

Contents

ACCELERATED COMMUNICATIONS

- 581 Pharmacological Discrimination of GluR 5 and GluR 6 Kainate Receptor Subtypes by (3*S*,4*aR*,6*R*,8*aR*)-6-[2-(2*H*-tetrazole-5-yl)-ethyl]decahydroisoquinoline-3-carboxylic acid
- David Bleakman,
Darryle D. Schoepp,
Barbara Ballyk, Hywel Bufton,
Erica F. Sharpe, Kathy Thomas,
Paul L. Ornstein, and
Rajender K. Kamboj

ARTICLES

- 586 Metabotropic and Ionotropic Transducers of Glutamate Signal Inversely Control Cytoplasmic Ca²⁺ Concentration and Excitotoxicity in Cultured Cerebellar Granule Cells: Pivotal Role of Protein Kinase C
- M. Pizzi, P. Galli, O. Consolandi,
V. Arrighi, M. Memo, and
P. F. Spano
- 595 Separation of Resistance to Antitumor Diarylsulfonylurea Agents from Collateral Sensitivity to Mitochondrial Toxins
- Li L. Shu and Peter J. Houghton
- 602 Suramin Analogues as Subtype-Selective G Protein Inhibitors
- Michael Freissmuth,
Stefan Boehm, Wolfgang Beindl,
Peter Nickel, Adriaan P. Ijzerman,
Martin Hohenegger, and
Christian Nanoff
- 612 Modulation of Glucocorticoid-Inducible Gene Expression by Metal Ions
- Yuichi Makino, Hirotohi Tanaka,
Karin Dahlman-Wright, and
Isao Makino

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 © 1996 by The American Society for Pharmacology and Experimental Therapeutics.

CONTENTS (cont'd)

- 621 Effects of Nucleotide Analogues on Human Immunodeficiency Virus Type 1 Integrase
Abhijit Mazumder, Nouri Neamati, Jean-Pierre Sommadossi, Gilles Gosselin, Raymond F. Schinazi, Jean-Louis Imbach, and Yves Pommier
- 629 β -Adrenoceptor-Mediated Down-regulation of M₂ Muscarinic Receptors: Role of Cyclic Adenosine 5'-monophosphate-Dependent Protein Kinase and Protein Kinase C
Jonathan Rousell, El-Bdaoui Haddad, Judith C. W. Mak, Benjamin L. J. Webb, Mark A. Giembycz, and Peter J. Barnes
- 636 Induction of Chronic Fos-Related Antigens in Rat Brain by Chronic Morphine Administration
Heather E. Nye and Eric J. Nestler
- 646 Thyrotropin-Releasing Hormone-Induced Subcellular Redistribution and Down-regulation of G_{11 α} : Analysis of Agonist Regulation of Coexpressed G_{11 α} Species Variants
Petr Svoboda, Gun-Do Kim, Morag A. Grassie, Karin A. Eidne, and Graeme Milligan
- 656 D₂, D₃, and D₄ Dopamine Receptors Couple to G Protein-Regulated Potassium Channels in *Xenopus* Oocytes
Pia Werner, Nicolas Hussy, Gary Buell, Kenneth A. Jones, and R. Alan North
- 662 Modulation of the Inwardly Rectifying Potassium Channel IRK1 by the m1 Muscarinic Receptor
S. V. P. Jones
- 668 Coupling of I₁-Imidazoline Receptors to Diacylglyceride Accumulation in PC12 Rat Pheochromocytoma Cells
Duska Separovic, Mark Kester, and Paul Ernsberger
- 676 Isolation of *N*-Vinylprotoporphyrin IX after Hepatic Cytochrome P450 Inactivation by 3-[(Arylthio)ethyl]sydnone in Chick Embryos Pretreated with Phenobarbital, Glutethimide, Dexamethasone, and β -Naphthoflavone: Differential Inhibition of Ferrochelatase by *N*-Vinylprotoporphyrin Regioisomers
Susan M. Kimmett, Ralph A. Whitney, and Gerald S. Marks
- 683 Glutamate Residues in the Second Extracellular Loop of the Human A_{2a} Adenosine Receptor Are Required for Ligand Recognition
Jeongho Kim, Qiaoling Jiang, Marc Glashofer, Susan Yehle, Jürgen Wess, and Kenneth A. Jacobson
- 692 Differentiating Dopamine D₂ Ligands by Their Sensitivities to Modification of the Cysteine Exposed in the Binding-Site Crevice
Jonathan A. Javitch, Dingyi Fu, and Jiayun Chen
- 699 Cyclic AMP-Dependent Regulation of Fibroblast Growth Factor-2 Messenger RNA Levels in Rat Cortical Astrocytes: Comparison with Fibroblast Growth Factor-1 and Ciliary Neurotrophic Factor
M. A. Riva, R. Molteni, E. Lovati, F. Fumagalli, M. Rusnati, and G. Racagni
- 707 Rat Brain Cannabinoid Receptor Modulates N-Type Ca²⁺ Channels in a Neuronal Expression System
Xianghua Pan, Stephen R. Ikeda, and Deborah L. Lewis

Continued

CONTENTS (cont'd)

- | | | |
|-----|---|---|
| 715 | Ciclazindol Inhibits ATP-Sensitive K⁺ Channels and Stimulates Insulin Secretion in CRI-G1 Insulin-Secreting Cells | K. Lee, R. N. Khan, I. C. M. Rowe, S. E. Ozanne, A. C. Hall, E. Papadakis, C. N. Hales, and M. L. J. Ashford |
| 721 | Activities of Novel Nonglycosidic Epipodophyllotoxins in Etoposide-Sensitive and -Resistant Variants of Human KB Cells, P-388 Cells, and <i>In Vivo</i> Multidrug-Resistant Murine Leukemia Cells | Innocent O. Anyanwutaku, Xin Guo, Hong-Xing Chen, Zheng Ji, Kuo-Hsiung Lee, and Yung-Chi Cheng |
| 727 | Unusual Steroid Specificity of the Cell Surface Progesterone Receptor on Human Sperm | Peter F. Blackmore, Jed F. Fisher, Charles H. Spilman, and John E. Bleasdale |
| 740 | <i>Ortho</i>-Substituted Polychlorinated Biphenyls Alter Calcium Regulation by a Ryanodine Receptor-Mediated Mechanism: Structural Specificity toward Skeletal- and Cardiac-Type Microsomal Calcium Release Channels | Patty W. Wong and Isaac N. Pessah |
| 752 | Distinct Receptor Domains Determine Subtype-Specific Coupling and Desensitization Phenotypes for Human β_1- and β_2- Adrenergic Receptors | Guy Rousseau, François Nantel, and Michel Bouvier |
| 760 | Erratum | |