



# ARC Industrial Transformation Training Centre for Cryo-electron Microscopy of Membrane Proteins

*Quarterly newsletter*

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*Image credit Lyn Deng*



Australian Government  
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MONASH  
University



MOLECULAR  
HORIZONS



UNIVERSITY  
OF WOLLONGONG  
AUSTRALIA



WEHI  
brighter together

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## From the Director

Prof. Patrick Sexton

This quarter has been a bumper one for the CCeMMP community, with several major conferences, awards, research achievements and professional development opportunities.

We saw strong representation from CCeMMP members at 12th Pharmacology of G Protein-Coupled Receptors & Molecular Pharmacology of GPCRs (MPGPCR) Joint Satellite Meeting and the 20<sup>th</sup> World Congress of Basic and Clinical Pharmacology (WCP), with many members sharing their latest research advances and supporting the successes of their peers. CCeMMP was also proud to support the MPGPCR conference and present the award for Postdoctoral Poster Prize.



CCeMMP Director,  
Prof. Patrick Sexton

The cold winter has certainly not slowed our members down! Following the announcement of the NHMRC Investigator Grant outcomes, we are delighted to celebrate eight CCeMMP members receiving grants—an excellent reflection of their research excellence, impact and contribution to their fields. We are also excited to congratulate two of our Centre students, Xiaomin Wang and Mayada Mazher, on publishing their first-author papers. Congratulations, Xiaomin and Mayada!

Two of our Centre students have also recently completed their industry placements and shared their reflections on the experience. We look forward to their insights and learning about the valuable skills and experiences they gained through these opportunities.

We have also received some amazing entries from across the wider community for our third Bench to Art Competition. We invite everyone to explore the entries and cast a vote for your favourite in our virtual gallery, open from 14–31 August during National Science Week 2026!

This quarter, we also released the EduWeek 2026 program, featuring a fantastic range of professional and technical workshops facilitated by CCeMMP members and external experts. As this will be our final EduWeek, we hope many of our members will take the opportunity to attend, connect and make the most of the program. We will continue to provide professional development opportunities for the community and strongly encourage members to share their feedback and suggestions about what they would like to see in the near future.

Finally, we are excited to announce that our final formal CCeMMP Research Symposium will be held on 2–3 December at Bio21 in Parkville, Melbourne. Our Organising Committee is working hard to put together an exciting program that showcases the breadth of research across our community. More details will be released in the coming weeks, so stay tuned!

Congratulations to everyone on your continued achievements, research successes and contributions to the CCeMMP community. We look forward to celebrating many more milestones together in the months ahead!

A handwritten signature in black ink that reads "Patrick Sexton". The signature is fluid and cursive.

Prof. Patrick Sexton  
Director





## Did you know?....

Researchers have mapped the position of individual amino acids in proteins using a conventional light microscope. The team used an improved version of a technique called expansion microscopy, which enlarges biological samples by carefully pulling them in every direction. The upgrade expands protein samples up to one billion times their original size — 1,000-fold larger in each dimension. The stretch pulls protein molecules apart to a point that they can be visualized without costly and complicated techniques such as cryogenic electron microscopy. “This is the democratization of structural biology,” says neuroscientist and study co-author Silvio Rizzoli.

*Nature 655, 13-14 (2026) doi: <https://doi.org/10.1038/d41586-026-01842-9>*

**On the cover:** From our ICHDR Xiaomin Wang, WEHI Node. Hot off the press (preprint), high resolution structure of Leucine-rich repeat containing 15 (LRRC15), EMD- 80945.  
<https://doi.org/10.64898/2026.06.16.732218>

Image credit Lyn Deng.

## ICHDR Updates

We are very excited for our ICHDRs to publish their first journal article as first author! Xiaomin Wang and Mayada Mazher share their reflections on this momentous milestone

### Xiaomin Wang reflection



“It feels unreal to think that my PhD is coming to an end. My first first-author paper, “Cryo-EM Structure of Human LRRC15 Reveals the Basis of Therapeutic Antibody Recognition”, represents one of the most memorable chapters of my PhD.

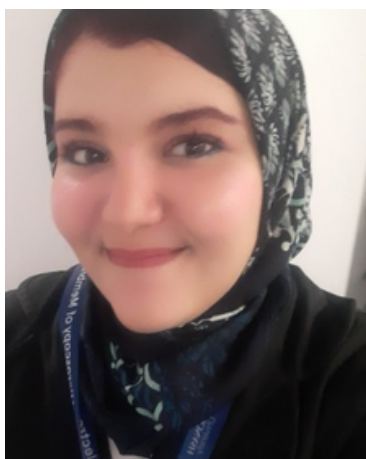
Although this work was built upon the past two years of learning, training, and persistence, the project progressed from proof-of-concept to preprint within about one and a half years. Through this journey, I have become particularly fascinated by the potential of structure-guided AI-generated minibinders and how emerging technologies may reshape the way we study and engineer proteins.

Looking forward, the unanswered questions raised by this work will continue to inspire my curiosity and drive further exploration in the next chapter of my scientific career.

A milestone achieved, but the hunger for discovery continues!”

bioRxiv: <https://doi.org/10.64898/2026.06.16.732218>

## Mayada Mazher reflection



“This year I published my first first-author paper from my PhD in the Journal of Visualized Experiments (JoVE), which was a very special milestone for me during the final stage of my PhD. The work grew out of one of the challenges I faced while studying TMEM120A: how can we reliably measure the interaction between a detergent-solubilised membrane protein and a potential modulator? Membrane proteins are notoriously difficult to work with outside their native lipid environment, so a lot of time was spent optimising the experimental conditions and making sure that the protein remained stable throughout the measurements. We eventually established a Bio-Layer Interferometry (BLI) workflow using the TMEM120A M207A mutant and the gating-modifier peptide GsMTx4 as our model system. This involved optimising everything from the LMNG detergent concentration and protein immobilisation to the association and dissociation conditions, alongside complementary experiments using mass photometry and differential scanning fluorimetry to assess the quality and stability of the protein.

What initially started as a way of answering a question within my own PhD project eventually developed into a reproducible method that could potentially be applied to other detergent-solubilised membrane proteins, which made publishing it as a JoVE methods paper particularly rewarding. I was very fortunate to share this work with my co-authors, Dr. Belinda Michell and my PhD supervisor, Professor Isabelle Rouiller. Belinda played an important role in helping me establish and optimise the biophysical approaches, particularly BLI, while Isabelle provided invaluable guidance throughout the development of the project and the preparation of the manuscript. Their expertise, feedback and support were instrumental in transforming a series of optimisation experiments into a coherent methodological study.

At the same time, the JoVE paper represents only one part of the much larger TMEM120A story that has developed during my PhD. I subsequently solved the cryo-EM structure of the TMEM120A M207A mutant to an overall resolution of 3.8 Å, and I am currently preparing first-author manuscripts bringing together the structural, biochemical and functional findings from my PhD research. Looking back, this experience taught me that experiments that begin as technical challenges can ultimately become valuable scientific contributions of their own. More importantly, it reinforced something that has become increasingly clear to me throughout my PhD: science is never a one-person endeavour. Every successful experiment and publication is built on collaboration, mentorship, troubleshooting and the generosity of people willing to share their expertise, and I am incredibly grateful to Belinda, Isabelle and everyone else who helped me reach this milestone”

J Vis Exp. 2026 May 8;(231). doi: 10.3791/69348.



