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MARCH 2022

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### **CTI UPDATE**

Taking Over The World; One issue at a Time **PAGE 15** 

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# President's Report

Stephen Turner | ASI President



A warm welcome to new and renewing members for 2022. We are looking forward to providing you the same support, learning and networking opportunities as always.

2021 saw continued challenges due to the ongoing effects of the SARS-CoV2 pandemic and ASI has continued to be agile and flexible in its support for members. It is reassuring to see that with vaccination rates growing (Australia is set to be one the highest vaccinated populations globally), a path out from COVID-19 restrictions is now mapped out and as predicted earlier in the year, we are getting used to what it means to live in a post-COVID world. Of course, this is very much an evolving situation, and while there is light at the end of the tunnel, the overseas experience tells us that we can't be complacent, and as such, it is important that we regularly revisit the society's response as the situation evolves. A big thank you for all of your continued support and suggestions as we continue to navigate our way through this time.

The decision to postpone the 2021 meeting in Melbourne was in the end a wise one given the lockdowns imposed for NSW and Victoria in August this year. Many thanks to Prof Antje Blumenthal (ASI Meetings Coordinator), Dr Fernando Guimaraes (Special Interest Groups Coordinator) and the Organising Committee members for a wonderful online event. If you missed it, this was organized around the Special Interest group themes and we maintained some of the ASI traditions such as the New Investigator session Sponsored by Pfizer, the BD Science Communication Prize, and the Plenary Lecture by our Past President (Prof John Fraser). This was followed by the Closing and Awards Ceremony to congratulate our ASI Awardees for 2021. Please click here to view our 2021 ASI Awardees.

The lockdowns in NSW meant the ASI Advanced Immunology School had to be rescheduled to be held in May, 2022 in Sydney. Hopefully, this will be the last time and again, just a note of thanks to the organizing committee for showing tremendous resilience and patience in getting this up of the ground. Looking forward to it being a showpiece in next year's list of events.

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 and we get used to what is "COVID normal".

We have in total 12 types of award. Some of those are to help support career progression at all stages (student-ECR-MCR-Senior research level). It also the Jared Purton ASI Award (established in 2016) for early and mid-career researchers. More recently established awards are in recognition of the broader contributions made by members to Immunology and include the ASI Cheers-Buchan Education award to recognize excellence and significant contributions to advancement in Immunology education and the ASI Public Engagement award to recognize those who play a significant role toward public awareness of Immunology. The challenges for equity in career progression are well documented. This has been even more amplified with the impact of COVID-19 pandemic disproportionally affecting women, those with young families (remote learning anyone), those with vulnerable dependents, our

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PhD students/ECRs, and others. Understanding the reasons for this, and then being able to provide new solutions to address the issue are a key focus of ASI. We have the Margaret Baird Women in Immunology award (established in 2019) that provides support for the career advancement of ECRs/MCRs and recognition of those who champion equity and diversity in Immunology (importantly it is open to all members), as well as the Carer's Awards - COVID-19 Support to help support for covering the costs of childcare. We are all looking forward to celebrating International

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Women's Day on March 8th with our Margaret Baird Lecture. Keep an eye out for the email inviting you to register!

An exciting development last year was the recent partnership with AbbVie and the announcement of the ASI AbbVie New Horizons Research Award. AbbVie's primary aim is to invigorate research capability and capacity in the areas of Autoimmunity, Inflammation, and other Immune-mediated **Diseases** (excluding Infectious Diseases). It is an exciting initiative and we are very grateful to AbbVie (and Dr Laura Issa from AbbVie) who helped make this award possible.

Our society journals, ICB and CTI, continued their ongoing success last year and are very much a primary location for submission and publication of high quality studies from around the world. Please always consider submitting your important work to our journals; these are your journals and

member support is vital for our continuing success. After consultation with stakeholders. we have embarked on renegotiating the contract with our current publisher Wiley, an approach that reflects the very positive relationship we have had with Wiley over the last period. As part of our due diligence we engaged a highlyexperienced independent consultant to help guide the negotiation and we very much look forward to providing you more updates soon.

As you may be aware, an important issue is the role of Open Access publishing in the future for researchers, and the impact this would have on our operating models for both ICB and CTI. You will have hopefully seen our recent member correspondence (4/2/22) about the new Wiley-CAUL agreement. This agreement allows members of CAUL unrestricted access to all of Wiley's hybrid and subscription journals and allows researchers at 52 participating institutions the ability to publish accepted articles open access in all of Wiley's portfolio of journals. This is very exciting news. It will be interesting to see how this space evolves over time. For more information and links, please click here.

