Perspective

Pretty Subunits All in a Row: Using Concatenated Subunit Constructs to Force the Expression of Receptors with Defined Subunit Stoichiometry and Spatial Arrangement

Michael M. White

Articles

Reversing Hypoxic Cell Chemoresistance in Vitro Using Genetic and Small Molecule Approaches Targeting Hypoxia Inducible Factor-1

Four Novel Tarantula Toxins as Selective Modulators of Voltage-Gated Sodium Channel Subtypes
Frank Bosmans, Lachlan Rash, Shunyi Zhu, Sylvie Diochot, Michel Lazdunski, Pierre Escoubas, and Jan Tytgat

Activation and Potentiation of Interferon-γ Signaling by 3,3'-Diindolylmethane in MCF-7 Breast Cancer Cells
Jacques E. Riby, Ling Xue, Urmi Chatterji, Erik L. Bjeldanes, Gary L. Firestone, and Leonard F. Bjeldanes

Gene Transfer of Pro-opiomelanocortin Prohormone Suppressed the Growth and Metastasis of Melanoma: Involvement of α-Melanocyte-Stimulating Hormone-Mediated Inhibition of the Nuclear Factor κB/Cyclooxygenase-2 Pathway
Guei-Sheung Liu, Li-Fen Liu, Che-Jen Lin, Jui-Cheng Tseng, Ming-Ju Chuang, Hing-Chung Lam, Jenn-Kuen Lee, Lin-Cheng Yang, Julie Hwa Yu Chan, Shen-Long Howng, and Ming-Hong Tai

Probing the Reorganization of the Nicotinic Acetylcholine Receptor during Desensitization by Time-Resolved Covalent Labeling Using [3H]AC5, a Photoactivatable Agonist
Alexandre Mourot, Jordi Rodrigo, Florence Kotzyba-Hibert, Sonia Bertrand, Daniel Bertrand, and Maurice Goeldner

Rapid Modulation of P-Glycoprotein-Mediated Transport at the Blood-Brain Barrier by Tumor Necrosis Factor-α and Lipopolysaccharide
Anika M. S. Hartz, Björn Bauer, Gert Fricker, and David S. Miller

The symbols in the table of contents identify articles discussed in the Perspective.
The Cannabinoid CB1 Receptor Antagonist Rimonabant (SR141716) Inhibits Cell Proliferation and Increases Markers of Adipocyte Maturation in Cultured Mouse 3T3 F442A Preadipocytes

Magali Gary-Bobo, Ghizlane Elachouri, Bernard Scotton, Gérard Le Fur, Florence Oury-Donat, and Mohammed Bensaid

Interactions between the Mas-Related Receptors MrgD and MrgE Alter Signalling and Trafficking of MrgD

Sandra Milasta, John Pediani, Shirley Appelbe, Steven Trim, Michael Wyatt, Peter Cox, Mark Fidock, and Graeme Milligan

Specific Modulation of Airway Epithelial Tight Junctions by Apical Application of an Occludin Peptide

Ruth S. Everett, Miriam K. Vanhook, Nadia Barozzi, Istvan Toth, and Larry G. Johnson

A Glutathione S-Transferase π-Activated Prodrug Causes Kinase Activation Concurrent with S-Glutathionylation of Proteins

Danyelle M. Townsend, Victoria J. Findlay, Farit Fazilev, Molly Ogle, Jacob Fraser, Joseph E. Saavedra, Xinhua Ji, Larry K. Keefer, and Kenneth D. Tew

Drug Binding Interactions in the Inner Cavity of hERG Channels: Molecular Insights from Structure-Activity Relationships of Clofilium and Ibutilide Analogs

Matthew Perry, Phillip J. Stansfeld, Joanne Leaney, Claire Wood, Marcel J. de Groot, Derek Leishman, Michael J. Sutcliffe, and John S. Mitcheson

Positive Inter-Regulation between β-Catenin/T Cell Factor-4 Signaling and Endothelin-1 Signaling Potentiates Proliferation and Survival of Prostate Cancer Cells

Ping Sun, Hui Xiong, Tae Hoon Kim, Bing Ren, and Zhuohua Zhang

Hydroxylated Xestospongins Block Inositol-1,4,5-trisphosphate-Induced Ca²⁺ Release and Sensitize Ca²⁺-Induced Ca²⁺ Release Mediated by Ryanodine Receptors

