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@CRISPR_Aus
#CDU2025

Day One: Thursday 27th of February 2025

8:00		Registration	
9:00 - 10:40	CRISPR Biology (Chairs: Martin Pal, Gurjeet Jagjeet Singh)		
9:00	Welcome		-
9:05	Elizabeth Kellogg	Comprehensive profiling of activity and specificity of RNA-guided transposons reveals opportunities to engineer improved variants	Cornell University (US)
9:40	Mohamed Fareh	The molecular basis of target recognition and cleavage by CRISPR-Cas13	Peter Mac
10:05	Gavin Knott	Structural basis for CRISPR-Cas13 HEPN nuclease activity	Monash BDI
10:30		Morning Tea	
11:00 - 12:45	Functional Genomics (Chairs: Kaylene Simpson, Sarah Diepstraten)	*Sponsored by Twist Bioscience & Decode Science*	
11:00	Marco Herold	Next generation CRISPR tools to model and interrogate cancer	ONJCRI
11:25	Wei Jin	Advancing the genetic engineering toolbox by combining AsCas12a knock-in mice with ultra-compact screening	ONJCRI
11:40	Marina Leiwe	Using a spatial CRISPR screen to identify regulators of the immune microenvironment in non-small cell lung cancer	WEHI
11:55	Dane Vassiliadis	Recursive CRISPR screening identifies a functional link between P300 and SF3B3 in transcriptional elongation control	Peter Mac
Flash Talks	Thomas Chadwick, Debolina Majumdar, Yuchen Bai, Liam Neil, Daisy Wilson Kocher, Kah Min Yap		
12:45	Lunch & Poster Session One	Unlocking CRISPR: A 1-on-1 Expert Exchange with Adam Chernick (IDT) (By Appointment Only)	
14:00 - 15:15	Immunotherapy (Chairs: Nicole Haynes, Emily Derrick)	*Sponsored by Scientifix / Revvity*	
14:00	Paul Beavis	CRISPR engineering of armored CAR T cells enables tumor restricted payload delivery with enhanced efficacy and safety	Peter Mac
14:25	Tirta Djajawi	TAK1 protects tumour cells from combined CTL-derived TNF and IFN-γ	ONJCRI
14:40	Phoebe Dunbar	Generating CRISPR/CAS9 armoured TCR-T cells for the treatment of solid tumours	Peter Mac
14:55	Emily Anderson	Robust genome-wide application of deactivated CRISPR-Cas9 systems for expression regulation	Revvity
15:20		Afternoon Tea	
15:45 - 16:50	Therapeutic Applications (Chairs: Michael Moso, Joshua Casan)	*Sponsored by MaxCyte*	
15:45	Shivani Pasricha	CRISTI: A Suite of CRISPR-Based Point-of-Care Tests for Sexually Transmitted Infections	PDI
16:10	Ashleigh Geiger	Cas9-NG: a new vision for autosomal dominant Retinitis Pigmentosa precision therapeutics	Uni. of Adelaide
16:25	Catherine Mills	CRISPR in the clinic: Ethical issues in (medical) innovation	Monash
16:50		Housekeeping	
17:00 - 18:30		Welcome Reception	

