

Contents

ACCELERATED COMMUNICATIONS

- | | | |
|-----|---|---|
| 213 | Novel Properties of Homomeric β_1 γ -Aminobutyric Acid Type A Receptors: Actions of the Anesthetics Propofol and Pentobarbital | Enrico Sanna, Franca Garau, and R. Adron Harris |
|-----|---|---|

ARTICLES

- | | | |
|-----|---|--|
| 218 | Multiple Regions of $G_{\alpha 16}$ Contribute to the Specificity of Activation by the C5a Receptor | Chang Ho Lee, Arie Katz, and Melvin I. Simon |
| 224 | Agonist-Dependent Phosphorylation of Human Muscarinic Receptors in <i>Spodoptera frugiperda</i> Insect Cell Membranes by G-Protein-Coupled Receptor Kinases | Shubhik K. DebBurman, Priya Kunapuli, Jeffrey L. Benovic, and M. Marlene Hosey |
| 234 | The Class III Antiarrhythmic Drug Amiodarone Directly Activates Pertussis Toxin-Sensitive G Proteins | Astrid Hagelüken, Bernd Nürnberg, Rainer Harhammer, Lore Grünbaum, Walter Schunack, and Roland Seifert |
| 241 | Welwitindolinone Analogues That Reverse P-Glycoprotein-Mediated Multiple Drug Resistance | Charles D. Smith, Jack T. Zilfou, Klemens Stratmann, Gregory M. L. Patterson, and Richard E. Moore |
| 248 | Activation of Muscarinic Cholinergic Receptors Blocks Apoptosis of Cultured Cerebellar Granule Neurons | Guang-Mei Yan, Sui-Zhen Lin, Robert P. Irwin, and Steven M. Paul |
| 258 | Differential Regulation by Anti Tumor-Promoting 12-Deoxyphorbol-13-Phenylacetate Reveals Distinct Roles of the Classical and Novel Protein Kinase C Isozymes in Biological Responses of Primary Mouse Keratinocytes | Zoltan Szallasi, Karolina Kosa, Colin B. Smith, Andrzej A. Dlugosz, Erin K. Williams, Stuart H. Yuspa, and Peter M. Blumberg |

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, 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 © 1995 by The American Society for Pharmacology and Experimental Therapeutics.

ARTICLES

- | | | |
|-----|--|---|
| 266 | Identification and Characterization of Endothelin Receptors on Rat Osteoblastic Osteosarcoma Cells: Down regulation by 1,25-Dihydroxy-vitamin D ₃ | P. Nambi, H-L. Wu, D. Lipshutz, and U. Prabhakar |
| 272 | Differential <i>In Vivo</i> Induction of Immediate Early Genes by Oxotremorine in the Central Nervous System of Long- and Short-Sleep Mice | Leonidas Tsiokas and Mark Watson |
| 283 | Selective Antagonist for the Cerebellar Granule Cell-Specific γ -Aminobutyric Acid Type A Receptor | Esa R. Korpi, Thomas Kuner, Peter H. Seeburg, and Hartmut Lüddens |
| 290 | <i>In Vitro</i> Transcription Termination by <i>N,N'</i> -Bis(2-chloroethyl)- <i>N</i> -nitrosourea-Induced DNA Lesions | Russell O. Pieper, Susan L. Noftz, and Leonard C. Erickson |
| 296 | Induction of Cytochrome P4501A1 by Aryl Hydrocarbon Receptor Agonists in Porcine Aorta Endothelial Cells in Culture and Cytochrome P1A1 Activity in Intact Cells | John J. Stegeman, Mark E. Hahn, Robert Weisbrod, Bruce R. Woodin, Jennifer S. Joy, Soheil Najibi, and Richard A. Cohen |
| 307 | Characterization of Two Affinity States of Adenosine A _{2a} Receptors with a New Radioligand, 2-[2-(4-amino-3-[¹²⁵ I]iodophenyl)ethylamino]-adenosine | David R. Luthin, Ray A. Olsson, Robert D. Thompson, Darrell R. Sawmiller, and Joel Linden |
| 314 | Molecular Determinants of the Species Selectivity of Neurokinin Type 1 Receptor Antagonists | Laurent Pradier, Estelle Habert-Ortoli, Lydia Emile, Joëlle Le Guern, Isabelle Loquet, Marie-Dominique Bock, Josette Clot, Luc Mercken, Véronique Fardin, Claude Garret, and Jean-François Mayaux |
| 322 | Functional Coupling of the β_2 -Adrenoceptor to a Pertussis Toxin-Sensitive G Protein in Cardiac Myocytes | Rui-Ping Xiao, Xiangwu Ji, and Edward G. Lakatta |
| 330 | Characterization of Cyclic Nucleotide Phosphodiesterases with Cyclic GMP Analogs: Topology of the Catalytic Domains | Jerlyn Beltman, Donna E. Becker, Elke Butt, Gregory S. Jensen, Sergei D. Rybalkin, Bernd Jastorff, and Joseph A. Beavo |
| 340 | Characterization of Cyclic Nucleotide Phosphodiesterases Using Cyclic AMP Analogs: Topology of the Catalytic Site and Comparison with Other Cyclic AMP-Binding Proteins | Elke Butt, Jerlyn Beltman, Donna E. Becker, Gregory S. Jensen, Sergei D. Rybalkin, Bernd Jastorff, and Joseph A. Beavo |
| 348 | Characterization of Presynaptic Calcium Channels with ω -Conotoxin MVIIC and ω -Grammotoxin SIA: Role for a Resistant Calcium Channel Type in Neurosecretion | Timothy J. Turner, Richard A. Lampe, and Kathleen Dunlap |

