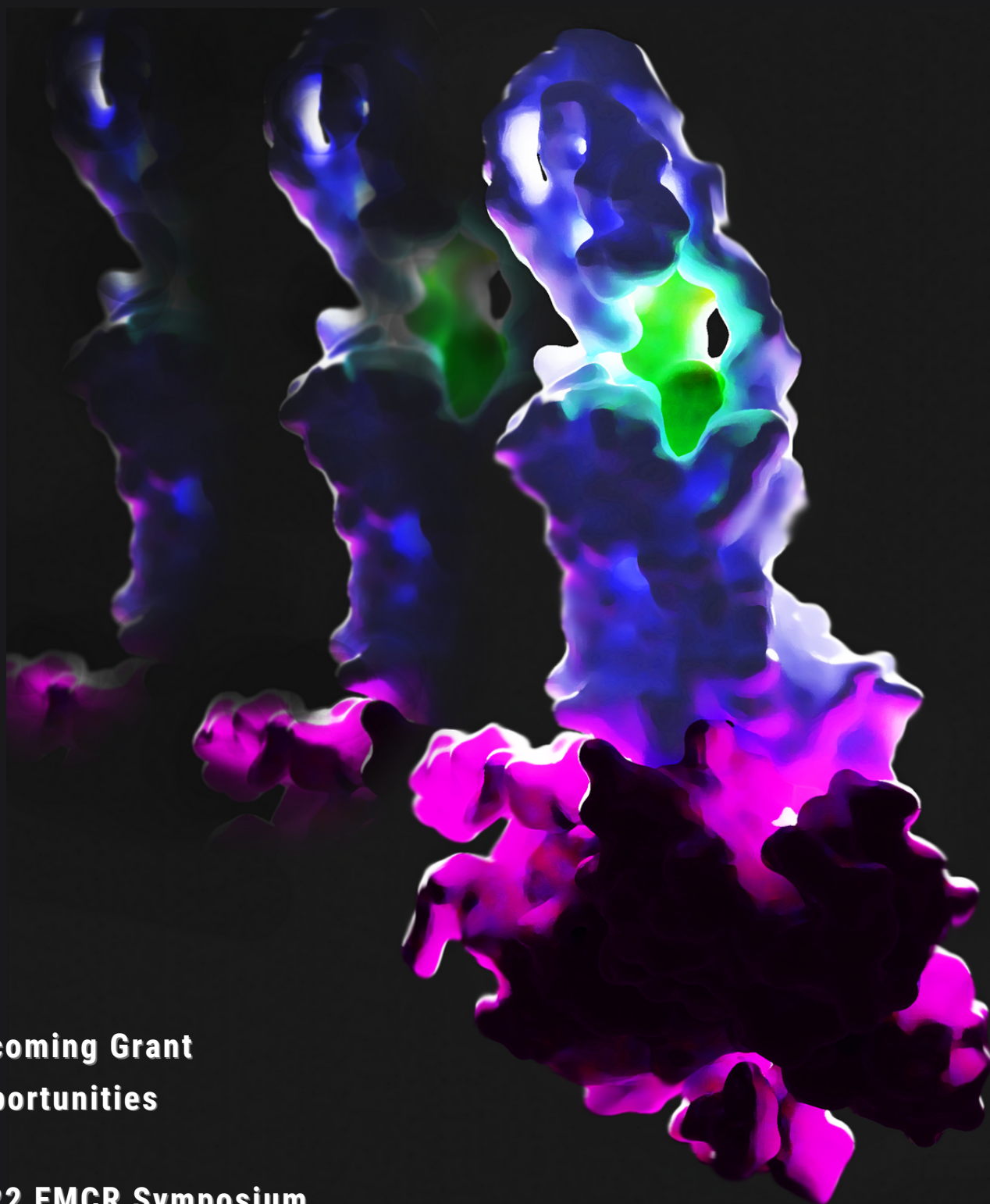


# EMCR NEWSLETTER

Monash Faculty of Pharmacy and Pharmaceutical Sciences



**Upcoming Grant  
Opportunities**

**2022 EMCR Symposium**

**Meet the 2022 EMCR Committee**

# THE INAUGURAL FPPS EMCR NEWSLETTER

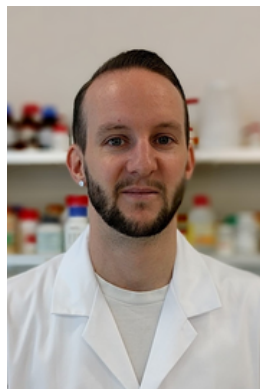


## A welcome from the editors

We are very pleased to be able to share with you what we hope will be first of many FPPS EMCR newsletters. This new initiative aims to provide a platform for the distribution of information relevant to EMCRs, as well as the opportunity to showcase your wonderful achievements. The FPPS EMCR Committee is striving to produce a true community amongst early and mid career colleagues and we hope that the newsletter will contribute to engagement and interaction between members. We intend for this to be a resource that EMCRs want to read and are excited to contribute to its content. The best way for this to be achieved is to get feedback from the EMCR community about what aspects of this first edition were useful and interesting and what other content could be included or omitted. We look forward to hearing from you and working together to produce a valuable and entertaining publication.