## ICHDR Seminars



### Mayada Mazher

Our ICHDR Mayada Mazher presented her final talk “TMEM120A (TACAN) protein in Mechanical Pain: Linking Lipids, Biophysics and Ion Channel Modulation” on the 16<sup>th</sup> of July.

With the completion of her final presentation, ICHDR Mayada Mazher reflects on her PhD journey.

“As I prepare to submit my PhD thesis in mid-August, it feels both exciting and surreal to be approaching the end of this incredible journey. Delivering my PhD oration recently was a memorable milestone and an opportunity to reflect on how much I have grown throughout my candidature. Beyond the science, my PhD has taught me resilience, perseverance, curiosity, and the importance of embracing challenges as opportunities to learn.

I am deeply grateful to my supervisors, mentors, collaborators, and the entire CCeMMP community for their guidance, encouragement, and unwavering support. Their generosity in sharing their knowledge and expertise has shaped me not only as a researcher but also as a person.

As I prepare to begin the next chapter of my career, I feel incredibly thankful for the experiences, friendships, and opportunities that have made this journey so rewarding.”

## Upcoming Exit Seminars



**Ania Beyger**  
Monash ICHDR

21 August 2026 in person at MIPS and via Zoom.



**Xiaomin Wang**  
WEHI ICHDR

25 August 2026 in person at WEHI and via Zoom.



**Bhavika Rana**  
Monash ICHDR

November 2026 in person at Bio21 and via Zoom, exact details to be announced closer to date.

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We have our next ICHDRs exit seminars coming up. We encourage all Centre members and affiliates to attend and support our students as they present their important findings from their PhD candidature. A zoom link will be released closer to the date for members, please look out for this in your inbox! If outside of the Centre, please contact [ccemmp@monash.edu](mailto:ccemmp@monash.edu) if you would like the link.

## Industry placements

This quarter we welcome Inamur Rahman back from his industry placement with Thermo Fisher Scientific based at their Cambridge (UK) site. MariaKatarina Lambourne also completes her virtual placement with Thermo Fisher Scientific. They both share their experiences.

### MariaKatarina Lambourne



"My six-month, part-time remote placement with Thermo Fisher Scientific's Electron Microscopy Market Development Team gave me a completely new perspective on where a structural biology background can take you. I started on 27 January with little idea of what marketing or business development in scientific industry actually involved. By the end of the placement, I had discovered a side of the industry I had never seriously considered and gained a much broader appreciation of the career paths available beyond the lab.

My work focused on developing educational content and training resources to help address the barriers researchers face in adopting cryo-EM. From eBooks to short-form content for the Thermo Scientific electron microscopy Instagram page, I experienced the full content development process, from brainstorming ideas through to creating finished campaigns.

Along the way, I developed a much better understanding of how content strategy, scientific communication and digital marketing come together to support researchers and promote new technologies.

Beyond the marketing work itself, the placement also taught me how to collaborate effectively in a global, remote team. With most of my colleagues based in the US and UK, I quickly learned to be more deliberate about asynchronous communication and to adapt to feedback that didn't always happen in real time. It took some adjustment, but it gave me valuable insight into how international teams operate day to day and strengthened my communication and organisational skills.

The people I worked with were easily the highlight of the experience. A huge thank you to Leah Lavery and the entire Market Development Team, and especially to Leah, Elise Banks and Maya Matthis, for their patience, generosity and encouragement as I found my feet in an industry that was completely new to me. I'm also excited that this isn't quite goodbye, as I'll be continuing with the team as a paid intern as I complete my PhD.

To my fellow CCeMMP peers, I'd encourage you to stay open to where an industry placement can take you. Six months felt short on paper, but I packed so much into that time that it became one of the most rewarding experiences of my PhD so far. More importantly, it introduced me to a career path I hadn't previously considered and gave me a new perspective on how scientists can make an impact beyond the research bench."



## Inamur Rahman

“As part of my PhD at the CCeMMP, I recently completed a three-month industry placement at the Thermo Fisher Scientific Cambridge Consortium in the UK. This experience was incredibly rewarding, as it allowed me to step outside the academic environment and gain firsthand insight into how cutting-edge structural biology research is conducted in industry.

One of the most valuable aspects of the placement was my involvement in the complete cryo-electron microscopy (cryo-EM) workflow. I gained a deeper appreciation for how each stage contributes to producing reliable structural information, from sample vitrification and grid optimisation to microscope operation, data collection, image processing, three-dimensional reconstruction, atomic model building, and validation. I also learned that progress often requires patience and persistence, especially when troubleshooting challenging datasets and refining processing strategies.

In addition to the technical experience, I had the privilege of working alongside talented and supportive scientists (Dr Pablo Castro-Hartmann, Applications Manager, Thermo Fisher Scientific



Dr Sigurdur Thorkelsson, Sr. Application Scientist; Dr Scott Gardner, Sr. Application Scientist) who generously shared their expertise. Their collaborative approach and willingness to discuss ideas created an inspiring learning environment and strengthened my confidence as an independent researcher. In addition, I had the chance to attend the Biannual Pharma Consortium meeting, where leading experts from Academia and Industry shared the platform.

Living and working in Cambridge was also a memorable experience. Being surrounded by a vibrant scientific community broadened my perspective on research and reinforced my enthusiasm for structural biology. This placement not only enhanced my technical skills it improved my problem-solving, communication, and critical-thinking abilities. I am grateful to my supervisor (Prof. Isabelle Rouiller), the CCeMMP centre, Thermo Fisher Scientific, the Cambridge Consortium, and the University of Melbourne for this opportunity, which has been one of the most rewarding experiences of my PhD and will have a lasting impact on my future career.”





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## CCeMMP Mentoring Program update

In 2023, CCeMMP set up mentoring opportunities for our ICHDRs and assigned them both an academic and industry mentor. As the Centre students finish their PhD chapters, we have asked some students to reflect on some strong mentoring relationships they have built and the knowledge and advice they gained along the way.



### Vignesh Kamath

Dr. Alexey Rak has given me valuable insight into the biotechnology industry. Having worked in industry myself, our discussions helped me better understand how these industries operate across different countries and the difference in their work environments.

While I was exploring internship opportunities, he generously offered me the chance to work in his lab. He has guided me in preparing for industry interviews. We had many thoughtful discussions about my career aspirations, especially about the prospect of pursuing a career in academia vs returning to industry after my PhD. His advice was always centred around my interest and long-term goals.



Mentee + Alexey + Mentor



Alexey is an exceptionally kind and supportive mentor who genuinely looked out for my best interests. I am truly grateful for the opportunity to have been mentored by him, and I hope to stay in touch with him even after completing my PhD.

**Dr. Alexey Rak**



Mentor + Vignesh + Mentee

One of the core pillars of the Centre is build strong linkages with drug discovery and development industries to advance Australia's biotechnological capability. As our ICHDRs and postdocs are gradually finishing their projects and moving to their next big thing, the Outreach and Public Engagement Committee are looking to see where are they now?

This quarter we are proud to feature Dr. Jodie Brewster who is the Associate Director of Antibody Generation at Teva Pharmaceuticals.



# Catching up with...

## Jodi Brewster

**Associate Director of Antibody Generation  
at Teva Pharmaceuticals**



### Who am I?

I was a member of CCEMMP as a post-doc at UOW (2019-2023). I am currently an Associate Director of Antibody Generation, at Teva Pharmaceuticals (Sydney), working on the research and development of antibody therapeutics.

### Transition

I was motivated to transition to industry to be involved in research that translates to real improvements to patients' quality of life. I find this to be incredibly motivating and rewarding.

