

Start	Finish		Total time
Monday 27th November 2017			
8:30:00	9:00:00	Registration	0:30:00
9:00:00	9:05:00	Acknowledgement to country	0:05:00
9:05:00	9:15:00	Welcome address from UTS Dean of Science	0:10:00
9:15:00	10:00:00	Session 0 - Last year's Bob Robertson Prize winner	0:45:00
10:00:00	10:30:00	Morning tea	0:30:00
10:30:00	12:35:00	Session 1 - Macromolecular Structure and Function	2:05:00
12:35:00	13:30:00	Lunch	0:55:00
13:30:00	15:15:00	Session 2 - Bioenergetics	1:45:00
15:15:00	15:45:00	Afternoon tea	0:30:00
15:45:00	17:05:00	Session 3 - Membrane Biophysics	1:20:00
17:05:00	17:35:00	Poster Slam	0:30:00
17:35:00	19:35:00	The GE Poster Session and Mixer	2:00:00
Tuesday 28th November 2017			
8:30:00	10:20:00	Session 4 - Joint Japan - Australia Biophysics Symposium on Mechanobiology	1:50:00
10:20:00	10:50:00	Morning tea	0:30:00
10:50:00	12:40:00	Session 5 - Joint Japan - Australia Biophysics Symposium on Mechanobiology	1:50:00
12:40:00	13:40:00	Lunch	1:00:00
13:40:00	15:05:00	Session 6 - Channels and Pumps 1	1:25:00
15:05:00	15:35:00	Afternoon tea	0:30:00
15:35:00	16:15:00	Session 7 - Channels and Pumps 2	0:40:00
16:15:00	17:00:00	Session 8 - This year's Bob Robertson Prize winner	0:45:00
17:00:00	18:00:00	Australian Society for Biophysics Annual General Meeting	1:00:00
18:30:00	23:30 PM	Conference Dinner	
Wednesday 29th November 2017			
9:00:00	10:25:00	Session 8 - cryo-EM	1:25:00
10:25:00	10:55:00	Morning tea	0:30:00
10:55:00	12:35:00	Session 9 - Single Molecule and Super Resolution Imaging	1:40:00
12:35:00	13:30:00	Lunch	0:55:00
13:30:00	14:50:00	Session 10 - Bio-nanotechnology and Bioengineering	1:20:00
14:50:00	15:20:00	Afternoon tea	0:30:00
15:20:00	16:40:00	Session 11 - Computational Biophysics	1:20:00
16:40:00	17:00:00	Closing remarks and poster prize awards.	0:20:00



Platinum Sponsor



Gold Sponsor



Silver Sponsor



Monday 27th November 2017

Start	Finish	Event	Affiliation	Abstract Title	Total time
8:30	9:00	Registration			0:30:00
9:00	9:05	Acknowledgement to country			0:05:00
9:05	9:15	Welcome address from UTS Interim Dean of Science Prof Bill Gladstone			0:10:00
9:15	10:00	Session 0 - 2016 Bob Robertson Prize winner			0:45:00
9:15	10:00	Prof. Michael Parker	St. Vincent's Institute of Medical Research	Cholesterol-Dependent Cytolysins: from Water-Soluble State to Membrane Pore	0:45:00
10:00	10:30	Morning Tea			0:30:00
10:30	12:35	Session 1 - Macromolecular Structure and Function			2:05:00
10:30	11:15	Invited Speaker 1 (Prof. Alison Rodger)	Macquarie University	How to use spectroscopy for biomolecules: linear and circular dichroism spectroscopy to study biological	0:45:00
11:15	11:35	Neil Robertson	University of Sydney	Unusual protein-binding kinetics of intrinsically disordered regions regulate complex formation of the LIM domain transcription factors	0:20:00
11:35	11:55	Po-Chia Chen	EMBL Heidelberg	A general SAXS-based screening workflow validated for RNA-protein interactions	0:20:00
11:55	12:15	Paul Curmi	University of New South Wales	Light funnels, evolution and quantum coherence: mixing and harvesting photosystems	0:20:00
12:15	12:35	Josep Sadurni	University of Sydney	Structural characterisation reveals insights into substrate recognition by the Glutamine Transporter ASCT2 (SLC1A5)	0:20:00
12:35	13:30	Lunch			0:55:00
13:30	15:15	Session 2 - General Biophysics			1:45:00
13:30	14:15	Invited Speaker 2 (Dr Nick Cox)	Australian National University	High-Field Pulse EPR: A New Biophysical Toolbox for the Study of Metalloenzymes	0:45:00
14:15	14:35	Ivan Kassal	University of Sydney	Purple bacteria use coherence to harvest light more efficiently	0:20:00
14:35	14:55	Nicola Smith	Victor Chang Cardiac Research Institute	Orphan G protein-coupled receptor GPR37L1: finding function without a ligand	0:20:00
14:55	15:15	Qian Su	University of Technology Sydney	Single-Molecule and Super-Resolution Microscopy for Intracellular Membrane Dynamics	0:20:00
15:15	15:45	Afternoon tea			0:30:00
15:45	17:05	Session 3 - Membrane Biophysics			1:20:00
15:45	16:05	Pierre Moens	University of New England	Profilin 1 dynamics in live cell membrane	0:20:00
16:05	16:25	Hadeel Al oheedallah	University of Sydney	The Effect of Xenon on Tethered Lipid Bilayers	0:20:00
16:25	16:45	Sara Pandidan	La Trobe University	The mechanism of melittin membrane disruption revisited: effect of membrane morphology	0:20:00
16:45	17:05	Ingo Köper	Flinders University	Mimicking Microbial Membranes	0:20:00
17:05	17:35	Poster slam			0:30:00
17:35	19:30	The GE Poster session and Mixer			1:55:00

