

8th International Adhesion GPCR Workshop

June 2–4, 2016 in Leipzig

Joint workshop of the International Adhesion GPCR Consortium and Annual Symposium of the DFG Research Unit 2149

Welcome to Leipzig

We are looking forward to meeting you in Leipzig to the joint meeting of the International Adhesion GPCR Consortium (AGC) and the DFG Research Unit 2149. This year the meeting will focus on the physiology of aGPCR, aGPCR as pharmacological targets and their relevance in pathophysiological conditions. Following the spirit of the last workshops this meeting is designated to present ongoing research and to initiate collaborations in this emerging field. We are looking forward to your presentations on cutting edge biomedical research in an up-and-coming city.

Sincerely yours,

Torsten Schöneberg
Institute of Biochemistry
Faculty of Medicine, Leipzig University

Tobias Langenhan
Institute of Physiology
University of Würzburg

Venue

KONGRESSHALLE am Zoo
Leipzig
Mahler Hall and Schumann Hall
Pfaffendorfer Straße 31
04105 Leipzig

The Kongresshalle (Congress hall) is an attractive meeting location in the center of Leipzig next to the Zoo.

<http://www.kongresshalle.com/?language=en>



Source: Messe Leipzig



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Organizers

Local Organizer

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Local Organization Committee

Prof. Dr. Gabriela Aust
Dr. Simone Prömel
Dr. Ines Liebscher
Prof. Dr. Nobert Sträter

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Conference Management

EndoScience Endokrinologie Service GmbH

Target Audience

- PhD Students
- Postdocs
- Experienced scientists in the field of GPCR Research

For more information and registration please visit:

http://www.adhesiongpcr.de/en_US/workshop-2016/

Facebook: <https://www.facebook.com/aGPCR2016>

Program

Thursday, June 2	
Session I	Activation mechanisms of aGPCR <i>Chair: Felix Engel</i>
09:00–09:20 a.m.	Opening remarks/welcome Torsten Schöneberg (DE)
09:20–09:40 a.m.	Stalk-dependent and stalk-independent signaling by adhesion GPCRs Randy Hall (USA)
09:40–10:00 a.m.	Structure, function and genomic organization of Stachel-mediated activation of aGPCRs Ines Liebscher (DE)
10:00–10:20 a.m.	Peptide-based activation of Adgrf5 on alveolar epithelial cells induces G protein-coupled responses and modulates alveolar surfactant pool sizes <i>in vivo</i> James Bridges (USA)
10:20–11:00 a.m.	<i>Coffee break</i>
Session II	aGPCR interaction partners/signaling networks <i>Chair: Randy Hall</i>
11:00–11:20 a.m.	Adhesion G protein-coupled receptor-related protein networks Uwe Wolfrum (DE)
11:20–11:40 a.m.	Super-complexes of adhesion GPCRs and neural guidance receptors Elena Seiradake (UK)
11:40–12:00 p.m.	The adhesion GPCR CD97/ADGRE5 interacts with β-catenin in adherens junctions Gabriela Aust (DE)
12:00–12:20 p.m.	Domain modularity in adhesion GPCRs as the molecular basis for neuronal network formation Antony Boucard (MEX)
12:20–02:00 p.m.	<i>Lunch break</i>
Session III	aGPCR signaling <i>Chair: Simone Prömel</i>
02:00–02:20 p.m.	Autoproteolysis, internalization and migration of adhesion G protein-coupled receptor GPR125 (ADGRA3) Katja Spiess (DK)
02:20–02:40 p.m.	Signaling and modulation of adhesion GPCRs GPR56 (ADGRG1) and ELTD1 (ADGRL4) Saskia Nijmeijer (NL)
02:40–03:00 p.m.	Crosslinking and activation of GPR56/ADGRG1 in human melanoma cell induces IL-6 production as a result of NTF dissociation and CTF signaling via the $G\alpha_{12/13}$/RhoA pathway Hsi-Hsien Lin (TWN)
03:00–03:40 p.m.	Plenary: Receptor signaling in space and time Martin Lohse (DE)
03:40–04:00 p.m.	<i>Coffee break</i>
Session IV	aGPCR signaling and ligands <i>Chair: Kelly Monk</i>
04:00–04:20 p.m.	N-docosahexaenoyl ethanolamine is an endogenous ligand to orphan GPR110 for neurodevelopment Hee-Yong Kim (USA)
04:20–04:40 p.m.	A disease-associated mutation in the C-terminus of ADGRB2 (BAI2) increases the receptor's signaling activity Ryan Purcell (USA)
04:40–05:00 p.m.	The constitutive activity of the adhesion GPCR GPR114/ADGRG5 Caroline Wilde (DE)
05:00–06:30 p.m.	General assembly of the Adhesion GPCR Consortium (AGC)
Evening	Social get-together