Scientific storytelling is the most valuable skill you can develop if you are thinking of making the transition to industry. Being able to clearly and concisely communicate complex scientific data, to people from different backgrounds, is a key aspect of my job.

### Present and future

Over the coming years, I see my role evolving to have increased integration of advanced AI-driven tools into structural biology workflows. Technologies for modelling, de novo structure prediction, and protein design will enable more predictive and efficient approaches to antibody and drug development. The challenge is finding the most effective balance between experimental and computational biology to accelerate drug discovery



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## Node Updates

### Monash University Node

*Prof. Denise Wootten, Node Leader, Monash University*

### Profs. Denise Wootten and Patrick Sexton appointed VC's Distinguished Professors

Prof. Denise Wootten and Prof. Patrick Sexton were appointed as prestigious Vice-Chancellor's Distinguished Professors of Monash University. This appointment is for senior academics that have international pre-eminence in research or education within their discipline.



### Prof. Arthur Christopoulos inducted as ASCEPT Fellow 2026

Prof. Arthur Christopoulos was inducted as a prestigious ASCEPT (Australasian Society of Clinical and Experimental Pharmacologists and Toxicologists) Fellow 2026 for his significant contributions and service to ASCEPT; and providing distinguished service to the advancement of pharmacology and toxicology research.

### A/Prof. Gregory Stewart appointed to Level D

A/Prof. Gregory Stewart received a Level D promotion on 15th of June. His research focuses on discovery biology for new targets in psychiatry and neurological disorders, which extends to both drug development assay and model development. This work has attracted significant industry, NHMRC, and MRFF funding - ultimately leading Greg to co-found the spin-out company, Phrenix Therapeutics, which has since secured venture funding to advance schizophrenia treatments into clinical trials.







### **Caitlin Owyong won People's Choice at the FPPS 3 minute Thesis Competition**

Caitlin Owyong entered the annual Monash Pharmacy and Pharmaceutical Science 3 minute Thesis competition with her talk "The Dopamine Receptor Wears Prada". She won the People's Choice Award (\$300, sponsored by the Faculty and Monash Graduate Association). The Three Minute Thesis (3MT) is a competition held annually at every Australian university where Graduate Research students have the opportunity to present their theses in 3 minutes.

### **Minakshi Baruah awarded Student Oral Prize at MPGPCR**

ICHDR Minakshi Baruah was awarded the Student Oral Presentation Prize on July 10<sup>th</sup> at the 12th Pharmacology of GPCRs & MPGPCR Joint Satellite Meeting for her talk "Structural Characterization of Vasopressin 1a Receptor".



### **Prof. Antoine van Oijen appointed Pro Vice-Chancellor (Research) at Monash University**

Prof. Antoine van Oijen was appointed Pro Vice-Chancellor (Research) at Monash University. He departs his role as Interim Pro Vice Chancellor at the University of Sydney and will commence his new position on Monday 10 August 2026. With a distinguished global reputation for visionary academic and research leadership, Prof. van Oijen will play a key role in leading the development and implementation of Monash University's research strategy.

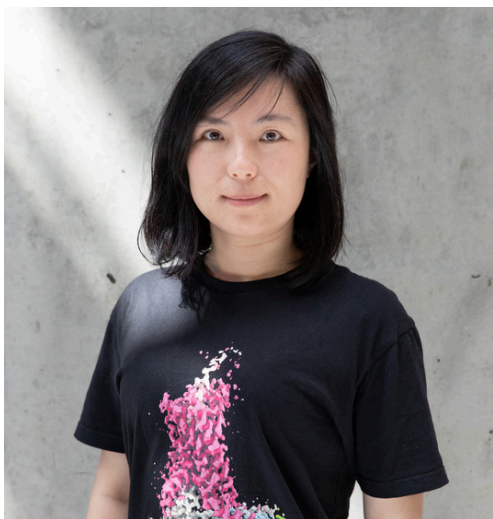


### **Dr. Natalie Diepenhorst and collaborators were awarded a CARI and NHMRC TCR into Early-Onset Cancer Grant**

Dr. Natalie Diepenhorst and her multidisciplinary collaborators were awarded a \$2,576,382 from the Cancer Australia Research Initiative (CARI) and NHMRC Targeted Call for Research (TCR) into Early-Onset Cancer for their project “Temporal Molecular Signatures as the Aetiological Drivers of the Increasing Incidence of Early-Onset Colorectal Cancer”. The project is lead by A/Prof. Daniel Buchanan, and will investigate explore novel risk factors linked to these temporal signatures through comprehensive multi-omic analyses and advanced spatial profiling of the tumour microenvironment.

### **Monash Node members awarded NHMRC Investigators Emerging Leadership Level 1 Grants**

Investigator Grants provide the highest-performing researchers at all career stages with funding for their salary and research.



Dr. Xin (Cindy) Zhang was awarded \$697,615 for her research “Emerging opportunities for obesity treatment: structure-based drug design of GLP-1R/GLP-2R co-agonists”.



Dr. Jia Jia Lim was awarded \$697,615 for her research “Targeting CD1a-restricted T cells for molecular intervention in skin autoimmunity”.



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## The University of Melbourne/Bio21 Node

*A/Prof. Isabelle Rouiller, Deputy Director and Node Leader, UoM*

### UoM members awarded NHMRC Investigators Grants

Investigator Grants provide the highest-performing researchers at all career stages with funding for their salary and research.



Dr. Bronte Johnstone was awarded \$697,615 for an Emerging Leader 1 Grant for her project “Uncovering mechanisms of HTLV-1 entry and intercellular spread through multiscale structural biology”.



Dr. Mai Vu was awarded \$697,615 for an Emerging Leader 1 Grant for her project “Next-Generation Nanotechnologies for Vaccines and Therapeutics, EL1”.



Dr. Rhys Grinter was awarded \$2,836,100 for an Investigators Leadership 1 Grant for his research “Harnessing AI to develop protein therapeutics targeting Leucine Rich Repeat G-protein coupled receptors”.



### **Dr. Naveen Vandakari was awarded the Judge's Choice Award**

Dr. Naveen Vandakari was awarded the Judge's Choice Award for Best Visuals in the Oral Presentation Category at the 2026 Early Career Research Summit, Faculty of Science, University of Melbourne.

### **Dr. Sepideh Valimehr received Research Infrastructure Investment Fund Collaborative Equipment Grant**

Dr. Sepideh Valimehr and collaborators received \$164,907 from the University of Melbourne Research Infrastructure Investment Fund Collaborative Equipment Grant 2026. This grant provides funding for new, replacement, repairment or upgrading research infrastructure that cannot be feasibly funded through National funding schemes.



### **Dr. Bronte Johnstone awarded MDHS travel grant**

Dr. Bronte Johnstone was awarded the Medicine Dentistry and Health Sciences Early Career A conference support grant to attend International School of Crystallography course on Integrative Structural Biology, \$3,700.



