

MOLECULAR PHARMACOLOGY

June 2007

Volume 71

Number 6

<http://molpharm.aspetjournals.org>

ISSN 0026-895X

MINIREVIEW

- Rimonabant: Just an Antiobesity Drug? Current Evidence on Its Pleiotropic Effects
Maurizio Bifulco, Claudia Grimaldi, Patrizia Gazzerri, Simona Pisanti, and Antonietta Santoro 1445

ACCELERATED COMMUNICATION

- Induction of Estrogen Receptor α Expression with Decoy Oligonucleotide Targeted to NFATc1 Binding Sites in Osteoblasts
Letizia Penolazzi, Margherita Zennaro, Elisabetta Lambertini, Elisa Tavanti, Elena Torreggiani, Roberto Gambari, and Roberta Piva 1457

ARTICLES

- Modified Receptor Internalization upon Coexpression of 5-HT_{1B} Receptor and 5-HT_{2B} Receptors
Agnes Janoshazi, Maud Deraet, Jacques Callebert, Vincent Setola, Silke Guenther, Bruno Saubamea, Philippe Manivet, Jean-Marie Launay, and Luc Maroteaux 1463
- ☐ Induction of Cyp1a1 Is a Nonspecific Biomarker of Aryl Hydrocarbon Receptor Activation: Results of Large Scale Screening of Pharmaceuticals and Toxicants in Vivo and in Vitro
Wenyue Hu, Claudio Sorrentino, Michael S. Denison, Kyle Kolaja, and Mark R. Fielden 1475
- ☐ Identification of Essential Histidine and Cysteine Residues of the H⁺/Organic Cation Antiporter Multidrug and Toxin Extrusion (MATE)
Jun-ichi Asaka, Tomohiro Terada, Masahiro Tsuda, Toshiya Katsura, and Ken-ichi Inui 1487
- ☐ Interaction and Inhibitory Cross-Talk between Endothelin and ErbB Receptors in the Adult Heart
Ka Young Chung and Jeffery W. Walker 1494
- Chromanol 293B Binding in KCNQ1 (Kv7.1) Channels Involves Electrostatic Interactions with a Potassium Ion in the Selectivity Filter
Christian Lerche, Iva Bruhova, Holger Lerche, Klaus Steinmeyer, Aguan D. Wei, Nathalie Strutz-Seebom, Florian Lang, Andreas E. Busch, Boris S. Zhorov, and Guiscard Seebom 1503

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:

\$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.

Mutation Studies of Ser7.39 and Ser2.60 in the Human CB ₁ Cannabinoid Receptor: Evidence for a Serine-Induced Bend in CB ₁ Transmembrane Helix 7 <i>Ankur Kapur, Dow P. Hurst, Daniel Fleischer, Rob Whitnell, Ganesh A. Thakur, Alexandros Makriyannis, Patricia H. Reggio, and Mary E. Abood</i>	1512
Proteasome-Regulated ERBB2 and Estrogen Receptor Pathways in Breast Cancer <i>Corina Marx, Christina Yau, Surita Banwait, Yamei Zhou, Gary K. Scott, Byron Hann, John W. Park, and Christopher C. Benz</i>	1525
Mechanism of Thiazolidinedione-Dependent Cell Death in Jurkat T Cells <i>Mathias Soller, Stefan Dröse, Ulrich Brandt, Bernhard Brüne, and Andreas von Knethen</i>	1535
Selective Activation of Liver X Receptors by Acanthoic Acid-Related Diterpenes <i>Paqui G. Traves, Sonsoles Hortelano, Miriam Zeini, Ta-Hsiang Chao, Thanh Lam, Saskia T. Neuteboom, Emmanuel A. Theodorakis, Michael A. Palladino, Antonio Castrillo, and Lisardo Bosca</i>	1545
Phosphatase and Tensin Homolog Deleted on Chromosome 10 Suppression Is an Important Process in Peroxisome Proliferator-Activated Receptor- γ Signaling in Adipocytes and Myotubes <i>Ki Young Kim, Hyun Sill Cho, Won Hoon Jung, Sung Soo Kim, and Hyae Gyeong Cheon</i>	1554
Pharmacology of α -Conotoxin MII-Sensitive Subtypes of Nicotinic Acetylcholine Receptors Isolated by Breeding of Null Mutant Mice <i>Outi Salminen, Jennifer A. Drapeau, J. Michael McIntosh, Allan C. Collins, Michael J. Marks, and Sharon R. Grady</i>	1563
α_{2A} Adrenergic Receptor Activation Inhibits Epileptiform Activity in the Rat Hippocampal CA3 Region <i>Chris W. D. Jurgens, Hana M. Hammad, Jessica A. Lichter, Sarah J. Boese, Brian W. Nelson, Brianna L. Goldenstein, Kylie L. Davis, Ke Xu, Kristin L. Hillman, James E. Porter, and Van A. Doze</i>	1572
Natural and Enantiomeric Etiocholanolone Interact with Distinct Sites on the Rat $\alpha 1\beta 2\gamma 2L$ GABA _A Receptor <i>Ping Li, John Bracamontes, Bryson W. Katona, Douglas F. Covey, Joe Henry Steinbach, and Gustav Akk</i>	1582
Involvement of MRP4 (ABCC4) in the Luminal Efflux of Ceftizoxime and Cefazolin in the Kidney <i>Lei Ci, Hiroyuki Kusuvara, Masashi Adachi, John D. Schuetz, Kenji Takeuchi, and Yuichi Sugiyama</i>	1591
▣ Involvement of a Dysfunctional Dopamine-D1/N-Methyl-D-aspartate-NR1 and Ca ²⁺ /Calmodulin-Dependent Protein Kinase II Pathway in the Impairment of Latent Learning in a Model of Schizophrenia Induced by Phencyclidine <i>Akihiro Mouri, Yukihiro Noda, Akihiro Noda, Tomonobu Nakamura, Takanobu Tokura, Yoshimitsu Yura, Atsumi Nitta, Hiroshi Furukawa, and Toshitaka Nabeshima</i>	1598
The Kinetics of Inhibition of Human Acetylcholinesterase and Butyrylcholinesterase by Two Series of Novel Carbamates <i>Efrat Groner, Yacov Ashani, Donna Schorer-Apelbaum, Jeffrey Sterling, Yaacov Herzig, and Marta Weinstock</i>	1610
The Relaxin Family Peptide Receptor 3 Activates Extracellular Signal-Regulated Kinase 1/2 through a Protein Kinase C-Dependent Mechanism <i>Emma T. van der Westhuizen, Tim D. Werry, Patrick M. Sexton, and Roger J. Summers</i>	1618
Identification and Functional Analysis of a Novel Human CYP2E1 Far Upstream Enhancer <i>Jeff D. Shadley, Karthika Divakaran, Kimber Munson, Ronald N. Hines, Kirk Douglas, and D. Gail McCarver</i>	1630
Inhibition of Tumor Necrosis Factor- α through Selective Blockade of Pre-mRNA Splicing by Shikonin <i>Shao-Chih Chiu and Ning-Sun Yang</i>	1640