### Liam Koehn and Shane Hellyer

*Co-editors in chief,  
FPPS EMCR Newsletter*



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and MIPS Director

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## A message from the Dean of FPPS

**Arthur Christopoulos, FAA, FAHMS**

*Dean, Faculty of Pharmacy & Pharmaceutical Sciences, Monash University*

“Dans les champs de l'observation le hasard ne favorise que les esprits préparés”.

(In the fields of observation, chance favours only the prepared mind).

**-Louis Pasteur**

The preceding quote from Louis Pasteur has long been my favourite, at least from the period when I entered research as a PhD student and then into my postdoc. To me, this quote will forever speak to the necessary intersection between scientific inquiry and serendipity that characterises all research success stories. But the point of the quote, of course, is that we make our own luck. There are many ingredients that go into increasing one's probability of a true 'Eureka' moment, but initiative, curiosity, collaboration, generosity and hard work must be near the top of any such list. And this is also predicated on being in an environment that avoids traditional disciplinary barriers and fosters a vision of inclusiveness, mentorship and support at all stages of the academic life cycle. I firmly believe that our EMCRs display all the qualities I describe above, and this newsletter is yet another example of initiative on your part to stay ahead of the curve as we navigate a world that has changed a lot in a very brief period of time...but in a Faculty that, perhaps now more than ever, is better-placed than most to tackle the challenges of the age in pharmacy, pharmacology, pharmaceutical sciences and medicine use and safety. I congratulate you on yet another example of why our EMCRs continue to lead the way for the rest of the University (and beyond) in staying connected and proactively ensuring that you remain the true engine of our innovation.



## A message from the Director of MIPS



**Chris Porter**

*Director, Monash Institute of Pharmaceutical Sciences, Monash University*

I'd like to add my welcome to you all to this first edition of the EMCR newsletter. I started my career here as an ECR, at what was then the Victorian College of Pharmacy (VCP), some years ago now. Whilst much of the environment now as MIPS is unrecognisable compared to VCP and our research output and impact is immeasurably improved – many of the fundamental tenets of research and the research community remain. Then as now, the EMCR cohort provides the driving force for research activity either individually or via the supervision of our post graduate students and as such is a key component of what makes a research community 'tick'.

Crucially, the EMCR community, in many ways sets the culture of an organisation. Not primarily via determining policy (although your insight to this is key), but instead by shaping those around you, especially the graduate student cohort. Junior researchers inevitably adopt the practices and norms of those around them and in this way your influence is critical, significant and long lasting. Initiatives such as the EMCR committee and this newsletter are just one of many ways by which the EMCR cohort is having a very positive impact on all that we do in research and I applaud and acknowledge all your efforts. Research is not easy and life as an EMCR is probably the most challenging period of any researcher's career, but your achievements both individually and collectively are impressive, impactful and appreciated. Best of luck with the newsletter and with all your endeavours.

# EMCR COMMITTEE 2022

## Who are we and what do we do?

The Early and Mid-Career Researchers' (EMCR) committee promotes specialised programs, exchange of scientific ideas and new collaborations for the benefit of researchers in the faculty of Pharmacy & Pharmaceutical Sciences. Each theme within Monash Institute of Pharmaceutical Sciences has representatives on the committee who meet regularly to discuss needs, current issues and feedback of early and mid-career researchers.



The EMCR committee aims to:

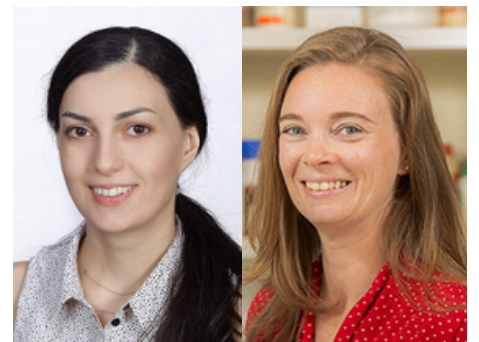
- Provide support to researchers by organising specialised training programs and workshops.
- Organise networking events to provide an opportunity for multi-disciplinary collaborations across themes.
- Organise events focused around research at MIPS and science outreach.

## FPPS EMCR Committee Chair's Report

*Welcome to the first issue of the FPPS EMCR newsletter!*

Faculty of Pharmacy and Pharmaceutical Sciences Early and Mid-Career Researchers committee (FPPS EMCR committee) started its activity in 2015. Over the last 7 years, the FPPS EMCR committee had developed a number of initiatives to support EMCRs.

Our community has been fragmented due to COVID-19 pandemic; **So this year, our vision is to reconnect the FPPS EMCR community to foster friendship and future collaborations.**



For this purpose, to hear more from the EMCR on a regular basis, we established the EMCR newsletter. The FPPS newsletter will be released quarterly and will highlight the EMCR committee activities and news, upcoming seminars and conferences, grants and fellowship opportunities, and member achievements and publications. We hope you enjoy reading this newsletter, learning more about upcoming events, and getting to know other members better!

We would like to thank the members of the EMCR committee, past and present, for their hard work and commitment. We especially want to thank our newsletter Editors-In-Chief, Liam and Shane, for their efforts to organise the first issue!

We hope you enjoy this new initiative!

Happy reading!

