

## Contents

### ACCELERATED COMMUNICATIONS

- 587  $\omega$ -Agatoxin-TK Containing D-Serine at Position 46, but Not Synthetic  $\omega$ -[L-Ser<sup>46</sup>]Agatoxin-TK, Exerts Blockade of P-Type Calcium Channels in Cerebellar Purkinje Neurons  
Manabu Kuwada, Tetsuyuki Teramoto, Kumiko Y. Kumagaye, Kiichiro Nakajima, Tomohiro Watanabe, Takatoshi Kawai, Yoshiyuki Kawakami, Tetsuhiro Niidome, Kohei Sawada, Yukio Nishizawa, and Kouichi Katayama
- 594 Identification of a New Genetic Defect Responsible for the Polymorphism of (S)-Mephenytoin Metabolism in Japanese  
Sonia M. F. de Morais, Grant R. Wilkinson, Joyce Blaisdell, Urs A. Meyer, Koichi Nakamura, and Joyce A. Goldstein

*Continued*

### ANNOUNCEMENT

Effective January 1, 1995 all manuscripts for submission to MOLECULAR PHARMACOLOGY should be sent to:

Dr. Raymond J. Dingledine, Editor  
Molecular Pharmacology  
Emory University School of Medicine  
5001 Rollins Research Center  
Clifton Road  
Atlanta, Georgia 30322-3090, U.S.A.

MOLECULAR PHARMACOLOGY (MOL/ISSN 0026-895X) is an official publication of The American Society for Pharmacology and Experimental Therapeutics and is published monthly, two volumes a year, beginning in January and July, by Williams & Wilkins, 428 E. Preston St., Baltimore, MD 21202-3993. Second class postage paid at Baltimore, MD and at additional mailing offices. POSTMASTER: Send address changes to MOLECULAR PHARMACOLOGY, 428 E. Preston St., Baltimore, MD 21202-3993. **Subscription Rates:** U.S.: *Personal* \$105; *Institutional* \$230; *Single copy* \$19. **Outside the U.S., except Japan:** *Personal* \$135; *Institutional* \$260; *Single copy* \$23. Foreign prices exclude Japan. **See Information for Subscribers for detailed instructions.** The GST Tax Number for Canadian subscribers is 123394371. Country of origin USA. PRICES ARE SUBJECT TO CHANGE. Indexed by *Index Medicus*, *Current Contents (Life Sciences)*, *Excerpta Medica*, *Reference Update/Research Information Systems*, and *Current Awareness in Biological Sciences*. Copyright © 1994 by The American Society for Pharmacology and Experimental Therapeutics.

## ARTICLES

- 599 Gold Sodium Thiomalate Down-regulates Intercellular Adhesion Molecule-1 and Vascular Cell Adhesion Molecule-1 Expression on Vascular Endothelial Cells  
Ryuji Koike, Ichiro Miki, Masanari Ootshi, Tetsuya Totsuka, Hiroko Inoue, Hiroshi Kase, Ichiro Saito, and Nobuyuki Miyasaka
- 605 Differential Induction of Etoposide-Mediated Apoptosis in Human Leukemia HL-60 and K562 Cells  
Mary K. Ritke, James M. Rusnak, John S. Lazo, William P. Allan, Caroline Dive, Sukbindher Heer, and Jack C. Yalowich
- 612 Induction of Aggregation and Augmentation of Protein Kinase-Mediated Phosphorylation of Purified Vimentin Intermediate Filaments by Withangulatin A  
Ming-Der Perng, Ting-Jen Cheng, Chiu-Ming Chen, and Yiu-Kay Lai
- 618 Physicochemical and Immunocytochemical Analysis of the Aryl Hydrocarbon Receptor Nuclear Translocator: Characterization of Two Monoclonal Antibodies to the Aryl Hydrocarbon Receptor Nuclear Translocator  
Norman G. Hord and Gary H. Perrew
- 627 Rhodamine Efflux Patterns Predict P-glycoprotein Substrates in the National Cancer Institute Drug Screen  
Jong-Seok Lee, Ken Paull, Manuel Alvarez, Curtis Hose, Anne Monks, Mike Grever, Antonio Tito Fojo, and Susan E. Bates
- 639 Time Course of 72-Kilodalton Heat Shock Protein Induction and Appearance of Trifluoroacetyl Adducts in Livers of Halothane-Exposed Rats  
W. Q. Lin, R. A. Van Dyke, H. M. Marsh, and J. R. Trudell
- 644 Kinetics and Reversibility of Thyrotropin-Releasing Hormone-Stimulated Guanine Nucleotide Exchange in Membranes from GH<sub>4</sub>C<sub>1</sub> Cells  
Kenneth D. Brady, Bomie Han, and Armen H. Tashjian, Jr.
- 653 Down-regulation by Growth Factors of Vascular Smooth Muscle Angiotensin Receptor Gene Expression  
Georg Nickenig and T. J. Murphy
- 660 L-Type Calcium Channels: Asymmetrical Intramembrane Binding Domain Revealed by Variable Length, Permanently Charged 1,4-Dihydropyridines  
Ramesh Bangalore, Nandkishore Baidur, Aleta Rutledge, David J. Triggle, and Robert S. Kass
- 667 Cocaine Differentially Regulates Activator Protein-1 mRNA Levels and DNA-Binding Complexes in the Rat Striatum and Cerebellum  
Pastor Couceyro, Karen M. Pollock, Ken Drews, and James Douglass

