

STRASBOURG / ILLKIRCH, FRANCE – OCTOBER 25 TO 27, 2023 (CET)

**Wednesday, October 25, 2023**

(all times are in CET)



## **Session 1 : Structural Approaches and Novel Technologies**

Chair: Didier Rognan & Teodora Dikic-Stojisic

14:15 – Opening

**14:30 – Valérie Panneels** – Laboratory for Biomolecular Research, Paul Scherrer Institute, Villigen, Switzerland.

“First molecular events of vision, structure of ultrafast rhodopsin in movement captured with an X-ray free electron laser”

**15:20 – Frank Bernhard** – Goethe University Frankfurt, Germany.

“Cryo-EM structures of cell-free synthesized human GPCR/G protein complexes in lipid environment”

**15:45 – Hélène Déméné** – CBS, CNRS-INSERM, University Montpellier, France.

“Activation of the vasopressin V2 receptor seen by an integrative approach”

**16:10 – Jenny Filor** – University Hospital Jena, Germany.

“Muscarinic acetylcholine receptors M2 and M4: interaction with  $\beta$ -arrestin and internalization to endosomes”

**16:25 – Lauri Urvas** and **Luca Chiesa** – Illkirch, France.

“Benchmarking AlphaFold-generated structures of chemokine – chemokine receptor complexes”

**16:40 – Pauline Scholler** – Revvity, France.

“New insights into GPCR functions and signaling by combining Revvity cell-based assays”

16:55 – Coffee break at the venue

**17:30 – Claire de March** – Institut de Chimie des Substances Naturelles, UPR2301 CNRS, Université Paris-Saclay, Gif-sur-Yvette, France. “Structural basis of odorant recognition”

**18:20 – Christoph Klenk** – University of Zurich, Switzerland.

“Tuning GPCR expression, stability and allostery by directed evolution in mammalian cells”

**18:45 – Alexei Sirbu** – Max Delbrück Center for Molecular Medicine, Berlin, Germany.

“Functional modulation of  $\beta$ 2AR by cortical actin cytoskeleton”

**19:00 – Pauline Raynaud** – INRAE, Nouzilly, France.

“Single domain intrabodies specifically targeting the follicle-stimulating hormone receptor (FSHR) affect receptor signalling and trafficking”

19:15 – Poster session & buffet (onsite only)

**Thursday, October 26, 2023**

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## **Session 2 : GPCRs, Signalling & Trafficking**

Chairs: Dominique Massotte & Renaud Wagner

**9:00 – David J. Hodson** – Institute of Metabolism and Systems Research (IMSR), and Centre of Membrane Proteins and Receptors (COMPARE), University of Birmingham, UK.

“Understanding GLP-1 and GIP receptor expression and signalling in the brain and periphery”

**9:50 – Olivier Lahuna** – INSERM, Paris, France.

“Intrication of the melatonergic pathway and the endocannabinoid system (ECS) through the Melatonin / Cannabinoid Type 1 Receptors (MT1/CB1) Heteromers”

10:15 – Coffee break at the venue

**10:45 – Martha Sommer** – ISAR Bioscience Institute, Munich-Planegg, Germany.

“The arrestins: evolutionary ‘old dogs’ performing complex tricks in GPCR/7TMR signal transduction”

**11:35 – Cornelius Krasel** – Institute of Pharmacology and Clinical Pharmacy, University of Marburg, Germany.

“Mutations of lysines to arginines in the N-terminus of arrestins impairs arrestin binding to GPCRs by attenuating the release of the arrestin C-terminus”

**12:00 – Junke Liu** – Institut de Génomique Fonctionnelle, Montpellier, France.

“Distinct roles of  $\beta$ -arrestins in GPCR endocytosis”

12:15 – Photo & lunch at the venue

## **Session 3 : GPCRs and Physiology**

Chairs: Claire Gavériaux-Ruff & Michel Barrot

**14:30 – Simon M. Luckman** – Faculty of Biology, Medicine and Health, University of Manchester, UK.

“PrRP-GPR10 signalling in metabolism”

**15:20 – Sandra Lecat** – CNRS / University of Strasbourg, France.

“GPRASP1 is critical for airway hyperresponsiveness and tolerance following chronic beta2-adrenoceptors stimulation”

**15:45 – Hélène Castel** – University of Rouen Normandie, France.

“The urotensin II receptor instructs meningeal inflammation and macrophage-induced vasospasm during brain hemorrhagic stroke”

**16:10 – Mona Reichel** – University Hospital Jena, Germany.

“The distinct roles of the GRK isoforms for the Endothelin-1 A receptor (ETAR) in ovarian cancer”

16:25 – Coffee break at the venue

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**Session 3 : GPCRs and Physiology**

Chairs: Claire Gavériaux-Ruff & Michel Barrot

**17:00 – Cyril Rivat** – University Montpellier / INSERM U-1298,  
Institut des Neurosciences de Montpellier, France.

“FLT3 signaling in opioid side effects”

**17:50 – Véronique Pons** – INSERM, Toulouse, France.

“Platelet P2Y1 receptor exhibits constitutive activity on both G protein signaling and b-arrestin 2 recruitment”

**18:15 – Célia R. S. Garcia** – University of São Paulo, Brasil.

“Decoding the role and signal transduction mechanism of GPCR-like proteins in malarial parasites”

**18:40 – Julie Sanchez** – University of Nottingham, UK.

“TRPing receptors – modulatory effect of TRP channels on GPCRs”

18:55 – General assembly (onsite only)

19:15 – Poster session & buffet (onsite only)

**Friday, October 27, 2023**

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### **Session 4 : Novel Ligands / Drug Development**

Chairs: Dominique Bonnet & Frédéric Bihel

**9:00 – Matthias Schiedel** – Department of Chemistry and Pharmacy  
Medicinal Chemistry, Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany.  
“Targeting from the inside – New approaches for GPCR-based drug discovery”

**9:50 – Dmitry B. Veprintsev** – University of Nottingham, UK.  
“Ligand-Directed Covalent Probes to study Cannabinoid Receptor 2 in Live Cells”

**10:15 – Xavier Gómez-Santacana** – Institute for Advanced Chemistry of Catalonia  
(IQAC-CSIC), Barcelona, Spain.  
“A toolbox of photo switchable allosteric modulators to control the activity of  
metabotropic glutamate receptors with light”

10:30 – Coffee break at the venue

**11:00 – Philippe Rondard** – University of Montpellier – CNRS – INSERM, Montpellier,  
France.  
“Single domain antibodies targeting GPCRs as novel therapeutic agents for brain  
diseases”

**11:25 – Floriane Eshak** – University Paris Cité, Paris, France.  
“Epitope identification using in-silico approaches, a case study : nanobodies binding to  
mGlu5 receptor”

**11:40 – Jens Carlsson** – Department of Cell and Molecular Biology, Uppsala University,  
Sweden.  
“Structure-based discovery of GPCR ligands with tailored pharmacological properties”

12:30 – Awards & conclusions

12:45 – End of the meeting

### **[Join Live Stream](#)**

Only registered participants can join the Zoom live stream via passcode.

### **[i-GPCRnet Website](#)**

Go to the i-GPCRnet meeting website for registering to online viewing. Registration closes  
Monday, October 23, 2023 at 14:00 CET.