



SCIENTIFIC PROGRAMME

ASSCR ECR Symposium 21st January 2021

Abel Smith Theatre (Building 23), St Lucia UQ campus, Queensland

10:30 – 11:30 Registration

11:30 – 13:00 Opening & Session I

Development, Ageing and Disease

Chairs: Christian Nefzger & Mohammed Shaker

11:33-11:48	Dr Odette Leiter	Platelets regulate exercise-induced adult hippocampal neurogenesis in young and aged mice
11:48-11:55	Ms Carla Cuni-Lopez	3D in vitro models of patient microglia to improve clinical translation in Alzheimer's disease
11:55-12:02	Mr Danyon Harkins	NFIX modulates adhesion in epithelial and ependymal cells during and post-development
12:02-12:09	Ms Cassandra Styke	Working towards a consensus on stem/progenitor characteristics in the endothelium
12:09-12:24	Dr Teodor Yordanov	At the origins of Cerebral Cavernous Malformations
12:24-12:31	Dr Yue Wang	Functional nanoparticles with glutathione depletion chemistry upregulate RNA translation in hard-to-transfect cells
12:31-12:38	Ms Shevanuja Theivendran	Phosphorylated tumor antigen delivery for effective cancer immunotherapy
12:38-12:45	Dr Cassy Spiller	RA signalling is critical for healthy germline and testis development and a site of vulnerability to environmental chemicals
12:45-13:00	Mr Guillaume Burnet	Cripto controls pluripotency in the mouse germline

13:00-13:30 Lunch break

13:30- 14:43 Session II

iPS cell and organoid disease modelling

Chairs: Sarah Withey & Enakshi Sinniah

13:30-13:45	Dr Julio Aguado	Cellular senescence drives inflammation and neurodegeneration in Ataxia-Telangiectasia brain organoids
13:45-13:52	Dr Hannah Leeson	Mitochondria and oxidative stress in the pathogenesis of Ataxia Telangiectasia
13:52-13:59	Ms Aswathi Gopalakrishnan	An in vitro ageing cardiac model to study age associated heart failure
13:59-14:14	Dr Lotta Oikari	Using patient-derived cells to model ultrasound-mediated blood-brain barrier opening in Alzheimer's disease
14:14-14:21	Ms Cecilia Gomez Inclan	Addressing an Alzheimer's Disease Protective Mutation in a 2D and 3D Human Model
14:21-14:28	Dr Mohammed Shaker	Klotho inhibits neuronal senescence in human brain organoids
14:28-14:43	Mr Wa Lao	Exploring the use of iPSC-derived propriospinal interneuron transplants to restore connectivity across the lesion site

14:44 – 15:35 Session III

Single cell biology, spatial transcriptomics, and synthetic biology

Chairs: Marina Naval-Sanchez & Mohammed Shaker

14:44-14:51	Dr Giovanni Pietrogrande	Programming logic circuits in human stem cells using genetic engineering
14:51-15:06	Ms Malindrie Dharmaratne	A statistical approach for modelling differential distributions in single-cell transcriptomic data
15:06-15:13	Ms Maika Matsumoto	Quantifying Biological Variation in the Cardiac Differentiation from iPSCs
15:13-15:20	Ms Sophie Shen	Multiplexed Map of Mesendoderm Differentiation
15:20-15:35	Mr Duy Pham	Using spatial transcriptomics and image analysis to study spatio-temporal neuroinflammation responses to traumatic brain injury

15:35 - 16:00 Afternoon tea

16:00 - 17:05 Session IV

Reprogramming and cell identity

Chairs: Giovanni Pietrogrande & Christian Nefzger

16:00-16:15	Ms Siew Zhuan Tan	Deep conservation of the enhancer regulatory code in animals
16:15-16:22	Ms Dalia Mizikovsky	Inferal of gene networks from complex trait genetics
16:22-16:29	Dr Sarah Withey	Exploring human transcriptomics to model liver function and disease from iPSCs
16:29-16:36	Dr Marina Naval-Sanchez	A multiomic computational approach to identify transcription factors that govern cell identity and ageing
16:36-16:51	Ms Ying Yang	Sustained activity of a core fibroblast identity network during reprogramming is crucial for successful generation of iPSC cells.
16:51-16:58	Ms Monisha Ganesan	Establishing Virtual Memory CD 8 T-cells as an in vitro model to test the effects of transcription factors on the ageing phenotype
16:58-17:05	Ms Enakshi Sinniah	Conserved epigenetic regulatory logic infers genes governing cell identity

17:05 - 17:30 Conference picture, prizes & wrap up

18:30 – late: Conference Dinner at Pig ‘N’ Whistle, Merivale St, South Brisbane

Conference sponsors:



Event organizing team: Aude Dorison, Jarmon Lees, Marina Naval Sanchez, Margret Schuller, Mohammed Shaker, Enakshi Sinniah, Giovanni Pietrogrande, Sarah Withey and Christian Nefzger

Prize judges: Josephine Bowles, Dmitry Ovchinnikov, Shyuan Ngo, Meredith Redd, Hong You

Student Volunteers: Ying Yang, Monisha Ganesan