MINIREVIEW
Adenylyl Cyclase–A-kinase Anchoring Protein Complexes: The Next Dimension in cAMP Signaling
Carmen W. Dessauer
935

PERSPECTIVE
An Ion Channel Hypothesis to Explain Divergent Cardiovascular Safety of Cyclooxygenase-2 Inhibitors: The Answer to a Hotly Debated Puzzle? Mark S. Shapiro
942

ARTICLES
Identification of Compounds that Correlate with ABCG2 Transporter Function in the National Cancer Institute Anticancer Drug Screen
John F. Deeken, Robert W. Robey, Sunee Shukla, Kenneth Steadman, Arup R. Chakraborty, Balasubramanian Poonkuzhali, Erin G. Schuetz, Susan Holbeck, Suresh V. Ambudkar, and Susan E. Bates
946
Targeting of the Akt-Nuclear Factor-κB Signaling Network by [1-(4-Chloro-3-nitrobenzenesulfonyl)-1H-indol-3-yl]-methanol (OSU-A9), a Novel Indole-3-Carbinol Derivative, in a Mouse Model of Hepatocellular Carcinoma
Hany A. Omar, Aaron M. Sargeant, Jing-Ru Weng, Dasheng Wang, Samuel K. Kulp, Tushar Patel, and Ching-Shih Chen
957
Potential Use of Cetrimonium Bromide as an Apoptosis-Promoting Anticancer Agent for Head and Neck Cancer
Emma Ito, Kenneth W. Yip, David Katz, Sonali B. Fonseca, David W. Hedley, Sue Chow, G. Wei Xu, Tabitha E. Wood, Carlo Bastianutto, Aaron D. Schimmer, Shana O. Kelley, and Fei-Fei Liu
969
Plasma Membrane Nucleolin Is a Receptor for the Anticancer Aptamer AS1411 in MV4-11 Leukemia Cells
Sridharan Soundararajan, Li Wang, Vijayalakshmi Sridharan, Weiwei Chen, Nigel Courtenay-Luck, David Jones, Eleanor K. Spicer, and Daniel J. Fernandes
984
Altered G-Protein Coupling in an mGluR6 Point Mutant Associated with Congenital Stationary Night Blindness
Donald Begollar, Matthew J. Betzenhauser, and Paul J. Kammermeier
992

The symbols in the table of contents identify articles discussed in the Perspective.
Bid and Calpains Cooperate to Trigger Oxaliplatin-Induced Apoptosis of Cervical Carcinoma HeLa Cells

Sergio Anguissola, Barbara Köhler, Robert O'Byrne, Heiko Düssmann, Mary D. Cannon, Frank E. Murray, Caoimhin G. Concannon, Markus Rehm, Donat Kögel, and Jochen H. M. Prehn

tert-Butylphenylacetylene Is a Potent Mechanism-Based Inactivator of Cytochrome P450 2B4: Inhibition of Cytochrome P450 Catalysis by Steric Hindrance

Haoming Zhang, Hsia-lien Lin, Vyvyca J. Walker, Djemel Hamdane, and Paul F. Hollenberg

Interactions of Histamine H₁-Receptor Agonists and Antagonists with the Human Histamine H₁-Receptor

Karl-Friedrich Deml, Silke Beermann, Detlef Neumann, Andrea Strasser, and Roland Seifert

Functional Characterization of Human Cytochrome P450 2S1 Using a Synthetic Gene-Expressed Protein in Escherichia coli

Peter H. Bui and Oliver Hankinson

Fatty Acid Hydroperoxides Support Cytochrome P450 2S1-Mediated Bioactivation of Benzo[a]pyrene-7,8-dihydrodiol

Peter H. Bui, Erin L. Hsu, and Oliver Hankinson

Differential Effects of Selective Cyclooxygenase-2 Inhibitors on Vascular Smooth Muscle Ion Channels May Account for Differences in Cardiovascular Risk Profiles


Vitamin D₃ and Its Nuclear Receptor Increase the Expression and Activity of the Human Proton-Coupled Folate Transporter

Jyrki J. Eloranta, Zoulikha M. Zaïr, Christian Hiller, Stephanie Häusler, Bruno Stieger, and Gerd A. Kullak-Ublick

Three Epigenetic Drugs Up-Regulate Homeobox Gene Rhox5 in Cancer Cells through Overlapping and Distinct Molecular Mechanisms

Qiang Li, David L. Bartlett, Michael C. Gorry, Mark E. O'Malley, and Z. Sheng Guo

Caveolin-1 and Lipid Microdomains Regulate Gₛ Trafficking and Attenuate Gₛ/Adenylyl Cyclase Signaling

John A. Allen, Jiang Z. Yu, Rahul H. Dave, Anushree Bhatnagar, Bryan L. Roth, and Mark M. Rasenick

High-Throughput Screening Reveals a Small-Molecule Inhibitor of the Renal Outer Medullary Potassium Channel and Kir7.1

L. Michelle Lewis, Gautam Bhave, Brian A. Chauder, Sreedatta Banerjee, Katharina A. Lorsen, Rey Redha, Katherine Fallen, Craig W. Lindsley, C. David Weaver, and Jerod S. Denton

Regulation of the CYP3A4 and CYP3A7 Promoters by Members of the Nuclear Factor I Transcription Factor Family

Amanda K. Riffel, Eric Schuenemann, and Carrie A. Vyhlidal

Mechanisms Underlying Activation of Soluble Guanylate Cyclase by the Nitroxy1 Donor Angeli’s Salt

Andreas Zeller, M. Verena Wenzl, Matteo Beretta, Heike Stessel, Michael Russwurm, Doris Koesling, Kurt Schmidt, and Bernd Mayer

Protein Kinase A and B-Raf Mediate Extracellular Signal-Regulated Kinase Activation by Thyrotropin

Lisa A. Vuchak, Oxana M. Tsygankova, Gregory V. Prendergast, and Judy L. Meinkoth

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

About the cover: AC-AKAP assembled complexes. See the article by Dessauer on page 935 of this issue.