

ASINews

**SEPTEMBER
2022**

AI5 WRAP UP

Testimonials from those who
attended this years school

PAGE 13

**GORDON ADA
AWARD**

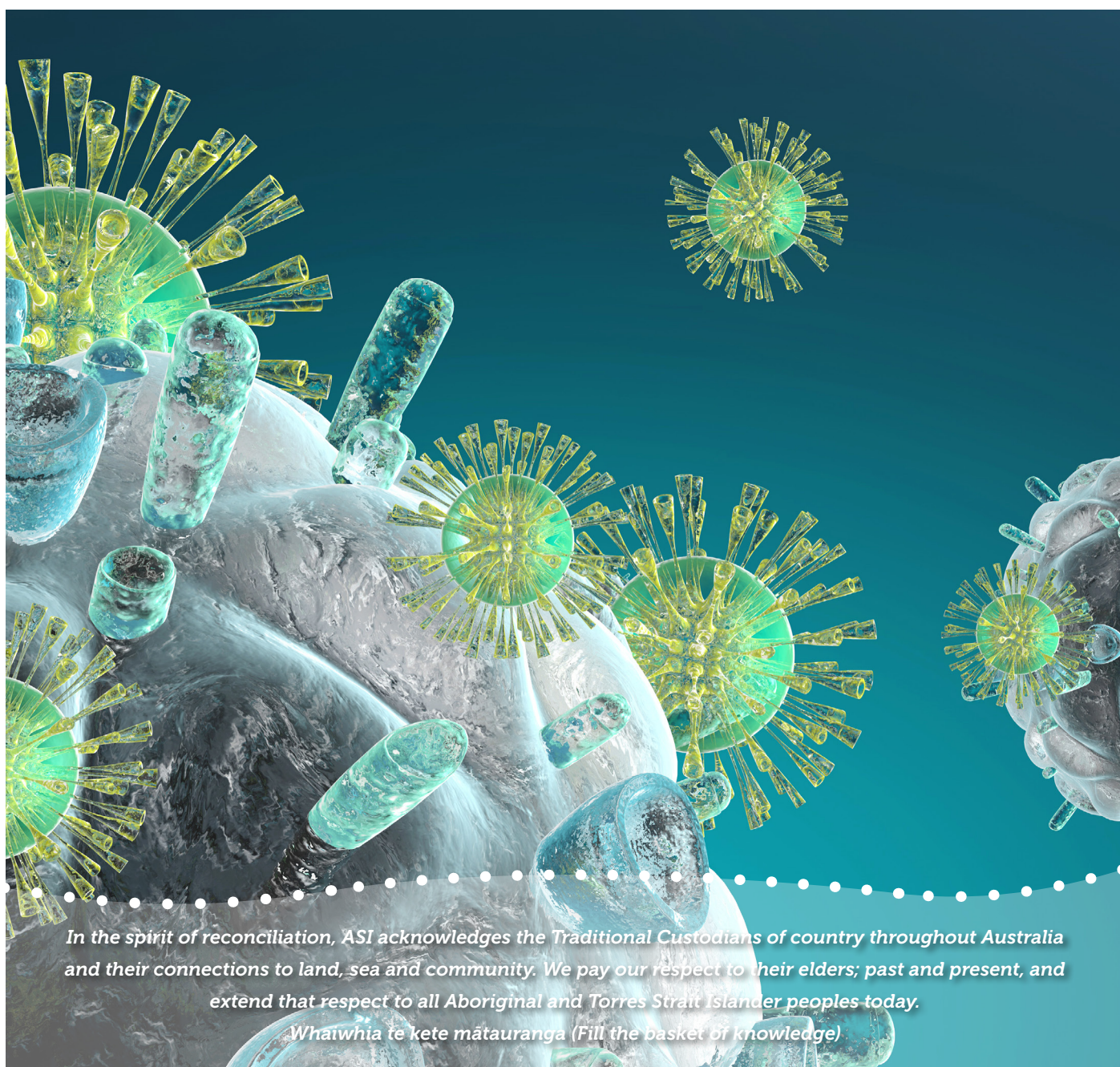
Meet the Recipients

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**DAY OF
IMMUNOLOGY**

Reports from the Branches

PAGE 6



In the spirit of reconciliation, ASI acknowledges the Traditional Custodians of country throughout Australia and their connections to land, sea and community. We pay our respect to their elders; past and present, and extend that respect to all Aboriginal and Torres Strait Islander peoples today.

Whāiwhia te kete mātauranga (Fill the basket of knowledge)

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President's Report

Stephen Turner | ASI President



2022 has provided a sense of renewal as we start to re-engage with our national and international colleagues.

This includes the upcoming ASI meeting in Melbourne in December, as well as the 2023 meeting in Auckland, New Zealand. The Melbourne LOC, headed by Mark Chong, has done a wonderful job organizing a terrific program. Given this will be our first face to face meeting in 3 years, there is a growing sense of anticipation and excitement. There will be 7 international keynote speakers that include Prof Doreen Cantrell, Prof Florent Ginhoux, Prof Ana-Maria Lennon, Dr Dan Littman, Prof Kim Newton, Prof Feng Shao and Dr John Wherry. On top of this there are also 5 international symposia speakers that include A/Prof Stephanie Eisenbarth, Prof Daniel Kaplan, Dr Michelle Linterman and Dr Alex Marsen. This is complemented by national speakers that include Prof Dale Godfrey, Prof Sharon Lewin, Prof Mariapia Delgi-Esposti and Prof Kate Schroder, Prof Jenny Stow and Prof David Tschärke. Looking forward to seeing you all in Melbourne.

This of course was off the back of the online ASI meeting that was run at the end of 2021 and organised by Prof Antje Blumenthal (ASI Meetings Coordinator) and Dr Fernando Guimaraes (Special Interest Groups Coordinator). Being an online meeting, it added a huge amount of flexibility and an opportunity to showcase the wonderful work that had been continuing during the

COVID19 pandemic. We have managed to maintain some of the ASI traditions such as the New Investigator session and the Plenary Lecture by our Past President (Prof John Fraser) who gave a wonderful presentation. I just wanted to congratulate and thank all those involved in putting together what is an exceptional program and it was clearly a huge success.

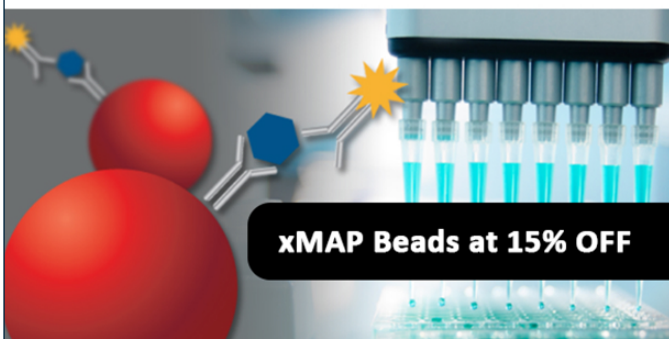
Opening up of travel has also meant that a number of events that had to be postponed were able to be held. This included the ASI Advanced Immunology School held in Sydney. Judging by the posts on social media, it was enjoyed and valued by those that attended. Thanks need to go to the organizers, in particular Prof Susanne Heinzel and Dr Joanne Reed, both of who showed amazing perseverance and dedication to organize the meeting, especially in the face of the challenges that COVID19 presented. They were supported by Dr Deborah Burnett, Dr Ee Shan Pang, and of course our wonderful General Manager, Dr Tyani Chan. I'd also like to acknowledge and give a big thanks to the teaching faculty drawn on from our extensive network of experts here in Australia. They contributed their time and insights to the attendees and were a critical part of the meeting's success. We very much look forward to supporting this wonderful initiative going forward.

A number of state initiatives were also held this year and was another sign that things are slowly returning to normal in terms of being able to connect and engage with colleagues.

On a personal note, while not able to attend in person (due to school pick drop off and pick up duties), it was great to be able to log in to the Immunology Group of Victoria meeting that was a hybrid in person/virtual meeting. While disappointed I was not able to be there in person, the ability and flexibility afforded by the hybrid meeting format is something that will likely stay with us and enable us to be more inclusive and reach a wider audience. At least we can count that as one positive from the COVID19 pandemic.

ASI has continued a policy

to provide as much support as possible to our members through the awarding of a number of awards across all stages of career progression. We intend to continue our current policy of providing as much flexibility as possible with the scope and flexibility of the awarded funds as we emerge from the COVID19 pandemic. We have in total 12 types of award that include the Jared Purton ASI Award (established in 2016) for early and mid-career researchers and the ASI Cheers-Buchan Education award to recognize excellence and significant contributions to



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advancement in Immunology education. I am very much looking forward to announcing and celebrating with the successful applicants in person at this year's ASI conference.

An exciting development last year was our partnership with Abbvie and the awarding of the ASI AbbVie New Horizons Research Award. The purpose of the award is to support a mid-career research Immunologist (10-20 years post-doctoral) with potential to advance research that identifies new biological pathways, druggable targets and biomarkers, within the fields of Autoimmunity, Inflammation, and other Immune-mediated Diseases (excluding Infectious Diseases). It was fantastic to be able to announce that Prof Di Yu was the inaugural recipient of this award. It was highly competitive, and we are fortunate that we have been able to continue our partnership with Abbvie again this year.

Our society journals, ICB and CTI, have continued their ongoing success and are very much a primary location for submission and publication of high quality studies from around the world. Thanks to all of those members who have actively supported our journals by submitting their work to ICB and CTI.

As mentioned in my last report, Prof Anne La Flamme who been Editor in Chief of ICB for some time has plans to step down as Editor in Chief. After a competitive call, we have appointed Prof Adrian Liston as the new Deputy Editor. He is now working with Anne as part of a succession plan that will help ensure a smooth transition. Adrian is very keen to get going on some new initiatives so watch this space for calls for special issues and topics as we will be looking for contributors.

It is hard to fathom that we are already well into September

2022. I think that the sense of hope and optimism that we had at the start of the year has been justified. That is not to say that we are finished with COVID19 with ASI, and its members, needing to play important roles in helping come to grips with what it looks like to live with COVID19 going forward. The election of a new Australian government has also been met with renewed optimism. Certainly, early signs indicate that this government understands and appreciates the importance of fundamental research, scientific evidence and the expertise within our research and higher education institutions to improving both our national and international standing. They seem to value that contributions from the biomedical sector to the generation of new knowledge, development of new avenues of treatment or clinical practice, engagement with industry

partners is part of a complete package that practice will help improve the outlook for our communities.

