CRISPR DOWN UNDER

Friday 27th October 2023
Olivia Newton-John Cancer Research Institute

8:00 - 9:00	Registration	
9:00 - 10:55	**Session 1: CRISPR biology and emerging technologies**	
09:00 - 09:05	Conference opening & Acknowledgement of Country	
09:05 - 09:35	**Accelerated drug-resistant variant discovery with an enhanced, scalable mutagenic base editor platform**	Ben Haley (Centre de recherche de l'Hôpital Maisonneuve-Rosemont, Canada)
09:35 - 10:00	**Harnessing CRISPR and microbial dark matter for biotechnology**	Gavin Knott (Monash BDI)
10:00 - 10:15	**Elucidating CRISPR-Cas13 target search mechanisms in live human cells**	Gurjeet Gill Kaur Jagjeet Singh (Peter Mac)
10:15 - 10:40	**Developing CRISPR gene drives for feral rodent population suppression**	Paul Thomas (SAHMRI)
10:40 - 10:55	Flash talks #1	Honglin Chen, Soo Jen Low, Fatimah Jalud, Wei Jin
10:55 - 11:15	Break	
11:15 - 12:30	**Session 2: High-throughput screening and functional genomics**	
11:15 - 11:40	**Whole genome CRISPR-Cas9 screening to improve therapy for aggressive blood cancers**	Sarah Diepstraten (WEHI)
11:40 - 11:55	**CRISPR activation of non-coding autoimmune risk loci in primary human B cells**	Viacheslav Kriachkov (WEHI)
11:55 - 12:10	**Combining CRISPR screening, scRNAseq and spatial techniques to study venetoclax resistance mechanisms in aggressive lymphomas**	Gaoyuan Wang (ONJCRI/WEHI)
12:10 - 12:30	Flash talks #2	Marina Leiwe, Kok Fei Chan, Amber Aslop, Yexuan Deng, Ebithal Mustafa, Amali Cooray
12:30 - 13:00	Lunch	
13:00 - 13:45	**Poster viewing**	
13:45 - 15:10	**Session 3: Novel gene editing and delivery strategies**	
13:45 - 14:15	**Peptide-enabled CRISPR enzyme delivery for versatile *ex vivo* T cell engineering and *in vivo* editing of the brain**	Dana Foss (Related Sciences, USA)
14:15 - 14:40	***TBA***	Pilar Blancafort (Harry Perkins Institute of Medical Research, WA)
14:40 - 14:55	**Potent, HIV-specific latency reversal through CRISPR activation delivered by lipid nanoparticles**	Paula Cevaal (Peter Doherty Institute)
14:55 - 15:10	**CRISPR-HDR engineering of T cells for immunotherapy purposes**	Maria Nogueira de Menezes (Peter Mac)
	Break	
15:30 - 17:00	**Session 4: Disease biology and therapeutic applications**	
15:30 - 15:55	**RNA targeting with CRISPR-Cas13: from fundamental principles to therapeutic applications**	Mohamed Fareh (Peter Mac)
15:55 - 16:10	**Exploiting CRISPR-Cas technology for novel diagnostics - responding to the monkeypox virus outbreak**	Shivani Pasricha (WEHI)
16:10 - 16:25	**CRISPR-Cas9 engineering of next-generation armoured CAR T-cells**	Amanda Chen (Peter Mac)
16:25 - 16:50	**Finding new tumour drivers by using advanced CRISPR screening techniques *in vivo***	Marco Herold (ONJCRI)
16:50 - 17:00	Closing remarks & prizes	
17:00 - 18:30	Networking session	

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