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## WEHI Node

*Prof. Isabelle Lucet, Node Leader, WEHI*

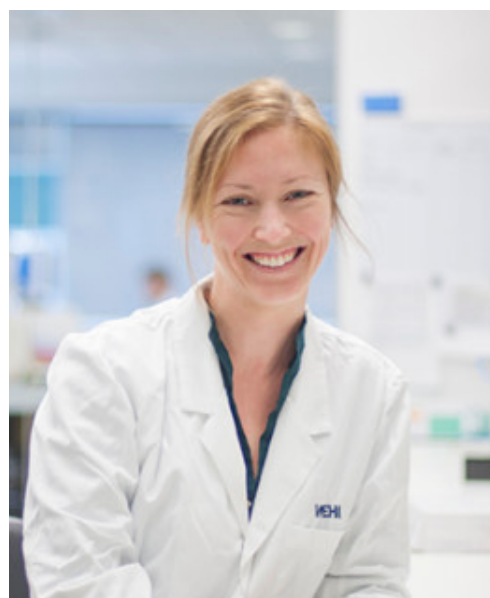


### **Dr. Wessel Burger awarded the ASCEPT Bellberry Limited New Investigator Award**

Dr. Wessel Burger was awarded the prestigious ASCEPT Bellberry Limited New Investigator Award (sponsored by Bellberry). It recognises and highlights the outstanding research contributions by early-career scientists in clinical and experimental pharmacology and toxicology.

### **Prof. Tracy Putoczki received \$1,992,230 for an NHMRC and CARI Grant for Early-Onset Cancer**

Prof. Tracy Putoczki and her collaborators received \$1,992,230 for an NHMRC and Cancer Australia Research Initiative Targeted Call for Research (TCR) into Early-Onset Cancer for the research project “Understanding the drivers of early onset pancreatic cancer in Australia”. Prof. Putoczki will lead the team to investigate how genetic and environmental factors may interact to drive early-onset pancreatic cancer.



### **Prof. Wai-Hong Tham awarded an NHMRC Leadership 3 Grant**

Prof. Wai-Hong Tham was awarded an NHMRC Leadership 3 for her research “Targeting malaria parasites to block transmission” \$3,035,320. NHMRC Leadership 3 are awarded to highly accomplished senior researchers with a track record of major leadership.

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## University of Wollongong Node

*A/Prof. Gökhan Tolun, Node Leader, WEHI*

### **Dr. Aidan Grosas and Prof. Megan O'Mara awarded a Molecular Horizons Strategic Grant**



Dr. Aidan Grosas and Prof. Megan O'Mara alongside collaborators were awarded a Molecular Horizons Strategic Grant (\$15,000 AUD) for the project "Defining polypsecific antibiotic recognition by the MexB efflux transporter".

## External Members and Affiliates Update

### **Affiliates awarded NHMRC Investigators Emerging Leadership 2 Grants**

Investigator Grants provide the highest-performing researchers at all career stages with funding for their salary and research.



Dr. Rosemary Cater was awarded \$1,636,800. for her research project "Structure-Guided Development of Choline Transporter Inhibitors for Glioma Treatment".



Dr. Matthew Doyle was awarded \$1,636,800 for his research "Development of multifunction antibiotics that target bacterial Omp85 surface proteins".

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## New members

The Centre continues to reach out to scientists, both within our existing Nodes and outside of the founding academic institutions, who are involved in cryo-EM and membrane protein research to provide opportunities for them to become members or affiliates of the Centre. If you are interested in becoming a member or affiliate, please reach out to us at [cce MMP@monash.edu](mailto:cce MMP@monash.edu).

**We welcome members and affiliates:** Dr. Sandra Gostynska (Monash), Joyce Hung (Monash), Lily Fraser (Olivia Newton-John Cancer Research Institute) and Yingshan Dong (Monash).

## Recent Centre Activities



12th Pharmacology of G Protein-Coupled Receptors & Molecular Pharmacology of GPCRs (MPGPCR) Joint Satellite Meeting of the 20<sup>th</sup> World Congress of Basic and Clinical Pharmacology (2026)

9-11 July 2026

The 12th iteration of the Molecular Pharmacology of G Protein-Coupled Receptors (GPCRs) meeting was held jointly with the 12<sup>th</sup> IUPHAR World Congress of Pharmacology satellite meeting: Pharmacology of GPCRs (formerly named Pharmacology of Adrenoceptors Symposium) on 9th-11th of July. At this joint satellite meeting, key presentations from leading international and national researchers showcased new molecular insights, the latest tools and technologies that are changing our understanding of GPCR function, and translation of basic research into the clinic.

CCeMMP sponsored the event and the Postdoctoral Poster Prize. Congratulations to the winner, Dr. Tiffany Myint!



## Upcoming Events



Our seminar series continues on the second Tuesday of the month, 10:00 AM - 11:00 AM (AEST/AEDT). This coming quarter we start our 2026 seminar series with:

- **Dr. Melanie Dietrich**, The Walter and Eliza Hall Institute, AU, 25<sup>th</sup> August 2026
- **Professor John Rubinstein**, The Hospital for Sick Children, Canada, 9<sup>th</sup> June 2026
- **Dr. Joshua Lees**, Pfizer, USA, 8<sup>th</sup> September 2026
- Special Seminar: **Associate Professor Thomas Sharp**, University of Bristol, UK, 4:00-5:00pm, 20<sup>th</sup> October 2026

Miss a seminar? Most are recorded so you can access them from our website (<https://ccemmp.org/events/ccemmp-seminar-series/>) or our youtube channel.

## CCeMMP Bench to Art Exhibition 2026 opens!



Our third annual Bench to Art Exhibition is underway! The aim of the exhibition is to provide a creative platform for researchers to show off their artistic flair in a virtual exhibition. The Centre received amazing and creative submissions from the scientific community and will display them during 14<sup>th</sup> to 31<sup>st</sup> of August (coinciding with National Science Week 2026). Our judging panel will be reviewing all the creative art and announcing the winners of the prizes in September.

Make sure that you head over to the [CCeMMP website](https://ccemmp.org) to access the virtual gallery and to vote for your favourite still image and animation! Voting for the Most Popular Prize closes on the 31<sup>st</sup> August!

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## CCeMMP EduWeek opens!

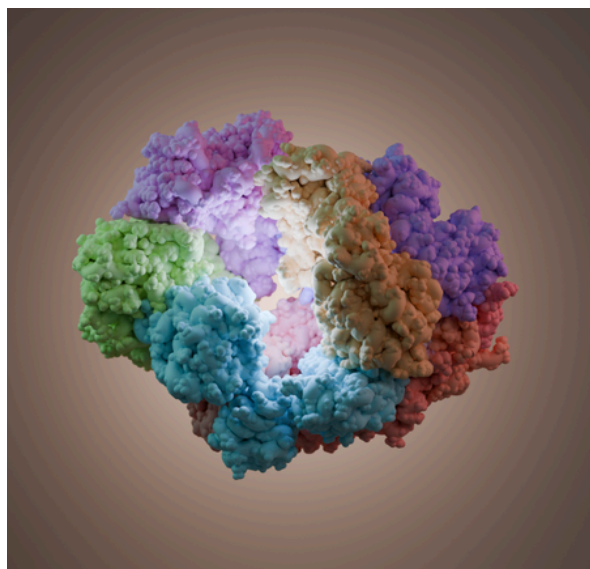
The CCeMMP annually organise a series of professional development activities to foster the development of soft and technical skills in our students and researchers. This year, CCeMMP EduWeek 2026 will be held in the week of September 14th to 18th. Activities will all be held in-person across the MIPS and Bio21 campuses in Parkville with some hybrid sessions available.

- Creating Cultures of Belonging: Inclusive Language and Practices
- Advanced Blender Workshop
- Communications in Grant Writing
- Write That Journal Article in Seven Days using AI
- Using ProteinDJ to design de novo protein binders
- Vibe Coding: Let's learn how to 'vibe' code a piece of software from scratch

These activities are only open to Centre members and affiliates, unless otherwise specified. All spots are limited and require registration to attend.

We invite members and affiliates to register via the [CCeMMP website](#).

