



Conference: Overcoming Bottlenecks in Membrane Biology

Wednesday, April 11, 2018

Max Bell Auditorium, Banff Conference Centre, Banff, Alberta

Time		Name	Title
Session 1: New Approaches, chaired by Jana Broecker			
9:00–9:10	Intro	Michael Overduin, University of Alberta	Overview, Progress & Challenges in the Field of SMALPs and Native Nanodiscs
9:10–9:35	Talk	Tim Dafforn, University of Birmingham, UK	SMALPs: polymers, lipids and proteins
9:35–10:00	Talk	Bert Klumperman, Stellenbosch University	Towards sequence-controlled SMA copolymers
10:00–10:25	Talk	Ayyalusamy Ramamoorthy, University of Michigan	Nanodiscs and Macro-Nanodiscs for Structural Studies by NMR
10:25–10:50	Talk	Adrian Kopf, Utrecht University	Membrane solubilization by SMA copolymers: importance of polymer length and co-monomer sequence
10:50–11:10	Tea/Coffee Refresh Break		
Session 2: Resolving Membrane Protein Function, chaired by Michael Overduin			
11:10–11:35	Talk	Sandro Keller, University of Kaiserslautern	Exchange Dynamics of SMALPs and DIBMALPs
11:35–11:50	Talk	Russell Bishop, McMaster University	Beta-barrel modulation of bacterial outer membrane lipids
11:50–12:00	Talk	Jasmina Radoicic, University of California, San Diego	SMALP Macrodiscs Provide Near-Native Bilayer Environments for Structure Determination of Membrane Proteins by NMR Spectroscopy
12:00–1:00	Lunch in Vistas Dining Room (including Group Photo)		
Session 3: Understanding Biological Mechanisms, chaired by Tim Dafforn			
1:00–1:25	Talk	Barry Bruce, University of Tennessee Knoxville	Non-detergent Isolation of a Cyanobacterial Photosystem I using Styrene-Maleic Acid Copolymers
1:25–1:50	Talk	Bob Gennis, University of Illinois	Structure of the alternative complex III (ACIII) from <i>Flavobacterium johnsoniae</i> in SMA copolymer nanodiscs by cryoEM
1:50–2:10	Talk	Eamonn Reading, Kings College London	Structural mass spectrometry of membrane proteins within SMALP (native) nanodiscs.
2:10–2:30	Talk	Jana Broecker, Heptares	Structure-based drug design of GPCRs
2:30–2:50	Tea/Coffee Refresh Break		
Session 4: Developments from Industry, chaired by Bert Klumperman			
2:50–3:00	Talk	Stefan Scheidelaar	Polyscope Polymers B.V.
3:00–3:10	Talk	Kacee Sims	Avanti Polar Lipids
3:10–3:20	Talk	Edward Pryor	Anatrace
3:20–3:30	Talk	Brad Cooney	GE Healthcare
3:30–3:40	Talk	Verna Frasca	Malvern Panalytical
3:40–4:30	Roundtable Discussion and Wrap-up		