continued

CONTENTS (cont'd)

- | | | |
|-----|--|---|
| 354 | Selective Actions of Certain Neuroactive Pregnanediols at the γ -Aminobutyric Acid Type A Receptor Complex in Rat Brain | Linda D. McCauley, Vincent Liu, Jie-Shen Chen, Jon E. Hawkinson, Nancy C. Lan, and Kelvin W. Gee |
| 363 | Different Subunit Requirements for Volatile and Nonvolatile Anesthetics at γ -Aminobutyric Acid Type A Receptors | Bradford D. Harris, Garry Wong, Eric J. Moody, and Phil Skolnick |
| 368 | Mechanism of the Dopamine-Releasing Action of Amphetamine and Cocaine: Plasmalemmal Dopamine versus Vesicular Monoamine Transporter | Christian Piffl, Helmut Drobny, Harald Reither, Oleh Hornykiewicz, and Ernst A. Singer |
| 374 | Identification of Amino Acids in the <i>N</i> -Methyl-D-aspartate Receptor NR1 Subunit that Contribute to the Glycine Binding Site | K. A. Wafford, M. Kathoria, C. J. Bain, G. Marshall, B. Le Bourdellès, J. A. Kemp, and P. J. Whiting |
| 381 | Time- and Voltage-Dependent Block of Delayed Rectifier Potassium Channels by Docosahexaenoic Acid | Jon S. Poling, John W. Karanian, Norman Salem, Jr., and Stefano Vicini |
| 391 | A Human T Lymphoid Cell Variant Resistant to the Acyclic Nucleoside Phosphonate, 9-(2-phosphonyl-methoxyethyl)adenine Shows a Unique Combination of a Phosphorylation Defect and Increased Efflux of the Agent | Brian L. Robbins, Michele C. Connelly, Dana R. Marshall, Ranga V. Srinivas, and Arnold Fridland |
| 398 | Structure-Activity Relationships of New Heterocycle-Containing Bisphosphonates as Inhibitors of Bone Resorption and as Inhibitors of Growth of <i>Dictyostelium discoideum</i> Amoebae | Michael J. Rogers, Xiaojuan Xiong, Richard J. Brown, Donald J. Watts, R. Graham G. Russell, Allan V. Bayless, and Frank H. Ebetino |
| 403 | Mode of Action of Iron(III) Chelators as Antimalarials. III. Overadditive Effects in the Combined Action of Hydroxamate-Based Agents on <i>In Vitro</i> Growth of <i>Plasmodium falciparum</i> | Appolinaire Tsafack, Jacob Golenser, Jacqueline Libman, Abraham Shanzer, and Z. Ioav Cabantchik |
| 410 | Oxidative Metabolism of Lansoprazole by Human Liver Cytochromes P450 | Lydiane Pichard, Rozangela Curi-Pedrosa, Claude Bonfils, Evelyne Jacqz-Aigrain, Jacques Domergue, Henri Joyeux, Jose Cosmé, F. Peter Guengerich, and Patrick Maurel |
| 419 | Interaction of Flavones and Their Bromoacetyl Derivatives with NAD(P)H: Quinone Acceptor Oxidoreductase | Shiuan Chen, Paulis S. K. Deng, Kristine Swiderek, Mingxiang Li, and Sunney I. Chan |