## CCeMMP Research Symposium 2026



The Centre's annual and final research symposium will be held on the 2<sup>nd</sup> and 3<sup>rd</sup> of December at The Bio21 Institute in Parkville, Melbourne. The symposium provides an exciting opportunity to showcase cutting-edge research and technological advances in the field of cryo-electron microscopy and membrane proteins. The CCeMMP Symposium brings together researchers, students, and industry professionals working in structural biology, cryo-electron microscopy, protein science, molecular medicine, and related disciplines.

We encourage Centre members and affiliates alongside the broader scientific community to participate and support the symposium when abstracts and registrations open.

Keep an eye out on the [CCeMMP website](#) and your inbox for future updates.

## Outreach

### In the Media

- **Xiaomin Wang** - <https://www.linkedin.com/feed/update/urn:li:activity:7486921602194939904/>
- **A/Prof. Debnath Ghosal** - <https://firstnationsnews.com.au/words-do-matter-honouring-malgana-language-in-naming-of-new-species/>
- **A/Prof. Debnath Ghosal** - <https://www.doherty.edu.au/articles/spotlight-on-therapeutics-how-cryo-electron-microscopy-is-revolutionising-our-understanding-of-pathogens-and-their-infection-mechanisms/>
- **Prof. Arthur Christopoulos and Dr. Wessel Burger** - <https://www.ascept.org/ascept-award-winners-2026/>
- **Prof. Arthur Christopoulos** - <https://www.ascept.org/celebrating-excellence-meeting-the-fellows-2026/>
- **Dr. Xin Zhang and Dr. Jia Jia Lim** - [https://www.monash.edu/news/articles/monash-awarded-\\$50.5-million-for-medical-research-through-nhmrc-investigator-grants](https://www.monash.edu/news/articles/monash-awarded-$50.5-million-for-medical-research-through-nhmrc-investigator-grants)
- **Dr. Xin Zhang and Dr. Jia Jia Lim** - <https://www.miragenews.com/monash-secures-50-5m-nhmrc-medical-research-1718249/>
- **Dr. Rhys Grinter** - [https://www.monash.edu/medicine/news/latest/2026-articles/mnhs-researchers-awarded-over-\\$49-million-in-nhmrc-investigator-grants-2026](https://www.monash.edu/medicine/news/latest/2026-articles/mnhs-researchers-awarded-over-$49-million-in-nhmrc-investigator-grants-2026)
- **Prof. Antoine van Oijen** - <https://www.uow.edu.au/media/2026/scientists-watch-molecule-by-molecule-as-cell-helpers-rescue-problem-proteins.php>
- **Prof. Denise Wootten and Prof. Patrick Sexton** - <https://www.monash.edu/law/research/centres/castancentre/public-events/news/2026/inaugural-cohort-of-vice-chancellors-distinguished-professors>

### Social Media

The Outreach and Public Engagement Committee are active on our socials and promoting the Centre and our member/affiliates activities.

If you are on these platforms, remember to follow us!



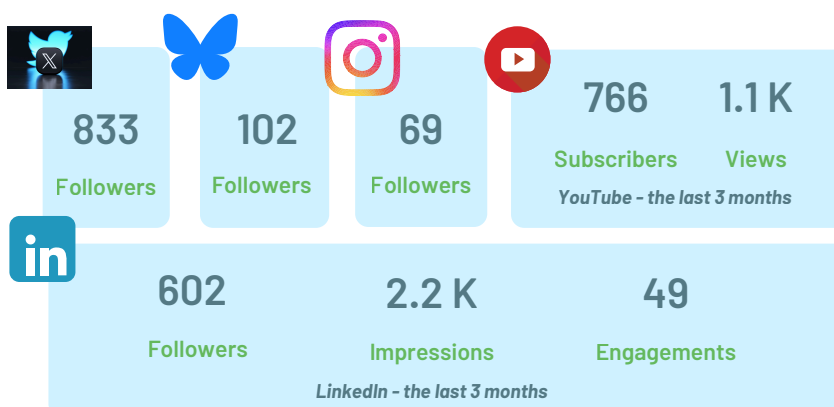
Bluesky – @ccemmp-outreach.bsky.social



Instagram - ccemmp\_outreach



ARC Centre for Cryo-electron Microscopy of Membrane Proteins





## Other training

- A/Prof. David Thal, Prof. Denise Wootten and Dr. Tracy Josephs were panel members/experts on the Her Research Matters NHMRC Investigators Grant Drop-in Session on the 26<sup>th</sup> of June 2026.
- A/Prof. Karen Gregory attended the session HDR & ECR Budgeting Basics - Workshop Facilitator, Monash Institute of Pharmaceutical Sciences on the 25<sup>th</sup> of June 2026.

## CCeMMP Blender Workshop

On the 16<sup>th</sup> of June, CCeMMP Outreach Committee held a hybrid CCeMMP Blender Workshop for our CCeMMP community. It was a great session and the team hoped that the participants got a lot out of the workshop.



Dr. Nadia Aleksandrova's blender artwork from the session.

## Industry Engagement

Prof. Patrick Sexton and Prof. Denise Wootten - Collaboration meetings with Novo Nordisk, Boston, USA, June 2026

Members and student members continue to have their regular meetings with their respective industry partners (Servier). ICHDRs continue to meet with their industry mentors.

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## Conference Presentations

### International Meetings

**Dr. Celine Valant** - Quantification of Allostery and Biased Signalling. Oral presentation. World Congress of Pharmacology, 12 July 2026, Melbourne.

**Dr. Celine Valant** - Blueprint for rational design of biased agonists at GPCRs. Oral presentation. World Congress of Pharmacology, 14 July 2026, Melbourne.

**Dr. Elva Zhao** - Splice-Driven Signalling Diversity in PAC1 Receptor Isoforms. Oral presentation. World Congress of Pharmacology, 14 July 2026, Melbourne.

**Dr. Felix Bennetts** - Structure-Function Guided Development of P2X1 Receptor Small Molecule Antagonists for Use as a Non-Hormonal Male Contraceptive. Oral presentation. World Congress of Pharmacology, 17 July 2026, Melbourne.

**A/Prof. Gregory Stewart** - Overcoming translational hurdles for treating Cognitive Impairments Associated with Schizophrenia. Oral presentation. World Congress of Pharmacology, 15 July 2026, Melbourne.

**Dr. Michaela Kaoullas** - Data analysis of ligand bias and allostery at GPCRs. Oral presentation. World Congress of Pharmacology, 13 July 2026, Melbourne.

**Dr. Michaela Kaoullas** - Structural and pharmacological characterisation of novel bitopic ligands at the M4 mAChR. Oral presentation. World Congress of Pharmacology, 14 July 2026, Melbourne.

**Monica Suehiro** - Identifying novel ALS drug targets by unravelling the TDP-43 mitochondrial import pathway. Oral presentation. World Congress of Pharmacology, 16 July 2026, Melbourne.

**Dr. Tracy Josephs** - Dynamic Modulation of Amylin Receptor Subtypes by RAMPs Revealed through HDX-MS. Oral presentation. World Congress of Pharmacology, 17 July 2026, Melbourne.

**Dr. Rhys Grinter** - Applying Artificial Intelligence to develop high-affinity antagonists of the relaxin receptor, RXFP1. Oral presentation. World Congress of Pharmacology, 16 July 2026, Melbourne.

**Dr. Rosemary Cater** - Structural and Molecular Basis of Choline Uptake into the Brain by FLVCR2. Oral presentation. The Protein Society Annual Meeting, 23 July 2026, Boston.

