



Australian Government
Australian Research Council



MONASH
INSTITUTE OF
PHARMACEUTICAL
SCIENCES



MOLECULAR
HORIZONS



UNIVERSITY
OF WOLLONGONG
AUSTRALIA

OUR SPONSORS



OUR PARTNERS



For more information on the Centre, please follow the QR code or go to
www.ccemmp.org



ARC Centre for Cryo-electron Microscopy of Membrane Proteins Research Symposium 2025



THURSDAY-FRIDAY 13TH & 14TH NOVEMBER 2025

IN-PERSON ONLY, BIO21 INSTITUTE AUDITORIUM, PARKVILLE

PROGRAM | Thursday 13th November

Registration | 9:00 AM - 9:20 AM

Welcome note | 9:20 AM - 9:30 AM

Prof. Patrick Sexton, ARC CCEMMP Director

Opening keynote | 9:30 AM - 10:30 AM | Chair: Dr. Ashleigh Kropp

A/Prof. Alastair Stewart, Victor Chang Cardiac Research Institute

Snapshots of membrane transport: Sodium-dependent and proton-powered proteins

Morning tea & poster viewing | 10:30 AM - 11:00 AM

Morning session | 11:00 AM - 12:30 PM | Chair: Dr. Sepideh Valimehr

11:00 AM - 11:30 AM

Ania Beyger, Monash University

Structural and pharmacological characterisation of CXCR3 isoforms and their modulation by therapeutic antagonists

11:30 AM - 12:00 PM

Mahmuda Yeasmin, Monash University

Structural basis of positive allosteric modulator selectivity at the muscarinic acetylcholine receptor

12:00 PM - 12:30 PM

Dr. Carus Lau, Victor Chang Cardiac Research Institute

Probing early inactivation events in hERG using the scorpion toxin CnErg1

Lunch & poster viewing | 12:30 PM - 1:30 PM

Afternoon session 1 | 1:30 PM - 3:00 PM | Chair: Thomas Ficker

1:30 PM - 2:00 PM

Dr. Rhys Grinter, The University of Melbourne

Quinone-transporting filaments extend the respiratory chain of Gram-positive bacteria

2:00 PM - 2:30 PM

Dr Luca Troman, The University of Melbourne

The Pam Pilus – a novel pilus system within candidate phyla radiation bacteria

2:30 PM - 3:00 PM

Javaid Jabbar, The University of Melbourne

Lysine acetylation: A switch for OPA1-mediated membrane remodeling

Afternoon tea & poster viewing | 3:00 PM - 3:30 PM

Afternoon session 2 | 3:30 PM - 4:30 PM | Chair: Somavally Dalvi

3:30 PM - 4:00 PM

Dr. Joshua Hardy, WEHI

ProteinDJ: a high-performance and modular protein design pipeline

4:00 PM - 4:30 PM

Daniel Fox, The University of Melbourne

AI-designed protein inhibitors can block hemoglobin binding and inhibit growth of pathogenic E. coli

Social function & networking | 4:30 pm - 6:00 pm

PROGRAM | Friday 14th November

Morning session 1 | 9:30 AM - 10:30 AM | Chair: Jhonnatan Reales-Gonzalez

9:30 AM - 10:00 AM

Kenta Ishii, Monash University

Integrating structural and dynamic perspectives to understand a next-gen obesity drug

10:00 AM - 10:30 AM

Michaela Kaoullas, Monash University

Structural perspectives on activating the M4 muscarinic acetylcholine receptor

Morning tea & poster viewing | 10:30 AM - 11:00 AM

Morning session 2 | 11:00 AM - 12:30 PM | Chair: Dr.Naveen Vankadari

11:00 AM - 11:30 AM

Dr. Sakshi Khosa – Heinrich Heine University, Germany

Lock-and-key substrate recognition in the multidrug ABC transporter Pdr5 from Saccharomyces cerevisiae

11:30 AM - 12:00 PM

Dr. Fabian Munder, The University of Melbourne

A potent protein antibiotic kills Pseudomonas aeruginosa by inhibiting the BAM complex

12:00 PM - 12:30 PM

Dr. Sarah Mueller, Australian National University

The structural basis of nickel import in Proteus mirabilis

Lunch & poster viewing | 12:30 PM - 1:30 PM

Closing keynote | 1:30 PM - 2:30 PM | Chair: Dr. Brooke Hayes

Prof. Wai-Hong Tham, Australian National University/ Walter & Eliza Hall Institute of Medical Research

Blocking malaria parasite transmission: Insights from cryo-EM of an endogenous fertilization complex

Prizes & closing remarks | 2:30 PM - 2:45 PM | Prof. Patrick Sexton

CCeMMP Business Meeting (members only)| 2:45 PM onwards

Prizes

CCeMMP Poster Prize

Winner receives \$300 AUD and a 3D printed protein model of your choice.

Runner up receives \$100 AUD.

Most Popular Oral Presentation Prize (as voted by peers)

3D printed protein model of your choice and a 2D structure print of your choice.

View abstracts:

