



MONDAY 7 OCTOBER 2019

0730–1800	Registration Desk Open	
0800–1800	Trade Exhibition Open and Barista Coffee Served	 
0900–0915	Official Welcome and Conference Opening Richard Tothill	
SESSION 1–Bioinformatics <i>Chairs: Göknur Giner & Matt Ritchie</i>		
0915–0955	Keynote Speaker Michael Schatz, John Hopkins University 100 genomes in 100 days: The structural variant landscape in tomato genomes	
0955–1010	Belinda Phipson, Murdoch Children’s Research Institute Finding statistically significant differences in cell type composition in designed single cell RNA-seq experiments	
1010–1025	Xiao Tan, The University of Queensland Machine learning approaches to integrating multi-omics sequencing and spatial tissue imaging data	
1025–1040	Laurence Wilson, CSIRO GT-Scan2 and VARSCOT: Tools for personalized CRISPR-Cas9 target design	
1040–1100	Morning Tea & Trade Exhibition	
SESSION 2–New Technologies <i>Chairs: Luciano Martelotto & Ruby Lin</i>		
1100–1140	Keynote Speaker Andrew Adey, Oregon Health & Science University Single-cell epigenomics using combinatorial indexing	
1140–1155	Jafar Jabbari, The Australian Genome Research Facility Single cell isoform sequencing with long-read technologies	
1155–1210	James Ferguson, Garvan Institute of Medical Research SquiggleKit: A toolkit for manipulating nanopore signal data	
1210–1230	Platinum Sponsor Presentation Xun Xu, BGI Cutting-edge BGI technologies enable single cell analysis and fully phased genomes	 
1230–1330	Lunch & Trade Exhibition	
SESSION 3–Cancer Genomics <i>Chairs: Robert Day & Elizabeth Christie</i>		
1300–1340	Keynote Speaker Andrea Bild, City of Hope Evolution of tumor subclone phenotypes and trajectories during cancer progression	
1340–1410	Invited Speaker Alex Swarbrick, Garvan Institute of Medical Research A single cell atlas of early breast cancer	
1410–1425	Devika Ganesamoorthy, The University of Queensland Detection of somatic signatures in cell-free DNA samples with low tumour content	
1425–1440	Andrew Pattison, The University of Melbourne Using RNA-Seq to call somatic mutations, tumour mutation burden and detect mutation signatures in cancer	
1440–1455	David Goode, Peter MacCallum Cancer Centre Disruption and rewiring of metazoan gene networks in cancer	
1455–1530	Afternoon Refreshments & Trade Exhibition	
1530–1610	Lightning Presentations » Jovana Maksimovic, Murdoch Children’s Research Institute » Matthew Ritchie, The Walter and Eliza Hall Institute of Medical Research » Tamsin Robb, University of Auckland » Sean Liu, BGI » Hasindu Gamaarachchi, Garvan Institute of Medical Research » Khushboo Khatri, Monash University » Marek Cmero, Murdoch Children’s Research Institute » Andre Minoche, Garvan Institute of Medical Research	
1610–1700	Exhibitor Networking Event Trade Exhibition, Pullman Albert Park	
1700–1830	Poster Session Plenary Room, Pullman Albert Park	
1930–2230	Student Night Glamp Cocktail Bar	
1930–2130	VIP Function The Duke of Wellington	

TUESDAY 8 OCTOBER 2019

0730–1800	Registration Desk Open	
0800–1800	Trade Exhibition Open and Barista Coffee Served	 
0850–0900	Welcome to Day Two + Exhibitor Prize Draw Lachlan Coin & Aleksandra Petrovic Fabijan	

SESSION 4–Microbial

Chairs: Lachlan Coin & Aleksandra Petrovic Fabijan

0900–0930	Invited Speaker Deborah Williamson, The University of Melbourne Using genomics for public health
0930–1000	Invited Speaker Vijay Dhanasekaran, Monash University Genomics in infectious disease emergence and transmission
1000–1015	Miranda Pitt, The University of Queensland Evaluating the “-omes” of extensively drug-resistant klebsiella pneumoniae using native DNA and RNA nanopore sequencing
1015–1030	Tania Duarte, The University of Queensland Deep sequencing of microbial communities in Cystic Fibrosis airways
1030–1100	Morning Refreshments & Trade Exhibition