I want to welcome Prof Gabrielle Belz who came on board this year as the ASI Vice President. If her contributions in the first six months of her tenure are any measure, the Society will be in good hands going forward into 2023 when she takes over as ASI President. Finally, thank you to our fellow executive members Dr Connie Jackaman, Dr Asolina Braun and Dr Emma Taylor and of course our outstanding General Manager Tyani Chan. The first half of this year was very busy and yet they all found time to ensure that ASI ran smoothly. Their wise counsel, sage advice, good humor, and most importantly patience, is very much appreciated.

Stephen Turner
ASI president 🌟

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Secretary's Report

Connie Jackaman | Honorary Secretary



Council Positions

There are a number of council positions opening for appointment in 2023 (formally starting following the annual general meeting at ASI2022, please see below). This is a great opportunity if yourself or someone you know is interested to join ASI council. If you have any questions on these roles, please feel free to reach out to the current councillors in these positions.

Visiting Speaker Program

Prior to the pandemic the VSP was one of ASI's flagship programs, bringing many outstanding scientists to visit branches across Australia and New Zealand. However, due to border restrictions during the pandemic the VSP was on hold. We have recently announced relaunching of the program with a recent call for new speaker suggestions and we are looking forward to their visits in the coming year. From 2023, the VSP will return to two nomination rounds per year format and further information can be found on the ASI website.

ASI2022

After the delays during to the pandemic, ASI2022 is now finally approaching. The LOC have organised a great program and look forward to seeing you all in Melbourne! The annual general meeting will also be held at ASI2022 and please feel free to come along to ask any questions. We also look forward to the closing ceremony to celebrate the announcement of all award recipients from both the meeting and throughout the year.

Award Information and Eligibility

A reminder that if you are unsure of your eligibility for a particular award scheme and wish to request an eligibility extension please contact ASI in advance of the application deadline. ASI provides an eligibility exemptions on a case-by-case basis and examples of eligibility exemptions include (but are not limited to) paternity leave, carer's leave, financial hardship, unemployment (or employment

outside the sector), unforeseen circumstances (e.g. pandemic, bushfires, floods) or personal circumstances (e.g. medical issue, family emergency).

Further award information can be found on the ASI website.

Connie Jackaman
Honorary Secretary

COUNCIL POSITIONS OPENING FOR APPOINTMENT IN 2023

- Deputy Treasurer
- Secretary
- QLD Branch Councillor (QLD members only)
- NZ Branch Councillor (NZ members only)
- VIC/TAS Branch Councillor (VIC/TAS members only)
- Day of Immunology Coordinator
- Visiting Speaker Program Coordinator

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Arginine-specific protein digestion

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GlycINATOR® (Endo32)
Hydrolysis of all Fc-glycans

IgGZERO® (EndoS)
Hydrolysis of complex Fc-glycans

Antibody Conjugation

GlyCLICK®
Site-specific conjugation of native IgG

TransGLYCI™
Transglycosylation of IgG

Glycan Profiling

FucosEXO™
Hydrolysis of α1-2,3,4 fucose

GalactEXO™
Hydrolysis of β1-3,4 galactose

GalNAcEXO™
Hydrolysis of α-linked GalNAcs

OglyZON®
Hydrolysis of core-1 O-glycans

OmniGLYZOR™
Hydrolysis of N- and Mucin-type O-glycans

OpERATOR®
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PNase F
Hydrolysis of N-glycans

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Enrichment of O-glycopeptides

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Digestion and analysis

Antibody Conjugation
Conjugation and analysis

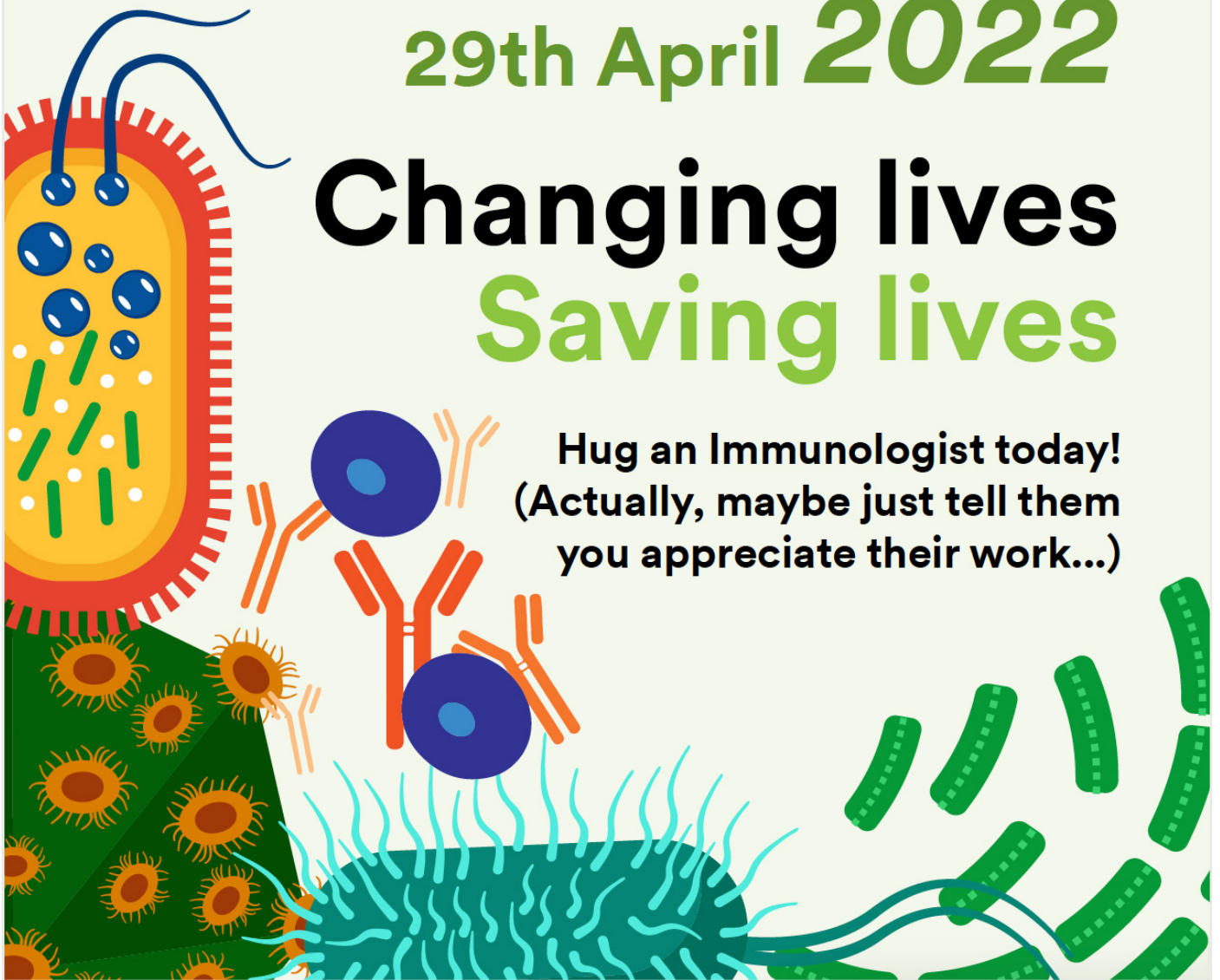
Custom Antibodies
Antibody development, production and purification

Day of Immunology

Day of Immunology 29th April 2022

Changing lives
Saving lives

Hug an Immunologist today!
(Actually, maybe just tell them
you appreciate their work...)



Day of Immunology

NSW

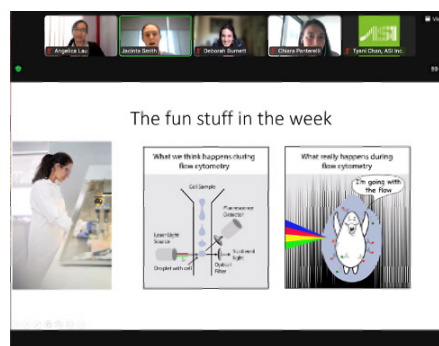
Angelica Lau,
NSW Branch Councillor

This special edition is all about the highlights of Day of Immunology celebrations that took place throughout the weeks of 29th April.

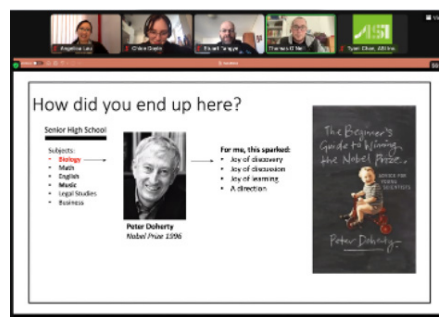
I would like to thank the all volunteers who helped organise the various DOI events across NSW this year. This year we have several participating institutes, including volunteers from the Charles Perkins Centre University of Sydney, Westmead Institute of Medical Research, Garvan Institute, University of New South Wales and University of New England. Amidst the uncertainties of the pandemic, I am pleased to share that ASI NSW was able to join the rest of the world in showcasing and celebrating immunology during a number of internal and public events held by a number of institutes. Most of all, thank you to all the students and researcher volunteers for participating and help celebrating this wonderful time of year where we highlight and raise awareness for immunology and medical research.

DOI at the Garvan Institute of Medical Research

I was delighted to host an ASI event 'Facetime a Scientist' public webinar targeting Y11-12 students. This Q&A featured a number of students, post doc and lab head, who gave some insightful advice about pursuing a scientific career, what it takes to become a scientist and the pathways to become an immunologist. I'd like to especially thank Dr Deborah Burnett, Dr Chiara Panterelli, Jacinta Smith (USyd/Westmead), Chloe Doyle (Westmead), Thomas O'Neil (USyd) and A/Prof Stuart Tangye for the fantastic sessions. We received quite a number of interesting questions from Y11-12 students in NSW and the event was very well received!



Session 1 featuring Dr Chiara Panterelli (Garvan), Dr Deborah Burnett (Garvan) and Jacinta Smith (USyd)



Session 2 featuring Chloe Doyle (WIMR), Thomas O'Neil (WIMR), A/Prof Stuart Tangye (Garvan)

Secondly, Garvan Institute had aimed to host a Yr11-12 Discovery Tour, which unfortunately had to be postponed due to unforeseen circumstances. Nevertheless, I know a lot of work had already been put into preparing for the original launch day, so thank you to Dr Clara Young, Michael Trpcski, Jacqueline Tearle, Lachlan Gray, Jacqueline White, Nona Farbehi, Ellie Spenceley, Dr Tina Nguyen, Dr Julia Bier and Dr Raymond Louie (UNSW) – hopefully we will hear about the amazing event in the next DOI.

