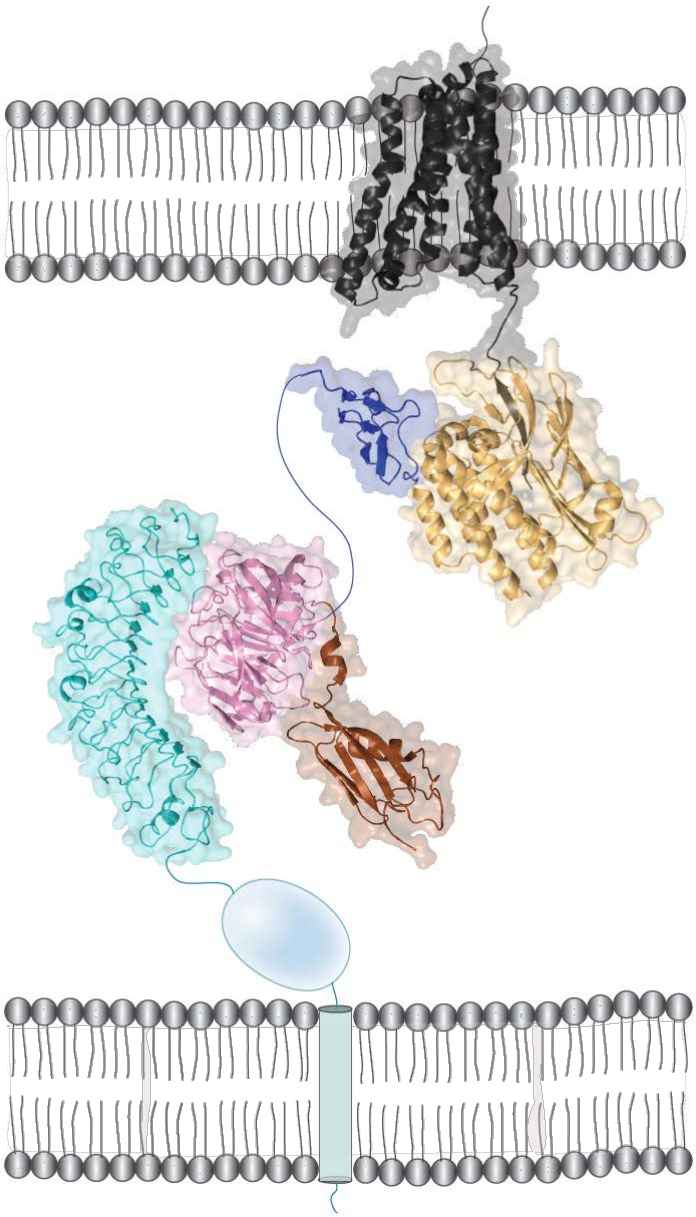
9th Adhesion GPCR Workshop

Sept. 13–15, 2018 | The Nines Hotel | Portland, OR, USA



Organized by Kelly Monk, Ph.D.
Professor and Co-Director, Vollum Institute
Oregon Health & Science University

Day 1 Agenda
Thursday, September 13th

9:00-9:10	Opening remarks	
9:10-10:30	**Session 1: aGPCRs in Development** Chairpersons: Simone Prömel Caroline Formstone	
9:10-9:30	**The enigmatic trans function of the Adhesion GPCR Latrophilin acts non-cell autonomously in fertility** Simone Prömel *Leipzig University, Leipzig, Germany*	8
9:30-9:50	**BAI1/ADGRB1 sculpts the dendritic arbors of hippocampal pyramidal neurons via RhoA-dependent growth restriction** Joseph Duman *Baylor College of Medicine, Houston, TX*	9
9:50-10:10	**Dystroglycan binds Celsr3 (Adgrc3) to regulate commissural axon guidance** Kevin Wright *Oregon Health & Science University, Portland, OR*	10
10:10-10:30	**A role for the Adhesion-GPCR Celsr1 in contact-mediated alignment of cell behaviour** Caroline Formstone *Kings College London, University of Hertfordshire, Hatfield, UK*	11
10:30-11:00	Coffee Break	
11:00-12:40	**Session 2: Signaling & Activation I** Chairpersons: Ines Liesbscher Randy Hall	
11:00-11:20	**The physiological role of the mechano-responsive aGPCR GPR133** Ines Liebscher *Leipzig University, Leipzig, Germany*	12
11:20-11:40	**Signaling and trafficking of GPR64/ADGRG2are regulated by its N-terminal fragment and tethered peptide** Nariman Balenga *University of Maryland School of Medicine, Baltimore, MD*	13
11:40-12:00	**Coincidence detection of membrane stretch and extracellular pH by a proton-sensing G protein coupled receptor** Maike Glitsch *University of Oxford, Oxford, UK*	14
12:00-12:20	**Signaling and Regulation of the BAI Sub-Family of Adhesion GPCRs** Randy Hall *Emory University, Atlanta, GA*	15
12:20-12:40	**Lightning Talks** Chair: Ryan Gray	
12:20-12:25	**A Tale of Two aGPCRs (in Sensory Neuron Myelination): ADGRG6 and ADGRG1** Amit Mogha, *Oregon Health & Science University, Portland, OR*	16

