

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

GPCR Structure and Function: Taking GPCR Drug Development and Discovery to the Next Level (B8)

February 16-20, 2018 • Eldorado Hotel & Spa • Santa Fe, New Mexico, USA

Scientific Organizers: Roger K. Sunahara and Christian Felder

Supported by the Directors' Fund

Abstract & Scholarship Deadline: / Abstract Deadline: / Discounted Registration Deadline:

FRIDAY, FEBRUARY 16

Arrival and Registration

SATURDAY, FEBRUARY 17

Welcome and Keynote Address

Brian K. Kobilka[†], Stanford University School of Medicine, USA
The Structural Dynamics of GPCR Activation

Structure and Function of GPCRs

Robert Scott Prosser[†], University of Toronto, Canada
NMR Spectroscopy to Interrogate the effects of Ligands on Receptor Conformation

Beili Wu[†], Shanghai Institute of Materia Medica, CAS, China
High Resolution Studies of Purinergic Receptors

Scott C. Blanchard[†], Weill Cornell Medical College, USA
Receptor Conformation in Living Cells Using Single Molecule Spectroscopy

Short Talk(s) Chosen from Abstracts

Structure and Function of GPCRs

Tracy M. Handel[†], University of California, San Diego, USA
Signaling Bias in Chemokine Receptors

Eric Xu[†], Van Andel Institute, USA
Structural Aspects of Arrestin-GPCR Interactions and the Relevance to Biased Signaling

Ka Young Chung[†], Sungkyunkwan University, South Korea
Analysis of GPCR Interactors by Deuterium Exchange Mass Spectrometry

Short Talk Chosen from Abstracts

Poster Session 1

SUNDAY, FEBRUARY 18

GPCRs: Naturally Great Drug Targets

Brian K. Shoichet[†], University of California, San Francisco, USA
Drug Screening Using Computational Approaches

Fiona H. Marshall[†], Heptares Therapeutics Ltd., UK
Structure-Based Drug Design: From Atomic Resolution to the Bedside

Arthur Christopoulos[†], Monash University, Australia
Selective Muscarinic Receptor Allosteric Modulators: Treatments for Neurological Diseases

Laura M. Bohn[†], The Scripps Research Institute, USA
The Development of Biased Signaling Modulators

Short Talk(s) Chosen from Abstracts

Novel Approaches to Drug Action and Discovery

Dirk Trauner[†], Ludwig-Maximilians-Universität München, Germany
Photopharmacology to Probe Drug Action

Bryan Roth[†], University of North Carolina, Chapel Hill, USA
Profiling Ligands through Screening GPCR Panels

Jeffrey Conn[†], Vanderbilt University, USA
Metabotropic Glutamate Receptors as Drug Targets for Neurological Disease

Short Talk Chosen from Abstracts

Poster Session 2

MONDAY, FEBRUARY 19

Complexity of Cellular Signaling

Mark von Zastrow[†], University of California, San Francisco, USA
Subcellular Distribution of GPCRs and their Signaling Outcomes

Michel Bouvier[†], University of Montreal, Canada
The Spatio-Temporal Textures of GPCR Signaling

Ron O. Dror[†], Stanford University, USA
Computational Modeling of Signaling Pathways

Martin J. Lohse[†], Max Delbrück Center for Molecular Medicine, Germany
The Kinetics of Biased Signaling in GPCRs

Short Talk(s) Chosen from Abstracts

The GPCR Superfamily: Broad Mechanisms of Action

Gregory Tall[†], University of Michigan Medical School, USA
Adhesion GPCRs: A One and Done Family of Receptors and their Implications in Disease

Susan G. Amara[†], NIMH, National Institutes of Health, USA
Trace Amine Receptors in Humans

Patrick M. Sexton[†], Monash University, Australia
Structure and Function of Family B GPCRs

Short Talk Chosen from Abstracts

Poster Session 3

TUESDAY, FEBRUARY 20

GPCRs in vivo: Implications to Disease

Kathleen M. Caron[†], University of North Carolina at Chapel Hill, USA
RAMPS: The Natural Allosteric Modulators and their Role in Disease

Michael Bruchas[†], Washington University School of Medicine, USA
Opto-XRs as Tools to Study GPCR Function in Behavior in Real-Time

J. Silvio Gutkind[†], National Institutes of Health, USA
GPCR and G Protein Mutations in Cancer

Andrew B. Tobin[†], University of Leicester, UK
GPCRs in Behavior and Neurodegenerative Disease (GPCR)

Short Talk(s) Chosen from Abstracts

Drug Discovery and the Realistic Process

Christian Felder, Eli Lilly and Company, USA
Building in Selectivity into Muscarinic Receptor Ligands

Ad IJzerman[†], Universiteit Leiden, Netherlands
Binding Kinetics in Drug Development

Hugh Rosen[†], The Scripps Research Institute, USA
Sphingosine 1-Phosphate Receptors Modulators as Immunotherapeutics

Meeting Wrap-Up: Outcomes and Future Directions (Organizers)

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WEDNESDAY, FEBRUARY 21

Departure