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Poster Session One

*	1	Thomas Chadwick	PMCC	Utilising CRISPR/Cas9 screening to uncover novel immunotherapies for targeting bone metastases
*	2	Debolina Majumdar	CSIRO	Genome-wide CRISPR knockout screen to identify host factors in avian influenza virus infection
*	3	Yuchen Bai	PMCC	Promoting cell growth to prevent the spread of head and neck cancer
*	4	Liam Neil	ONJCRI	Using genome-wide CRISPR-Cas9 knockout screens to sensitise metastatic breast cancer natural killer (NK) cell-mediated killing
*	5	Daisy Wilson Kocher	The University of Melbourne	CRISPR in pest species Tribolium Castaneum
*	6	Kah Min Yap	PMCC	Identifying Optimal Tumour-specific Promoters for CRISPR/Cas9 Engineering of Armoured CAR T Cells with Enhanced Safety and Efficacy
	7	Alice Salib	Children's Cancer Institute	Expanding the molecular biology toolkit for paediatric cancer: generation of a comprehensive library of CRISPR/Cas cell lines
	8	Wing Fuk Chan	Monash University	Reactivation of δ-globin via CRISPR in treating β-haemoglobinopathies
	9	Akash Srivaths	ONJCRI	Genome-wide CRISPR Screen Identify Menin as a Mediator of Encorafenib Plus Cetuximab Resistance in BRAF V600E Mutant Colorectal Cancer
	10	Oliver Sinclair	PMCC	High depth broad scale CRISPR screening to identify fundamental synthetic lethal targets to P300/CBP inhibition
	11	Huw Morgan	The University of Melbourne	Identifying new roles for ubiquitination machinery in regulating dendritic cell function
	12	Kevin Sek	PMCC	Tumour-site directed expression of adenosine receptor subtype 1 (A1R) enhances CAR T cell function and improves efficacy against solid tumours
	13	Ziyan Liu	WEHI	Improving neuroblastoma response to BH3-mimetic drugs with CRISPRi
	14	Emily Derrick	PMCC	Utilising CRISPR technologies and high-throughput screening to interrogate the biology of secreted factors: a CXCL9 and CXCL10 case study.
	15	Serena Kane	WEHI	Screening for novel regulators of GATA3 expression
	16	Andrew Li	ONJCRI	Genome-wide CRISPR-Cas9 screens on tumour cells under Vδ2+ T Cell Immune Pressure
	17	Sophie Morgan	WEHI	Modelling BRPF1-associated neurodevelopmental disorders
	18	Moe El Mohamad	PDI	Developing CRISPR-Cas13 antiviral therapeutics for respiratory pathogens of pandemic potential
	19	Emily Anderson	Revvity	Robust Genomewide Application of Deactivated CRISPR-Cas9 Systems For Expression Regulation
	20	Joshua King	PMCC	Harnessing Cas13 to target Multiple Myeloma

Indigenous artwork by Merryn Apma Daley: @apmacreations

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We'd love to hear from you! Please fill out our post-conference survey:

Day Two: Friday 28th of February 2025

8:00	Registration		
9:00 - 10:25	**Molecular Oncology** (Chairs: Nicholas Clemons, Maggie Potts)		
9:00	Housekeeping		-
9:05	Susan Woods	CRISPR in action: engineering bowel cancer models and bacteria for tumour detection	SAHMRI
9:30	Christina Koenig	Using cutting edge CRISPR base editor technology to explore development of lymphoma	ONJCRI
9:45	Jasleen Rajpal	Uncovering the functions of alternative splicing in EMT using RNA-targeting CRISPR technology	Uni. of South Australia
10:00	Teresa Sadras	Using CRISPR technology to model complex chromosomal aberrations: a step towards better understanding leukemia pathobiology	ONJCRI
10:25	Morning Tea		
11:00 - 12:20	**Environmental Applications** (Chairs: Paula Cevaal, Christina Koenig)		
11:00	Karen Massel	Transforming crops with gene editing	Uni. of Queensland
11:25	Charles Robin	CRISPR-based strategies to combat invasive insects	Bio21
11:50 - 12:50	**Precision in Genome Engineering** (Chairs: Paula Cevaal, Christina Koenig)		
	Adam Chernick	IDT's Genotoxicity Services for Safer Cell Therapy Commercialization	IDT
Flash Talks	Aqsa Mazhar, Thomas Cole, Laura McCoullough, Ryan Lee, Maria Faleeva		
12:50	Lunch & Poster Session Two	Unlocking CRISPR: A 1-on-1 Expert Exchange with Adam Chernick (IDT) (By Appointment Only)	
14:00 - 15:20	**Emerging Technologies** (Chairs: Gavin Knott, Dane Vassiliadis)		*Sponsored by IDT*
14:00	Sandro Ataide	seekRNA: a new gene editing tool	Uni. of Sydney
14:25	Jakob Schuster	Analysing reads from high-throughput CRISPR screens with Matchbox	WEHI
14:40	Omer Gilan	Harnessing CRISPR screens to unravel the complexity of chromatin regulation	Monash
15:05	Cyntia Taveneau	De novo design of CRISPR-Cas13 inhibitors	Monash BDI
15:20	Afternoon Tea		
15:45 - 16:30	**Virology** (Chairs: Shivani Pasricha, David Ju)		
15:45	Priyank Rawat	Suppression of HIV transcription via LNP-delivered mRNA-encoded CRISPR-Cas13: a nov latency promoting agent	Peter Mac
16:00	Zak Janetzki	Editing of HBV DNA in vitro and in vivo using a CRISPR/Cas9 Base Editor approach	PDI
16:15	Michael Moso	CRISPR-activation for HIV latency reversal using lipid nanoparticle delivery	PDI
16:30	Break		
16:45 - 17:30	**Plenary talk** (Chair: Mohamed Fareh)		
	Chase Beisel	Exploring and harnessing the hidden diversity of CRISPR biology	HIRI (Germany)
17:30	Prizes		
17:45	Closing Reception		