**Niloufar and Emma**

## Meet the Committee

### Dr Niloufar Ansari

Niloufar.ansari@monash.edu

#### Committee Co-Chair and Social Media Manager

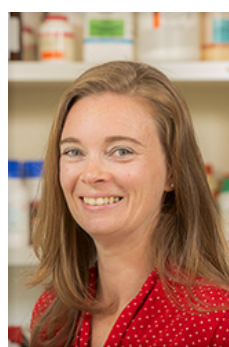


Niloufar is a postdoctoral researcher in Dr Angus Johnston's group (D4), working on targeted nanodelivery systems for cancer and bone diseases. Niloufar is passionate about supporting and encouraging interdisciplinary collaborations and knowledge sharing among EMCRs and between institutions.

### Dr Emma van der Westhuizen

Emma.vanderwesthuizen@monash.edu

#### Committee Co-Chair and Parents Representative



Emma is a postdoctoral research fellow in the Analytical and Structural Neuropharmacology lab (DDB). Her research investigates small molecule drugs that target GPCRs, for the treatment of neurodevelopmental diseases. As part of the EMCR, Emma is increasing intra- and inter-institutional networking opportunities.

### Dr Carlo Giannangelo

Carlo.Giannangelo@monash.edu

#### Secretary



Carlo is a research fellow in the Malaria Metabolomics and Proteomics group (D4). His research investigates drug action in malaria parasites and facilitates the discovery of new antimalarial medicines. Carlo is keen to support EMCR development and encourage inter-theme collaboration at MIPS.

### Dr Neil Owens

Neil.Owens@monash.edu

#### Treasurer



Neil is the Research and Project Manager within the Faculty Research Office at MIPS. He is keenly interested in the committee's FASTtrack sessions that aim to aid the career progression of post-doctoral researchers and position them for successful funding applications.

### Dr Nilushi Karunaratne

Nilushi.karunaratne@monash.edu

#### Marketing Manager



Nilushi is an Early Career Academic at Monash University. She is also the Co-creator and Co-Lead of the PIES Engagement Program at the Faculty of Pharmacy and Pharmaceutical Sciences. This engagement program aims to foster a sense of belonging for international students at FPPS.

### Dr Amanda Cross

Amanda.cross@monash.edu

#### Parents Group Representative

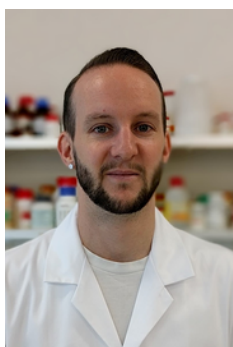


Amanda is a research fellow in dementia at the Centre for Medicine Use and Safety (CMUS). She joined the EMCR committee to support and advocate for EMCR researchers with children, to encourage networking across disciplines and to facilitate enhanced community engagement and translation of MIPS research.

### Dr Shane Hellyer

Shane.Hellyer@monash.edu

#### EMCR Committee Newsletter Editor-in-Chief



Shane is a research fellow in the Endocrine and Neuropharmacology lab (DDB). His research investigates GPCRs in neurodegenerative and neurodevelopmental disorders. Shane is a new member of the EMCR committee in 2022, taking on the role of co-editor in chief of the new EMCR newsletter initiative.

### Dr Liam Koehn

Liam.Koehn@monash.edu

#### Parents Group Representative



Liam is a postdoctoral fellow in A/Prof. Joseph Nicolazzo's group (D4), where he researches drug pharmacokinetics in models of glioblastoma and motor neuron disease. Liam joined the EMCR committee in 2022 as co-editor in chief for the committee's inaugural digital newsletter.

## Meet the Committee

### Dr Stephen Wood

Stephen.Wood1@monash.edu

#### **Social Events and Networking Coordinator Team Lead**



Stephen completed his PhD in pharmacoepidemiology at Monash University's Centre for Medicine Use and Safety (CMUS). As a postdoctoral fellow Stephen analyses large administrative and hospital datasets. He joined the committee to engage his fellow EMCRs in social and networking events.

### Dr Benoit Smeuninx

Benoit.Smeuninx@monash.edu

#### **Social Events and Networking Coordinator**



Benoit is a research fellow in the Cellular and Molecular Metabolism Laboratory (DDB) headed by Prof Febbraio where he studies novel therapies to treat hepatocellular carcinoma. Benoit has joined the EMCR committee in 2022 to help organise social events for EMCR researchers within MIPS.

### Dr Samantha McNeill

Sam.McNeill@monash.edu

#### **Social Events and Networking Coordinator**



Sam is a postdoctoral research fellow in the Metabolic Receptor Biology (MRB) lab within the Drug Discovery Biology (DDB). Her current research investigates how different agonists acting at class B GPCRs can have profoundly different signalling and in vivo profiles. Sam joined the committee in 2022.

### Dr Arisbel Batista Gondin

Arisbel.Batista@monash.edu

#### **DDB representative**



As a postdoctoral researcher, Arisbel is establishing technologies at MIPS for the development of single-domain antibodies (nanobodies). She joined the MIPS EMCR committee to drive and support gender equity initiatives. She is also passionate about science communication and outreach.