As many of you know, Prof Anne La Flamme has been Editor in Chief of ICB for some time now and has been able to steer the journal through the head winds of COVID19. The success of the journal over the last few years is in large part to Anne's stewardship and her assembled team Anne is planning to step down as EiC. We have appointed a Deputy Editor to start in Jan 2022 who will work with Anne as a strategy to ensure a smooth transition

and handover of responsibilities. The appointee will then take over as Editor-in-Chief in 2023, while Anne would then stay on as Deputy Editor to finalise the handover. I am very pleased to be able to let you know that Prof Adrian Liston was the successful applicant and will join Anne as Deputy-EiC in 2022. I'd like to also take to this opportunity to thank Anne and recognise her achievements during her tenure. The ASI Executive Committee look forward to working with her and Adrian during the transition period.

At the end of 2020, there was a hope that 2021 would provide some respite, but alas that was not to be. Indeed I think that 2021 presented even more challenges in many ways but with vaccination rates soaring (in both Australia and New Zealand), and a gradual opening of borders means we can approach 2022 with a sense of hope and optimism. With a return to something that more resembles what we had before COVID19. there is a lot to look forward as we reconnect with our colleagues both scientifically and socially with a great list of scheduled face to face events. I want to thank all those who have contributed to the Society in 2021. This includes

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our members who make contributions at a local level, and participate in organizing and attending events, those that help with judging, our journal Editors-in-Chief, Prof Anne La Flamme (ICB) and Prof Rajiv Khanna (CTI). I wish to thank all the council members and thank those that are finishing up, as well as welcome those incoming members of council and Executive for 2022. Finally, I want to sincerely thank my fellow executive members Dr Connie Jackaman, Dr Asolina Braun, Prof John Fraser, Dr Emma Taylor and of course our outstanding General Manager Dr Tyani Chan. Their wise counsel, sage advice, good humour, and most importantly patience, is very much appreciated.

> Stephen Turner ASI president \*

## Treasurer's Report

Asolina Braun | ASI Treasurer

#### Dear ASI members,

As the Immediate Past Treasurer, it remains my last duty to provide you with the financial report for FY2020-21. To view it, please log in to your ASI member profile, and click on the 'Documents' tab."

I also would like to take up this opportunity to review the past years on ASI council. In the last four years as part of the ASI executive committee, I had the pleasure to see our society grow substantially - not just financially - but much more importantly, in its engagement with and support of membership. To support the financial growth, one of my first activities as Treasurer was to devise an investment plan that reflected ASI's risk profile, establish an investment committee and investment portfolio as well as compile a financial management policy.

Moreover, to keep pace with the times, ASI's past financial records have been digitised and best use of the new ASI homepage backbone has seen current and future financial records move online.

A few months after the establishment of the investment portfolio late 2019, we have seen a historic drawdown on the stock markets. But with the help of a highly engaged and proactive investment and executive committees, we could reposition ASI's funds in time and later ride the upward trend on the equity markets in the second half of 2020. To diversify, last year ASI has also set up a further, unmanaged portfolio with Franklin Templeton (formerly Legg Mason) in addition to the actively managed investment portfolio with JBWere.

The growth of ASI's reserves meant that some of the funds could be redirected to directly benefit members and I am very grateful to the council for their support in establishing the new ASI Breakthrough Immunology Award, society's most prestigious award yet, with 2 x \$50,000 awarded annually in this and future years to support the research of early- and midcareer members.

I would also like to use this opportunity to remind members that the 200K Special Initiatives Scheme is another very openended opportunity for any member to request funds for the benefit of ASI membership and I would like to encourage you to explore this unique and flexible funding opportunity. Details about the scheme can be found on the ASI homepage.

The recent years were not without challenges for the ASI executive. A two-time changeover of secretariat arrangements was energyintensive for all involved. Furthermore, COVID-19 has made financial planning and budgeting of events and the management of travel-based awards extremely difficult. The executive committee had to make the hard decision to cancel in-face conferences for two years in a row due to too many unknowns and a high financial risk. In hindsight, although it was a very tough decision with a gloomy outlook, I regard it as the right one in view of persisting travel restrictions, especially in Australia and New Zealand. The lack of face-to-face meetings has understandably caused some disappointment

among members, but thanks to great engagement by Antje Blumenthal, Fernando Fonseca Guimaraes and the rest of the organising committee, ASI was able to re-invigorate the scientific discourse among members in an online conference in 2021.