DOI at University of New England

University of New England also held a fantastic vaccination awareness workshop with school student. A number of immunology staff and students from UNE have volunteered to be interviewed to help raise awareness of what it is like to be in the discipline of Immunology and were featured on the UNE website during DOI.

A special thank you to Natkunam Ketheesan, Rafeek Rukshan, Nick Andronicos, Richard Charlesworth and Sinead Henderson for participating in this interview series led by Olivia Portell.

Check out some of these profiles featuring these aspiring immunologists!

<https://www.une.edu.au/connect/stories/2022/05/studying-immunology-at-une>

<https://www.une.edu.au/connect/stories/2022/05/q-and-a-with-professor-natkunam-ketheesan>

<https://www.une.edu.au/connect/stories/2022/04/the-puzzle-of-immunology-q-and-a-with-dr-nicholas-andronicos>

<https://www.une.edu.au/connect/stories/2022/04/q-and-a-with-dr-richard-charlesworth>

<https://www.une.edu.au/connect/stories/2022/04/dr-sinead-henderson-international-day-of-immunology>

It was wonderful to have the Head of School of Science and Technology at UNE, Professor Linda Agnew, to devote her Occasional Address to the UNE Science Graduands (graduation ceremony held on 29th April), on the breakthroughs in Immunology and its impact on human health.

The team generated flyers and posters to advocate the importance of vaccination which was distributed as part of the graduation booklets to guests attending the graduation as well as to year 9-10 students at The Armidale School as part of public outreach.

Day of Immunology

NSW

Angelica Lau,
NSW Branch Councillor

DOI at Charles Perkin Centre, University of Sydney

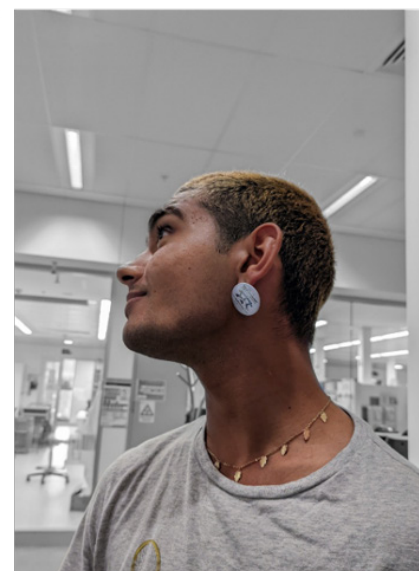
Last but not least, Charles Perkins Centre University of Sydney and Westmead Institute of Medical Research also celebrated DOI in style by running an amazing science communication competition – big thanks to Helen McGuire, Andrew Harmann, Joanne Reed, Kirstie Bertram, Adrian Lee for making it all happen. See the wonderful recap from Helen below:

*Helen McGuire contributed special report for **Day of Immunology in NSW, 2022***

Immunology Research Appreciation Activities, Charles Perkins Centre University of Sydney

On the 28th May we gathered at the Charles Perkins Centre, to promote to the wider community an awareness of the great immunology research undertaken at the University of Sydney. To celebrate this undertaking, we ran a Pitch your Research Impact competition open to all Immunology related students and EMCRs. Two fantastic finalists, Olivia Lavidis and Natalie Smith shared their infectious (pun intended) enthusiasm at the Biology Domain Seminar event. I would sincerely like to thank these brave students and recognise their important role as 'Day of Immunology' ambassadors.

We kept the good vibes going at the University of Sydney, through to 29th April, recognising the official Day of Immunology. Button badges were widely distributed amongst our immunology students, with one keen student, Shivam Purohit showing that you can certainly wear them a variety of ways! Happy Day of Immunology to everyone! 🌟



Top: 'Pitch your Research Impact' competition finalists Natalie Smith (L) and Olivia Lavidis (R).

Bottom: close up of DOI button badges (L), and modelled by Shivam Purohit (R).

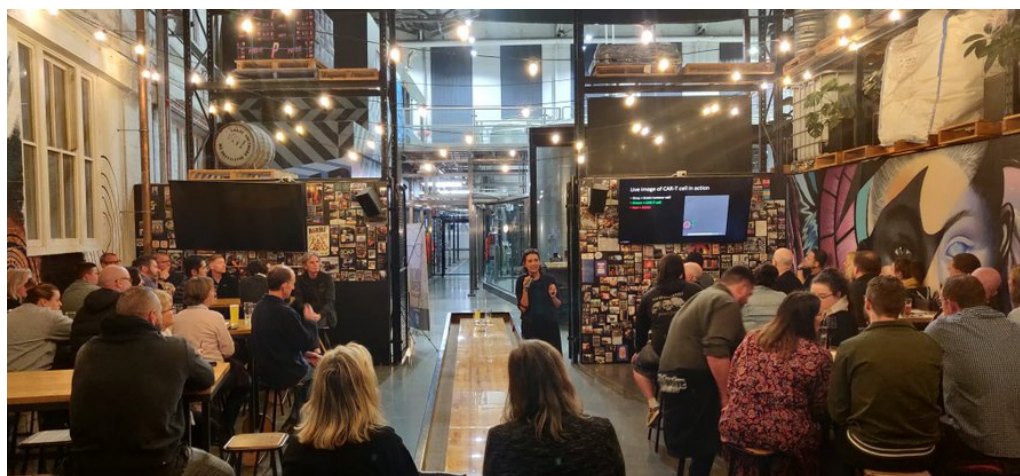
Day of Immunology

SA/NT

Damon Tumes
SA/NT Councillor

The SA/NT Branch held a Day of Immunology event as part of the Pint of Science Festival in Adelaide.

The theme of the event was "body defence" and included presentations from ASI members Dr. Tessa Gargett and Dr. Natalie Stevens. Dr. Gargett's presentation was titled "Cell therapy: Living drugs that treat cancer" and the audience were enthralled by the concept and the live microscopy videos of T cells killing cancer cells. Dr. Stevens' presentation was titled "Can you teach an old vaccine new tricks?" and this topical and captivating presentation on how the



innate and adaptive immune systems can be shaped by vaccines was enjoyed by all. Both presenters did a really excellent job of distilling these complex topics down to the most important and interesting points for the audience to enjoy. The audience this

year was a really good mix of young and old and included many non-scientist attendees. Possibly due to the trendy venue called Pirate Life Brewing in the historic Port area of Adelaide. 🌟

VIC

Maria Demaria
Monash University

Events celebrating the International Day of Immunology (April 29th) are one of the many occasions for immunologists to engage with the public in our discipline, including in Victoria and Tasmania. Apart from a couple of exceptions, due to the COVID-19 pandemic, only a handful of our events (in a modified format) have run over the past two years. We were excited this year for the chance to host our popular collection of events once again.

In the week leading up to, and on, April 29th, Discovery tours were held across 8 institutes, including 6 in person tours (La Trobe Institute for Molecular Science, Menzies Institute UTAS, Monash University Biomedicine Discovery Institute, The Peter Doherty Institute for Infection and immunity, Peter MacCallum Cancer Centre, and The Walter and Eliza Hall Institute) and 2 virtual tours (Monash University Department of Immunology and Pathology, and Olivia Newton John Cancer Research Institute) offering attendees a glance into research laboratories, a chance to participate in some hands-on activities, and of course, an opportunity to talk science with immunology researchers.

Secondary School Student workshops were held over April 28-29th in two locations, in partnership with the Gene Technology Access Centre (GTAC) in Parkville, and also at Federation University in Berwick, with participating students from 9 schools across Melbourne and regional Victoria.

Professor Nicola Harris (Monash University) and Dr Sophie Valkenburg (The Perter Doherty Institute) presented an introduction to immunology for students at GTAC and Federation University, respectively. Students explored aspects of immunology through microscopy and an ELISA, and also had the opportunity to hear and ask about careers in science from Dr Rob Bischof at Federation University, and their scientist mentors at GTAC.

Our Public Lecture, with the theme "The Immune System vs You" was held for the first time in a hybrid format with virtual and in-person attendees at the Peter Doherty Institute. Dr Kirsten Fairfax (Menzies Institute, University of Tasmania) joined us virtually from across Bass Strait to introduce the audience to autoimmunity, before our in-person speakers A/Prof Alberta Hoi (Monash University) and A/Prof Jason Trubiano (Austin Health) discussed their research into Lupus and Allergic reactions to antibiotics, respectively. The audience, regardless of

Day of Immunology

VIC

Maria Demaria
Monash University

their location, had plenty of questions for our speakers following their excellent presentations. Afterwards, in-person attendees had the opportunity to continue the conversation at the post-public lecture social event. Tasmania's Science in the Pub event also focused on the autoimmunity theme – you can read more about this event in Andy's article in this issue.

None of these events would be possible without our sponsors and supporters, our invited speakers, and participating institutes – we thank them all for their support! I'd also like to acknowledge all of the hard work and dedication of our organising committee of volunteer scientists from all over Victoria and Tasmania - Secretary, Catriona Nguyen Robertson, sub-committee chairs Susan Christo, Andy Flies, Tim Gottschalk, Emma Grant, Chris Harpur, Gabriela Khoury, Fern Koay, Rhea Longley, and Charis Teh, and all of the sub-committee members, who contributed to organising, promoting, engaging sponsors, and running these events.

We look forward to celebrating Day of Immunology again next year with all of these events and more! 🌟

Right: Students listening to Professor Nicola Harris' presentation at GTAC in Parkville. Photo credit Hynesite Photography and Monash Central Clinical School.



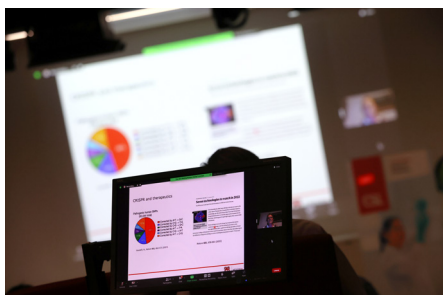
Right: Students participating in the microscopy activity at GTAC in Parkville with Monash University PhD students Jurie Tashkandi and Jesse Mulder. Photo credit Hynesite Photography and Monash Central Clinical School.



Right: Microscopy station for the Peter Doherty Institute Discovery Tour. Photo credit Samuel Noakes Photographics.