**Dr. Rosemary Cater** - Structural and Molecular Basis of Choline Uptake into the Brain by FLVCR2. Oral presentation. World Congress of Pharmacology, 16 July 2026, Melbourne.

**Dr. Joshua Hardy** - ProteinDJ: a high-performance and modular protein binder design pipeline. Oral presentation. cryoDuck Tokyo Days 2026, 11-13 May 2026, Japan.

**Dr. Wessel Burger** - Unusual G Protein Coupling by Frizzled G Protein-Coupled Receptors. ASCEPT Bellberry New Investigator Award Oral Presentations. World Congress of Pharmacology, 14 July 2026, Melbourne.

**Ania Beyger** - Decoding biased signalling and inhibition at CXCR3 isoforms. Poster presentation. World Congress of Pharmacology, 14 July 2026, Melbourne.

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**Dr. Celine Valant** - Single target-dual therapy at M4 muscarinic receptors for the treatment of schizophrenia. Poster presentation. World Congress of Pharmacology, 15 July 2026, Melbourne.

**Dr. Dilanka Fernando** – Pharmacogenetic Insights into Encalceret Dosing for Autosomal Dominant Hypocalcemia Type 1. Poster presentation. World Congress of Pharmacology, 17 July 2026, Melbourne.

**Kos et al. (with A/Prof. Karen Gregory)** - Metabotropic glutamate receptor 5 negative allosteric modulators display sex-dependent properties. Poster presentation. World Congress of Pharmacology, July 2026, Melbourne.

**Hellyer et al. (with A/Prof. Karen Gregory)** - Optimising a recombinant expression system for functional testing of TAAR1. Poster presentation. World Congress of Pharmacology, July 2026, Melbourne.

**Kenta Ishii** - Structure Meets Dynamics: Molecular Basis of Retatrutide Tri-Agonism. Poster presentation. World Congress of Pharmacology, July 2026, Melbourne.

**Dr. Laura Humphrys** - Population-based assessment of compartmentalised intracellular cAMP signalling mediated by incretin receptors. Poster presentation. World Congress of Pharmacology, July 2026, Melbourne.

**Dr. Wessel Burger** - Structural Basis of CS585 mediated platelet activation via the Prostacyclin receptor. Poster presentation. World Congress of Pharmacology, July 2026, Melbourne.

**Dr. Natalie Diepenhorst** - GPCR drug discovery using DNA encoded libraries: Identification of novel GPR88 ligands. Poster presentation. World Congress of Pharmacology, July 2026, Melbourne.

**Dr. Bronte Johnstone** - Furthering understanding of viral membrane fusion by single-particle cryo-EM and cryo-ET using an in vitro reconstitution workflow. Poster presentation. International School of Crystallography 2026, Italy.

**Xiaomin Wang** - Structural and Functional Characterisation of LRRC15 Recognition by Therapeutic Monoclonal Antibody and Engineered Minibinders. Poster presentation. 50<sup>th</sup> Federation of European Biochemical Societies (FEBS) 2026 Congress, 4-8 July 2026, Netherlands.

**Dr. Xin Zhang** - One receptor, multiple fates: structural and dynamic drivers of biased agonism at the glucagon receptor. Oral presentation. 12th Pharmacology of GPCRs & MPGPCR Joint Satellite Meeting, 9 July 2026, Melbourne.

**Dr. David Thal** - Structural determinants of subtype-selective pharmacology at muscarinic acetylcholine receptors. Oral presentation. 12th Pharmacology of GPCRs & MPGPCR Joint Satellite Meeting, 11 July 2026, Melbourne.

**Dr. Jesse Mobbs** - Structure-guided allosteric modulation of the delta opioid receptor. Short talk. 12th Pharmacology of GPCRs & MPGPCR Joint Satellite Meeting, 9 July 2026, Melbourne.

**Minakshi Baruah** - Structural Characterization of Vasopressin 1a Receptor. Oral presentation. 12th Pharmacology of GPCRs & MPGPCR Joint Satellite Meeting, 10 July 2026, Melbourne.



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**Dr. Rhys Grinter** - Transcending the Membrane: Long-Range Quinone Transport Couples Diverse Metalloenzymes to Microbial Respiratory Chains. Symposium Speaker. The Australian Society for Microbiology Annual National Meeting (ASM), 16 July 2026, Sydney.

**Yiling Yu** - Targeting the  $\alpha 1A$ -adrenoreceptor with nanobodies: from discovery to structural mechanism. Selected talk. 12th Pharmacology of GPCRs & MPGPCR Joint Satellite Meeting, 10 July 2026, Melbourne.

**Alice (Jeeun) Shin** - Towards structural and biochemical characterisation of Class B1 GPCR and RAMPs. Poster presentation. 12th Pharmacology of GPCRs & MPGPCR Joint Satellite Meeting, July 2026, Melbourne.

**Ania Beyger** - The structural and pharmacological characterization of CXCR3 isoforms. Poster presentation. 12th Pharmacology of GPCRs & MPGPCR Joint Satellite Meeting, July 2026, Melbourne.

**Caitlin Owyong** - Allosteric Modulators at the Dopamine 2 Receptor (D2R). Poster presentation. 12th Pharmacology of GPCRs & MPGPCR Joint Satellite Meeting, July 2026, Melbourne.

**Dr. Brian Cary** - Engagement of a class B1 GPCR with  $\beta$ -arrestin-2. Poster presentation. 12th Pharmacology of GPCRs & MPGPCR Joint Satellite Meeting, July 2026, Melbourne.

**Dr. Elita Yuliantie** - Investigating RAMPs effects on Class B1 function. Poster presentation. 12th Pharmacology of GPCRs & MPGPCR Joint Satellite Meeting, July 2026, Melbourne.

**Dr. Fabian Bumbak** - A dynamic view of the ground truth. Poster presentation. 12th Pharmacology of GPCRs & MPGPCR Joint Satellite Meeting, July 2026, Melbourne.

**Dr. Felix Bennetts** - Structure-Function Guided Development of P2X1 Receptor Small Molecule Antagonists for Use as a Non-Hormonal Male Contraceptive. Poster presentation. 12th Pharmacology of GPCRs & MPGPCR Joint Satellite Meeting, July 2026, Melbourne.

**Dr. Jesse Mobbs** - Structure-guided allosteric modulation of the delta opioid receptor. Poster presentation. 12th Pharmacology of GPCRs & MPGPCR Joint Satellite Meeting, July 2026, Melbourne.

**Jiayin Zhang** - Structural basis of bitopic ligands at the M1 muscarinic acetylcholine receptor. Poster presentation. 12th Pharmacology of GPCRs & MPGPCR Joint Satellite Meeting, July 2026, Melbourne.

**Hellyer et al. (with A/Prof. Karen Gregory)** - Targeting Endosomal Metabotropic Glutamate Receptor 5 Signalling For The Treatment Of Pain. Poster presentation. 12th Pharmacology of GPCRs & MPGPCR Joint Satellite Meeting, July 2026, Melbourne.

**Dr. Laura Humphrys** - Population-based assessment of compartmentalised intracellular signalling mediated by incretin receptors. Poster presentation. 12th Pharmacology of GPCRs & MPGPCR Joint Satellite Meeting, July 2026, Melbourne.

**Mahmuda Yeasmin** - Structural basis of positive allosteric modulator selectivity at the muscarinic acetylcholine receptors. Poster presentation. 12th Pharmacology of GPCRs & MPGPCR Joint Satellite Meeting, July 2026, Melbourne.