Tuesday 28th November 2017

Start	Finish	Event	Affiliation	Abstract title	Total time
8:30	10:20	Session 4 - Joint Japan - Australia Biophysics Symposium on Mechanobiology			1:50:00
8:30	9:15	Invited talk 3 (Prof. Keiji Naruse)	Okayama University	Mechanomedicine	0:45:00
9:15	9:35	Yoshitaka Nakayama	Victor Chang Cardiac Research Institute	Gating mechanisms of the mechanosensitive channel MscCG in Corynebacterium glutamicum glutamate export	0:20:00
9:35	10:20	Invited talk 4 (Assoc. Prof. Shireen Lamande)	Murdoch Children's Research Institute	The TRPV4 skeletal disorders: Lessons from humans, cats and mice	0:45:00
10:20	10:50	Morning Tea			0:30:00
10:50	12:40	Session 5 - Joint Japan - Australia Biophysics Symposium on Mechanobiology			1:50:00
10:50	11:35	Invited talk 5 (Asst. Prof. Kumiko Hayashi)	Tohoko University	Non-invasive force measurement using fluctuation for organelle transport in neurons	0:45:00
11:35	11:55	Philip Kuchel	University of Sydney	NMR of Stretched Cells	0:20:00
11:55	12:40	Invited talk 6 (Professor Rob Parton)	University of Queensland	Mechanical protection and signaling by caveolae	0:45:00
12:40	13:40	Lunch			1:00:00
13:40	15:05	Session 6 - Channels and Pumps 1			1:25:00
		The Victor Chang Cardiac Research Institute Invited Talk			
13:40	14:25	(Prof. Eduardo Perozo)	University of Chicago	On symmetry and the Gating Mechanism of a Ligand-Gated Ion Channel	0:45:00
14:25	14:45	Qianyi Wu	University of Sydney	A Dual-functioning Human Excitatory Amino Acid Transporter: A Transporter and An Ion Channel	0:20:00
14:45	15:05	Angelo Keramidas	University of Queensland	Effects of glutamate and ivermectin on glutamate-gated chloride channels of the parasitic nematode H. contortus	0:20:00
15:05	15:35	Afternoon tea			0:30:00
15:35	16:15	Session 7 - Channels and Pumps 2			0:40:00
				Real-time Imaging of Lithium 'Hot-spots': An Analysis of Ion Conductance in Aquaporin-1 Using Novel Photo-switchable Sensor	
15:35	15:55	Jinxin Pei	University of Adelaide		0:20:00
15:55	16:15	Charles Cox	Victor Chang Cardiac Research	A TRiP through the mechanical world of TRPP channels	0:20:00
16:15	17:00	Session 8 - ASB Prizes			0:45:00
16:15	17:00	This year's Bob Robertson Prize winner			0:45:00
17:00	18:00	Australian Society for Biophysics Annual General Meeting			1:00:00
18:30	23:00	Conference Dinner - Powerhouse Museum			