Left: Dr Kirsten Fairfax presenting at the Public lecture. Photo credit Samuel Noakes Photographics.-



Day of Immunology

TAS

Andy Flies
UTAS

The Day of Immunology event
“Autoimmunity: Good Cells Gone
Bad” was the most well-attended
in person Science in the Pub event

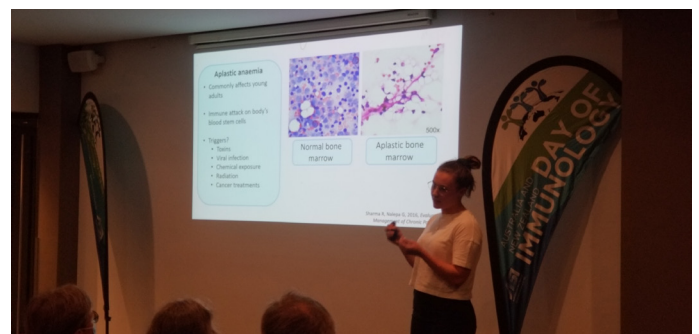
since COVID-19!

We had 65 RSVPs for in person attendance and the seats were full. 136 people have viewed the online video (<https://www.facebook.com/SciPubTas/videos/1029293417695223>). The audience was full of questions for the three panellists. Several audience members told the host they really enjoyed the event and look forward to future events. Special thanks to our engaging speakers:

- Dr Camila Espejo, Tasmanian School

of Medicine and Menzies Institute for Medical Research, UTAS, who spoke about extracellular vesicles to diagnose devil facial tumour disease.

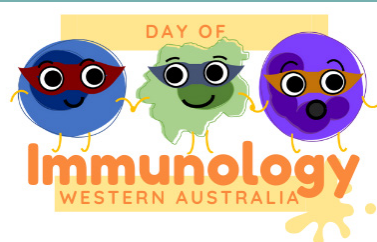
- Ariel Simpson, Menzies Institute for Medical Research, UTAS, who discussed engineering universal cells for bone marrow failure diseases.
- Dr Jessica Fletcher, Menzies Institute for Medical Research, UTAS who presented on Multiple sclerosis: When does a virus look like a brain cell? 🌱



Day of Immunology

TAS

Rachel Zemek
WA Councillor



Although states were easing restrictions, WA was only just beginning to see a rise in COVID-19 cases, so the ASI WA branch decided to move Day of Immunology online... Admittedly, this was something new for all of us (we were too scared to try TikTok), but the team did an amazing job.

Over the course of 12 days leading up to the International Day of Immunology, we had daily activities to complete with prizes to be won. Activities were aimed for primary school aged kids, but the parents had fun too! Each day we featured a new immune cell or immunology related concept with a

fun video and related activity. Dr Baca Chan and her kids even drew pictures to represent each of the days.

Day 1: First up, we introduced the immune system – Dr. Sonia Fernandez made an amazing video “The Warriors Inside Of Us”. She explained the roles of the many players in the immune system, in terms of how the police protect the neighborhood.

Day 2: Viruses. We shared a video about viral plaques and had a competition to make your own virus from things around your house.

Day 3: Bacteria. We showed what bacteria look like on an agar plate, with an activity demonstrating why we wash our hands.

Day 4: Granulocytes. We made a short animation to introduce granulocytes, and an activity to make a granulocyte popper to shoot bacteria with our granules!

Day 5: Natural Killer Cells. Day 5’s activity was a wordsearch looking for words related to natural killer cells. Plus a fun animation.

Day 6: Macrophages. We made macrophage jelly – a jelly “cell” filled with lolly “pathogens”. This was voted the favourite activity! We also shared an animation about macrophages.

Day 7: Dendritic cells. We made an animation about DC’s presenting antigen. The activity was to make your own dendritic cell with dendrites which can “capture” antigen!

Day 8: Cytokines. Today’s activity was to find the infected cell by the “cytokine” colour they released.

Day 9: B cells. We made a short story featuring Vincent the Virus and Alice the Antibody. The activity was antibody origami with a full step-by-step video tutorial.

Day 10: T cells. We shared a video about T cells, followed by an activity to make and decorate cupcakes as the three types of T cells (yum!)

Day 11: Vaccines. Our final concept before the finale! Dr Christian Tjiam made an excellent video explaining how

Left: Some submitted entries from kids doing the at home activities



Above: Kids excited to get their prize packs!

vaccines work, including how it protects the community. The activity was to test how good your (vaccine) memory is, with different levels for different ages.

Day 12: Day of immunology! The final activity was a crossword – we had hidden the clues in our daily posts.

All up, we gave out 10 prize packs to some very happy kids for the daily activities (sponsored by Thermofisher) and a real microscope to our crossword winner! We also received kind words from parents, saying they learned something too!

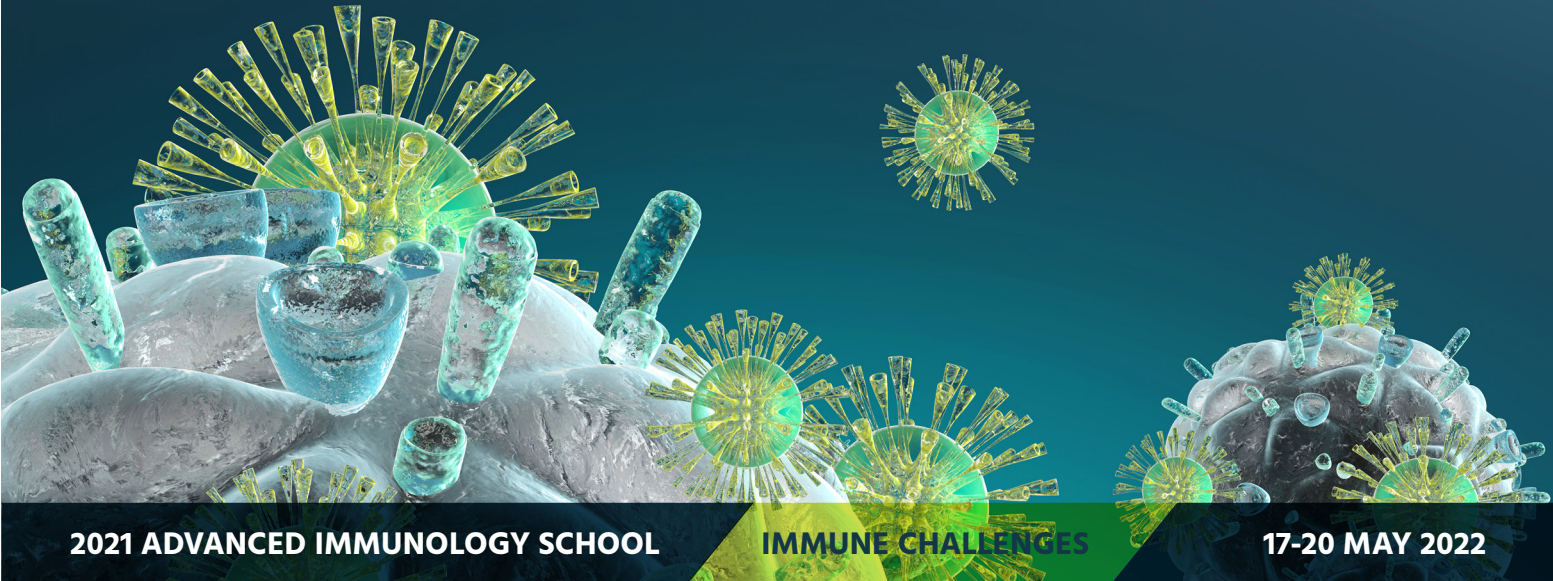
Our Facebook posts reached over 3000 people, and Instagram posts reached over 1800 people in WA, with over 800 of those visiting our pages.

Videos and info sheets are on Facebook and Instagram @dayofimmunologyWA.

All the fun activities are free and available on the ASI blog webpage: <https://www.immunology.org.au/blogs/ASI-WA/ASI-WA-celebrates-Day-of-Immunology-2022/>

Thank you to the WA ASI Day of Immunology sub-committee for all their hard work in putting together the event; Baca Chan, Sarah Dart, Lieke Van Den Elsen, Ben Wylie and WA ASI Councillor Rachael Zemek. 🌟





2021 ADVANCED IMMUNOLOGY SCHOOL

IMMUNE CHALLENGES

17-20 MAY 2022



ADVANCED IMMUNOLOGY SCHOOL - IT'S A WRAP!

I am a PhD student supervised by Dominic De Nardo, Meredith O'Keeffe and Benjamin Kile at Monash University. I am interested in understanding how innate immune signalling pathways are regulated. My work focuses on the cGAS-STING pathway, which detects pathogenic DNA and promotes an inflammatory immune response.

I was lucky enough to attend the ASI Advanced Immunology School in Sydney earlier this year. I applied for this meeting as particularly due to COVID-19, I felt I was lacking opportunities to network with other researchers in the broader immunology field. There was a great energy at the AIS and you could tell everyone was excited to be able to connect with other researchers in person.

The AIS had a fantastic group of senior researchers that formed the faculty members. There was a great breadth and interesting range of science with stimulating talks by the faculty. The panel discussions on professional skills for your scientific career, grant writing and reviewing were also extremely useful.

The meeting had a great atmosphere and it was very easy to interact with all the attendees. One of the things I really enjoyed was that many of the delegates were around the same time along their research careers. In particular, as a last year PhD student I found this to be the perfect meeting for me. I gained many insights and advice from both the professional development workshops as well as conversations over dinner. In particular, I took the opportunity to ask the faculty members questions about their research experiences and for any advice as I transition from PhD to postdoc.

Overall, I found the AIS to be a very inspiring and enjoyable meeting and would recommend the AIS to every early career researcher. I will be using the money from my award to register for the ASI Annual Meeting in Melbourne where I hope to catch up with several of the ASI AIS delegates and faculty members.

Thanks again to the organisers for putting together such a well thought out and engaging meeting.

Kate Balka

Monash Biomedicine Discovery Institute (BDI) ✨

I had a really great time throughout the conference! The program had a good balance of "Faculty" speakers, junior/delegate talks, and breaks, and the evening panel discussions were very engaging. The 1 hour duration for Faculty talks felt like a good amount of time for each presentation, and I appreciated that each of the faculty speakers made an effort to explain their work with clear context and emphasis on wider significance to reflect the mixed audience.

The overall length of the conference was a good amount of time, too - three nights/four days was enough time for me to make friends and meet many different participants, and to include multiple panel discussions, but any longer and I would have been exhausted at the end! The number of participants felt just right for a conference of this duration - fewer people would have limited the diversity/range of topics and experience levels across the cohort, while having too many more people would have made it harder to meet and network with peers and faculty, and would have resulted in less delegates being able to present their own work.