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**Michaela Kaoullas** - Structural and pharmacological characterisation of novel bitopic ligands at the M4 muscarinic acetylcholine receptor. Poster presentation. 12th Pharmacology of GPCRs & MPGPCR Joint Satellite Meeting, July 2026, Melbourne.

**Minakshi Baruah** - Structural Characterization of Vasopressin 1a Receptor. Poster presentation. 12th Pharmacology of GPCRs & MPGPCR Joint Satellite Meeting, July 2026, Melbourne.

**McNeil et al. (with Prof. Patrick Sexton and Prof. Denise Wootten)** - Insights into the Regulatory Control of  $\beta$ -arrestin Conformations at the GLP-1R. 12th Pharmacology of GPCRs & MPGPCR Joint Satellite Meeting, July 2026, Melbourne.

**Myint et al. (with Prof. Patrick Sexton, Prof. Denise Wootten, Dr. Jason Cao and Dr. Phuc Trinh)** - Kinetic Characterization of Class B1 GPCR-Ligand Interactions using Grating-Coupled Interferometry (GCI). Poster presentation. 12th Pharmacology of GPCRs & MPGPCR Joint Satellite Meeting, July 2026, Melbourne.

**Dr. Phuc Trinh** - Probe conformational dynamics at the extracellular and intracellular interfaces of Class B1 GPCRs. Poster presentation. 12th Pharmacology of GPCRs & MPGPCR Joint Satellite Meeting, July 2026, Melbourne.

**Dr. Sarah Piper** - Splice up your life – Structure and function of PAC1 receptor splice variants. Poster presentation. 12th Pharmacology of GPCRs & MPGPCR Joint Satellite Meeting, July 2026, Melbourne.

**Dr. Sandra Gostynska** - Amylin receptor subunit interactions are modulated by agonists and determine signalling. Poster presentation. 12th Pharmacology of GPCRs & MPGPCR Joint Satellite Meeting, July 2026, Melbourne.

**Janik Clement** - A complete RXFP1–relaxin interaction model unlocks the design of potent mini-protein modulators. Poster presentation. 12th Pharmacology of GPCRs & MPGPCR Joint Satellite Meeting, July 2026, Melbourne.

**Mayada Mazher** - Structural and Functional insights on TMEM120A membrane protein. Poster presentation. 12th Pharmacology of GPCRs & MPGPCR Joint Satellite Meeting, July 2026, Melbourne.

**Yiling Yu** - Targeting the  $\alpha$ 1A-adrenoreceptor with nanobodies: from discovery to structural mechanism. Poster presentation. 12th Pharmacology of GPCRs & MPGPCR Joint Satellite Meeting, July 2026, Melbourne.

**Susovan Das** - Structural and Functional Characterisation of Antibody-Mediated Therapeutic Targeting of Frizzled-7 Receptor. Poster presentation. 12th Pharmacology of GPCRs & MPGPCR Joint Satellite Meeting, July 2026, Melbourne.

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## National Meetings

**Monica Suehiro** - Unravelling TDP-43 mitochondrial import mechanisms. Oral presentation. Sydney TDP-43 Symposium, 27 July 2026, Sydney.

**A/Prof. Debnath Ghosal** - Cryo-electron tomography of enveloped phage infection cycle reveals signatures of mammalian viral replication pathways. Symposium Speaker. The Australian Society for Microbiology Annual National Meeting (ASM), 16 July 2026, Sydney.

**Doulin Shepherd** - Investigating the molecular basis of effector delivery through the bacterial Type IV Secretion System. Abstract Speaker. The Australian Society for Microbiology Annual National Meeting (ASM), 18 July 2026, Sydney.

## Local Meetings

**Dr. Brian Cary** - Engagement of a class B1 GPCR with  $\beta$ -arrestin-2. Oral presentation. Drug Discovery Biology (DDB) Symposium, 11 June 2026, Melbourne.

**Dr. Felix Bennetts** - Decoding the role of Zinc in the Kir2.1 channel. Oral presentation. Drug Discovery Biology (DDB) Symposium, 11 June 2026, Melbourne.

**Dr. Tracy Josephs** - Motor neuron disease. Oral Presentation. Drug Discovery Biology (DDB) Symposium, 11 June 2026, Melbourne.

**Anastasia Chen** - A cryo-EM structure to unravel the unexpected promiscuity of cytokines. Oral presentation. University of Melbourne Graduate Research Conference, 1 June 2026, Melbourne.

**Dr. Naveen Vankadari** - Human genetic factors and serine proteases regulate coronavirus infection, insights new drug discovery. Oral presentation. Early Career Research Summit 2026 (Faculty of Science, The University of Melbourne), 4 June 2026, Melbourne.

**Vignesh Kamath** - Understanding the signalling dynamics of IL-6 family cytokines utilizing LIF-receptor for signalling. Oral presentation. Department of Biochemistry and Pharmacology (DBP) Graduate Research Conference, 2 June 2026, Melbourne.

**Bhavika Rana** - Structural and Pharmacological Basis of Allosteric Modulation at the M5 Muscarinic Acetylcholine Receptor. Poster presentation. Melbourne Student Symposium 2026, Melbourne.



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## Academic Presentations

### International

**Prof. Arthur Christopoulos** - Meet the expert. Workshop Panel Member. World Congress of Pharmacology, July 2026, Melbourne.

**Prof. Chris Langmead** - Biotech showcase. Panel Member. World Congress of Pharmacology, 13 July 2026, Melbourne.

**Dr. Wessel Burger** - Unusual G Protein Coupling by Frizzled G Protein-Coupled Receptors. Workshop presenter. World Congress of Pharmacology, 13 July 2026, Melbourne.

### National

**A/Prof. Debnath Ghosal** - Sydney Anti-Bacterial Accelerator (SABA) BacChats Seminar Series, 4 July 2026, Sydney.

**Mayada Mazher** - TMEM120A (TACAN) protein in Mechanical Pain: Linking Lipids, Biophysics and Ion Channel Modulation. Exit Seminar, 16 July 2026, Melbourne and Online.

**Dr. Joshua Hardy** - ProteinDJ: a high-performance and modular protein binder design pipeline. UQ Institute of Molecular Bioscience Seminar Series, 7 May 2026, Online.

## Publications

### New Publications

**Mazher M, Michell B, Rouiller I.** Biolayer Interferometry for Investigating Membrane Protein-Inhibitor Binding: TACAN Mutant and GsMTx4 As a Model System. *Journal of Visualized Experiments*, 8 May 2026.  
doi: 10.3791/69348

**Wang XM, Perera M, Sana M, Wang CX, Ang C-S, Venugopal H, Pymm P, Tham W-H, Babon JJ, Leis A, Grinter R, Shakeel S.** Cryo-EM structure of human LRRC15 reveals the basis of therapeutic antibody recognition. *bioRxiv*, Preprint 18 June 2026.  
<https://doi.org/10.64898/2026.06.16.732218>

**Nettleton TJ, Fairweather C, Piper SJ, Ishii K, Garama DJ, Sexton PM, Josephs TM, Wootten D.** Dynamics of the PAC1 receptor in apo, peptide agonist-bound, and G protein complexed states. *Structure*, 7 May 2026.  
<https://doi.org/10.1016/j.str.2026.01.017>

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Kim TW, Gerrard EJ, Shin J, Gardella TJ, **Wootten D**, **Sexton PM**, **Cary BP**, Gellman SH. Altered Intracellular Trafficking as a Mechanism for Prolonged Duration of G Protein-Coupled Receptor Activation. *Journal of the American Chemical Society*, 20 May 2026.  
<https://doi.org/10.1021/jacs.6c02192>

