

Combined Biological Sciences Meeting 2025

	Time	Session	Speaker	Title				
	8-8:40	Early Career Researcher Development Session (Seminar Room 4)	Assoc Prof Cecilia Prele Dr Scott Fisher Dr Genevieve Syn	Tips for navigating a life in science, from academia to governance to industry			Dr Sarah Rea Dr Vincent Kuek Dr Linda Wijaya	
	8-8:30	Registration and Breakfast (sponsored by Hurst sceintific)						
	8:45	Welcome	Dr Clayton Fragall & Dr Rina Wong	Opening address				
	9:00	Plenary (Theatre Auditorium)	Associate Professor Claus Christophersen "Dietary Interventions and Supplementation: Modulating the Gut Microbiome Led to an Innovative Health Solution"				Dr Rina Wong	
New Investigator Symposia	9:40	Health and Biomedical Sciences (Theatre Auditorium)	Roger Li Lakshini Herat Eric Alves Nicola Principe	The effect of TGF-beta1 and nintedanib on chromatin accessibility and transcriptome of idiopathic pulmonary fibrosis lung fibroblasts A Novel Mouse Model of MAFLD; Unravelling the role of Neural Pathways in Liver Disease. The Viral Houdini: Learning from HIV's Escape Tactics to Design Better Vaccines Chemotherapy enhances LAG-3 expressing progenitor exhausted CD8+ T cells which can be targeted by combination immune checkpoint blockade			Professor Sue Fletcher	
		Biological Sciences (Seminar Room 4)	Pelina Toprak Callum Verdonk Samalka Wijeweera Johannes Debler	Role of Bacterial Cell Surface and Polymeric Substances in Hydroxyapatite Biomineralisation Order from Disorder: a structurally disordered domain of PnPf2 is essential for regulation of virulence factors in a phytopathogenic fungus Autonomous plant growth monitoring system for Earth and beyond Discovery of a novel 24 kb circular element harbouring viral-like genes in global populations of Ascochyta pathogens of lentil and chickpea			Professor Peter Solomon	
	10:40	Morning Tea (sponsored by Murdoch University)						
	11:00	(Upper and Lower Colonnade)	Poster Session					
	11:30	Plenary (Theatre Auditorium)	Professor Peter Solomon "Are we closer to understanding the role of PR1 proteins in plant immunity?"				Johannes Debler	
	12:10	Lunch						
	1:00	(Upper and Lower Colonnade)	Poster Session					
Specialist Symposia	1:30	Invited Speakers	Diverse Inflammatory Pathways (Theatre Auditorium) Assoc Prof Juliana Hamzah	Cell and Developmental Biology (Seminar Room 4) Assoc Prof Yu-Suk Choi	Frontiers in Genetics (Seminar Room 2) Dr Rhonda Taylor	Biodiversity (Seminar Room 1) Dr Jane Chambers	OceanOmics (Formal Dining Room) Dr Philipp Bayer Marcelle Ayad	
	2:00	Student Speakers	Mackenzie Lighton Cate Ayres Zhuoxian Yan Lidia Biniam Medhin	Gabriel Rapanaro Beatriz da Silva Campos Callum Flanagan Charlotte Sofield	Dane Webster Sona Bassi Lyam Sbrana Linley Worth	Ben Heyward Anna Faber Viet-Cuong Han Tim Cusens	Jessica Pearce Dr Abinaya Meenakshisundaram Dr Sarah Kwong Dr Angus Lawrie	
	3:00	Afternoon Tea						
	3:30	Invited Speakers	Dr Jonathon Leffler Dr Shelley Waters	Assoc Prof Holly Chinnery Dr Kai Chen	Dr Nikolai Shirokikh Dr Christian Pflueger	Dr James Lloyd Dr Elizabeth Czislawski	Dr Joshua Newton Dr Haylea Power Dr Georgia Nester Dr Miwa Takahashi	
	4:30	Plenary (Theatre Auditorium)	Professor Sally Cripps "Algorithms & Ecosystems: AI for a Nature-Positive Future"				Dr Philipp Bayer	
	5:10	Scientific Awards	Dr Clayton Fragall & Dr Rina Wong	Scientific award ceremony and closing address				
	5:30 - 7:30	Sundowner						

Diverse Inflammatory Pathways

Theatre Auditorium

The Australian Inflammation Centres			
1:30	Invited Speaker	Assoc Professor Juliana Hamzah	Fibro-inflammation and vascular dysfunction at the intersection of cancer and cardiovascular disease
2:00	Student Speakers	Mackenzie Lighton	The Effects of Low-Dose Radiotherapy on Tumour-Associated Macrophage Polarisation in a Murine Mesothelioma Model
2:15		Cate Ayres	Exploring the effects of glucocorticoids on mitochondria in neuron and glial cells
2:30		Zhuoxian Yan	Understanding scar-associated macrophages and macrophage-fibroblast cross-talk in keloid formation
2:45		Lidia Biniam Medhin	Extracellular vesicle-derived RNA profiling predicts melanoma and lung cancer response to immunotherapy.
3:00	Afternoon Tea		
3:30	Invited Speaker	Dr Jonatan Leffler	Functional evaluation of rare plasmacytoid dendritic cells in children with asthma
4:00	Invited Speaker	Dr Shelly Waters	Viral Mimicry and Immune Modulation: The Role of CMV-Encoded Homologs in Inflammation