*continued*

CONTENTS (cont'd)

- 677 Mechanisms of Resistance to Ansamycin Antibiotics in Human Breast Cancer Cell Lines  
M. Nabil Benchekroun, Erasmus Schneider, Ahmad R. Safa, Alan J. Townsend, and Birandra K. Sinha
- 685 Identification of Drugs Competing with *d*-Tubocurarine for an Allosteric Site on Cardiac Muscarinic Receptors  
Magali Waelbroeck
- 693 Properties of [<sup>3</sup>H]LF 7-0156, A New Nonpeptide Antagonist Radioligand for the Type 1 Angiotensin II Receptor  
Sandrine Nouet, Pierre Dodey, Patrice Renaut, Jacky Marie, Didier Pruneau, Renée Larguier, Colette Lombard, and Jean-Claude Bonnafous
- 702 Membrane-Permeant Derivatives of Cyclic AMP Optimized for High Potency, Prolonged Activity, or Rapid Reversibility  
Carsten Schultz, Mana Vajanaphanich, Hans-Gottfried Genieser, Bernd Jastorff, Kim E. Barrett, and Roger Y. Tsien
- 709 Biological Studies of a Nitroso Compound that Releases Nitric Oxide upon Illumination  
Sovitj Pou, Daniel E. Anderson, Wanida Surichamorn, Lori L. Keaton, and Mary L. Tod
- 716 Slow Binding of Phenytoin to Inactivated Sodium Channels in Rat Hippocampal Neurons  
Chung-Chin Kuo and Bruce P. Bean
- 726 Radiation Inactivation Studies of the Dopamine Reuptake Transporter Protein  
S. Paul Berger, Kevin Farrell, David Conant, Ellis S. Kempner, and Steven M. Paul
- 732 Biguanide Derivatives: Agonist Pharmacology at 5-Hydroxytryptamine Type 3 Receptors *in Vitro*  
Philippe Morain, Christine Abraham, Bernard Portevin, and Guillaume De Nanteuil
- 743 Identical Inhibitory Modulation of A Type Potassium Currents by Dihydropyridine Calcium Channel Agonists and Antagonists  
Boris Mlinar and John J. Enyeart
- 750 Positive Regulation by Chloride Channel Blockers of I<sub>sK</sub> Channels Expressed in *Xenopus* Oocytes  
A. E. Busch, T. Herzer, C. A. Wagner, F. Schmidt, G. Raber, S. Waldegger, and F. Lang
- 754 ATP-Sensitive K<sup>+</sup> Channels of Skeletal Muscle Fibers from Young Adult and Aged Rats: Possible Involvement of Thiol-Dependent Redox Mechanisms in the Age-Related Modifications of Their Biophysical and Pharmacological Properties  
Domenico Tricarico and Diana Conte Camerino
- 762 Effects of Bretylium Tosylate on Voltage-Gated Potassium Channels in Human T Lymphocytes  
Rezső Gáspár, Jr., György Panyi, Dirk L. Ypey, Zoltán Krasznai, György Vereb, Carlo Pieri, and Sándor Damjanovich

continued

This One



82HB-BEJ-WXUQ

*CONTENTS (cont'd)*

- |     |   |  |
|-----|---|--|
| 767 | Anti-Human Immunodeficiency Virus Type 1 Activity of Hydroxyurea in Combination with 2',3'-Dideoxynucleosides                           | Wen-Yi Gao, David G. Johns, and Hiroaki Mitsuya                      |
| 773 | Mutations in the <i>gyrB</i> Domain of Eukaryotic Topoisomerase II Can Lead to Partially Dominant Resistance to Etoposide and Amsacrine | John L. Nitiss, Patricia M. Vilalta, Henry Wu, and Jeannette McMahon |
| 778 | Involvement of Phenyl Radicals in Iodonium Compound Inhibition of Flavoenzymes  | V. B. O'Donnell, G. C. M. Smith, and O. T. G. Jones                  |
| 786 | Ethanol-Derived Immunoreactive Species Formed by Free Radical Mechanisms  | C. Moncada, V. Torres, G. Varghese, E. Albano, and Y. Israel         |