MOLECULAR

PHARMACOLOGY

April 2007 Volume 71 Number 4 ISSN 0026-895X http://molpharm.aspetjournals.org PERSPECTIVE Constitutive Trafficking—More Than Just Running in Circles? Laura M. Bohn 957 **MINIREVIEW** The Highly Conserved DRY Motif of Class A G Protein-Coupled Receptors: Beyond the Ground State G. Enrico Rovati, Valérie Capra, and Richard R. Neubig 959 ARTICLES S Concurrent Administration of Neu2000 and Lithium Produces Marked Improvement of Motor Neuron Survival, Motor Function, and Mortality in a Mouse Model of Amyotrophic Lateral Sclerosis Jin Hee Shin, Sung Ig Cho, Hyang Ran Lim, Jae Keun Lee, Young Ae Lee, Jai Sung Noh, In Soo Joo, Kee-Won Kim, and Byoung Joo Gwag 965 An Essential Role for Constitutive Endocytosis, but Not Activity, in the Axonal Targeting of the CB₁ Cannabinoid Receptor Neil A. McDonald, Christopher M. Henstridge, Christopher N. Connolly, and Andrew J. Irving 976 Genetic Evidence for a Protective Role of Heat Shock Factor 1 against Irritant-Induced Gastric Lesions Ken-ichiro Tanaka, Shinji Tsutsumi, Yasuhiro Arai, Tatsuya Hoshino, Keitarou Suzuki, Eiichi Takaki, Takaaki Ito, Koji Takeuchi, Akira Nakai, and Tohru Mizushima 985 Uncovering the Pharmacology of the G Protein-Coupled Receptor GPR40: High Apparent Constitutive Activity in Guanosine 5'-O-(3-[35S]thio)triphosphate Binding Studies Reflects Binding of an **Endogenous Agonist** Leigh A. Stoddart, Andrew J. Brown, and Graeme Milligan 994 S Differential Selection of Acridine Resistance Mutations in Human DNA Topoisomerase IIβ Is

The
symbols in the table of contents identify articles discussed in the Perspective.

Chrysoula Leontiou, Gary P. Watters, Kathryn L. Gilroy, Pauline Heslop, Ian G. Cowell,

Kate Craig, Robert N. Lightowlers, Jeremy H. Lakey, and Caroline A. Austin

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.: \$616.00 for institutions and \$251.00 for non-ASPET members. Outside the U.S.: \$699.00 for institutions and \$334.00 for non-ASPET members. Single copy:

Dependent on the Acridine Structure

\$62.00. 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 © 2007 by the American Society for Pharmacology and Experimental Therapeutics. All rights reserved. Printed in the U.S.A.

1006

S	The α_{1b} -Adrenoceptor Exists as a Higher-Order Oligomer: Effective Oligomerization Is Required for Receptor Maturation, Surface Delivery, and Function Juan F. Lopez-Gimenez, Meritxell Canals, John D. Pediani, and Graeme Milligan	1015
	RGS4 Modulates Serotonin Signaling in Prefrontal Cortex and Links to Serotonin Dysfunction in a Rat Model of Schizophrenia Zhenglin Gu, Qian Jiang, and Zhen Yan	1030
	N-Terminal Residues Control Proteasomal Degradation of RGS2, RGS4, and RGS5 in Human Embryonic Kidney 293 Cells Johannes Bodenstein, Roger K. Sunahara, and Richard R. Neubig	1040
	BRCA1 Contributes to Cell Cycle Arrest and Chemoresistance in Response to the Anticancer Agent Irofulven Timothy Wiltshire, Jamie Senft, Yutian Wang, Gregory W. Konat, Sharon L. Wenger, Eddie Reed, and Weixin Wang	1051
S	High-Throughput Screening for Small-Molecule Activators of Neutrophils: Identification of Novel N-Formyl Peptide Receptor Agonists Igor A. Schepetkin, Liliya N. Kirpotina, Andrei I. Khlebnikov, and Mark T. Quinn	1061
	Voltage-Sensitive Oxonol Dyes Are Novel Large-Conductance Ca^{2+} -Activated K^+ Channel Activators Selective for $\beta 1$ and $\beta 4$ but Not for $\beta 2$ Subunits Takashi Morimoto, Kazuho Sakamoto, Hiroko Sade, Susumu Ohya, Katsuhiko Muraki, and Yuji Imaizumi	1075
	Function of Both Sinusoidal and Canalicular Transporters Controls the Concentration of Organic Anions within Hepatocytes Corinne Planchamp, Antoine Hadengue, Bruno Stieger, Joëlle Bourquin, Alain Vonlaufen, Jean-Louis Frossard, Rafael Quadri, Christoph D. Becker, and Catherine M. Pastor	1089
S	Loss of the High-Affinity Pentamidine Transporter Is Responsible for High Levels of Cross-Resistance between Arsenical and Diamidine Drugs in African Trypanosomes Daniel J. Bridges, Matthew K. Gould, Barbara Nerima, Pascal Mäser, Richard J. S. Burchmore, and Harry P. de Koning	1098
	Methylmercury-Induced Increase of Intracellular Ca^{2+} Increases Spontaneous Synaptic Current Frequency in Rat Cerebellar Slices Yukun Yuan and William D. Atchison	1109
	Conjugated Bile Acids Regulate Hepatocyte Glycogen Synthase Activity In Vitro and In Vivo via $G\alpha_i$ Signaling Youwen Fang, Elaine Studer, Clint Mitchell, Steven Grant, William M. Pandak, Philip B. Hylemon, and Paul Dent	1122
	Protein Kinase C-Dependent Mitochondrial Translocation of Proapoptotic Protein Bax on Activation of Inducible Nitric-Oxide Synthase in Rostral Ventrolateral Medulla Mediates Cardiovascular Depression during Experimental Endotoxemia Julie Y. H. Chan, Alice Y. W. Chang, Ling-Lin Wang, Chen-Chun Ou, and Samuel H. H. Chan	1129
	Structure-Based Identification of Novel Human γ -Glutamylcysteine Synthetase Inhibitors David Hamilton, Jian Hui Wu, and Gerald Batist	1140
	In Vivo Regulation of Homer1a Expression in the Striatum by Cocaine Guo-Chi Zhang, Li-Min Mao, Xian-Yu Liu, Nikhil K. Parelkar, Anish Arora, Lu Yang, Michelle Hains, Eugene E. Fibuch, and John Q. Wang	1148
	Activation of cAMP-Dependent Signaling Pathway Induces Mouse Organic Anion Transporting Polypeptide 2 Expression Chuan Chen, Xingguo Cheng, Matthew Z. Dieter, Yuji Tanaka, and Curtis D. Klaassen	1159

Structure of the d(CGCGAATTCGCG)₂ Complex of the Minor Groove Binding Alkylating Agent Alkamin Studied by Mass Spectrometry

 Amin M. S. Abdul Majid, George Smythe, William A. Denny, and Laurence P. G. Wakelin

 Interaction of Gα_q and Kir3, G Protein-Coupled Inwardly Rectifying Potassium Channels

 Takeharu Kawano, Peng Zhao, Christina V. Floreani, Yasuko Nakajima, Tohru Kozasa, and Shigehiro Nakajima

 1179