Day 1 Agenda *continued*
Thursday, September 13th

12:25-12:30	**G protein-coupled receptor 56 (GPR56) as a potential functional regulator of normal and leukemic human stem cells** Heather Duncan *McGill University, Montreal, QC, Canada*	17
12:30-12:35	**ADGRG6 (Gpr126) regulates EMT of endocardial cells during valve formation** Gentian Musa *Friedrich-Alexander-Universität Erlangen-Nürnberg, Erlangen, Germany*	18
12:35-12:40	**Role of GPR110 in Breast Cancer** Meghana Trivedi *University of Houston College of Pharmacy, Houston, TX*	19
12:40-14:10	Lunch (provided)	
14:10-15:30	**Session 3: aGPCRs in Health & Disease** Chairpersons: Hsi-Hsien Lin Gabi Aust	
14:10-14:30	**The Adhesion G protein-coupled receptor G6 is essential for homeostasis of the intervertebral disc in mice** Ryan Gray *University of Texas at Austin Dell Medical School, Austin, TX*	20
14:30-14:50	**Roles of the ADGRA family in glandular development, lineage commitment and tumorigenesis** Elena Spina *New York University School of Medicine, New York, NY*	21
14:50-15:10	**Regulation of canonical WNT7 signaling by GPR124/ADGRA2** Mario Vallon *Stanford University, Stanford, CA*	22
15:10-15:30	**Together or apart, but alwaysclose:Latrophilin-1 mediates axonal attraction induced by proteolytically released Lasso** Yuri Ushkaryov *University of Kent, Chatham, UK*	23
15:30-15:50	**Mechano-dependent phosphorylation of CD97/ADGRE5 at its PDZ-binding motif modulates cellular detachment** Gabi Aust *Leipzig University, Leipzig, Germany*	24
15:50-16:15	Coffee Break	
16:15-17:15	**KEYNOTE** **Ubiquitin and Cell Signaling by Protease-activated Receptors** **JoAnn Trejo** ***University of California, San Diego, CA***	25
	Introduction by Randy Hall	
17:15-19:15	Poster session – snacks and bar	
17:15-18:15	Odd numbered posters present	
18:15-19:15	Even numbered posters present	
19:15-20:00	Meeting for aGPCR board Ruby Boardroom – *see map located in Visitor Information*	
	Other attendees free	

Day 2 Agenda
Friday, September 14th

9:00-10:20	**Session 4: Structure & Function** Chairpersons: Demet Arac Antony Boucard	
9:00-9:20	**Structural and functional basis of adhesion GPCR activation** Demet Arac *University of Chicago, Chicago, IL*	26
9:20-9:40	**Annotation and quantification of adhesion GPCR splice variants** Alexander Knierim *Leipzig University, Leipzig, Germany*	27
9:40-10:00	**CryoEM visualization of G protein-coupled receptors** Georgios Skiniotis *Stanford University, Stanford, CA*	28
10:00-10:20	**Adhesion G protein-coupled receptors adgrl/latrophilins physically and functionally interact with the actin cytoskeleton** Antony Boucard *Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional, Mexico City, Mexico*	29
10:20-11:40	**Session 5: Biological Functions I** Chairpersons: Felix Engel Kim Tolias	
10:20-10:40	**ADGRG6 (Gpr126) is a mechano-responsive gene** Felix Engel *Friedrich-Alexander-Universität Erlangen-Nürnberg, Erlangen, Germany*	30
10:40-11:00	**Systematic affinity proteomics identifies functional modules associated with adhesion GPCRs** Uwe Wolfrum *Johannes Gutenberg University of Mainz, Mainz, Germany*	31
11:00-11:20	**The adhesion G protein-coupled receptor GPR97/ADGRG3 is expressed in human granulocytes and triggers antimicrobial effector functions** Cheng-Chih (Andy) Hsiao *University of Amsterdam, Amsterdam, The Netherlands*	32
11:20-11:40	**The adhesion-GPCR bai1 promotes excitatory synaptogenesis by coordinating bidirectional trans-synaptic signaling** Kim Tolias *Baylor College of Medicine, Houston, TX*	33
11:40-12:00	Community Session	
	Announce 2020 Meeting Location	
12:00-14:00	Lunch and extended poster viewing	
	Lunch provided	
14:00-15:40	**Session 6: Signaling & Activation II** Chairpersons: Nicole Scholz Jim Bridges	
14:00-14:20	**The adhesion-GPCR latrophilin/dCirl shapes the development of the nmj in drosophila** Nicole Scholz *Rudolf-Schönheimer-Institute of Biochemistry, Leipzig, Germany*	34