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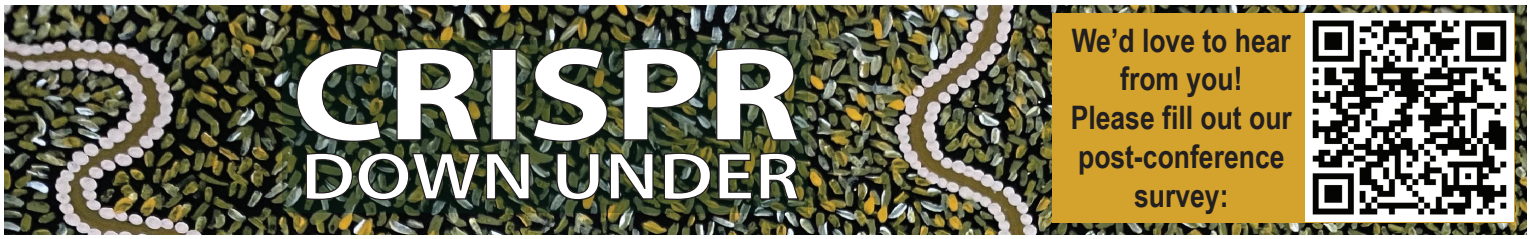

Poster Session Two

*	21	Aqsa Mazhar	Lowy Cancer Research Centre	Identification of the synthetic lethality for chemotherapy drugs to develop novel combination therapy for rhabdomyosarcoma through CRISPR technology
*	22	Thomas Cole	PMCC	CRISPR editing of adenosine receptor expression in CAR T cells to enhance therapy of solid tumours
*	23	Laura McCoullough	PDI	Targeting the hepatitis B RNAs using CRISPR-Cas13b to suppress hepatitis B virus replication and protein expression in vitro and in vivo
*	24	Ryan Lee	The University of Adelaide	Efficient CRISPR-Cas9 therapies for the correction of Duchenne MuscularDystrophy amendable to exon 45 targeting
*	25	Maria Faleeva	PMCC	Functional Mapping of PRC2 Mutations with Unbiased Base Editing
	26	Matthew O'Neill	PDI	Combating the rise in antimicrobial resistant Neisseria gonorrhoeae through the development of point-of-care CRISPR-based diagnostics
	27	Jeralyn Wen Hui Ching	WEHI	Dissecting gene regulatory mechanisms at the autoimmune risk locus CD83
	28	Felix Brown	WEHI	Identifying resistance factors to STING agonists in blood cancer
	29	Nathan Chai	Monash University	Developing new-to nature de-novo design CRISPR-Cas13 inhibitor
	30	Ksenija Nesic	WEHI	Generation of a PARPi-sensitive homozygous BRCA1-methylated OVCAR8 cell line using targeted CRISPR gene editing
	31	Ana Parra Nunez	The University of Melbourne	Manipulating sex ratios by targeting haplolethal gene wupA in Drosophila
	32	Eddie La Marca	WEHI	Identifying transcription factors regulating haematopoietic differentiation using CRISPR activation in vivo
	33	Lucas Newton	PMCC	Developing a pipeline for generating gene knockout and knock-in fluorophore fusion proteins using CRISPR-Cas9 to study T cell development in primary mouse thymocytes
	35	Emily Hann	CSIRO	Uncovering the design principles of CRISPR/Cas13d as an effective antiviral strategy
	36	Sarah Diepstraten	WEHI	Whole genome CRISPR/Cas9 screening to understand resistance to BH3-mimetic drugs in lymphoma
	37	Martin Pal	Charles Sturt University	Development of a diagnostic assay to detect Trichomonas tenax using CRISPR-Cas12a technology
	38	Tahmina Tabassum	University of Queensland	Novel CRISPR-Cas9 Fusion for Safer Gene Editing