Tram Anh Ta, Wei Feng, Tadeusz F. Molinski, and Isaac N. Pessah

Chemokine Stromal Cell-Derived Factor 1 Induces Proliferation and Growth Hormone Release in GH4C1 Rat Pituitary Adenoma Cell Line through Multiple Intracellular Signals

Tullio Florio, Silvia Casagrande, Fabrizio Diana, Adriana Bajetto, Carola Porcie, Gianluigi Zona, Stefano Thellung, Sara Arena, Alessandra Pattarozzi, Alessandro Corsaro, Renato Spaziante, Mauro Robello, and Gennaro Schettini

Novel and Specific Inhibitors of a Poxvirus Type I Topoisomerase

Alexis Bond, Zachary Reichert, and James T. Stivers

Constraining the Expression of Nicotinic Acetylcholine Receptors by Using Pentameric Constructs

Paul J. Groot-Kormelink, Steven Broadbent, Marco Beato, and Lucia G. Sivilotti

High-Affinity, Slowly Desensitizing GABA₄ Receptors Mediate Tonic Inhibition in Hippocampal Dentate Granule Cells

Zakaria Mchedlishvili and Jaideep Kapur

Functional Properties of Internalization-Deficient P2X₄ Receptors Reveal a Novel Mechanism of Ligand-Gated Channel Facilitation by Ivermectin

Estelle Toulmé, Florentina Soto, Maurice Garret, and Eric Boué-Grabot

CD38 Expression Is Insensitive to Steroid Action in Cells Treated with Tumor Necrosis Factor-α and Interferon-γ by a Mechanism Involving the Up-Regulation of the Glucocorticoid Receptor β Isoform

Omar Tliba, John A. Cidlowski, and Yassine Amrani

Characterization of SIS3, a Novel Specific Inhibitor of Smad3, and Its Effect on Transforming Growth Factor-β1-Induced Extracellular Matrix Expression

Masatoshi Jinnin, Hironobu Ihn, and Kunihiko Tamaki

A Direct Interaction between the N Terminus of Adenylyl Cyclase AC8 and the Catalytic Subunit of Protein Phosphatase 2A

Andrew J. Crossthwaite, Antonio Ciruela, Timothy F. Rayner, and Dermot M. F. Cooper
Indirect Modulation by α7 Nicotinic Acetylcholine Receptors of Noradrenaline Release in Rat Hippocampal Slices: Interaction with Glutamate and GABA Systems and Effect of Nicotine Withdrawal
Jacques Barik and Susan Wonnacott

618

Acquired Cadmium Resistance in Metallothionein-I/II(−/−) Knockout Cells: Role of the T-Type Calcium Channel Cacnα1G in Cadmium Uptake
Elaine M. Leslie, Jie Liu, Curtis D. Klaassen, and Michael P. Waalkes

629

Pharmacological Properties of GABA_A Receptors Containing γ1 Subunits
S. Khom, I. Baburin, E. N. Timin, A. Hohaus, W. Sieghart, and S. Hering

640

Deficiency of Glutathione Transferase Zeta Causes Oxidative Stress and Activation of Antioxidant Response Pathways
Anneke C. Blackburn, Klaus I. Matthaei, Cindy Lim, Matthew C. Taylor, Jean Y. Cappello, John D. Hayes, M. W. Anders, and Philip G. Board

650

Mechanism of Action of a Novel Human ether-a-go-go-Related Gene Channel Activator
Oscar Casis, Søren-Peter Olesen, and Michael C. Sanguinetti

658

Biological Consequences of Trinuclear Platinum Complexes: Comparison of [(trans-PtCl(NH₃)₂)₂µ-(trans-Pt(NH₃)₂(H₂N(CH₂)₆NH₂)₂)]⁴⁺ (BBR 3464) with Its Noncovalent Congeners
Amanda L. Harris, John J. Ryan, and Nicholas Farrell

666

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

About the cover: AC5 probe orientation into an ACh binding site of a presumed resting state-like AChBP structure. See the article by Mourot et al. on page 452 of this issue.