Wednesday 29th November 2017

Start	Finish	Event	Affiliation	Abstract title	Total time
9:00	10:25	Session 9 - Cryo-EM			1:25:00
9:00	9:45	The University of Wollongong Molecular Horizons Invited Speaker (A/Prof. Sara Sandin)	Nanyang Technological University, Singapore	Phase plate cryo-EM analysis of chromatin	0:45:00
9:45	10:05	Alastair Stewart	Victor Chang Cardiac Research Institute	Cryo-EM structures of the autoinhibited E. coli ATP synthase in three rotational states	0:20:00
10:05	10:25	Mark Hunter	Victor Chang Cardiac Research Institute	Towards a structural understanding of hERG K+ channel function using CryoEM	0:20:00
10:25	10:55	Morning Tea			0:30:00
10:55	12:35	Session 10 - Single Molecule and Super Resolution Imaging			1:40:00
10:55	11:15	Donna Whelan	Monash University	Super Resolution Imaging of DNA replication, transcription and damage inside the nucleus	0:20:00
11:15	11:35	Ilina Bereja	University of New South Wales	Studying actin-tropomyosin interactions at the single filament level	0:20:00
11:35	11:55	Ashley Rozario	Monash University	Super-Resolution Imaging of Virally-Altered Cell Structure	0:20:00
11:55	12:15	Daniel Nieves	University of New South Wales	Quantitative Single Molecule Localisation Microscopy via Halo-PAINT	0:20:00
12:15	12:35	Artem Efremov	National University of Singapore	Involvement of myosin II and formins in mechanosensing behavior of cell filopodia.	0:20:00
12:35	13:30	Lunch			0:55:00
13:30	14:50	Session 11 - Bio-nanotechnology and Bioengineering			1:20:00
13:30	13:50	Matt Baker	University of New South Wales	Probing mechanisms for force-sensing and activation in mechanosensitive ion channels with artificial droplet bilayer systems	0:20:00
13:50	14:10	Shelley Wickham	University of Sydney	DNA origami barrels for single molecule biology	0:20:00
14:10	14:30	Andrew Tuckwell	University of New South Wales	DNA origami dimensions and structure measured by solution X-ray scattering	0:20:00
14:30	14:50	Sophie Hertel	University of New South Wales	Sequence dependent kinetics and thermodynamics of DNA-hybridization	0:20:00
14:50	15:20	Afternoon tea			0:30:00
15:20	16:40	Session 12 - Computational Biophysics			1:20:00
15:20	15:40	Amanda Buyan	Australian National University	Protonation state determines binding sites of sodium channel inhibitors	0:20:00
15:40	16:00	Md Harunur Rashid	RMIT University	A novel residue deletion in Kv7.4 affects the ion transfer function and consequence is hearing loss, revealed from free energy simulation	0:20:00
16:00	16:20	Catheryn Gray	University of New South Wales	Akt translocation as a controller of metabolic activity	0:20:00
16:20	16:40	Charles Cranfield (Evelyne Deplazes)	University of Technology Sydney	The effect of hydronium ions on the structure of phospholipid membranes	0:20:00
16:40	17:00	Prizes and Closing Remarks			0:20:00

Cryo-EM workshop

The Cryo-EM workshop sponsored by FEI/Thermo Fisher will be held on Thursday, November 30. The workshop is fully catered, including morning tea, lunch and afternoon tea. (Registration is required for this workshop)

Program

Thursday 30th November 2017

09:00 09:45 Introduction/Overview - Professor Eduardo Perero (University of Chicago, USA)

09:45 10:30 Instrumentation and State of the Art - Dr Ryan Shaw (FEI/ThermoFisher)

10:30 11:00 Morning tea

11:00 11:45 Sample Prep and evaluation – A/Prof. Sara Sandin (Nanyang Technological University, Singapore)

11:45 12:30 Data Collection Strategies - Dr James Bouwer (University of Wollongong)

12:30 13:30 Lunch

13:30 14:15 Data Processing – Dr Michael Landsberg (University of Queensland)

14:15 14:40 Tomography, instrumentation processing and FIB - Dr James Bouwer (University of Wollongong)

14:40 15:05 CLEM - Sara Sandin (Nanyang Technological University, Singapore)

15:05 15:30 Afternoon tea

15:30 16:30 Facilities in Australia - reps from national facilities including: UoW, UNSW, USyd, Monash, UQ, Uni Melb

16:30 17:00 General Questions and Discussion