

GPCR Workshop Agenda Dec 5 - 9, 2017 HAWAII

Preliminary Program - Sessions and Topics:

DAY 1 TUESDAY, DECEMBER 5th

- 14:00 - 16:00 Registration
- 16:00 - 16:10 Welcome *Brian Kobilka, Chair, Stanford University, USA*
- 16:10 - 17:10 Rhodopsin, Both a Paradigm and Exception Among GPCRs *Klaus Peter Hofmann, Charité - Universitätsmedizin Berlin*
- 17:30 - 18:30 Poster Preview Presentations *Katie Leach, Chair Monash Institute of Pharmaceutical Sciences*
- 18:30 Welcome Reception

DAY 2 WEDNESDAY, DECEMBER 6th SESSION 2 STRUCTURE 1

Chair: Sebastian Granier

- 8:30 - 9:10 Structural Mechanisms of Ligand-dependent Activation in Class C GPCRs *Qing Fan, Columbia University*
- 9:10 - 9:50 Structural Insights into Family B GPCR Activation *Patrick Sexton, Monash Institute of Pharmaceutical Sciences*
- 9:50 - 10:30 Structural and Functional Analysis of a GPCR-GRK Complex *Jeff Benovic, Thomas Jefferson University, Pittsburgh*
- 10:30 - 11:00 Break

Session 3 Chemical Biology

Chair: Arthur Christopoulos

- 11:00 - 11:40 Novel Selective Ligands Based on GPCR Crystal Structures *Peter Gmeiner, University of Erlangen-Nurnberg, Germany*
- 11:40 - 12:20 Structure-based Screening for GPCR Ligands from Fragment and Lead-like Chemical Space *Jens Carlsson, Uppsala University, Sweden*
- 12:20 - 13:00 From Chemokine Receptors to Orphan GPCRs: In Silico Insights into Ligand Interactions *Irina Kufareva, UCSD*
- 13:00 - 15:30 Lunch and Poster Viewing
- 15:30 - 19:30 Free Time and Preparation for Interactive Discussion Session
- 19:30 - 21:30 Interactive Discussion *Chair: Roger Sunahara*

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DAY 3 THURSDAY, DECEMBER 7th SESSION 4 STRUCTURE 2

Chair: Brian Kobilka

- 8:30 - 9:00 Structural Insights into G Protein Activation
Xiang Yu Liu, Tsinghua University, Beijing
- 9:00 - 9:40 Structure and Function of Adiponectin Receptors
Sebastian Granier, Institut de Génomique Fonctionnelle, Montpellier, France
- 9:40 - 10:20 Structural and Functional Basis of Adhesion GPCR
Activation *Demet Arac, University of Chicago*
- 10:20 - 10:30 Break

Session 5 Physiology *Chair: Martin Lohse*

- 10:30 - 11:10 Regulation of Cardiovascular Functions in Health and Disease
by GPCRs *Stefan Offermanns, Max Planck Institute for Heart and Lung
Research, Bad Nauheim, Germany*
- 11:10 - 11:50 Biological Functions of GPCRs and Beta-arrestins Studied with
Novel Mutant Mouse Models *Jurgen Wess, NIH*
- 11:50 - 12:30 Fine-tuning Calcium Sensing Receptor Activity to Treat Bone
and Mineral Disorders *Katie Leach, Monash Institute of Pharmaceutical
Sciences*
- 12:30 - 13:10 From Cognition to Seizures: Novel Molecular Mechanisms
Underlying Key Muscarinic Receptor Action *Andrew Tobin, University of
Leicester, UK*
- 13:10 - 15:30 Lunch and Poster Viewing
- 15:30 - 19:30 Free Time and Preparation for Interactive Discussion Session
- 19:30 - 21:30 Interactive Discussion *Chair: Andrew Tobin*
- 18:00 Sunset Dinner/Banquet**

DAY 4 FRIDAY, DECEMBER 8th SESSION 6 GPCRS IN THE CLINIC

Chair: Stefan Offermanns

- 8:30 - 9:10 Novel GPCR Targets for Obesity and Type 2 Diabetes
Treatment *Lora Heisler, University of Aberdeen, NZ*
- 9:10 - 9:50 GPCR Ligands in the Novo Nordisk Diabetes and Obesity
Pipeline *Lotte Bjerre Knudsen, Novo Nordisk, Denmark*

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9:50 - 10:30 GPCR Directed Biologics – From Discovery Strategies to the Clinic *Andrew Tebben, Bristol Myers Squibb*

10:30 - 11:00 Break

Session 7 Signaling *Chair: Jurgen Wess*

11:00 - 11:40 Progress Toward Understanding GPCR Signaling From Endosomes *Mark von Zastrow, UCSF*

11:40 - 12:20 Dynamic Brain Changes and the Emergence of Psychosis. Implications for Treatment? *Christos Pantelis, University of Melbourne*

12:20 - 13:00 Toward a Structural Understanding of Ligand-biased Signaling *Michel Bouvier, University of Montreal, Canada*

13:00 - 14:30 Lunch and poster take down

14:30 - 15:30 Free Time and Preparation for Interactive Discussion Session

15:30 - 17:30 Interactive Session *Chair: Mark von Zastrow*

DAY 5 SATURDAY, DECEMBER 9TH SESSION 8 POTPOURRI

Chair: Patrick Sexton

9:30 - 10:10 Allosteric in G Protein-coupled Receptors: From G Proteins to Small Molecules to Cations. *Roger Sunahara, UCSD*

10:10 - 10:50 Machine Learning and Visualization for GPCR-ligand Interaction Analysis *A.J. Venkatakrishnan and Rasmus Fonseca, Stanford*

10:50 - 11:40 Kinetics of GPCR Activation *Martin Lohse, The Max Delbrück Center for Molecular Medicine in the Helmholtz Association, Berlin, Germany*

11:40 - 12:00 Closing Remarks by Organizers, Lunch *Arthur, Patrick, Tong Sun*