

MOLECULAR PHARMACOLOGY

August 2008




Volume 74

Number 2


<http://molpharm.aspetjournals.org>

ISSN 0026-895X


PERSPECTIVES




- Role of the Murine Organic Anion-Transporting Polypeptide 1b2 (Oatp1b2) in Drug Disposition and Hepatotoxicity  *Raymond Evers and Xiao-Yan Chu* 309
- Rich Tapestry of G Protein-Coupled Receptor Signaling and Regulatory Mechanisms  *Vsevolod V. Gurevich and Eugenia V. Gurevich* 312
- Protein-Protein Interactions and Dopamine D₂ Receptor Signaling: A Calcium Connection  *Gregg D. Stanwood* 317

ACCELERATED COMMUNICATIONS

-  Targeted Disruption of Murine Organic Anion-Transporting Polypeptide 1b2 (oatp1b2/*Slco1b2*) Significantly Alters Disposition of Prototypical Drug Substrates Pravastatin and Rifampin *Hani Zaher, Henriette E. Meyer zu Schwabedissen, Rommel G. Tirona, Melissa L. Cox, Leslie A. Obert, Nidhi Agrawal, Joe Palandra, Jeffrey L. Stock, Richard B. Kim, and Joseph A. Ware* 320
- Simian Immunodeficiency Virus Is Susceptible to Inhibition by Carbohydrate-Binding Agents in a Manner Similar to That of HIV: Implications for Further Preclinical Drug Development *Katrien O. François, Joeri Auwerx, Dominique Schols, and Jan Balzarini* 330

ARTICLES

-  M₃ Muscarinic Acetylcholine Receptor-Mediated Signaling Is Regulated by Distinct Mechanisms *Jiansong Luo, John M. Busillo, and Jeffrey L. Benovic* 338
- Presynaptic $\alpha 7$ - and $\beta 2$ -Containing Nicotinic Acetylcholine Receptors Modulate Excitatory Amino Acid Release from Rat Prefrontal Cortex Nerve Terminals via Distinct Cellular Mechanisms *Jane A. Dickinson, James N. C. Kew, and Susan Wonnacott* 348
- Postsynaptic Density-95 (PSD-95) and Calcineurin Control the Sensitivity of N-Methyl-D-aspartate Receptors to Calpain Cleavage in Cortical Neurons *Eunice Y. Yuen, Yi Ren, and Zhen Yan* 360

The , , and  symbols in the table of contents identify articles discussed in the *Perspectives*.

Molecular Pharmacology (ISSN 0026-895X) is published monthly (two volumes per year beginning in January and July) by the American Society for Pharmacology and Experimental Therapeutics, 9650 Rockville Pike, Bethesda, MD 20814-3995; e-mail: info@aspet.org; Web site: <http://www.aspet.org>. Periodicals postage paid at Bethesda, MD and at additional mailing offices. POSTMASTER: Send address changes to *Molecular Pharmacology*, 9650 Rockville Pike, Bethesda, MD 20814-3995. Subscription rates: U.S.: \$647.00 for institutions and \$264.00 for non-ASPET members. Outside the U.S.: \$734.00 for institutions and \$351.00 for non-ASPET members. Single copy:

\$59.00. GST Tax Number for Canadian subscribers: BN:13489 2330 RT. Indexed or abstracted by *Biochemistry & Biophysics Citation Index*[®], *Biological Abstracts*, *BIOSIS Previews Database*, *Current Awareness in Biological Sciences*, *Current Contents*[®]/*Life Sciences*, *EMBASE/Excerpta Medica*, *Index Medicus*, *Medical Documentation Service*[®], *Reference Update*[®], *Research Alert*[®], *Science Citation Index*[®], *SciSearch*[®], and *SIIC Data Bases*. Copyright © 2008 by the American Society for Pharmacology and Experimental Therapeutics. All rights reserved. Printed in the U.S.A.