Speakers were well chosen - each of the faculty members I spoke to made a genuine effort to engage with students/ECRs and ask about their work or interests, rather than simply talking to other Faculty. I had some great discussions at the dinner table about active writing for grants and papers, and how to balance academic research with teaching or clinical work, as well as more reflective conversations about how to decide what you want out of your own career.

MW ✨

Loved the atmosphere of the whole school, I felt comfortable coming up to anyone and just starting a conversation.

GH •

I grew up in Thailand but moved to Melbourne to study immune fate decisions. I am currently in the final year of my PhD at Monash University, studying B-cells under the guidance of A/Prof Kim Jacobson. My research focuses on the epigenetic factors which regulate the formation of long-term humoral immunity to different types of infection and vaccination.

Since emerging from the COVID-19 lockdowns, the AIS was one of the first conferences that many immunology PhD students from around Australia have been able to attend and, for many of us, the first real opportunity to present our work in person. This meeting was a fantastic opportunity to meet fellow early career researchers and to see some of the exciting work that has come out of Australian labs over the last few years. The presentations and discussions were fascinating, and the organisers did an excellent job of providing us with a platform for invaluable connections to be made and engaging conversation to be had. The social committee also did a phenomenal job of making sure each evening was highly entertaining and of ensuring that the food and drink were plentiful, enjoyable, and considerate of dietary requirements. I am



tremendously grateful to the AIS organisers and to Abcam for the 'Spirit of AIS' award. The award money enabled me to attend and present at an international conference on Germinal Centres later this year.

Liam Kealy
Monash University •

I'm a Postdoctoral Research Fellow in Gabrielle Belz' lab at the University of Queensland Diamantina Institute. I joined UQDI in 2021 after obtaining my PhD from Imperial College London. My research focusses on understanding innate lymphoid cell development and function. I'm particularly interested in understanding how hepatic NK cells and ILC1s are regulated and how dysregulation of these cells contributes to liver pathologies, such as cancer.

I signed up for the AIS because I thought it would be a good opportunity for me to get to know other immunologists across Australia, considering I had just moved here. And this is exactly what the AIS is about – to network and get to know other immunologists at a similar career stage at other institutes.

The majority of delegates presented their research, which, together with the talks by the invited faculty members made it a good opportunity to get an overview of the research focus of different institutes and research groups. The event was a good mix of short talks by participants and longer talks by faculty members, as well as a couple of panel discussions about career development and grant writing.

I particularly liked that everyone stayed on-site, including faculty members. This made it possible to really interact with the other



I absolutely loved it! I found it a great, relaxed environment to network and make new friends. I think the program would be enhanced with more panels, and less talks. The workshops were great- both topics highly relevant!

AD •

participants and to have meaningful conversations about science, career development and the future of immunology over dinner and drinks. The overall atmosphere was great and I'm sure that everyone really enjoyed the week.

I used my award money to register for the Brisbane Immunology Group Retreat, where I'm sure I will run into some of the AIS delegates from Queensland!

Sophie Curio
University of Queensland •

Gordon Ada Award

SIDONIA ECKLE

Peter Doherty Institute for Infection and Immunity

Biography:

Sidonia is a Group Leader and NHMRC Emerging Leadership Fellow at Melbourne University's Department of Microbiology and Immunology, located at the Doherty Institute for Infection and Immunity. Sidonia completed her BSc in biochemistry at the Technical University of Munich in Germany, her MSc in molecular cell biology at Uppsala University and the Karolinska Institute in Sweden, and her PhD in immunology at the Department of Microbiology and Immunology at The University of Melbourne. Sidonia then did her postdoctoral training in the same department, supported by an ARC DECRA Award. Her research, at the cross-roads of cellular immunology and biochemistry, focuses on a subset of unconventional T cells, termed Mucosal-associated invariant T cells (MAIT cells).

Research:

Mucosal-associated invariant T cells (MAIT cells) are a recently described, abundant population of innate-like T cells in humans. Unlike conventional T cells which recognise peptide antigens in the context of classical MHC-I and MHC-II molecules, MAIT cells recognise small molecule

metabolites presented by the MHC-I related protein (MR1) and I played a pivotal role in identifying these antigens as part of a multidisciplinary team (<https://www.nature.com/articles/nature13160>). Capitalising on this knowledge, I was also key in generating MR1-tetramers, analytical tools which specifically identify MAIT cells. These discoveries have opened up the MAIT cell field. My ongoing research focuses on understanding the role of MAIT cells in infectious diseases and allergies and to discover novel antigens in these contexts to ultimately develop MAIT-cell based therapies and vaccines. This work is currently funded by a New Investigator project grant from the NHMRC and a CASS Medicine/Science grant.

Gordon Ada Award:

The Gordon Ada Career Advancement Award supported my recent travels to Europe, as part of which I attended the 12th International CD1/ MR1-restricted T lymphocyte meeting in Gothenburg, the international flagship meeting in the field of unconventional T cells, including MAIT cells. I also gave seminars at the Biomedicum at Karolinska Institute, the Biozentrum at Basel University and a biotech



company in Copenhagen. These seminars were a great opportunity for me to share and discuss our work, including a now published study demonstrating that CD8 co-receptor engages MR1 and enhances antigen responsiveness by MAIT and other MR1-reactive T cells (Picture 2). Both the conference and the seminars also provided a fantastic opportunity to reconnect with existing collaborators and to form new collaborations, which is of great importance to my highly collaborative research program, including the translation/ commercialisation of aspects. As an exciting sidenote, at the invited speakers' dinner of the conference, my colleagues, Dr Fern Koay and Dr Nick Gherardin, and I, were given the blessing by the scientific

advisory committee to host the next meeting in Australia (Picture 3). We are thrilled about the opportunity and thankful for the mentorship we have been receiving from the previous organisers of this conference in Australia (Profs Jamie Rossjohn, Dale Godfrey and Jim McCluskey) and the future organisers in the US (Profs Branch Moody and David Lewinsohn).

My opportunity to attend a conference, to showcase our work and to network with other researchers has been instrumental in building collaborations and raising my research profile and I would like to sincerely thank the ASI for the support towards this and for the recognition of my emerging leadership in the field of MAIT cell biology in the form of a Gordon Ada Award. 🌟

Gordon Ada Award

STEPHANIE GRAS La Trobe University

It was such an honour to receive the Gordon Ada award to support my international travel back in 2019. I was invited keynote speaker at the AIDs conference in Mexico. A week prior to the conference I had a family emergency, rushed back to France and stay for most of 2019.

ASI kindly transferred the award for 2020, and then COVID hit!

There were no more international, or even national travel allowed, and all conferences moved to an online format. I would like to thank the ongoing support of ASI pushing the award to 2021/2022, as well as creating additional awards to support ASI members during the pandemic ;-).

As travel was still limited at the end of 2021 and early 2022 for conferences, I've made the most of our excellent local conferences and reconnected with colleagues and friends. The award supported my attendance to 4 national conferences. I have actively participated to the conferences and was part of organising committees and presented my work. I also reconnected with our vibrant scientific communities, which after 2 years of online conferences was very uplifting.

The first conference was ASI 2021 which had to be online. This did not stop the organising

committee to bring a fantastic line up of speakers. I had the pleasure to work alongside Garbiela Khoury and Katharina Ronacher as part of the ASI2021 social media committee, which was a lot of fun and extremely engaging. We managed to get the #ASI2021 trending on twitter and ranked number 6 in Australia ;-)

2022 finally allowed us to have some face-to-face conferences with, of course, some careful condition. Making the most of it with my lab, we went to Lorne Proteins and Lorne I&I conferences.

At Lorne Proteins 2022, I was honoured to be invited speaker as one of Sparrow session awarded alongside with Onisha Patel, Alastair Stewart and Senthil Arumugam. A big thank-you to Lindsay Sparrow and Leann Tilley for this new initiative.

I was also part of the organising committee, and nominated one of our international invited speaker Prof Robert Tampe from Germany who gave a fantastic talk! This created new opportunities as Robert invited my postdoc Dr Christopher Szeto and myself to visit his lab in September to present our work. I was also session Chair and invited to the Student lunch which is always a lot of fun.

Once the conference concluded, we had the week-



end to enjoy the wonders of Lorne and the friendly local cockatoos before the Lorne Infection & Immunity conference started. I've enjoyed being part of the organising committee, judging posters, presentations, and being invited to the 'Meet the Profs lunch with the ECRs'. It was also the perfect opportunity to see what our colleagues have been up to during the two last years. It was great to reconnect with friendly faces, see my postdocs and students present their work.

In April 2022, the IgV2021 conference could finally take place face-to-face.

With some members of my lab selected for presentation and session chair, we went to the Yarra Valley Lodge where the conference was held. It was two days packed with a great diversity and quality of presentations. The conference was also the opportunity to talk about Equity, Diversity and inclusion with the conference dinner speaker's Maria Devlin and the IgV gender diversity quiz IgV2021 organised. There is

still significant work required to reach equity. ASI as a society has been proactive in developing and diversifying the awards available to the members, thank you!

Overall, the support of the Gordon Ada award helped me disseminate the work from my lab through multiple conferences. It also further extended my network with some new collaborations arising from those conferences.

I also had the pleasure to see my postdocs present their research: Dr Emma Grant (presentation of IgV), Dr Christopher Szeto (most tweeted poster at Lorne Proteins) and Dr Dimitra Chatzileontiadou (presentations of Lorne I&I and IgV and session chair). My students also presented their work: Andrea Nguyen (won a poster prize at IgV), Christian Lobos (presentation at IgV) and Lawton Murdolo (poster presentation).

Despite not being able to travel overseas as part of this award, it has led to new opportunities that would not have been possible without it. 🌟

Career Advancement Awards

CATARINA ALMEIDA

The University of Melbourne and
The Peter Doherty Institute

Over the last 10 years, first as a MSc and researcher in Prof L Graca's group (Portugal, IMM), and then as a PhD student and Post-doctoral researcher in Prof Dale Godfrey's group (Aus, University of Melbourne), I have gained extensive research experience in the field of Unconventional T cells, namely in NKT cell biology. Whilst most therapies in the clinic target immune responses mediated by peptide-reactive conventional-T cells, there are large populations of unconventional-T cells that have emerged as key players of the immune system and respond to non-peptide antigens. The most extensively studied are the lipid-reactive subset of unconventional T cells termed NKT-cells, which are being explored in anti-cancer and vaccine enhancement clinical trials. However these focus on Type 1-NKT cells, which are only a subset of CD1d-restricted T cells, with limited diversity and antigen specificity. Other CD1d-restricted T cells, known as diverse or 'Type-2' NKT cells, use different TCRs and have distinct lipid-specificities. I have pioneered the development of tools and approaches that uncovered new Type-2 NKT cell subsets (CD1d-restricted) and their target-Ags, overcoming a major limitation in the field. My ground-breaking studies

revealed a broader diversity across the NKT cell family than previously appreciated.

