

MOLECULAR PHARMACOLOGY

December 2012

Volume 82

Number 6

molpharm.aspetjournals.org

ISSN 1521-0111

MINIREVIEW

- Drug Efflux Transporters and Multidrug Resistance in Acute Leukemia: Therapeutic Impact and Novel Approaches to Mediation
Cindy Q. Xia and Peter G. Smith 1008

ARTICLES

- Generation and Characterization of Novel Cytochrome P450 Cyp2c Gene Cluster Knockout and CYP2C9 Humanized Mouse Lines
Nico Scheer, Yury Kapelyukh, Lynsey Chatham, Anja Rode, Sandra Buechel, and C. Roland Wolf 1022
- Resveratrol Sensitizes Acute Myelogenous Leukemia Cells to Histone Deacetylase Inhibitors through Reactive Oxygen Species-Mediated Activation of the Extrinsic Apoptotic Pathway
Alae Yaseen, Shuang Chen, Stefanie Hock, Roberto Rosato, Paul Dent, Yun Dai, and Steven Grant 1030
- Locating a Plausible Binding Site for an Open-Channel Blocker, GlyH-101, in the Pore of the Cystic Fibrosis Transmembrane Conductance Regulator
Yohei Norimatsu, Anthony Ivetac, Christopher Alexander, Nicolette O'Donnell, Leah Frye, Mark S. P. Sansom, and David C. Dawson 1042
- Chronic Caffeine Intake in Adult Rat Inhibits Carotid Body Sensitization Produced by Chronic Sustained Hypoxia but Maintains Intact Chemoreflex Output
Silvia V. Conde, Maria J. Ribeiro, Ana Obeso, Ricardo Rigual, Emilia C. Monteiro, and Constancio Gonzalez 1056
- Small Molecule Allosteric Modulation of the Glucagon-Like Peptide-1 Receptor Enhances the Insulinotropic Effect of Oxyntomodulin
Francis S. Willard, Denise Wootten, Aaron D. Showalter, Emilia E. Savage, James Ficorilli, Thomas B. Farb, Krister Bokvist, Jorge Alsina-Fernandez, Sebastian G. B. Furness, Arthur Christopoulos, Patrick M. Sexton, and Kyle W. Sloop 1066
- Ifenprodil Effects on GluN2B-Containing Glutamate Receptors
Stacy A. Amico-Ruvio, Meaghan A. Paganelli, Jason M. Myers, and Gabriela K. Popescu 1074
- Xenobiotics and Loss of Cell Adhesion Drive Distinct Transcriptional Outcomes by Aryl Hydrocarbon Receptor Signaling
Nan Hao, Kian Leong Lee, Sebastian G. B. Furness, Cecilia Bosdotter, Lorenz Poellinger, and Murray L. Whitelaw 1082
- Identification of Structural Motifs Critical for Epstein-Barr Virus-Induced Molecule 2 Function and Homology Modeling of the Ligand Docking Site
Li Zhang, Amy Y. Shih, Xia V. Yang, Chester Kuei, Jiejun Wu, Xiaohu Deng, Neelakandha S. Mani, Taraneh Mirzadegan, Siquan Sun, Timothy W. Lovenberg, and Changlu Liu 1094
- Solute Restriction Reveals an Essential Role for *clag3*-Associated Channels in Malaria Parasite Nutrient Acquisition
Ajay D. Pillai, Wang Nguitrageool, Brian Lyko, Keithlee Dolinta, Michelle M. Butler, Son T. Nguyen, Norton P. Peet, Terry L. Bowlin, and Sanjay A. Desai 1104