### Dr Enyuan Cao

Enyuan.cao@monash.edu

#### **Industry and FASTtrack Program Coordinator Team Lead**

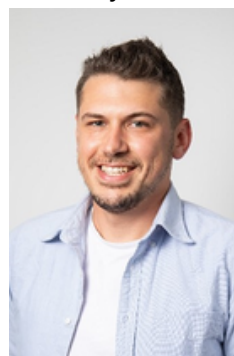


Enyuan is a postdoctoral research fellow in Chris Porter's Laboratory (D4). Her current research aims to investigate how mesenteric lymphatic dysfunction and associated underlying mechanisms can promote immune metabolic disease. Enyuan is the Team Lead for EMCR's industry and FASTtrack events.

### Dr Jesse Mobbs

Jesse.Mobbs@monash.edu

#### **Industry and FASTtrack Program Coordinator**



Jesse is a postdoctoral research fellow in the Analytical and Structural Neuropharmacology lab (DDB). His current research focuses on molecular characterisation of Class A GPCRs and their role in neurological disorders. Jesse joined the committee in 2022.

### Dr Yaping (Crystal) Chen

Crystal.Chen@monash.edu

#### **Industry and FASTtrack Program Coordinator**



Yaping is a postdoctoral research fellow in Prof. Nicolas H. Voelcker's group (D4) at MIPS. Her current research investigates cellular nanobiotechnology and nano-bio interfaces. Yaping joined the EMCR committee in 2022, and has been involved in organising the Industry and FastTrack program.

## **Thank you to our outgoing committee members of 2021**

Dr Ghizal Siddiqui – Committee Chair

Dr Anna Cifuentes-Ruis – Committee Co-Chair

Dr Swapna Varghese – Marketing and Advertising

Dr Thao Vu – Social Media Manager

Dr Jisook Lee – Industry/FASTtrack team

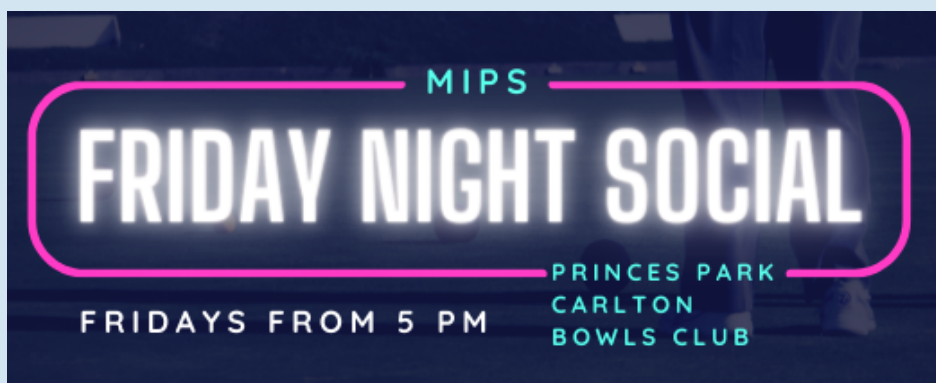
Dr Darnel Prakoso – Secretary

Dr Hanson Law – Industry/FAST track team

# 2022 Events Calendar

APR	<b>EMCR symposium 2022</b>	Showcasing the expertise of EMCRs at MIPS
<b>FASTtrack -</b>		
JUN	<i>Research impact and engagement</i>	How to successfully engage with industry partners and deliver impact
AUG	<i>Understanding non-academic careers</i>	Hear from people working in industry to understand the opportunities and pressures.
OCT	<i>What are philanthropic organisations looking for?</i>	Understand what philanthropic agencies are striving to achieve and how to best present your work to them.
<b>Social &amp; Networking -</b>		
JUN	<i>Coffee catch-up</i>	<b>FREE COFFEE!</b>
AUG	<i>Bowls Club</i>	<b>FREE FOOD AND DRINKS</b>
OCT	<i>Trivia Night</i>	<b>FREE FOOD AND DRINKS</b>
DEC	<i>Christmas Party</i>	<b>FREE FOOD AND DRINKS</b>

*What do you think?* Get in contact with your EMCR committee to discuss the upcoming events schedule, your interest and any ideas you have to improve the program for 2022.



The Princes Park Bowls Club have kindly offered to host us every Friday so we can get together at the end of our busy weeks. We are inviting all staff and HDR students from all themes to join us at the weekly MIPS

Friday Night Social. This is a great way to mingle and meet new people from across the faculty. **Happy Hour between 5-7pm (25% discount) if you present your staff card.**

## Do you want to be a star?

We have a group of very talented Student Ambassadors that have been creating content for our TikTok account. One of their ideas is to film an interview with a researcher in the style of Vogue "73 question" videos, but with ten questions. Their goal is to give a glimpse of what it's like to be a researcher for those who are curious about this career path.

1. In one sentence, tell us what your research is about.
2. What did you study before going into research?
3. Advice for students who want to go into research?
4. What is your cultural background?
5. What made you want to go into research?
6. Is it everything you thought it would be?
7. How much time do you spend a week working on your research?
8. What opportunities has going into research gotten you?
9. What is your favourite thing about your job?
10. How do you manage a healthy work-life balance?

Please contact Amy Chen if you are interested:  
[amy.ny.chen@monash.edu](mailto:amy.ny.chen@monash.edu)



## Got news to share? Contact the Marketing Team!

The Faculty marketing team wants to help promote you and amplify your achievements via our media channels.