Dehkhoda F, Chhabra Y, Whelan F, Nowell CJ, Morris MJ, **Furness SGB**, Brooks AJ. Transmembrane orientation and extracellular juxtamembrane residues of GP130 are critical for signal transduction. *Journal of immunology*, 18 June 2026.  
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<https://doi.org/10.1073/pnas.2606389123>

Braun A, **Mobbs JI**, Chung S, Tuomisto JE, Li C, Scull KE, Ayala R, Anand S, Ramarathinam S, Kern JS, Fourie A, McKinnon M, Manthey C, Baker DG, Rao N, Mifsud NA, Illing PT, Vivian JP, Rossjohn, J, Purcell AW. A transgenic mouse allows characterization of the HLA-C\*06:02 immunopeptidome in a model of psoriasis. *Journal of Investigative Dermatology*, July 2026.  
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Jaitly I, Parkins H, Stokoe O, Clink OA, Barnes NW, Capomolla SS, Stavrou MR, **Valant C**, Smith NJ, Hunter L. Investigating the effect of stereospecific fluorination on the potency and selectivity of the tricyclic antidepressant, imipramine. *Journal of Fluorine Chemistry*, 2 July 2026.  
<https://doi.org/10.1016/j.jfluchem.2026.110594>

Nguyen HTM, Khajehali E, Pham V, Scott JW, Dite TA, Dagley LF, Murphy JM, Thompson G, Tobin AB, **Thal DM**, **Christopoulos A**, van der Westhuizen ET, **Valant C**. Low Agonism and Balanced Pathway Modulation Distinguish an M1 Muscarinic Receptor Positive Allosteric Modulator Lacking Cholinergic Adverse Effects. *ACS Chemical Neuroscience*, 30 June 2026.  
<https://doi.org/10.1021/acschemneuro.6c00229>

Nguyen HTM, Gerrard E, Strachan R, Klein U, **Sexton PM**, **Wootten D**. In vitro pharmacological profile of the TSH receptor-stimulating autoantibodies, M22 and K1-18. *Biochemical Pharmacology*, 30 May 2026.  
DOI: 10.1016/j.bcp.2026.118113

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<https://doi.org/10.64898/2026.06.04.730037>

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<https://doi.org/10.1038/s41467-026-74995-w>

**Troman L**, Kim J, Rose JJA, **Johnson M**, Banfield JF, Petrovski S, **Ghosal D**. A Novel Pilus System in Candidate Phyla Radiation Bacteria. Preprint, *bioRxiv*, 11 June 2026.  
<https://doi.org/10.64898/2026.03.03.709456>

Newton-Vesty MC, Hall KR, Tillett ZD, Turk LS, Davies JS, Currie MJ, **Brown HG, Valimehr S**, Mace PD, Whitten AE, Panjekar S, **Hanssen E**, North RA and **Dobson RCJ**. Structural studies and functional engineering of NanX: an anhydro-sialic acid transporter from *Escherichia coli*. *FEBS open bio*, 14 July 2026.  
DOI: <https://doi.org/10.1002/2211-5463.70310>

**Park EC, Thompson AP**, Murphy JM, Liang L-Y, **Lucet IS**. The multifaceted roles of receptor tyrosine pseudokinases in cellular signalling. *Biochemical Society Transactions*, 10 June 2026. Review by ICHDR.  
<https://doi.org/10.1042/BST20260770>

Seneviratne JA, Crisp CL, Glancy E, Choy N, **Tan W**, Neve M, Stammers M, Wang T, Johnstone R, Kaur A, Fennell KA, Burr ML, Parker BL, **S Shakeel**, MA Eckersley-Maslin. Embryonic stem cell factors DPPA2/4 amplify active H3K4me3–H2AK119ub chromatin domains in non-small cell lung cancer. *Gene Dev*, May 1 2026.  
doi: 10.1101/gad.353102.125



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## Released Structures

- **EMD-48385, 9MM5:** CGRP Receptor in complex with C8 Minibinder
  - Cao J, Cary BP, Belousoff MJ, Wootten DL.
  - To be published
- **EMD-80237, 25NV:** A complex of PTH1R/Gs bound to a PTHrP analogue with five beta-amino acids
- **EMD-80238, 25NX:** A complex of PTH1R/Gs bound to a PTHrP analogue with three beta-amino acids
  - Cary BP, Wootten DL, Sexton PM.
- **EMD-68747, 22XC :**Structure of CXCR4 in complex with a de-novo designed mini-protein antagonist
  - Cao J, Cary BP, Belousoff MJ, Keov P, Trinh PNH, Sexton PM & Wootten DL.
- **EMD-48756, 9MZG:** Cryo-EM structure of GCGR-Gs complex with glucagon
- **EMD-48723, 9MXU:** cryo-EM structure of GLP-1R-Gs complex with glucagon
- **EMD-48754, 9MZE:** Cryo-EM structure of GLP-1R-Gs complex with oxyntomodulin
- **EMD-48755, 9MZF:** Cryo-EM structure of GLP-1R-Gs complex with peptide 15
  - Zhang X, Belousoff MJ, Wootten DL, Sexton PM, Jiang Y.
  - To be published
- **EMD-48774, 9N04:** Cryo-EM structure of GCGR-Gs complex with peptide 15
- **EMD-48782, 9N0E:** Cryo-EM structure of GCGR-Gs complex with oxyntomodulin
  - Zhang, X, Jiang, Y, Belousoff MJ, Wootten DL, Sexton PM.
  - To be published
- **EMD-48775, 9N05:** Cryo-EM structure of GLP-1R-Gs complex with SRB103Q
  - Zhang X, Belousoff MJ, Wootten DL, Sexton PM, Piper S.
  - To be published
- **EMD-48820, 9N1P:** cryo-EM structure of GLP-1R-Gs complex with SRB103H
- **EMD-48821, 9N1Q:** cryo-EM structure of GCGR-Gs complex with SRB103H
- **EMD-48838, 9N2I:** cryo-EM structure of GCGR-Gs complex with SRB103Q
  - Zhang X, Belousoff MJ, Mohebbi N, Wootten DL, Sexton PM.
  - To be published
- **EMD-71971, 9PXJ:** Cryo-EM structure of BAM from *P. aeruginosa* P28 in complex with Pyocin L2
  - Munder F, Grinter R.
  - Nat Commun: doi:10.1038/s41467-026-74995-w
- **EMD-71969, 9PXG:** Cryo-EM structure of apo BAM from *P. aeruginosa* PAO1
- **EMD-71970, 9PXI:** Cryo-EM structure of BAM from *P. aeruginosa* PAO1 in complex with Pyocin L1
  - Munder F, Venugopal H, Grinter R
  - Nat Commun: doi:10.1038/s41467-026-74995-w

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- **EMD-71671, 9PIL:** Thin Flagellar Filament from T. denticola
  - **EMD-71716:** Sub-tomogram average of thick flagellar filament of T. denticola
  - **EMD-71717:** Sub-tomogram average of thin flagellar filament from T. denticola
    - Troman LA, Paul B, Ghosal D
    - To be published
  - **EMD-71672, 9PIM:** Outer Curvature of Thick Flagellar Filament from T.denticola
  - **EMD-71673, 9PIN:** Inner Curvature of Thick Flagellar Filament from T.denticola
    - Troman LA, Paul B
    - To Be Published

## CCeMMP Cryo-EM Structure Image Gallery