I have been the recipient of the ASI Career Development Award – Post-Grad Tier 2. This award has been a determining factor to allow my attendance to the CD1-MR1 conference in Sweden (22-26th May). This is the world's premiere conference focused on unconventional-T cell immunology research, held every 2-3 years since 2004. It brings together over 300 international delegates, including world-leading experts in this field. The conference programme is highly relevant to the competitive research that I have been conducting in one of the world leading labs the field of unconventional T cell biology at The University of Melbourne (Prof Dale Godfrey's lab). This year my work was selected for a long oral as well as a Poster presentation. The research presented focused on a paper I am currently assembling as co-senior (last) author and increased the knowledge of the diversity of unconventional T cells. It revealed a previously unknown public repertoire (semi-conserved across different individuals) amongst Type 2 NKT cells, and the strategies used to recognise their targets. This allows a better understanding of their role in immunity,



Catarina and Prof Luis Graca

provides valuable insight into how they can be manipulated for therapeutic purposes and could have greater implications on the design of current health/

treatment strategies in the clinic.

Given that I intend to establish a career as an expert-researcher

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in this very specific field, the support to attend such conference has also allowed me to become acquainted with the recent work within my field of research, to share my research amongst peers, to nurture and start new collaborations, and to help me solidify my international reputation as an expert on Type 2 NKT cell research. Indeed my findings have raised great interest and discussion amongst the audience including Dr Chenqu Suo, from Sarah Teichmann's laboratory – Sanger institute who approached me to share some of her own data and potentially setup a new collaboration. The conference was also an opportunity to nurture and discuss ongoing collaborative research with Profs Moody and A/Prof Van-Rhijn, Harvard, and Dr Srinath Govindarajan Ugent-Belgium, which we aim to

publish late this year.

This ASI award also enabled me to visit Instituto de Medicina Molecular at the Faculdade de Medicina de Lisboa, Portugal – the institution where I had completed my MSc degree. I was hosted as an external visiting guest-speaker by Prof Bruno Silva Santos and Prof Dr Luis Graca. During my seminar I invited the audience to try some Australian treats (see photo below) – including Vegemite and Tim Tams. Whilst there were mixed reviews about Vegemite, everyone loved Tim Tams!

That day I also attended an Immunology Symposium, where research Prof Bruno-Silva Santos and Dr Joao Eurico's labs was presented, and met with Dr Afonso Almeida and Prof Ana-Espada de Sousa, who asked for private meetings to have my



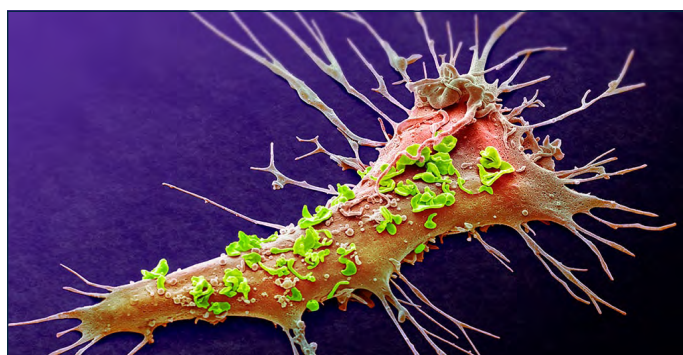
expert input on their ongoing research, and discuss potentially new collaborations.

Overall, this award has played a significant role to help consolidate my international reputation, seek out new collaborative opportunities, and reach my goal of becoming a recognised specialist in the field of unconventional-T cell biology.

I hope that awards like this keep existing to enable Post-doctoral researchers like me to enrich and develop their research careers. 🌟

Top left: Dr Julie Ribot trying (and loving) Vegemite

Above: Dr Afonso Almeida saying "It's (vegemite) not as bad as I thought...."



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Career Advancement Awards

LUKASZ KEDZIERSKI

Peter Doherty Institute for Infection and Immunity

I am a Senior Research Fellow in the Department of Microbiology and Immunology at the Peter Doherty Institute for Infection and Immunity, University of Melbourne. My key research interests revolve around host-pathogen interactions. I completed my PhD at Monash University, and subsequently moved to the Walter and Eliza Hall Institute, where I initially worked on the protozoan parasite *Leishmania*. My research focus then shifted to investigating the role of suppressors of cytokine signalling proteins 4 and 5 in viral infections. At the Peter Doherty Institute, I instigated a research program focusing on immune responses during virus induced encephalomyelitis. Over the last few years, I have been investigating the role of SOCS proteins in controlling brain immunity and inflammation using a model of neurotropic arboviral infection as well as investigating neuronal age-dependent susceptibility to viral infection. This research led to my current work investigating perturbed immunity during viral co-infections.



After a pandemic-induced travel hiatus, I had an opportunity to attend the Keystone Symposium on Viral Immunity: Basic Mechanisms and Therapeutic Applications, postponed three times during the pandemic. I used the ASI Career Advancement Award - Jacques Miller as a conventional international travel award to cover the conference costs (registration and travel) to Keystone, Colorado. During 2020-2021 lockdowns, researchers at the Peter Doherty Institute were deemed essential workers due to Institute's frontline work on COVID-19. While this turned out to be a great opportunity to contribute to the pandemic research and boost track record, I have also initiated a new research program investigating the effects of respiratory and neurotropic viral co-infection on host immune responses. This project generated new, exciting and unexpected results. We established a novel mouse model of co-infection using a neurotropic arbovirus and respiratory virus. Our new data provide insights into how co-

infection with two unrelated viruses alters the immune response and disease outcome.

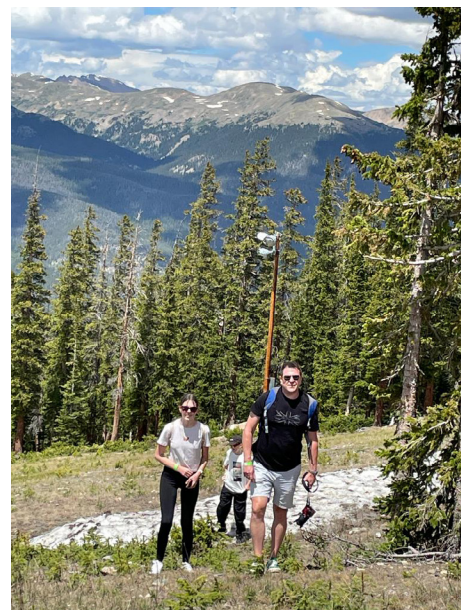
The Keystone Symposium offered me a unique opportunity to gather insights from the latest research, present

and discuss our data as well as establish new collaborations.

This lively meeting was set against an amazing backdrop of The Rockies in their full summer glory. While I have been in the region several times, I have always travelled to Colorado in winter. Seeing picturesque Keystone

in its green scenery instead of white was an experience in itself. The Symposium was attended by scientists mostly from the USA and Australia and not surprisingly was dominated by SARS-CoV-2 presentations but also offered great presentations on new vaccine approaches, tackling escape mutants and immunodominant determinants identification. Nevertheless, influenza, herpesviruses, HIV and an odd flavivirus were not forgotten. Apart from full days of exciting science, social interactions are the second major reason to attend conferences in person. It was great to see everyone dropping their face masks, share a drink, gather around dinner tables for discussions and wander around posters. Life is (almost) back to normal!

As a research fellow, I have a limited access to discretionary funding to cover full conference costs. The ASI Jacques Miller



Award 2022 provided me with the opportunity to cover this shortfall. Attendance at international conferences of this calibre is critical for research career development and international exposure, particularly when one is working in highly competitive and rapidly changing field of viral immunology. I would like to thank the ASI for the recognition and I am grateful for this opportunity. 🌟



Carer Awards

**LISA
MIELKE**

Olivia Newton-John
Cancer Research
Institute and La Trobe
University School of
Cancer Medicine.

I am Head of the Mucosal Immunity and Cancer laboratory at the Olivia Newton-John Cancer Research Institute and School of Cancer Medicine La Trobe University. My laboratory focuses on immune cell biology in intestinal homeostasis and gastrointestinal cancers. I completed my PhD in 2009 at the National Institutes of Health, USA and performed my postdoctoral studies at Trinity College Dublin, Ireland and the Walter & Eliza Hall Institute of Medical Research in Melbourne, Australia. During this time, I led numerous studies revealing new and exciting cross-talk between our diet and transcriptional regulation of intestinal innate lymphoid cells (ILC) and $\gamma\delta$ T cell populations. These studies opened an exciting frontier of research in the field of mucosal immunology, that underpin my current work and set the foundation for my lab at ONJCRI. Our current work focuses on the role of transcription factors in development and function of intestinal intraepithelial

lymphocytes. We study how these cells function in colorectal cancer and aim to discover novel ways of harnessing immune cells to develop better immunotherapies.

I have two children aged 3 and 6, the covid support carers award from ASI helped me immensely at a time when I most needed it. At the beginning of 2022 our childcare facility was shut down for one week due to covid-19 infection and staffing shortages. I used the carers award to fund alternative childcare for my children during this week of childcare shutdown. I used this time to work on a manuscript which has now been submitted and is under review for publication. I also used this time to plan applications for upcoming grant rounds both NHMRC and ARC. This award gave me extra time that I would not normally of had to help prepare important applications and manuscripts. Having this extra time to prepare has been critical for my career progression and success of my lab. 🌟

Carer Awards



SAPNA DEVI

University of Melbourne

I am a postdoc in Prof S Mueller lab situated in The Peter Doherty Institute for Infection and Immunity in the University of Melbourne. As a lab, we are interested in understanding the fundamental cellular processes involved during an immune response to infections and cancer. My research career till date focuses at understanding the mechanisms regulating leukocyte activity in different tissue microenvironments, using advanced imaging techniques. I am thrilled to have developed a new avenue of research in the lab, particularly examining the interplay of the neuro-immune systems in lymphoid tissues. My recent cross-discipline research revealed a surprising role for the sympathetic nervous system in modulating lymphocyte migration. Using intravital 2-photon imaging, I discovered that catecholamines emitted by the activation of the sympathetic nervous system can acutely alter lymphocyte dynamics therefore alter induction of immune responses and protection from diseases including cancer.