If you've gotten an award, grant funding, published a high-impact paper or review, joined a board, etc. – let us know, even if you don't think it's "newsworthy". Depending on the story, we can help spread the word to print, broadcast and/or digital media.

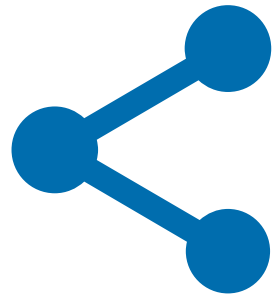
Also get in touch if you can be an expert on trending news topics and are willing to speak to the media or if you want to write an opinion piece.

Email:

Kate Carthew (Media & Communications Manager;  
[kate.carthew@monash.edu](mailto:kate.carthew@monash.edu))

or

Amy Chen (Marketing Officer);  
[amy.ny.chen@monash.edu](mailto:amy.ny.chen@monash.edu))



# EMCR SYMPOSIUM 2022

The 2022 Early and Mid Career Researcher Symposium at Monash's Faculty of Pharmacy and Pharmaceutical Sciences was a hybrid event that was held via zoom and in person at Cossar Hall (MIPS). Fourteen EMCR speakers presented their exciting research and detailed areas of possible collaboration amongst the cohort. Question and answer sessions were lively and invited discussion about research topics, experimental techniques and day to day lives of EMCRs. The event was followed by a catered networking session that allowed speakers and attendees to meet and elaborate on topics from throughout the symposium.

Profiles for all speakers are presented over the next two pages. Get in touch with them if you think that you can help them or they can help you!



# Meet the EMCR Symposium Presenters

Presenter	Presentation title	Skills I can provide	Skills I'm seeking
<p><b><u>Ghizal Siddiqui</u></b></p>  <p>ghizal.siddiqui@monash.edu</p>	<p>The use of multi-omics for the study of different systems</p>	<ul style="list-style-type: none"> <li>Metabolomics               <ul style="list-style-type: none"> <li>Fluxomics and targeted thiol measurements</li> </ul> </li> <li>Proteomics tools               <ul style="list-style-type: none"> <li>PTM analysis, DIA-MS, Chemical, thermal stability proteomics</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Optimal drug delivery</li> <li>Nanoparticle coated antimalarials</li> <li>PK/PD modelling and drug combinations</li> <li>Drug repurposing for malaria around redox modulators targeting cancer cells</li> </ul>
<p><b><u>Brian Cary</u></b></p>  <p>brian.cary@monash.edu</p>	<p>Prolonged signaling of backbone-modified glucagon-like peptide-1 analogues with diverse receptor trafficking</p>	<ul style="list-style-type: none"> <li>Peptide chemistry (and some radiochemistry/organic chemistry)</li> <li>Pharmacology</li> <li>Biochemistry/protein expression</li> <li>Structural Biology (cryo-EM)</li> </ul>	<ul style="list-style-type: none"> <li>FACS (sorting)</li> <li>Machine learning</li> <li>Neuroscience</li> </ul>
<p><b><u>Kieran Stockton</u></b></p>  <p>kieran.stockton@monash.edu</p>	<p>Expanding the toolkit for synthesising water-soluble prodrugs of highly lipophilic drugs</p>	<ul style="list-style-type: none"> <li>Carbohydrates</li> <li>Organoboron chemistry</li> <li>Organosilicon chemistry</li> <li>Fluorophores</li> <li>Bifunctional PEGs</li> <li>Micro- to multi-molar scale</li> <li>NMR analysis</li> </ul>	<ul style="list-style-type: none"> <li>Analytical chemistry skills</li> <li>Accurate determination of hydrolysis kinetics</li> </ul>
<p><b><u>Yaping (Crystal) Chen</u></b></p>  <p>yaping.chen@monash.edu</p>	<p>Cellular Nanotechnology: Engineering Programmable Nanoscale Tools for Intracellular Delivery</p>	<ul style="list-style-type: none"> <li>Nanoinjections</li> <li><i>ex vivo</i> gene editing</li> <li>FACS</li> <li>Immunocytochemistry</li> </ul>	<ul style="list-style-type: none"> <li>Projects requiring cell-nanoneedle interfaces for collaboration</li> </ul>
<p><b><u>Blake Smith</u></b></p>  <p>blake.smith@monash.edu</p>	<p>Characterising pain processing in a mouse model of Dominant Dystrophic Epidermolysis Bullosa</p>	<ul style="list-style-type: none"> <li><i>in vivo</i> mouse experimentation</li> <li>Behavioral pain testing in mice</li> <li>Treatment efficacy studies</li> <li>Skin biology</li> </ul>	<ul style="list-style-type: none"> <li>Novel analgesics</li> <li>Drug chemistry and development</li> </ul>
<p><b><u>Annaliese Dillon</u></b></p>  <p>annaliese.dillon@monash.edu</p>	<p>Development of novel antimalarials</p>	<ul style="list-style-type: none"> <li>Medicinal Chemistry               <ul style="list-style-type: none"> <li>Designing target compounds</li> <li>Developing synthetic manufacturing procedures</li> <li>Characterising products</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Mechanism of action analysis of drugs and key metabolites</li> <li>Testing of therapeutic relevance of oxidated-reduced structures</li> <li><i>In vivo</i> pharmacokinetics</li> </ul>
<p><b><u>Aeson Chang</u></b></p>  <p>aeson.chang@monash.edu</p>	<p>Targeting sympathetic nervous system to improve treatment in triple negative breast cancer</p>	<ul style="list-style-type: none"> <li><i>in vivo</i> rodent models of breast cancer</li> <li>Tumour microenvironment</li> <li>Bioluminescence imaging</li> <li>Immunostaining and microscopy</li> <li>CRISPR</li> </ul>	<p>Join our running team for this years Mother's Day Classic! Donate to breast cancer research by clicking the image below :)</p>  <p>Cancer Neural Immunology Lab @ MIPS</p>

