

MOLECULAR PHARMACOLOGY

February 2015

Volume 87

Number 2

molpharm.aspetjournals.org

ISSN 1521-0111

MINIREVIEW

An Overview of Hedgehog Signaling in Fibrosis

Liping Hu, Xiangyang Lin, Hong Lu, Bicheng Chen, and Yongheng Bai

174

ARTICLES

- Pharmacological Inhibition and Genetic Knockdown of Exchange Protein Directly Activated by cAMP 1 Reduce Pancreatic Cancer Metastasis In Vivo
Muayad Almahariq, Celia Chao, Fang C. Mei, Mark R. Hellmich, Igor Patrikeev, Massoud Motamedi, and Xiaodong Cheng 142
- Insulin-Like Growth Factor-1 Receptor Signaling Increases the Invasive Potential of Human Epidermal Growth Factor Receptor 2–Overexpressing Breast Cancer Cells via Src-Focal Adhesion Kinase and Forkhead Box Protein M1
Eduardo Sanabria-Figueroa, Siobhan M. Donnelly, Kevin C. Foy, Meghan C. Buss, Robert C. Castellino, Elisavet Paplomata, Latonia Taliaferro-Smith, Pravin T.P. Kaumaya, and Rita Nahta 150
- The Inverse Agonist DG172 Triggers a PPAR β/δ -Independent Myeloid Lineage Shift and Promotes GM-CSF/IL-4-Induced Dendritic Cell Differentiation
Sonja Lieber, Frithjof Scheer, Florian Finkernagel, Wolfgang Meissner, Gavin Giehl, Cornelia Brendel, Wibke E. Diederich, Sabine Müller-Brüsselbach, and Rolf Müller 162
- New Pyrimido-Indole Compound CD-160130 Preferentially Inhibits the K_V11.1B Isoform and Produces Antileukemic Effects without Cardiotoxicity
Luca Gasparoli, Massimo D'Amico, Marika Masselli, Serena Pillozzi, Rachel Caves, Rawan Khuwaileh, Wolfgang Tiedke, Kenneth Mugridge, Alessandro Pratesi, John S. Mitcheson, Giuseppe Basso, Andrea Becchetti, and Annarosa Arcangeli 183
- (4-(Bis(4-Fluorophenyl)Methyl)Piperazin-1-yl)(Cyclohexyl)Methanone Hydrochloride (LDK1229): A New Cannabinoid CB₁ Receptor Inverse Agonist from the Class of Benzhydryl Piperazine Analogs
Mariam M. Mahmoud, Teresa Olszewska, Hui Liu, Derek M. Shore, Dow P. Hurst, Patricia H. Reggio, Dai Lu, and Debra A. Kendall 197
- Reporting Sodium Channel Activity Using Calcium Flux: Pharmacological Promiscuity of Cardiac Nav1.5
Hongkang Zhang, Beiyuan Zou, Fang Du, Kaiping Xu, and Min Li 207
- Phage Display–Mediated Discovery of Novel Tyrosinase-Targeting Tetrapeptide Inhibitors Reveals the Significance of N-Terminal Preference of Cysteine Residues and Their Functional Sulfur Atom
Yu-Ching Lee, Nai-Wan Hsiao, Tien-Sheng Tseng, Wang-Chuan Chen, Hui-Hsiung Lin, Sy-Jye Leu, Ei-Wen Yang, and Keng-Chang Tsai 218
- STAT3 Regulates Steady-State Expression of Synaptopodin in Cultured Mouse Podocytes
Mousa Abkhezr and Stuart E. Dryer 231
- Novel Mechanism of Voltage-Gated N-type (Ca_v2.2) Calcium Channel Inhibition Revealed through α -Conotoxin Vc1.1 Activation of the GABA_B Receptor
Thuan G. Huynh, Hartmut Cuny, Paul A. Slesinger, and David J. Adams 240

