First International Meeting of the

i-GPCRnet
International Research Network (IRN) on GPCRs

On-line meeting
30 November - 03 December 2021

Day 1: Tuesday, November 30, 2021
14.00-14.20 : Introduction:
Ralf Jockers/ Martin Lohse/ Stephen Hill

Session 1: Structural dynamics of GPCR activation and signaling
14.20-14.40 Jianfeng Liu (China)
14.40-15.00 Fei Xu (China)
A self-activated orphan GPCR
15.00-15.20 Chris Tate (UK)
Structure and activation of a Class D GPCR
15.20-15.40 Tracy Handel (US)
15.40-15.55 Discussion
15.55-16.20 Flash presentations 1

Session 2: Computational biology in GPCR research
16.20-16.40 Masha Niv (Israel)
Molecular matching for taste GPCRs
16.40-17.00 Patrick Barth (Lausanne, Swiss)
Uncovering and reprogramming GPCR signaling by computational design
17.00-17.20 Peter Kollo (Germany)
The pocketome of GPCRs reveals previously untargeted allosteric sites
17.20-17.40 Xavier Deupi (Swiss)
Structural basis of the activation of the CC chemokine receptor 5 by a chemokine agonist
17.40-17.55 Discussion
17.55-18.20 Flash presentations 2
18.20-18.05 Keynote lecture 1: Jin Zhang (UCSD, USA)

Day 2: Wednesday, December 1, 2021
14.00-14.20 Viacheslav Nikolaev (Germany)
Nanodomains of cardiac beta-adrenoceptor/CAMP signalling visualised by live cell imaging
14.20-14.40 Manuela Zaccolo (UK)
Mapping beta-adrenergic nanodomains in the heart using proteomics
14.40-15.00 Meritxell Canals (UK)
Modulation of the mu-opioid receptor signalling
15.00-15.20 John Scott (US)
Exploring and exploiting the spatial constraints of cAMP signaling
15.20-15.35 Discussion
15.35-15.50 Flash presentations 3

Session 3: Compartmentation of GPCR signaling
14.00-14.20 Tim Lämmermann (Germany)
GPCR desensitization self-limits neutrophil swarms and control bacterial containment
14.20-14.40 Martine Smit (Netherlands)
Modulating viral GPCR function by nanobodies
14.40-15.00 Nathalie Vergnolle (FR)
Thrombin at the crossroads of GPCR and microbiota signalling
15.00-15.20 Stefano Marullo (FR)
Meningococcal beta2 adrenergic interactions
15.20-15.35 Discussion
15.35-15.50 Flash presentations 3

Session 4: GPCR Physiology and pathology
16.00-16.20 Aylin Hanyaloglu (UK)
Endosomal programming of gonadotrophin hormone receptor signalling: new pharmacological targets and models of disease
16.20-16.40 Torsten Schöneberg (Germany)
GPCR dysfunctions as causes of human pathologies
16.40-17.00 Julie Perroy (FR)
Restoring glutamate receptosome dynamics at synapses rescues autism-like deficits in Shank3-deficient mice
17.00-17.20 Paul Insel (US)
GPCRs as novel therapeutic targets in cancers
17.20-17.35 Discussion
17.35-17.50 Flash presentations 4
18.00-18.45 Keynote lecture 2: Jean-Philippe Pin (IGF, FR)
Structure and dynamics of the asymmetric activation of class C GPCR dimers

Day 3: Thursday, December 2, 2021
14.00-14.20 Ines Liebscher (Germany)
Dissecting WNT-induced Frizzled activation and signalling with conformational sensors
14.20-14.40 Hannes Schihida (Sweden)
Meningococcal/beta2 adrenergic interactions
14.40-15.00 Sadashiva S Karnik (US)
A Novel Allosteric Pocket in the Major Receptor for Angiotensin II
15.00-15.20 Xianhua Piao (US)
Restoring glutamate receptosome dynamics at synapses rescues autism-like deficits in Shank3-deficient mice
15.20-15.35 Discussion
15.35-15.50 Flash presentations 7

Session 5: GPCR crosstalk with microbe
14.00-14.20 Tim Lämmermann (Germany)
GPCR desensitization self-limits neutrophil swarms and control bacterial containment
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15.20-15.35 Discussion
15.35-15.50 Flash presentations 3

Session 6: Technologies: what is up and coming
16.00-16.20 Carl White (Australia)
16.20-16.40 Eleonora Comeo (UK)
16.40-17.00 Mikel Garcia-Marcos (Boston University, US)
Versatile optical biosensors of heterotemeric G protein activity

17.00-17.20 Mark Wheatley (Coventry University, UK)
Novel GPCR functions in the cardiovascular and metabolic system

Day 4: Friday, December 3, 2021
14.00-14.20 Ines Liebscher (Germany)
Dissecting WNT-induced Frizzled activation and signalling with conformational sensors
14.20-14.40 Hannes Schihida (Sweden)
Meningococcal/beta2 adrenergic interactions
14.40-15.00 Sadashiva S Karnik (US)
A Novel Allosteric Pocket in the Major Receptor for Angiotensin II
15.00-15.20 Xianhua Piao (US)
Restoring glutamate receptosome dynamics at synapses rescues autism-like deficits in Shank3-deficient mice
15.20-15.35 Discussion
15.35-15.50 Flash presentations 8
18.00-18.45 Keynote lecture 4: Christa Müller (Germany)

Session 7: Frizzled, adhesion and orphan GPCRs
16.00-16.20 Mark Soave (UK)
Monitoring Allosteric Interactions at CXCR4 using NanoBiT-conjugated Nanobodies
16.20-16.40 Sadashiva S Karnik (US)
A Novel Allosteric Pocket in the Major Receptor for Angiotensin II
16.40-17.00 Christa Müller (Germany)
17.00-17.20 Discussion
17.20-17.35 Flash presentations 5
17.35-17.50 Flash presentations 6
18.00-18.45 Keynote lecture 3: Stefan Offermanns (Bad Nauheim, Germany)

Session 8: GPCRs and drug development
16.00-16.20 Mark Soave (UK)
Monitoring Allosteric Interactions at CXCR4 using NanoBiT-conjugated Nanobodies
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A Novel Allosteric Pocket in the Major Receptor for Angiotensin II
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17.00-17.20 Discussion
17.20-17.35 Flash presentations 5
17.35-17.50 Flash presentations 6
18.00-18.45 Keynote lecture 4: Christa Müller (Germany)

The i-GPCRnet meeting organizing committee
Françoise Bacherlie (Université Paris-Saclay, France)
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