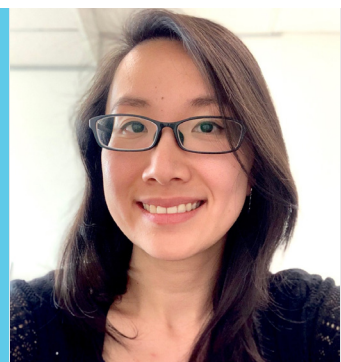
Generating all these data was rewarding as my study took form of a publication in Immunity, plus I progressed in life by giving birth to an adorable baby boy. My research now extends to addressing the consequences of activating the sympathetic nervous system (or simply stress) on cancer immunity. I am excited about this as we now have all the relevant tools and techniques established in the lab that will aid in this investigation.

Thank you, ASI, for this carer award. This award has sponsored my mother-in-law's trip to Australia to provide long-term care to my son while enabling me to spend more time in this exciting project! 🌟

Image: Trying to steal the show at my zoom meetings

NSW Branch Report

Angelica Lau | NSW Councillor



Hello everyone,

Can you believe it is already more than half way through the year? As I prepare this report, our ASI NSW-ACT meeting is literally just around the corner. I am sure it is going to be a wonderful meeting as come together again to have insightful scientific discussions in person! I really have to thank the local organising committee and all the helpers along the way

who has really stepped up to make this meeting planning as smooth as it is given the challenging climate we are in. Be sure to tune in for the update on this in the next report!

ASI Annual Meeting – Melbourne 2022

Don't forget to register for the 50th ASI Annual Scientific Meeting will be held in person on 29th November

– 2nd December. Early bird registration is open until 29th September to secure your discounted registration cost!

Keep your eyes open because there are also talks of potential international visiting speakers coming to Sydney! More information to come but it will be really wonderful to restart our VSP program as we welcome international speakers to connect with us


again in person in the NSW network.

That's a wrap.

Please don't hesitate to get in touch if you have any questions or suggestions for events, workshops that could be of benefit to the ASI community, I'd love to hear them.

Take care.


Angelica Lau •




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QLD Branch Report



Severine Navarro
Queensland
Branch Councillor

Queensland has been buzzing with seminars, meetings, symposia and new educational opportunities!

The Qld ASI Subcommittee has also been very active on multiple fronts. Here are a few examples:

ASI Queensland Immunology Online Seminars have gone live!

We have so far had a huge success with this new series with attendees zooming in from The University of Queensland, Queensland University of Technology, Griffith, James Cook University, as well as The Queensland Children's Hospital, The Princess Alexandra and The Brisbane Royal and Women's Hospitals! We have had the

pleasure of hosting Prof Franca Ronchese from The Malaghan Institute NZ, Dr Karen Agaronyan from Yale School of Medicine, Prof Fabian Theis, Head of the

Computational Health Centre at Helmholtz Munich, Germany. Next week QIMR Berghofer will be hosting in person A/Prof Nilu Goonetilleke who has come to Australia from the University of North Carolina, USA. She will be presenting her work on Human T cell immunology in controlling infectious diseases. Do not miss out our September and November speakers: A/prof Marie-Claire Arrieta from the University of Calgary, Canada, and Dr Olivier Neyrolles, Director at the Institute of Pharmacology and Structural Biology, France! Contact me directly if you would like the zoom links.

ASI Qld has now a new Twitter handle (see image)!

If you would like updates on all our activities as well as share your research and accomplishments, follow us @AsiQld.

The 21st Brisbane Immunology Group in-person meeting is finally here!

We are about to get together on the 25th and 26th of August at Q1 Resort on the Gold Coast. This year's fantastic line-up includes Jonathan Sprent Orator Prof Prue Hart, from the Telethon Kids Institute, UWA, Dr Kylie Quinn, from RMIT University and A/Prof Justine Mintern, The University

of Melbourne for our BIG Plenary Lectures. Our BIG Icon will be none other than our ASI future President, Prof Gabrielle Belz from UQDI. We have concocted a very exciting Hot Topic on single cell and spatial transcriptomics as well as international speaker A/Prof Florent Ginhoux from A*STAR. We would like to give a special thank you to Dr Nancy Cloake, who has been our fairy godmother for organising BIG for many years! We would not have been able to do it without you! This year, we welcome Nia Cho to the team. She is our new QIMR Berghofer Event Coordinator, and the new fairy godmother who has put our 21st meeting together effortlessly (or so it seemed to the organising committee!).

Save the date for the 3rd Immunology Networking Symposium will take place on the 25th and 26th of October. The organising committee has yet again prepared a stellar line up of speakers with sessions covering all aspects of immunology: molecular mechanisms of immunity, allergy, autoimmunity, cancer, immunotherapy, infection and innovation. We have two very exciting panel discussions on Infectious Disease Preparedness and Health Innovation and Translation. Keep an eye out for



the meeting announcement to register!

Our E/MCR corner has been very active this year thanks to Dr Sophie Curio, a very talented postdoc at UQDI! Make sure to keep an eye on and/or get involved with the Queensland Early/Mid-Career Immunologist (QECI) Group! It is a network of about 100 immunologists across the state who are working to bring early/mid-career researchers together and offer opportunities for networking, career development and personal development. So far, they have organised a half-day symposium with exciting talks from PhD students and postdocs, followed by a networking lunch and a number of social events, including laser tag, dinner at the pub and pizza and drinks following the Queensland Immunology symposium. In addition to this, we have recently launched a Career Development Seminar series in which they have organised a line-up of speakers working outside of academia to talk about their career and help members get a better understanding of different career paths. Future plans include a mentoring scheme as well as more online and in-person events tailored towards personal and career development of young

immunologists. If you want to get involved, sign up here: <http://eepurl.com/hPh9IP>.

Winter Course in Advanced Immunology – report by A/ Prof Ray Steptoe, UQDI.

The 18th to 22nd of July saw the tenth running of the Winter Course in Advanced Immunology hosted by UQ Diamantina Institute (UQDI) and sponsored by the QLD branch of ASI. Held at the Translational Research Institute (TRI) on the campus of the Princess Alexandra Hospital, the course was aimed at providing 'leading edge' insights into selected areas of immunology for undergraduate and early postgraduate students. The course was structured around a series of lectures and interactive sessions in the morning and a laboratory project run in the afternoons. The course was rounded up with a presentation of the project by the students on the Friday afternoon followed by a reception for attendees. A total of 28 undergraduate and early HDR students attended the lectures and interactive sessions which, after reviewing the immune system, covered topics as diverse as immunology to helminth infections, Tfh cells, targeting DC for immunity, cancer immunosurveillance and therapy, autoimmunity and

tolerance, microscopy and flow cytometry, the use of spatial 'omics. Lecturers included Graham Leggatt, Ray Steptoe, Emma Hamilton-Williams, Ranjeny Thomas, Gabrielle Belz, Di Yu, Fernando Guimaraes, Tim Wells, Mark Morrison, Antje Blumenthal amongst others from UQDI as well as Kristen Radford (Mater Research) and Tony Kenna (QUT). This year we also had guest lectures by Zoom from Michael Hickey (Monash) and Paul Giacomini (James Cook). The laboratory project was held in the purpose-built SPARQed student engagement facility at the TRI campus and was fully-subscribed at the 18-student maximum. Thanks to Anne-Sophie Bergot and Rachel Rollo for coordinating that. Students attended from UQ, Griffith University, QUT and University of the Sunshine Coast.

Thanks to generous sponsorship from ASI we were able to provide prizes of a Registration to the upcoming Brisbane Immunology Group Annual Retreat (awarded to Aqeelah Adams) and a 1-year membership to ASI (awarded to Athena Tortal) to outstanding students. In addition, Venessa Mulafer took away a scholarship to undertake an immunology-related Honours project at UQ Diamantina Institute. Hopefully we

encouraged several next generation scientists to join the Australian immunology community.

Photo 1: Awardees Venessa Mulafer and Aqeelah Adams with Ray Steptoe and Anne-Sophie Bergot.

The Inaugural Clinical Translational School 2022 – Prof Gabrielle Belz, UQDI (see poster).

This year is seeing the launch of a brand-new meeting intended for young scientists (advanced PhD students and postdocs) and medical doctors/clinician researchers from around the world, who are actively involved in the field of clinical and translational immunology with focus on immune-mediated disease, immunotherapy and oncology. The goal of this meeting is to bring together clinicians and clinician researchers to discuss advanced and up to-date allergy, asthma, autoimmunity, inflammation, tumour and chronic diseases related immunological research with 40-60 young basic and clinician researcher scientists in a friendly environment. A list of stellar translational immunologists from prominent institutes including University of Queensland, University of Melbourne, University of New South Wales, Walter & Eliza Hall Institute, Telethon Kids Institute, Garvan Institute of Medical Research, QIMR Berghofer Medical Research Institute, Menzies - School of Health Research, Malaghan Institute of Medical Research, Westmead Institute, Kids Cancer Centre will deliver 16 lectures. The meeting will be held at O'Reilly's Rainforest Retreat, Gold Coast Hinterland, Queensland.

If you want to get involved with the committee or have great ideas or suggestions to promote the ASI Qld network, feel free to contact me at severine.navarro@qimrberghofer.edu.au. Until next time!

Severine Navarro •



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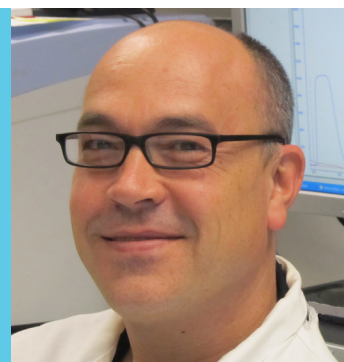
or visit www.immunology.org.au/events/2022-ASI-Clinical-Translation-School/
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 Australian and New Zealand SOCIETY FOR IMMUNOLOGY INC.