⊙	Novel Interaction of the Dopamine D ₂ Receptor and the Ca ²⁺ Binding Protein S100B: Role in D ₂ Receptor Function <i>Yong Liu, David C. Buck, and Kim A. Neve</i>	371
	Human Nocturnal Frontal Lobe Epilepsy: Pharmacogenomic Profiles of Pathogenic Nicotinic Acetylcholine Receptor β-Subunit Mutations outside the Ion Channel Pore <i>Jean-Charles Hoda, Wenli Gu, Marc Friedli, Hilary A. Phillips, Sonia Bertrand, Stylianos E. Antonarakis, David Goudie, Richard Roberts, Ingrid E. Scheffer, Carla Marini, Jayesh Patel, Samuel F. Berkovic, John C. Mulley, Ortrud K. Steinlein, and Daniel Bertrand</i>	379
Ⓢ	Identification of Novel Formyl Peptide Receptor-Like 1 Agonists That Induce Macrophage Tumor Necrosis Factor α Production <i>Igor A. Schepetkin, Liliya N. Kirpotina, Jun Tian, Andrei I. Khlebnikov, Richard D. Ye, and Mark T. Quinn</i>	392
	Adipose Fibroblast Growth Factor 21 Is Up-Regulated by Peroxisome Proliferator-Activated Receptor γ and Altered Metabolic States <i>Eric S. Muise, Barbara Azzolina, David W. Kuo, Mohamed El-Sherbeini, Yejun Tan, Xiling Yuan, James Mu, John R. Thompson, Joel P. Berger, and Kenny K. Wong</i>	403
	Spatial Approximation between Secretin Residue Five and the Third Extracellular Loop of Its Receptor Provides New Insight into the Molecular Basis of Natural Agonist Binding <i>Maoqing Dong, Polo C.-H. Lam, Delia I. Pinon, Patrick M. Sexton, Ruben Abagyan, and Laurence J. Miller</i>	413
	Enhancing Drug Accumulation in <i>Saccharomyces cerevisiae</i> by Repression of Pleiotropic Drug Resistance Genes with Chimeric Transcription Repressors <i>Alexander Stepanov, Karin C. Nitiss, Geoffrey Neale, and John L. Nitiss</i>	423
Ⓢ	Protein Kinase C Enhances Tight Junction Barrier Function of Human Nasal Epithelial Cells in Primary Culture by Transcriptional Regulation <i>Jun-ichi Koizumi, Takashi Kojima, Noriko Ogasawara, Ryuta Kamekura, Makoto Kurose, Mitsuru Go, Atsushi Harimaya, Masaki Murata, Makoto Osanai, Hideki Chiba, Tetsuo Himi, and Norimasa Sawada</i>	432
	The Peripheral Benzodiazepine Receptor Ligand 1-(2-Chlorophenyl-methylpropyl)-3-isoquinoline-carboxamide Is a Novel Antagonist of Human Constitutive Androstane Receptor <i>Linhao Li, Tao Chen, Joseph D. Stanton, Tatsuya Sueyoshi, Masahiko Negishi, and Hongbing Wang</i>	443
	The NR1 M3 Domain Mediates Allosteric Coupling in the N-Methyl-D-aspartate Receptor <i>Marie L. Blanke and Antonius M. J. VanDongen</i>	454
	Morantel Allosterically Enhances Channel Gating of Neuronal Nicotinic Acetylcholine α3β2 Receptors <i>Tse-Yu Wu, Caleb M. Smith, Steven M. Sine, and Mark M. Levandoski</i>	466
Ⓢ	Activation of Nuclear Factor-κB Pathway by Simvastatin and RhoA Silencing Increases Doxorubicin Cytotoxicity in Human Colon Cancer HT29 Cells <i>Chiara Riganti, Sophie Doublier, Costanzo Costamagna, Elisabetta Aldieri, Gianpiero Pescarmona, Dario Ghigo, and Amalia Bosia</i>	476
	Synergy between Coproduced CC and CXC Chemokines in Monocyte Chemotaxis through Receptor-Mediated Events <i>Mieke Gouwy, Sofie Struyf, Samuel Noppen, Evemie Schutyser, Jean-Yves Springael, Marc Parmentier, Paul Proost, and Jo Van Damme</i>	485
	T-Cell Receptor/CD28-Mediated Activation of Human T Lymphocytes Induces Expression of Functional μ-Opioid Receptors <i>Christine Börner, Jürgen Kraus, Andrea Bedini, Burkhardt Schraven, and Volker Höllt</i>	496

Human Methyl Purine DNA Glycosylase and DNA Polymerase β Expression Collectively Predict Sensitivity to Temozolomide
Ram N. Trivedi, Xiao-hong Wang, Elena Jelezcova, Eva M. Goellner, Jiang-bo Tang, and Robert W. Sobol 505

▣ Transcriptional Repression of O^6 -Methylguanine DNA Methyltransferase Gene Rendering Cells Hypersensitive to N,N' -Bis(2-chloroethyl)- N -nitrosourea in Camptothecin-Resistant Cells
Li-Chen Ma, Ching-Chuan Kuo, Jin-Fen Liu, Li-Tzong Chen, and Jang-Yang Chang 517

Cellular Energetic Status Supervises the Synthesis of Bis-Diphosphoinositol Tetrakisphosphate Independently of AMP-Activated Protein Kinase
Kuicheon Choi, Elahe Mollapour, Jae H. Choi, and Stephen B. Shears 527

ERRATA

Correction to “Induction of Apoptosis by Vinblastine via c-Jun Autoamplification and p53-Independent Down-Regulation of p21^{WAF1/CIP1}” 537

Correction to “A Functional Steroid-Binding Element in an ATP-Binding Cassette Multidrug Transporter” 538

Correction to “Stretch Induction of Cyclooxygenase-2 Expression in Human Urothelial Cells Is Calcium- and Protein Kinase C ζ -Dependent” 539

Correction to “Molecular Interaction of a Potent Nonpeptide Agonist with the Chemokine Receptor CCR8” 539

▣ Supplemental material is available online at <http://molpharm.aspetjournals.org>.

About the cover: Secretin receptor model. See the article by Dong et al. on page 413 of this issue.