Cell and Developmental Biology Symposium

Seminar Room 4

Cell and Developmental Biology Symposium			
1:30	Invited Speaker	Assoc Prof Yu-Suk Choi	Adhesion-to-suspension transition and the role of tumour microenvironment during cancer metastasis
2:00	Student Speakers	Gabriel Rapanaro	Organoids as a platform for liver cancer drug discovery
2:15		Beatriz da Silva Campos	Enhancing RECELLA® autologous cell suspension with peptide amphiphiles to improve scarring outcomes
2:30		Callum Flanagan	Does cellular plasticity drive invasion in mesothelioma?
2:45		Charlotte Sofield	Digestion of Microplastics with Simulated Gastrointestinal Conditions Mitigates Uptake by Intestinal Epithelial Cells: Quantified by Imaging Flow Cytometry
3:00	Afternoon Tea		
3:30	Invited Speaker	Assoc Professor Holly Chinnery	Visualising immune cells in the living human cornea
4:00	Invited Speaker	Dr Kai Chen	Measuring bone metabolism in time and space

Frontiers in Genetics

Seminar Room 2

Frontiers in Genetics Symposium			
1:30	Invited Speaker	Dr Rhonda Taylor	Establishing a customisable treatment development pipeline for congenital muscle diseases
2:00	Student Speakers	Dane Webster	Let's get speckly! Examining paraspeckle formation in hypo-osmotic stress
2:15		Sona Bassi	Exploring the Role of Deubiquitinating Enzymes in Inhibitor Resistance of BRAF-Mutant Melanoma
2:30		Lyam Sbrana	Non-Coding RNAs Controlled by the Mesorhizobium Quorum Sensing System Bind an Array of mRNAs Throughout the Mesorhizobium japonicum R7A Genome
2:45		Linley Worth	Differentiation of IPS cells into fibroblasts to validate gene targets for Dupuytren's Contracture
3:00	Afternoon Tea		
3:30	Invited Speaker	Dr Nikolai Shirokikh	Enabling RNA multi-omics for clinical diagnostics and therapeutic design
4:00	Invited Speaker	Dr Christian Pflueger	SSSavi advise: Leveraging next-gen epigenetic editing technology to tune target gene expression

Biodiversity Symposium

Seminar Room 1

Biodiversity Symposium			
1:30	Invited Speaker	Dr Jane Chambers	The critical role of systems thinking and citizen science in biodiversity conservation
2:00 2:15 2:30 2:45	Student Speakers	Ben Heyward	eDNA biomonitoring for the Pilbara olive python - insights and challenges
		Anna Faber	Bacterial Superheroes in the Fight against Plastic Pollution?! PET-Degradation and Upcycling to PHB with the fast-growing, marine Bacterium Vibrio natriegens
		Viet-Cuong Han	Antagonistic microbiota drive soil suppressiveness against the widespread soil-borne fungal plant pathogen Sclerotinia sclerotiorum
		Tim Cusens	Epigenetic Regulation of Horizontal Gene Transfer in Mesorhizobium japonicum R7A
3:00	Afternoon Tea		
3:30	Invited Speaker	Dr James Lloyd	Re-writing Plant Genomes: Synthetic Gene Circuits for Climate-Resilient Agriculture
4:00	Invited Speaker	Dr Elizabeth Czislowski	Development of a next-generation fungicide in the wheat pathogen Parastagonospora nodorum

Mindaroo OceanOmics Symposium

Formal Dining Room

Mindaroo OceanOmics Symposium			
1:30	Invited Speakers	Dr Philipp Bayer	Some predictions about the next five years of eDNA
1:45		Marcelle Ayad	
2:00	New Investigators	Jessica Pearce	Environmental DNA assessment of marine vertebrates within a proposed marine park: Exmouth Gulf, Western Australia
2:15		Dr Abinaya Meenakshisundaram	Population genetics and species abundance with environmental DNA
2:30		Dr Sarah Kwong	An Epigenetic Clock for Age Estimation in the Pacific Crown-of-Thorns Seastar (Acanthaster cf. solaris)
2:45		Dr Angus Lawrie	Next generation environmental monitoring: an eDNA taxon-independent index for the biomonitoring of wetlands
3:00	Afternoon Tea		
3:30	New Investigators	Dr Joshua Newton	Mobile airborne eDNA reveals broad-scale biodiversity patterns across a global biodiversity hotspot
3:45		Dr Haylea Power	Single-Cell Sorting for Environmental Genomics in Marine Ecosystems
4:00		Dr Georgia Nester	Deep-Sea Biodiversity Patterns Across Australia's Indian Ocean Marine Parks Revealed by Environmental DNA
4:15		Dr Miwa Takahashi	How standardising eDNA data is creating accessible global biodiversity datasets