Day 2 Agenda *continued*
Friday, September 14th

14:20-14:40	**The Role of GPR110-dependent signaling in neurodevelopment and neuroprotection** Hee-Yong Kim *National Institutes of Health, Bethesda, MD*	35
14:40-15:00	**GPR126 function is regulated by its extracellular region** Katherine Leon *University of Chicago, Chicago, IL*	36
15:00-15:20	**ADGRB1 suppresses cerebellar transformation by sequestering mdm2 from p53** Erwin Van Meir *Emory University, Atlanta, GA*	37
15:20-15:40	**Molecular Analysis of ADGRF5 Signaling Determinants Required for Alveolar Homeostasis** Jim Bridges *Cincinnati Children's Hospital Medical Center, Cincinnati, OH*	38
15:40-16:00	Coffee break	
16:00-17:20	**Session 7: Biological Functions III** Chairpersons: Garret Anderson Benoit Vanhollebeke	
16:00-16:20	**Role of Latrophilin Adhesion GPCRs in Synaptic Assembly** Garret Anderson *University of California, Riverside, CA*	39
16:20-16:40	**Gpr126 NTF regulates cardiomyocyte depolarization and delamination in zebrafish trabeculation** Swati Srivastava *Friedrich-Alexander-Universität Erlangen-Nürnberg, Erlangen, Germany*	40
16:40-17:00	**Adhesion GPCR: novel targets to modulate glucose homeostasis** Doreen Thor *Leipzig University, Leipzig, Germany*	41
17:00-17:20	**Neurovascular development via Gpr124/Reck-dependent Wnt7/β-catenin signaling** Benoit Vanhollebeke *Université Libre de Bruxelles, Bruxelles, Belgium*	42
19:00-21:00	 Baerlic Brewing Co.– optional. *Max and walking directions located in Visitor Information.*	

Day 3 Agenda

Saturday, September 15th

9:30-10:30	**KEYNOTE** **Dissecting Neuromodulatory Circuits and Signaling in Affective Behavior** **Michael Bruchas** ***Washington University, St. Louis, MO***	43
	Introduction by Kelly Monk	
10:40-12:00	**Session 8: Signaling & Activation III** Chairpersons: Gregary Tall Xianhua Piao	
10:40-11:00	**Harnessing the AGPCR tethered-peptide-agonist mechanism for high throughput screening of chemical modulators** Gregory Tall *University of Michigan, Ann Arbor, Michigan*	44
11:00-11:20	**Orphan aGPCR GPR110 –a novel potential player in kidney function** Sandra Huth *Leipzig University, Leipzig, Germany*	45
11:20-11:40	**Renal Expression of Adhesion GPCR Gpr116 (ADGRF5) Plays a Role in Urinary Concentration in Mice** Nathan Zaidman *Johns Hopkins University School of Medicine, Baltimore, MD*	46
11:40-12:00	**The adhesion GPCR VLGR1 is a part of focal adhesion complexes, cell migration and mechanotransduction** Deva Krupakar Kusuluri *Johannes Gutenberg University of Mainz, Mainz, Germany*	47
12:00-12:20	**Oligodendrocyte GPR56/ADGRG1 integrates signals from microglia and the extracellular matrix to regulate developmental myelination and myelin repair** Xianhua Piao *Children's Hospital and Harvard Medical School, Boston, MA*	48
12:20-12:30	Closing remarks	