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NZ Branch Report

Ries Langley | NZ Branch Councillor

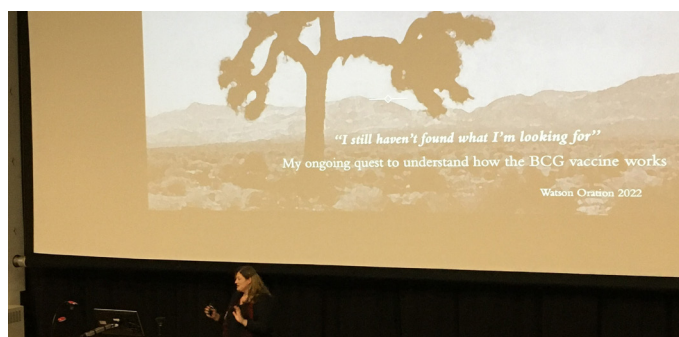


This year we held our Branch Meeting in Dunedin from 7 – 8 July. It was the first time the Branch had been able to get together since 2019 and a great time was had by all.

The Local Organising Committee (pictured below) did a fantastic job at putting together a friendly and engaging meeting. The team's efforts are to be especially acknowledged as they had to postpone the meeting in 2021 after a lot of organising. A big thank you to the meetings Gold Sponsors the University of Otago, the Malaghan Institute of Medical Research, MediRay, and to Silver Sponsors BD, Cytek, and the Maurice Wilkins Centre for Molecular Biodiscovery. Also, many thanks to our Plenary Speakers Kate Schroder, Mark Hampton, and Kylie Quinn (who was unfortunately unable to attend).



A highlight of our Branch meeting is always the Watson Oration. This year the honour went to Associate Professor Jo Kirman from the University of Otago. Jo gave a wonderful oration on her research journey so far.



The Branch has several award categories that celebrate the fantastic efforts of our student, technician, and EMCR members. The Buck Award co-winners for the best student presentation were Gemma Laws and Yasmin Nouri. The Heslop Award co-winners for the best post-doc presentation were Theresa Pankhurst and Isabelle Stewart. The Marbrook Award for best technician presentation went to Marie-Sophie Fabre, and the Best Poster prize was awarded to Lachie Dobson. The judging was incredible difficult because all the presentations were excellent.

The NZ-ASI 2022 Presentation Award winners (Marie-Sophie Fabre not present).

I end my time as NZ Councillor in December. Thank you to the NZ membership for your support. I have enjoyed serving as your Branch Councillor and look forward to carrying on supporting the Branch as a committee member.

Mā te wā

Ries Langley ✨

Top: The Local Organising Committee (From left, Dave O'Sullivan, Inken Kelch, Silke Neumann, Kirsten Ward-Hartstonge, Andy Highton, and Alissa Cait (not present) being acknowledge by Roslyn Kemp and Jo Kirman.

Middle: Associate Professor Jo Kirman, University of Otago.

Bottom: Congratulations to all the award winners.



The IUIS Corner

Joanne Reed | IUIS Coordinator



It's election time at IUIS

The nominations for 2022-2025 Executive Committee and Council are in and voting will take place online in October. IUIS Executive Committee and Council members are elected by the General Assembly (GA), which is the controlling and electing body of the IUIS. The GA is made up of members from all the Immunology Societies. ASI's GA delegates are Susanne Heinzel, Alejandro Lopez, Menno van Zelm and myself, Joanne Reed.

IUIS Committees

IUIS Committees are the action groups of the IUIS and a great opportunity for ASI members to network and engage with international immunology society members with shared interests.

The current IUIS committees include: Clinical Immunology, Education, Gender Equality, Inborn Errors of Immunity, Immunotherapy, Nomenclature, Publications, Quality Assessment and Standardisation, Vaccines, and Veterinary Immunology.

I am honoured to join the Clinical Immunology Committee and am looking forward to contributing to the advancement of clinical and translational immunology through training courses, immunology schools, seminars and other new initiatives.

More information on the IUIS committees is available here: <https://iuis.org/committees/>

Joanne Reed •

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Immunopaedia.org is a non-profit educational website which promotes the latest knowledge and research in basic and clinical immunology worldwide. The website is loaded with core immunology courses, clinical case studies and webinars, ideal for educating the next generation of immunologists. <https://www.immunopaedia.org.za>

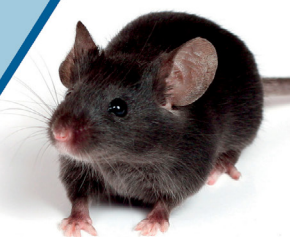
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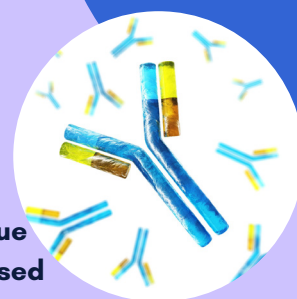
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Sustaining Member Publications

GENSCRIPT

1. Gene Synthesis

(https://www.genscript.com/gene_synthesis.html)

Wang, Y., Zhang, S., Jia, W. et al. Identification of nucleoside monophosphates and their epigenetic modifications using an engineered nanopore. *Nat. Nanotechnol.* (2022).

Doi: 10.1038/s41565-022-01169-2

2. Mammalian Expression

(<https://www.genscript.com/mammalian-expression.html>)

Mansurov, A., Hosseini, P., Chang, K. et al. Masking the immunotoxicity of interleukin-12 by fusing it with a domain of its receptor via a tumour-protease-cleavable linker. *Nat. Biomed. Eng.* 6, 819–829 (2022).

Doi: 10.1038/s41551-022-00888-0

3. Plasmid DNA Preparation

(<https://www.genscript.com/custom-plasmid-preparation.html>)

Chi, G., Liang, Q., Sridhar, A. et al. Cryo-EM structure of the human Kv3.1 channel reveals gating control by the cytoplasmic T1 domain. *Nat Commun* 13, 4087 (2022).

Doi: 10.1038/s41467-022-29594-w

MERCK

1. HCYTOMAG-60K

(To be phased out and replaced with HCYTA-60K - MILLIPLEX® Human Cytokine/Chemokine/Growth Factor Panel A)

IL-7/IL7R axis dysfunction in adults with severe community-acquired pneumonia (CAP): a cross-sectional study

Nature Scientific Reports, Published: 30 July 2022

Sandra Ampuero, Guillermo Bahamonde, Fabián Tempio, María Luisa Garmendia, Mauricio

Ruiz, Rolando Pizarro, Patricio Rossi, Lucía Huenchur, Luis Lizama, Mercedes López, Luis F.

Avendaño, Vivian Luchsinger

DOI: <https://doi.org/10.1038/s41598-022-13063-x>

2. HCYTOMAG-60K

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Immunometabolic and potential tumor-promoting changes in 3D cervical cell models infected with bacterial vaginosis-associated bacteria

Nature Communications Biology, Published: 22 July 2022

JD Maarsingh, P Łaniewski, MM Herbst-Kralovetz

DOI: <https://doi.org/10.1038/s42003-022-03681-6>

3. RECYTMAG - MILLIPLEX Rat Cytokine/Chemokine Magnetic Bead Panel

Targeting loop3 of sclerostin preserves its cardiovascular protective action and promotes bone formation

Nature Communications, Published: 22 July 2022

Yuanyuan Yu, Luyao Wang, Shuaijian Ni, Dijie Li, Jin Liu, Hang Yin Chu, Ning Zhang, Meiheng

Sun, Nanxi Li, Qing Ren, Zhenjian Zhuo, Chuanxin Zhong, Duoli Xie, Yongshu Li, Zong-Kang

Zhang, Huarui Zhang, Mei Li, Zhenlin Zhang, Lin Chen, Xiaohua Pan, Weibo Xia, Shu

Zhang, Aiping Lu, Bao-Ting Zhang, Ge Zhang

DOI: <https://doi.org/10.1038/s41467-022-31997-8>

Sustaining Member Publications

MILLENNIUM SCIENCE

1. Single Cell Immune Profiling

(www.10xgenomics.com/products/single-cell-immune-profiling)

Li et al. (2022). KIR+CD8+ T cells suppress pathogenic T cells and are active in autoimmune diseases and COVID-19

Science

DOI: 10.1126/science.abi9591

2. Single Cell Gene Expression

(www.10xgenomics.com/products/single-cell-gene-expression)

Dahling et. al (2022). Type 1 conventional dendritic cells maintain and guide the differentiation of precursors of exhausted T cells in distinct cellular niches.

Immunity

DOI: 10.1016/j.immuni.2022.03.006

3. Single Cell ATAC

(www.10xgenomics.com/products/single-cell-atac)

Ulrich et. al (2022). Allergic airway recall responses require IL-9 from resident memory CD4+ T cells.

DOI: 10.1126/sciimmunol.abg9296

OZGENE

1. goGermlineTM

(<https://www.ozgene.com/gogermline-knockout-and-knock-in-mice/>)

Zvick et al., (2022). Exclusive generation of rat spermatozoa in sterile mice utilizing blastocyst complementation with pluripotent stem cells. Stem Cell Reports.

doi: 10.1016/j.stemcr.2022.07.005.

2. Knockout mouse model

(<https://www.ozgene.com/services/knockout-mice/>)

Killackey et al., (2022). Mitochondrial protein import stress regulates the LC3 lipidation step of mitophagy through NLRX1 and RRBP1. Mol Cell.

doi: 10.1016/j.molcel.2022.06.004.

3. Knock-in mouse model

(<https://www.ozgene.com/services/knock-in-mice/>)

Xia et al., (2022). Novel App knock-in mouse model shows key features of amyloid pathology and reveals profound metabolic dysregulation of microglia. Mol Neurodegener.

doi: 10.1186/s13024-022-00547-7.

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The aim of the ASI is to encourage and support the discipline of immunology in the Australia and New Zealand region.

The Australian and New Zealand Society for Immunology Incorporated (ASI) was created by the amalgamation in 1991 of the Australian Society for Immunology, formed in 1970, and the New Zealand Society for Immunology, formed in 1975. The aim of the Society is to encourage and support the discipline of immunology in the Australasian region.

It is a broadly based Society, embracing clinical and experimental, cellular and molecular immunology in humans and animals. The ASI provides a network for the exchange of information and for collaboration within Australia, New Zealand and overseas. ASI members have been prominent in advancing biological and medical research worldwide. We seek to encourage the study of immunology in Australia and New Zealand and are active in introducing young scientists to the discipline.

The ASI membership directory, listing all current members of the Society is available at <http://www.immunology.org.au/asi-membership-directory/>

To renew your membership, click here. Please note that if you have not held a membership within the last 2 years, you will be prompted to provide 2 Nominators willing to support your application.

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ASI Member Benefits include:

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- ASI Member's benefits publishing in ASI Journals ICB and CTI
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- Full access to the journals Immunology and Cell Biology, Clinical and Translational Immunology

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