

Contents

ACCELERATED COMMUNICATIONS

- 569 Localization of P_{2X} Purinoceptor Transcripts in the Rat Nervous System E. J. Kidd, C. B. A. Grahames, J. Simon, A. D. Michel, E. A. Barnard, and P. P. A. Humphrey
- 574 A Discrete Site for General Anesthetics on a Postsynaptic Receptor Stuart A. Forman, Keith W. Miller, and Gary Yellen

ARTICLES

- 582 Involvement of a Tyrosine Kinase Pathway in the Growth-Promoting Effects of Angiotensin II on Aortic Smooth Muscle Cells Isabelle Leduc, Pierre Haddad, Edith Giasson, and Sylvain Meloche
- 593 Phosphorylation of Cyclic AMP Response Element-Binding Protein and Induction of *c-fos* Gene Expression on Withdrawal from Chronic Treatment with Carbachol in NG108-15 Cells John M. Thomas, James S. Frazier, Zhuo-Wei Hu, and Brian B. Hoffman
- 601 Angiotensin II Down-regulates the Vascular Smooth Muscle AT₁ Receptor by Transcriptional and Post-transcriptional Mechanisms: Evidence for Homologous and Heterologous Regulation Bernard Lassègue, R. Wayne Alexander, Georg Nickenig, Mirjana Clark, T. J. Murphy, and Kathy K. Griendling
- 610 Differential Effects of a Topoisomerase I Inhibitor on Dioxin Inducibility and High-Level Expression of the Cytochrome P450IA1 Gene Katarina Gradin, Rune Toftgård, and Anna Berghard

Continued

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, 351 West Camden Street, Baltimore, MD 21201-2436. Second class postage paid at Baltimore, MD and at additional mailing offices. POSTMASTER: Send address changes to MOLECULAR PHARMACOLOGY, 351 West Camden Street, Baltimore, MD 21201-2436. **Subscription Rates: U.S.: Personal \$115; Institutional \$250; Single copy \$23. Outside the U.S., except for Japan: Personal \$150; Institutional \$285; Single copy \$26.** 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 © 1995 by The American Society for Pharmacology and Experimental Therapeutics.

CONTENTS (cont'd)

- 616 **Activation and Selective Inhibition of a Cyclic AMP-Specific Phosphodiesterase, PDE-4D3**
Robert Alvarez, Claudio Sette, Diana Yang, Richard M. Eglén, Robert Wilhelm, Earl R. Shelton, and Marco Conti
- 623 **Presynaptic Ca²⁺/Calmodulin-Dependent Protein Kinase II: Autophosphorylation and Activity Increase in the Hippocampus after Long-term Blockade of Serotonin Reuptake**
Maurizio Popoli, Claudia Vocaturo, Jorge Perez, Enrico Smeraldi, and Giorgio Racagni
- 630 **Developmental and Endocrine Regulation of P450 Isoforms in Rat Breast**
Heike Hellmold, John G. Lamb, Adrian Wyss, Jan-Åke Gustafsson, and Margaret Warner
- 639 **Modulation of Detoxification Gene Expression in Human Colon HT29 Cells by Glutathione-S-Transferase Inhibitors**
Paul J. Ciaccio, Hongxie Shen, Anil K. Jaiswal, Matthew H. Lyttle, and Kenneth D. Tew
- 648 **Cloning and Expression of a Human Metabotropic Glutamate Receptor1 α : Enhanced Coupling on Co-transfection with a Glutamate Transporter**
Manisha A. Desai, J. Paul Burnett, Nancy G. Mayne, and Darryle D. Schoepp
- 658 **Eukaryotic DNA Topoisomerases Mediated DNA Cleavage Induced by a New Inhibitor: NSC 665517**
Malini Gupta, Mohamed Abdel-Megeed, Yuko Hoki, Glenda Kohlhagen, Kenneth Paull, and Yves Pommier
- 666 **Pharmacological Subtypes of the γ -Aminobutyric Acid_A Receptors Defined by a γ -Aminobutyric Acid Analogue 4,5,6,7-Tetrahydroisoxazolo[5,4-*c*]pyridin-3-ol and Allosteric Coupling: Characterization Using Subunit-Specific Antibodies**
Kyung-Hye Huh, Timothy M. Delorey, Shuichi Endo, and Richard W. Olsen
- 676 **Yeast Cysteine Proteinase Gene *ycp1* Induces Resistance to Bleomycin in Mammalian Cells**
Z. James Pei, Thierry P. G. Calmels, Carl E. Creutz, and Saïd M. Sebti
- 682 **A Structure-Function Relationship Among Reserpine and Yohimbine Analogues in Their Ability to Increase Expression of *mdr1* and P-Glycoprotein in a Human Colon Carcinoma Cell Line**
U. G. Bhat, Mark A. Winter, H. L. Pearce, and William T. Beck
- 690 **Reversible Modulation of Opioid Receptor Binding in Intact Neural Cells by Endogenous Guanosine Triphosphate**
Nirmala Yabaluri and Fedor Medzihradsky
- 696 **Competition between Positive and Negative Allosteric Effectors on Muscarinic Receptors**
Jan Proška and Stanislav Tuček
- 703 **Structural and Ligand Recognition Properties of Imidazoline Binding Proteins in Tissues of Rat and Rabbit**
Biljana Lanier, Rita Raddatz, Venkatesalu Bakthavachalam, Isabelle Coupry, John L. Neumeyer, and Stephen M. Lanier