# Meet the EMCR Symposium Presenters

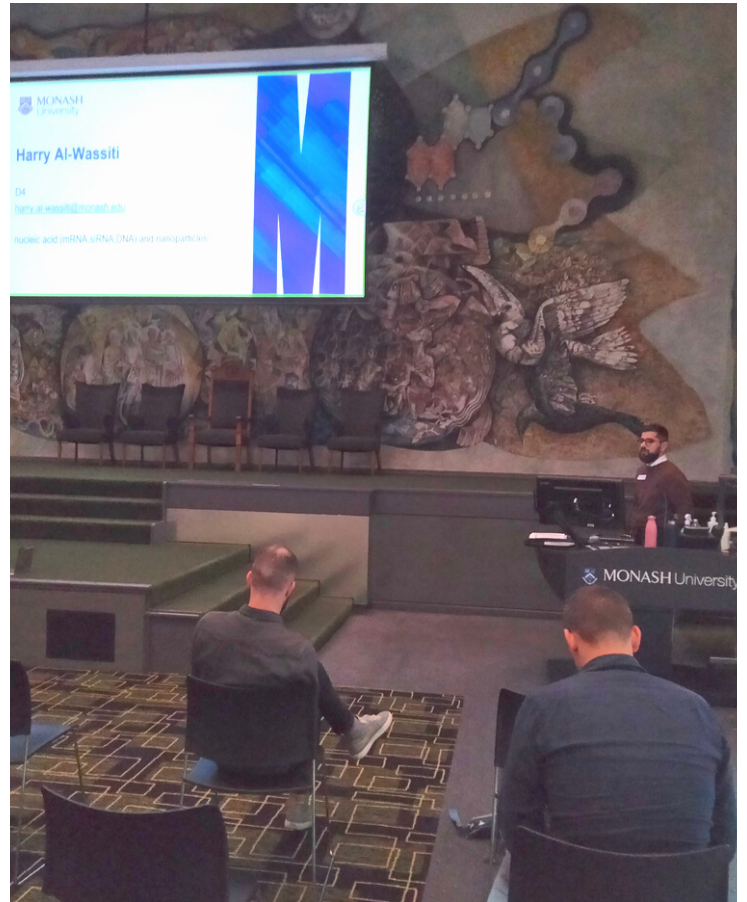
Presenter	Presentation title	Skills I can provide	Skills I'm seeking
<p><b><u>Harry Al-Wassiti</u></b></p>  <p>harry.al-wassiti@monash.edu</p>	mRNA therapeutics	<ul style="list-style-type: none"> <li>Nucleic acid therapeutics</li> <li>Delivery of nucleic acids (mRNA, siRNA, DNA)</li> <li>Vaccine design, delivery, cell therapeutics utilising DNA/mRNA</li> <li>Formulation science</li> </ul>	<ul style="list-style-type: none"> <li>Do you have a disease model and want to use mRNA?</li> <li>New lipids and nucleotide chemistries</li> <li>Formulation development</li> <li>Delivery to your favourite organ or cells</li> </ul>
<p><b><u>Nazanin Mohebali</u></b></p>  <p>nazanin.mohebali@monash.edu</p>	Utilizing membrane mimetic systems in structure determination of GPCRs using cryo-EM	<ul style="list-style-type: none"> <li>Purify and incorporate protein (bacterial, insect, mammalian)</li> <li>Membrane mimetic systems: Peptidisc, nanodisc, saposin-lipid nanoparticles</li> <li>Cryo-EM (sample prep, structure determination)</li> <li>Protein-lipid interactions (lipid-binding assays, lipidomics)</li> </ul>	<ul style="list-style-type: none"> <li>Molecular dynamics and in silico stimulation of membrane protein imbedded in different lipid environments</li> <li>The more receptors (any membrane protein), the better!</li> <li>Characterisation of incorporated receptors (stability, efficiency, efficacy, small molecule binding)</li> </ul>
<p><b><u>Bui San Thai</u></b></p>  <p>buisan.thai@monash.edu</p>	Adenosine Receptor-Mediated Cardioprotection post-Myocardial Infarction in the Presence of Advanced Age/Diabetes	<ul style="list-style-type: none"> <li>Adult rat cardiac cell isolation using Langendorff-free method</li> <li>Neonatal rat cardiac cell isolation</li> <li>In vivo models:               <ul style="list-style-type: none"> <li>Type 1 diabetic rat model</li> <li>Aged rat model</li> <li>Ischaemia-reperfusion injury model</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Heart failure models and cardioprotective models</li> <li>Ex vivo Langendorff perfusion model</li> <li>Ischaemia-reperfusion injury model</li> <li>LAD coronary artery ligation</li> </ul>
<p><b><u>Dovile Anderson</u></b></p>  <p>dovile.anderson@monash.edu</p>	Novel fatty acid derivatives in human hookworm	<ul style="list-style-type: none"> <li>Organic chemistry</li> <li>Advanced mass spectrometry</li> <li>Small molecule LCMS bioanalysis and metabolomics</li> </ul>	<ul style="list-style-type: none"> <li>Collaborators interested in adding LCMS bioanalysis and metabolomics to their projects</li> </ul>
<p><b><u>Surafel Tegegne</u></b></p>  <p>surafel.tegegne@monash.edu</p>	Multi-omics data analysis in metabolism research	<ul style="list-style-type: none"> <li>C. Elegans models</li> <li>Multi-omic data analysis in metabolism research</li> <li>Pathway analysis tools</li> </ul>	<ul style="list-style-type: none"> <li>CMML is open to collaborations in areas such as metabolism and bioinformatics</li> </ul>
<p><b><u>Cathy Xie</u></b></p>  <p>cathy.xie@monash.edu</p>	Development of 18F-labelled radiotracers for PET imaging and cancer diagnosis	<ul style="list-style-type: none"> <li>Drug discovery program planning</li> <li>SAR study designs</li> <li>HTS hit selection</li> <li>APHID: Action plan for hit identification</li> <li>Fragment-based drug discovery</li> <li>Mechanism-structure-based drug designs</li> </ul>	<ul style="list-style-type: none"> <li>Project ideas that could benefit from drug design and screening</li> <li>pharmacological analysis of small molecules</li> <li>radiochemistry</li> </ul>
<p><b><u>Sarah Piper</u></b></p>  <p>sarah.piper@monash.edu</p>	Dynamic drug targets: Using Cryo-EM data and MD simulations to create realistic 3D animations of GPCR complexes	<ul style="list-style-type: none"> <li>Cryo-electron microscopy</li> <li>3D variability analysis</li> <li>Biologically relevant 3D animations</li> </ul>	<ul style="list-style-type: none"> <li>Collaborations in molecular dynamics (computational) or other structural dynamics techniques</li> <li>Others interested in science visualisations; scripting for Blender 3D or ChimeraX</li> </ul>