- ❏ Potent and Efficacious Inhibition of CXCR2 Signaling by Biparatopic Nanobodies Combining Two Distinct Modes of Action
M. E. Bradley, B. Dombrecht, J. Manini, J. Willis, D. Vlerick, S. De Taeye, K. Van den Heede, A. Roobrouck, E. Grot, T. C. Kent, T. Laeremans, S. Steffensen, G. Van Heeke, Z. Brown, S. J. Charlton, and K. D. Cromie 251
- ❏ A Peptide Mimicking a Region in Proliferating Cell Nuclear Antigen Specific to Key Protein Interactions Is Cytotoxic to Breast Cancer
Shanna J. Smith, Long Gu, Elizabeth A. Phipps, Lacey E. Dobrolecki, Karla S. Mabrey, Pattie Gulley, Kelsey L. Dillehay, Zhongyun Dong, Gregg B. Fields, Yun-Ru Chen, David Ann, Robert J. Hickey, and Linda H. Malkas 263
- ❏ Signaling Mechanism Underlying the Promotion of Keratinocyte Migration by Angiotensin II
Hiroki Sakai, Kenji Matsuura, Yoshie Tanaka, Takeshi Honda, Teruo Nishida, and Makoto Inui 277
- ❏ Reversing Translational Suppression and Induction of Toxicity in Pancreatic Cancer Cells Using a Chemoprevention Gene Therapy Approach
Siddik Sarkar, Bridget A. Quinn, Xuening Shen, Paul Dent, Swadesh K. Das, Luni Emdad, Devanand Sarkar, and Paul B. Fisher 286
- ❏ Antiproliferation Activity of a Small Molecule Repressor of Liver Receptor Homolog 1
Cesar A. Corzo, Yelenis Mari, Mi Ra Chang, Tanya Khan, Dana Kuruvilla, Philippe Nuhant, Naresh Kumar, Graham M. West, Derek R. Duckett, William R. Roush, and Patrick R. Griffin 296
- ❏ Sodium Ion Binding Pocket Mutations and Adenosine A_{2A} Receptor Function
Arnault Massink, Hugo Gutiérrez-de-Terán, Eelke B. Lenselink, Natalia V. Ortiz Zacarías, Lizi Xia, Laura H. Heitman, Vsevolod Katritch, Raymond C. Stevens, and Adriaan P. IJzerman 305
- ❏ Modulation of Peroxisome Proliferator-Activated Receptor- α Activity by Bile Acids Causes Circadian Changes in the Intestinal Expression of Octn1/*Slc22a4* in Mice
Erika Wada, Satoru Koyanagi, Naoki Kusunose, Takahiro Akamine, Hiroaki Masui, Hana Hashimoto, Naoya Matsunaga, and Shigehiro Ohdo 314
- ❏ An Integrated Biological Approach to Guide the Development of Metal-Chelating Inhibitors of Influenza Virus PA Endonuclease
Annelies Stevaert, Salvatore Nurra, Nicolino Pala, Mauro Carcelli, Dominga Rogolino, Caitlin Shepard, Robert A. Domoal, Baek Kim, Mercedes Alfonso-Prieto, Salvatore A. E. Marras, Mario Sechi, and Lieve Naesens 323
- ❏ A Novel Pan-Negative-Gating Modulator of K_{Ca}2/3 Channels, Fluoro-Di-Benzoate, RA-2, Inhibits Endothelium-Derived Hyperpolarization-Type Relaxation in Coronary Artery and Produces Bradycardia In Vivo
Aida Oliván-Viguera, Marta Sofía Valero, Nicole Coleman, Brandon M. Brown, Celia Laría, María Divina Murillo, José A. Gálvez, María D. Díaz-de-Villegas, Heike Wulff, Ramón Badorrey, and Ralf Köhler 338
- ❏ Engineered Hyperphosphorylation of the β_2 -Adrenoceptor Prolongs Arrestin-3 Binding and Induces Arrestin Internalization
Diana Zindel, Adrian J. Butcher, Suleiman Al-Sabah, Peter Lanzerstorfer, Julian Weghuber, Andrew B. Tobin, Moritz Bünemann, and Cornelius Krasel 349

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