Continued

CONTENTS (cont'd)

- 711 Two Classes of Structurally Different Antagonists Display Similar Species Preference for the Human Tachykinin Neurokinin₃ Receptor
Fu-Zon Chung, Lan-Hsin Wu, Ye Tian, Marsha A. Vartanian, Helen Lee, Jack Bikker, Christine Humblet, Martyn C. Pritchard, Jennifer Raphy, Nirmala Suman-Chauhan, David C. Horwell, Narendra D. Lalwani, and Dale L. Oxender
- 717 Glycine Modulates Ethanol Inhibition of Heteromeric *N*-Methyl-D-Aspartate Receptors Expressed in *Xenopus* Oocytes
Amy L. Buller, Heidi C. Larson, Richard A. Morrisett, and Daniel T. Monaghan
- 724 Structural Requirements of Analogues of Polyamines for Migration and Growth of IEC-6 Cells
Shirley A. McCormack, Barbara J. Zimmerman, Mervyn Israel, Patrick Blanner, and Leonard R. Johnson
- 730 D₂ Dopamine Receptor Antisense Oligodeoxynucleotide Inhibits the Synthesis of a Functional Pool of D₂ Dopamine Receptors
Zheng-Hong Qin, Long-Wu Zhou, Sui-Po Zhang, Yumei Wang, and Benjamin Weiss
- 738 Contribution of Sequence and Phosphorothioate Content to Inhibition of Cell Growth and Adhesion Caused by *c-myc* Antisense Oligomers
Christine Chavany, Yvette Connell, and Len Neckers
- 747 Suppression of Lipopolysaccharide-Induced Tumor Necrosis Factor- α Generation from Human Peripheral Blood Monocytes by Inhibitors of Phosphodiesterase 4: Interaction with Stimulants of Adenylyl Cyclase
Paul M. Seldon, Peter J. Barnes, Koremu Meja, and Mark A. Giembycz
- 758 Dihydrofolate Reductase Binding and Cellular Uptake of Nonpolyglutamatable Antifolates: Correlates of Cytotoxicity Toward Methotrexate-Sensitive and -Resistant Human Head and Neck Squamous Carcinoma Cells
Guan Chen, Joel E. Wright, and Andre Rosowsky
- 766 Lysophosphatidic Acid Regulation of Cyclic AMP Accumulation in Cultured Human Airway Smooth Muscle Cells
Makoto Nogami, Sara M. Whittle, Debra J. Romberger, Stephen I. Rennard, and Myron L. Toews
- 774 Comparative Pharmacology of Epibatidine: A Potent Agonist for Neuronal Nicotinic Acetylcholine Receptors
V. Gerzanich, X. Peng, F. Wang, G. Wells, R. Anand, S. Fletcher, and J. Lindstrom

Continued