- S Betulinic Acid Decreases Specificity Protein 1 (Sp1) Level via Increasing the Sumoylation of Sp1 to Inhibit Lung Cancer Growth
Tsung-I. Hsu, Mei-Chun Wang, Szu-Yu Chen, Shih-Ting Huang, Yu-Min Yeh, Wu-Chou Su, Wen-Chang Chang, and Jan-Jong Hung 1115
- Extracellular Quaternary Ammonium Blockade of Transient Receptor Potential Vanilloid Subtype 1 Channels Expressed in *Xenopus laevis* Oocytes
Ricardo E. Rivera-Acevedo, Stephan A. Pless, Stephan K. W. Schwarz, and Christopher A. Ahern 1129
- G $\beta\gamma$ Inhibits Exocytosis via Interaction with Critical Residues on Soluble N-Ethylmaleimide-Sensitive Factor Attachment Protein-25
Christopher A. Wells, Zack Zurawski, Katherine M. Betke, Yun Young Yim, Karren Hyde, Shelagh Rodriguez, Simon Alford, and Heidi E. Hamm 1136
- S Identification and Characterization of Distinct C-Terminal Domains of the Human Hydroxycarboxylic Acid Receptor-2 That Are Essential for Receptor Export, Constitutive Activity, Desensitization, and Internalization
Guo Li, Qi Zhou, Yena Yu, Linjie Chen, Ying Shi, Jiansong Luo, Jeffrey Benovic, Jianxin Lu, and Naiming Zhou 1150
- S Virtual Screening for LPA₂-Specific Agonists Identifies a Nonlipid Compound with Antiapoptotic Actions
Gyöngyi N. Kiss, James I. Fells, Renuka Gupte, Sue-Chin Lee, Jianxiong Liu, Nóra Nusser, Keng G. Lim, Ramesh M. Ray, Fang-Tsy Lin, Abby L. Parrill, Balázs Sümegi, Duane D. Miller, and Gabor Tigyi 1162
- S Analysis of Multiple Histamine H₄ Receptor Compound Classes Uncovers G α_1 Protein- and β -Arrestin2-Biased Ligands
Saskia Nijmeijer, Henry F. Vischer, Elizabeth M. Rosethorne, Steven J. Charlton, and Rob Leurs 1174
- Cd²⁺ Block and Permeation of Ca_v3.1 (α 1G) T-Type Calcium Channels: Candidate Mechanism for Cd²⁺ Influx
Kyle V. Lopin, Frank Thévenod, Jessica C. Page, and Stephen W. Jones 1183
- Fe²⁺ Block and Permeation of Ca_v3.1 (α 1G) T-Type Calcium Channels: Candidate Mechanism for Non-Transferrin-Mediated Fe²⁺ Influx
Kyle V. Lopin, I. Patrick Gray, Carlos A. Obejero-Paz, Frank Thévenod, and Stephen W. Jones 1194
- S Gene Expression Signature Predicting High-Grade Prostate Cancer Responses to Oxaliplatin
Stéphane Puyo, Nadine Houédé, Audrey Kauffmann, Pierre Richaud, Jacques Robert, and Philippe Pourquier 1205
- S Lapatinib and Obatoclox Kill Breast Cancer Cells through Reactive Oxygen Species-Dependent Endoplasmic Reticulum Stress
Nichola Cruickshanks, Yong Tang, Laurence Booth, Hossein Hamed, Steven Grant, and Paul Dent 1217
- S Inhibition of Autophagy as a Strategy to Augment Radiosensitization by the Dual Phosphatidylinositol 3-Kinase/Mammalian Target of Rapamycin Inhibitor NVP-BEZ235
George J. Cerniglia, Jayashree Karar, Sonia Tyagi, Melpo Christofidou-Solomidou, Ramesh Rengan, Constantinos Koumenis, and Amit Maity 1230
- Analysis of Kalirin-7 Knockout Mice Reveals Different Effects in Female Mice
Christopher M. Mazzone, Taylor P. Larese, Drew D. Kiraly, Betty A. Eipper, and Richard E. Mains 1241
- S Supplemental material is available online at <http://molpharm.aspetjournals.org>.

About the cover: Alanine mutagenesis screening of SNAP-25 peptides that bind G $\beta\gamma$. The residues (spheres, red) that had significantly reduced G $\beta\gamma$ binding when mutated to alanine are mapped onto the X-ray crystal structure of ternary snare (Protein Data Bank code 1SFC). See article by Wells et al. on page 1136 of this issue.