** Francis J. Dumont, Hyun Ok, Shirley Lin, Carolyn A. Kastner, John Cryan, Mary M. Martin, Gregory Wiederrecht and Mary Jo Staruch 1078
- Immunosuppression Induced by Acute Exposure to Cocaine is Dependent on Metabolism by Cytochrome P-450** Tae Cheon Jeong, Stephen D. Jordan, Ray A. Matulka, Eric D. Stanulis, Sang Shin Park and Michael P. Holsapple 1257

NEUROPHARMACOLOGY

- Allosteric Uncoupling after Chronic Benzodiazepine Exposure of Recombinant γ -Aminobutyric Acid_A Receptors Expressed in Sf9 Cells: Ligand Efficacy and Subtype Selectivity** R. J. Primus, J. Yu, J. Xu, C. Hartnett, M. Meyyappan, C. Kostas, T. V. Ramabhadran and D. W. Gallager 882
- Antinociception and Inhibition from the Periaqueductal Gray are Mediated in Part by Spinal 5-Hydroxytryptamine_{1A} Receptors** Qing Lin, Yuan Bo Peng and William D. Willis 958
- Vigabatrin Modulates Benzodiazepine Receptor Activity *in Vivo*: A Positron Emission Tomography Study in Baboon** Lorenz Schmid, Michel Bottlaender, Emmanuel Brouillet, Chantal Fuseau and Mariannick Mazière 977
- Repeated Cocaine Injections Decrease the Function of Striatal γ -Aminobutyric Acid_A Receptors** Joanna Peris 1002
- Persistent Activation of the Dopamine D₁ Receptor Contributes to Prolonged Receptor Desensitization: Studies with A-77636** Chun Wel Lin, Bruce R. Bianchi, Thomas R. Miller, Michael A. Stashko, Song S. Wang, Peter Curzon, Lisa Bednarz, Karen E. Asin and Donald R. Britton 1022
- Blood-to-Central Nervous System Entry and Stability of Biphalin, a Unique Double-Enkephalin Analog, and Its Halogenated Derivatives** T. J. Abbruscato, S. A. Williams, A. Misicka, A. W. Lipkowski, V. J. Hruby and T. P. Davis 1049
- Anesthetics Produce Subunit-Selective Actions on Glutamate Receptors** J. E. Dildy-Mayfield, E. I. Eger II and R. A. Harris 1058
- Development of a Selective Agonist at the Somatostatin Receptor Subtype SSTR1** George Liapakis, Carl Hoeger, Jean Rivier and Terry Reisine 1089
- Induction of Apoptosis by Organotin Compounds *in Vitro*: Neuronal Protection with Antisense Oligonucleotides Directed against Stannin** Theresa A. Thompson, Jeannine M. Lewis, Nadine S. Dejneka, Walter B. Severs, Rathnagiri Polavarapu and Melvin L. Billingsley 1201
- Modification of Serotonin Responses in Rat Dorsolateral Septal Nucleus Neurons by Acute and Chronic Cocaine** Debra Simms and Joel P. Gallagher 1292

PROSTAGLANDINS, LEUKOTRIENES AND OTHER EICOSANOIDS

- Erythropoietin Stimulates Atrial Natriuretic Peptide Secretion from Adult Rat Cardiac Atrium** Omer Porat, Drorit Neumann, Oded Zamir, Shraga Nachshon, Elad Feigin, Jacob Cohen and Nadav Zamir 1162

PULMONARY PHARMACOLOGY

- H⁺-K⁺ ATPase Inhibitors Cause Relaxation of Guinea Pig and Human Airway Smooth Muscle *in Vitro*** Kerry J. Rhoden, Giovanni Tallini and James S. Douglas 897

RENAL PHARMACOLOGY

- Lack of Antidiuretic Activity of Lanreotide in the Diabetes Insipidus Rat** Newton Y.-T. Fan, C. Andrew Powers and Charles T. Stier, Jr. 875
- Transport of Levofloxacin in a Kidney Epithelial Cell Line, LLC-PK₁: Interaction with Organic Cation Transporters in Apical and Basolateral Membranes** Takeshi Ohtomo, Hideyuki Saito, Nobuo Inotsume, Masato Yasuhara and Ken-Ichi Inui 1143
- Metallothionein Plays Less of a Protective Role in Cadmium-Metallothionein-Induced Nephrotoxicity Than in Cadmium Chloride-Induced Hepatotoxicity** Jie Liu, Yaping Liu, Anna E. Michalska, K. H. Andy Choo and Curtis D. Klaassen 1216

TOXICOLOGY

Polyspecific Drug and Steroid Clearance by an Organic Anion Transporter of Mammalian Liver	Xavier Bossuyt, Michael Müller, Bruno Hagenbuch and Peter J. Meier	891
The Mechanism of Cytoprotective Action of Lazaroids I: Inhibition of Reactive Oxygen Species Formation and Lethal Cell Injury During Periods of Energy Depletion	Bruce M. Taylor, William E. Fleming, Christopher W. Benjamin, Yankuan Wu, W. Rodney Mathews and Frank F. Sun	1224
Index, Volume 276, January–March, 1996		1304