SESSION 5–Transcriptomics

Chairs: Gordon Smyth & Momeneh Foroutan

1100–1130	Invited Speaker Melissa Little, Murdoch Children’s Research Institute Applying transcriptional profiling and gene editing to characterise human pluripotent stem cell-derived kidney organoids
1130–1200	Invited Speaker Jessica Mar, The University of Queensland Modeling statistical distributions in transcriptomic data – moving beyond the average
1200–1215	Christopher Bye, The Florey Institute of Neuroscience and Mental Health Dual species RNAseq for transcriptional profiling of human iPSC derived neurons in the “living brain” model of Parkinson’s Disease
1215–1230	Mike Clark, The University of Melbourne Long-read sequencing reveals the expression and splicing profiles of neuropsychiatric disease genes in human brain
1230–1400	Lunch & Trade Exhibition AGTA Annual General Meeting


SESSION 6–Epigenetics

Chairs: Sam Buckberry & Hannah Coughlan

1400–1445	Keynote Speaker Julie Law, Salk Institute for Biological Studies Locus- and tissue-specific control of DNA methylation in Arabidopsis thaliana
1445–1515	Invited Speaker Jose Polo, Monash University Dissecting the molecular events during human nuclear reprogramming
1515–1530	Shanika Amarasinghe, Walter and Eliza Hall Institute of Medical Research Long-Reads for scATAC-seq
1530–1545	Kaitao Lai, The University of Sydney Identification of topologically associated domains (TADs) to unravel clues underlying gene dysregulation causing inherited peripheral neuropathy
1545–1615	Afternoon Refreshments & Trade Exhibition

SESSION 7–Plant

Chairs: Anna Syme & Mike Schatz

1615–1645	Invited Speaker Kay Hodgins, Monash University Convergence in the genomic basis of local adaptation	
1645–1700	Agnieszka Golicz, The University of Melbourne Analysis of the quinoa genome reveals conservation and divergence of the flowering pathways	
1700–1715	Nadia Davidson, Murdoch Children’s Research Institute Necklace: Completing transcriptome references for more comprehensive differential expression results	
1900–2200	Conference Dinner Cargo Hall, South Wharf The Conference Dinner will be a stand-up networking event with substantial food service. Delegates will be transported from Pullman Albert Park at 6:30pm sharp.	

WEDNESDAY 9 OCTOBER 2019

0730–1730	Registration Desk Open
0800–1300	Trade Exhibition Open and Barista Coffee Served
0855–0900	Welcome to Day Three + Exhibitor Prize Draw Irene Gallego Romero & Mike McDonald



SESSION 8–Population Genomics

Chairs: Irene Gallego Romero & Mike McDonald

0900–0945	Keynote Speaker Gosia Trynka, Wellcome Sanger Institute Translating immune disease GWAS variants to causal cell types and genes
0945–1000	Davis Mccarthy, St. Vincent's Institute of Medical Research Single-cell RNA-sequencing of differentiating iPS cells reveals dynamic genetic effects on gene expression
1000–1015	Amanda Chamberlain, Department of Economic Development, Jobs, Transport and Resources The impact of the 1000 bull genomes project and it's future
1015–1030	Jessica Gaff, Curtin University The evolution and diversity of CAMKK2 haplotypes in European, Asian and African populations

1030–1100 Morning Refreshments & Trade Exhibition

SESSION 9–Large-scale and Whole Genome

Chairs: Vanessa Hayes & Simon Sadedin

1100–1140	Keynote Speaker Evan Eichler, University of Washington Long-read sequencing of structurally variant genomes
1140–1155	Shilpa Garg, Harvard Medical School Direct whole-genome haplotype-resolved assembly using sequence graphs
1155–1210	Weerachai Jaratlerdsiri, Garvan Institute of Medical Research KhoeSan Genome Project: creating a catalogue of ancient human genome variation
1210–1225	Daniel Cameron, Hartwig Medical Foundation The landscape of genomic rearrangements in metastatic cancer

1225–1325 Lunch & Trade Exhibition

SESSION 10–Clinical Genomics

Chairs: Lavinia Gordon & Natalie Thorne

1325–1355	Invited Speaker Mark Cowley, Children's Cancer Institute Deciphering paediatric cancer, one-case at a time
1355–1410	Sandra Fitzgerald, The University of Auckland Real world applications of liquid biopsy in a public health system
1410–1425	Alan Rubin, Walter and Eliza Hall Institute of Medical Research Clinical variant annotation with multiplexed assays of variant effect
1425–1440	Nouri Ben Zakour, Westmead Institute for Medical Research Safety and efficacy of bacteriophage therapy: the 'Omics approach from bench to clinical trial
1440–1510	Awarding of Prizes, Exhibitor Passport Draw, 2020 Conference Launch and Conference Close Alicia Oshlack

The 2019 AGTA Conference reserves the right to amend or alter any advertised details relating to dates, program and speakers if necessary and without notice, as a result of circumstances beyond their control. All attempts will be made to keep any changes to an absolute minimum.