- S Subunit-Stoichiometric Evidence for Kir6.2 Channel Gating, ATP Binding, and Binding-Gating Coupling
Runing Wang, Xiaoli Zhang, Ningren Cui, Jianping Wu, Hailan Piao, Xueren Wang, Junda Su, and Chun Jiang 1646
- Inhibition of Vascular Endothelial Growth Factor Cotranslational Translocation by the Cyclopeptolide CAM741
Hanna Harant, Barbara Wolff, Erwin P. Schreiner, Berndt Oberhauser, Lotte Hofer, Nicole Lettner, Sabine Maier, Jan E. de Vries, and Ivan J. Lindley 1657
- $G\alpha_q$ -Mediated Regulation of TASK3 Two-Pore Domain Potassium Channels: The Role of Protein Kinase C
Emma L. Veale, Louise E. Kennard, Gemma L. Sutton, Georgina MacKenzie, Cristina Sandu, and Alistair Mathie 1666
- S Quercetin Activates an Angiogenic Pathway, Hypoxia Inducible Factor (HIF)-1-Vascular Endothelial Growth Factor, by Inhibiting HIF-Prolyl Hydroxylase: a Structural Analysis of Quercetin for Inhibiting HIF-Prolyl Hydroxylase
Hyunchu Jeon, Heejung Kim, Daekyu Choi, Duksoo Kim, Shi-Young Park, Yung-Jin Kim, Young Mi Kim, and Yunjin Jung 1676
- The Amine-Containing Cutaneous Irritant Heptylamine Inhibits the Volume-Regulated Anion Channel and Mobilizes Intracellular Calcium in Normal Human Epidermal Keratinocytes
Mathieu Raoux, Cécile Colombar, Patrick Delmas, and Marcel Crest 1685
- The Thiazolidinedione Pioglitazone Alters Mitochondrial Function in Human Neuron-Like Cells
Sangeeta Ghosh, Nishant Patel, Douglas Rahn, Jenna McAllister, Sina Sadeghi, Geoffrey Horwitz, Diana Berry, Kai Xuan Wang, and Russell H. Swerdlow 1695
- Fisetin, an Inhibitor of Cyclin-Dependent Kinase 6, Down-Regulates Nuclear Factor- κ B-Regulated Cell Proliferation, Antiapoptotic and Metastatic Gene Products through the Suppression of TAK-1 and Receptor-Interacting Protein-Regulated I κ B α Kinase Activation
Bokyung Sung, Manoj K. Pandey, and Bharat B. Aggarwal 1703
- Pioglitazone and Rosiglitazone Decrease Prostaglandin E₂ in Non-Small-Cell Lung Cancer Cells by Up-Regulating 15-Hydroxyprostaglandin Dehydrogenase
Saswati Hazra, Raj K. Batra, Hsin H. Tai, Sherven Sharma, Xiaoyan Cui, and Steven M. Dubinett 1715

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

About the cover: Results obtained from CM studies of WT CB₁ TMH7 (green) and the CB₁ S7.39(383)A mutant TMH7 (magenta). Please see the article by Kapur et al. on page 1512 of this issue.