## Presenter Highlight

### Harry Al-Wassiti (D4)

#### mRNA therapeutics

mRNA program at MIPS has developed and innovated new technologies and products and recognised nationally as the leading program of mRNA therapeutics. Recently, we developed the first Australian COVID19 mRNA vaccine and collaborated on its onshore manufacturing under conditions suitable for human use. I have a keen interest in the innovation, translation and development of mRNA and nucleic acid therapeutics. Our team collaborate with researchers, pharmaceutical and local biotech companies to develop mRNA technologies and product for their applications. I present the broad capabilities possible by our team at MIPS for mRNA and RNA therapeutics and present unique challenges that can present collaborative opportunities within MIPS EMCR.



## Q&A

#### Q: What are your interests outside of work?

A: Reading books, physical activities, enjoying time with friends.

#### Q: What are your short or long term research goals?

A: Short term: is to solve critical problems and develop inventions and innovations in nucleic acid therapeutics. Long term: help revitalise Australian innovation, manufacturing, and translation of new ideas in biotech and biopharma.

#### Q: How was your experience as a symposium speaker?

##### Would you recommend it to fellow EMCRs?

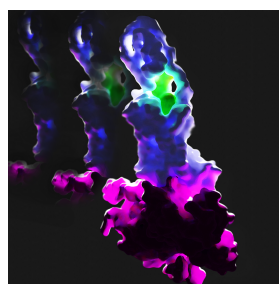
A: It was a unique experience. The symposium structure allows for the exchange of expertise and enhances collaboration. The symposium already helped start and led to a new collaboration between my group and a DDB group.



# Cover image: Sarah Piper

## Who am I?

I'm Sarah Piper, a Postdoctoral Research Fellow at DDB (Wootten/Sexton lab) using cryo-electron microscopy (cryo-EM) and data visualisation to understand G protein-coupled receptor (GPCR) structures and dynamics.



## What is the image?

The image shows the cryo-EM-derived structure of the Secretin receptor (blue) (a Class-B GPCR), coupled to G proteins (pink) and the secretin peptide (green) (PDB: 6WZG). I like to use its surface representation to play around with different visualisation and image rendering tools, such as Blender3D, ChimeraX and Photoshop.

## Why do i love it?

The Secretin receptor structure was the first structure I solved at MIPS and my 'guinea pig' structure to experiment with in 3D visualisation. For this image I played with backlight lighting and materials to create a shiny 'halo' effect around the receptor, and highlighting the glowing peptide in green, bound to the receptor. Fading copies of the image in the background were created in Photoshop.

You can find more of my artistic protein structures on Twitter (@PiperProteins) and YouTube (PiperProteinProductions).



**SAVE THE DATE**

**FRAGMENT BASED DRUG DESIGN  
DOWN UNDER CONFERENCE 2022**

**28 to 30 September 2022**

**Topics to be covered:**

- Library design
- Fragment screening
- Structural biology
- Computation chemistry
- Fragment-to-hit-to-lead chemistry
- Success stories

The conference will include workshops, scientific sessions and social events.