Friday, June 3	
Session V	aGPCR in neural development and function 1 <i>Chair: Dimitris Placantonakis</i>
09:00–09:20 a.m.	Latrophilin signalling in oriented cell division of the early <i>C. elegans</i> embryo Simone Prömel (DE)
09:20–09:40 a.m.	Latrophilin-1 is a neuronal dependence receptor modulated by an endogenous ligand of the IgCAM family Peter Burbach (NL)
09:40–10:00 a.m.	The aGPCR Latrophilin/CIRL regulates the mechanosensation of sensory neurons in <i>Drosophila</i> Nicole Scholz (DE)
10:00–10:20 a.m.	Impact of GPS autoproteolysis on the physiological function of the adhesion GPCR CIRL/Latrophilin Matthias Nieberler (DE)
10:20–11:00 a.m.	<i>Coffee break</i>
Session VI	aGPCR in neural development and function 2 <i>Chair: Tobias Langenhan</i>
11:00–11:20 a.m.	Adhesion G protein-coupled receptors in brain wiring Xianhua Piao (USA)
11:20–11:40 a.m.	New roles for adhesion GPCRs in the peripheral nervous system Amit Mogha (USA)
11:40–12:00 p.m.	GPR56/ADGRG6 has critical and conserved functions in peripheral nerve Kelly Monk (USA)
12:00–12:20 p.m.	The emerging roles of the adhesion GPCR BAI1 in dendritic arborization and synapse development Kimberley Tolias (USA)
12:20–02:00 p.m.	<i>Lunch break</i>
Session VII	aGPCR structure <i>Chair: Norbert Sträter</i>
02:00–02:40 p.m.	Plenary: Exploring GPCR and membrane protein dynamics with solution NMR and X-ray free-electron lasers Gebhard Schertler (CH)
02:40–03:00 p.m.	Structure and dynamics of GPCRs: Insights from X-ray, EPR and NMR Oliver Ernst (CAN)
03:00–03:20 p.m.	Structural and functional studies of Latrophilins Demet Arac-Ozkan (USA)
03:20–03:40 p.m.	Structural basis for regulation of GPR56 by its extracellular region Gabriel Salzman (USA)
03:40–04:00 p.m.	StaR® engineering: Stabilisation of adhesion GPCRs to aid development of novel therapeutics Giselle Wiggin (UK)
04:00–05:30 p.m.	Poster session (incl. <i>Coffee break</i>)
05:30–7:00 p.m.	Guided tour through the Leipzig Zoo, German and English (15 €/person)

Saturday, June 4

Session VIII	Animal models and aGPCR signaling <i>Chair: Ines Liebscher</i>
09:00–09:40 a.m.	Plenary: Novel GPCR mutant mouse models for metabolic research Jürgen Wess (USA)
09:40–10:00 a.m.	ADGRG6 (Gpr126) expression is required and sufficient for heart trabeculation Gentian Musa (DE)
10:00–10:20 a.m.	Functional analysis of Adgra3/Gpr125 adhesion GPCR in Wnt/planar cell polarity signaling and zebrafish gastrulation movements Lilianna Solnica-Krezel (USA)
10:20–11:00 a.m.	<i>Coffee break</i>
Session IX	aGPCR in neural tumors <i>Chair: Xianhua Piao</i>
11:00–11:20 a.m.	GPR133, an adhesion G protein-coupled receptor, is necessary for glioblastoma growth Dimitris Placantonakis (USA)
11:20–11:40 a.m.	BAI1 is an upstream protector of p53 and novel tumor suppressor in medulloblastoma Erwin Van Meir (USA)
11:40–12:00 p.m.	Inhibition of the neural stem cell/oligodendrocyte progenitor factor GPR56 promotes the proneural to mesenchymal transition and radioresistance in glioblastoma Nuria de la Iglesia (SPA)
Session X	aGPCR in tumors <i>Chair: Jörg Hamann</i>
12:00–12:20 p.m.	aGPCR regulates bone development and tumor metastasis Jian Luo (CHN)
12:20–12:40 p.m.	Decoding the biology of ELTD1/ADGRL4, a novel regulator of tumour angiogenesis David Favara (UK)
12:40–02:00 p.m.	<i>Lunch break</i>
Session XI	aGPCR and blood cells <i>Chair: Gabriela Aust</i>
02:00–02:20 p.m.	GPR56 identifies primary human acute myeloid leukemia cells with high repopulating potential in vivo Caroline Pabst (DE)
02:20–02:40 p.m.	The adhesion G protein-coupled receptor GPR56/ADGRG1 is an inhibitory receptor on human NK cells Jörg Hamann (NL)
02:40–03:00 p.m.	CD97 expression influences migration and adhesion of FLT3-ITD positive acute myeloid leukemia cells and modulates the bone marrow stromal microenvironment Manja Wobus (DE)
03:00–03:20 p.m.	Mouse tissue-resident memory T cells express the adhesion G protein-coupled receptor GPR56/ADGRG1 Cheng Chih Hsiao (NL)
03:20 p.m.	Concluding remarks Tobias Langenhan/Torsten Schöneberg (DE)