# December 12

8:00 – 9:00 AM

• Breakfast

9:00 AM - 12:00 PM

• Brian's Birthday Session (alumni + anyone who wants to hang out)

12:00 - 1:00 PM

• Lunch

2:00 - 4:00 PM

- Registration
- 4:00 4:05 PM
  - Welcome: Brian Kobilka (Stanford University)

Talks

- 4:05 4:45 PM Jürgen Wess (NIDDK, NIH) Receptor-stimulated G12 signaling regulates key metabolic functions
- 4:45 5:25 PM Aashish Manglik (UCSF) Uncovering unconventional GPCR stimuli
- 5:25 6:05 PM Judith Altarejos (*Regeneron Pharmaceuticals*) *Translational mechanisms for GPR75 loss-of-function driving protection from obesity*

#### 6:05 PM - onward

Reception

# December 13

7:30 – 8:20 AM

• Breakfast

### Morning Session

- 8:20 9:10 AM Rod MacKinnon (*The Rockefeller University*) Higher Order Transient Structures and the Principle of Dynamic Connectivity in Membrane Signaling
- 9:10 9:50 AM Mark von Zastrow (UCSF) Exploring the Subcellular Organization of GPCR Signaling
- 9:50 10:05 AM Short Talk #1 (15 min)
- 10:05 10:25 AM Break (20 min)
- 10:25 11:05 AM Irene Coin (*Leipzig University*) Arrestin binding to GPCRs lacking the C-tail
- 11:05 11:45 AM Patrick Scherrer (*Title TBA*)
- 11:45 12:00 PM Short Talk #2 (15 min)

### 12:00 – 3:00 PM

• Lunch / Time Off / Posters

## Afternoon Session

- 3:00 3:40 PM Kirill Martemyanov (University of Florida) Structure and function of non-canonical GPCR signaling complexes
- 3:40 4:20 PM Peter Hildebrand (Leipzig University) Mechanistic insights into G-protein coupling with an agonist-bound GPCR: implications for coupling specificity
- 4:20 5:00 PM
  Andreas Bock (Leipzig University)
  A new type of biosensor to dissect GPCR conformational equilibria in intact cells

5:00 – 6:00 PM

Poster Session

6:00 – 8:00 PM

• Dinner

#### 8:00 – 10:00 PM

• Interactive Session

## December 14

7:30 – 8:30 AM

• Breakfast

### Morning Session

- 8:30 9:10 AM Marta Filizola (Icahn School of Medicine at Mount Sinai) Leveraging Computational and Experimental Data to Advance Knowledge of GPCR Signaling and Drug Discovery
- 9:10 9:25 AM
  Short Talk #1 (15 min)
- 9:25 10:05 AM
  Davide Calebiro (University of Birmingham)
  New insights into the spatiotemporal organisation of GPCR signalling
- 10:05 10:25 AM Break (20 min)
- 10:25 11:05 AM Tobias Langenhan (*Leipzig University*) How to transduce force into biochemical commands – Mechanosensing by adhesion GPCRs
- 11:05 11:45 AM Sébastien Granier (Institut de Génomique Fonctionnelle, CNRS/INSERM/Université de Montpellier) (Title TBA)
- 11:45 12:00 PM Short Talk #2 (15 min)

12:00 – 3:00 PM

• Lunch / Time Off / Posters

Afternoon Session

- 3:00 3:40 PM Ben Myers (Huntsman Cancer Institute, University of Utah) Unconventional GPCR Signaling in the Hedgehog Pathway and Beyond
- 3:40 4:20 PM Ruth Huttenhain (*Stanford University*) Exploring non-canonical signaling mechanisms across diverse GPCRs
- 4:20 5:00 PM Demet Arac (University of Chicago) Conformational coupling between extracellular and transmembrane domains modulates holo-adhesion GPCR function

5:00 - 6:00 PM

Poster Session

6:00 – 8:00 PM

- Dinner
- 8:00 10:00 PM
  - Interactive Session

# December 15

7:30 – 8:30 AM

Breakfast

## Morning Session

- 8:30 9:10 AM
  Nina Tsvetanova (Duke University)
  Exploring Intracellular GPCRs and Their Role in Pathway Crosstalk
- 9:10 9:25 AM Short Talk #1 (15 min)
- 9:25 10:05 AM Xiangyu Liu (*Tsinghua University*) A Survival Pressure Selection method for GPCR drug screening
- 10:05 10:25 AM Break (20 min)

- 10:25 11:05 AM Andrew Kruse (Harvard Medical School) Using nanobodies as tools to interrogate and control GPCR signaling
- 11:05 11:45 AM Tino Pleiner (Stanford University) Assembly required – how cells build functional ion channel complexes
- 11:45 12:00 PM
  Short Talk #2 (15 min)

12:00 – 3:00 PM

• Lunch / Time Off / Posters (Poster takedown at end of this session)

## Afternoon Session

- 3:00 3:40 PM Ulrik Gether (University of Copenhagen) Application of genetically encoded dopamine and 2nd messenger sensors challenge paradigms of dopamine receptor signaling in the striatum
- 3:40 4:20 PM Brian Kobilka (*Stanford University*) (*Title TBA / Closing Remarks*)
- 4:20 5:00 PM Conference Discussion / Closeout

6:00 – 10:00 PM

Banquet Dinner