<https://fbdddownunder.com.au>

**Abstract submission deadlines:**

**Oral presentation abstracts**  
15th July 2022

**Poster abstracts**  
12th August 2022

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**Poster and oral presentation prizes for student and ECR delegates**

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**Venue**  
**Monash Institute of  
Pharmaceutical Sciences (MIPS),  
399 Royal Parade, Parkville,  
Victoria**

 MONASH  
University

## Upcoming Funding and Awards: May-July 2022

Date	Funding opportunity	Amount	Website
20/05	Dr John Dixon Hughes Medal (biennial)	\$50,000	<a href="https://nfmri.org.au/research-and-innovation/dr-john-dixon-hughes-medal/">https://nfmri.org.au/research-and-innovation/dr-john-dixon-hughes-medal/</a>
27/05	Ramaciotti Medal for Excellence in Biomedical Research	\$50,000	<a href="https://www.perpetual.com.au/ramaciotti/applications">https://www.perpetual.com.au/ramaciotti/applications</a>
1/06	Australian Society for Biochemistry and Molecular Biology (ASBMB): Rudi Lemberg Travelling Fellowship	up to \$15,000 towards airfares and living expenses	<a href="http://www.asbmb.org.au/awards/nominations/">http://www.asbmb.org.au/awards/nominations/</a>
27/06	Australia-Germany joint research cooperation scheme	\$12,500 per annum for up to two years	<a href="https://www.universitiesaustralia.edu.au/policy-submissions/international/australia-germany-joint-research-co-operation-scheme/">https://www.universitiesaustralia.edu.au/policy-submissions/international/australia-germany-joint-research-co-operation-scheme/</a>
24/06	Ian Potter Public Health Research Projects	\$100,000	<a href="https://www.ianpotter.org.au/what-we-support/public-health-research-projects/">https://www.ianpotter.org.au/what-we-support/public-health-research-projects/</a>
26/06	Michelson Prizes	\$150,000	<a href="http://www.veski.org.au/inspiring-women-criteria?q=inspiring-women-fellow">http://www.veski.org.au/inspiring-women-criteria?q=inspiring-women-fellow</a>
06/07	Fulbright Future Scholarships	up to \$100,000	<a href="https://www.fulbright.org.au/scholarships/future/">https://www.fulbright.org.au/scholarships/future/</a>
06/07	Fulbright Postdoctoral Scholarships	up to \$100,000	<a href="https://www.fulbright.org.au/scholarships/fulbright-postdoctoral-scholarship-sponsored-by-rmit-vice-chancellors-postdoctoral-fellow/">https://www.fulbright.org.au/scholarships/fulbright-postdoctoral-scholarship-sponsored-by-rmit-vice-chancellors-postdoctoral-fellow/</a>
19/07	VESKI: Victoria Fellowships	\$18,000	<a href="https://www.veski.org.au/vicfellow">https://www.veski.org.au/vicfellow</a>
19/07	VESKI: Inspiring Women Fellowships	up to \$150,000 over three years	<a href="http://www.veski.org.au/inspiring-women-criteria?q=inspiring-women-fellow">http://www.veski.org.au/inspiring-women-criteria?q=inspiring-women-fellow</a>
30/07	Metcalf Prize for Stem Cell Research	\$50,000	<a href="https://www.veski.org.au/vicfellow">https://www.veski.org.au/vicfellow</a>

## Upcoming Funding and Awards: May-July 2022

Date	Funding opportunity	Amount	Website
31/07	AFR Higher Education Awards: - Equity & Opportunity - Sustainability - Education Technology - Learning Experience - Community Engagement - Industry Engagement - Emerging Leader - International Education	N/A	<a href="https://live.afr.com/higheredawards/">https://live.afr.com/higheredawards/</a>

## Upcoming Seminars at MIPS

### DDB Seminar Series:

June 6th - Dr Antony Vinh, Department of Microbiology, Anatomy, Physiology and Pharmacology (MAPP), La Trobe University.

"Novel Cellular Drivers of Aortic Stiffening"

July 4th - Dr Samantha Stehbens, Institute for Molecular Bioscience, University of Queensland.

"Title TBA" (will be related to how cells integrate chemical and physical signals from their local microenvironment to facilitate cell movement and survival)

DDB seminars are held on the first Monday of the month at midday via Zoom (ID: 83479923577, passcode: 62768280)

### MIPS Seminars:

May 25th - A/Prof Zanfina Ademi, CMUS, MIPS.

"Decision Health Economic Modelling to address unmet clinical needs"

MIPS Seminars are held at midday in Cossar Hall

# CALL for CONTENT

We want your contributions and suggestions for content to include in future issues of the EMCR newsletter! Anything that you are proud of or think the EMCR community should know about will be welcome, including:



Images for  
the front  
cover



Researcher  
interviews



Grants and  
funding



Awards



Publications



Feedback  
on events



Content relating to any and all other groups/societies  
and associations that would interest EMCRs e.g. HRM

Send your content, suggestions or feedback to:



[pharm-emcr-committee@monash.edu](mailto:pharm-emcr-committee@monash.edu)

or tag us on social media:



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