Furthermore, I would like to thank all active ASI members and others who have made it a pleasure and enrichment to serve the society, especially Tyani, Millie Peach, Ben Price, Ben Jeffs, all past and current members of the executive and the investment committees, all support from AP, especially Jen and Elaine.

With Emma Grant, the current Treasurer, the society's fund management is in very capable hands and I wish her all the very best for her time on ASI council.

In closing, if you are considering taking up a more active role in ASI, you can get involved on the branch or national level, in sub-committees or on council. I can only recommend this opportunity to help support immunology in our region.

Asolina Braun \*



# **NSW Branch Report**



Angelica Lau NSW Councillor

#### Hi everyone!

I hope you all had a safe and enjoyable time spent with family and friends as we wrapped up another challenging year of the pandemic.

While COVID is not going away anytime soon we welcome the increasing freedom to gather safely. I hope you will find 2022 a fresh start both physically and mentally – remember, we're all in this together!

I am so excited to let you know that we have resumed our planning for the ASI NSW-ACT Branch Meeting, which is looking likely to go ahead this year. I am sure many of you students, postdocs, Pls will be looking forward to our branch retreat where we can share a beer and stay up all night to talk science!

Well, it's not far now and I am happy to announce that our joint meeting is due to happen on 18-19th August 2022 at Bowral, NSW. Save the date now!

We understand there maybe concerns regarding safety during these events. If there are concerns and issues you'd like raise for the organising committee ahead of time, please flag them to me! We will try our best to make this meeting as safe, fruitful and successful as it can be.

On a similar note, we're also looking for helpers and volunteers to help organise this meeting – whether it be chairing, planning trivia, judging talks, tech help, photos etc – this is a great opportunity for students and early career researchers to gain experience and improve your CV. So get in touch if you'd like to be involved.

On a slightly different note, don't forget Day of Immunology is on the 29th April – it is the best opportunity for Immunologist to promote fantastic science to the public and raise awareness for medical research.

If you are planning on organising DOI events with your

institutes, please let me know so that I can help promote as well as potentially support your events as part of the series of NSW DOI events!

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Last but not least – make sure you check out the various scholarships and awards available on the ASI website and make the most out of it.

I'm always happy to receive any suggestions how to strengthen collaboration for the ASI NSW network and help support Immunology-related events through ASI council. Please don't hesitate to contact me or just to say hi!

Wishing you all the best for a smooth sailing year!

Angelica Lau \*



29TH APRIL



## The IUIS Corner

Joanne Reed | IUIS Coordinator

This is my first newsletter report as the IUIS Coordinator. I would like to start with a big thanks to my predecessor, Alejandro Lopez. Alejandro has done a great job representing IUIS and keeping ASI membership up-to-date with IUIS activities for the last 6 years. Thanks Alejandro!

I am looking forward to working with ASI council and serving ASI members as their IUIS representative. I am enthusiastic about fostering collaboration, research and educational activities with our international immunology societies and providing opportunities for ASI members on an international stage. Initiatives that promote equity, diversity and inclusion and the next generation of immunologists will be a focus.

A bit of background about myself: I completed my PhD at Flinders University in Adelaide, followed by postdoctoral training at New York University, Australian National University and Garvan Institute. I am currently a lab head at the Westmead Institute for Medical Research and Adjunct Associate Professor at the University of Sydney. My research interests are autoimmune disease, autoantibody-mediated disorders, amyloidosis and single cell genomics. I have been an ASI NSW Committee member since 2018 and co-chair the ASI Advanced Immunology School.

But enough about me, here is the latest IUIS news...

- International Day of Immunology is fast approaching – 29 April. This year's theme is VACCINES. ASI members are invited to join the effort to increase global awareness of the importance of immunology research. Decorate your social media platforms, give webinars, interviews, lectures, join classroom discussions, contact local politicians, journalists, meet teachers and talk to friends, family and neighbours about immunology. There are plenty of activity ideas and banners to adorn your social media accounts here.
- IUIS has launched the Menarini Prize for Outstanding Woman Immunologist. The USD 40,000 prize is the first and only IUIS prize that specifically recognises women immunologists and their research accomplishments. A nomination committee of 101 outstanding immunologists has been formed with Anne Kelso and Barbara Fazekas de St Groth representing Australia and Roslyn Kemp and Franca Ronchese representing New Zealand. Nominations are due 1 January 2023 with the winner announced at the IUIS Congress. To learn more about the nomination process click here.
- The IUIS Congress to be held in Cape Town, South Africa has



been postponed to November 27 – December 2, 2023.

- 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. For more information about the IUIS Committees, click here.
- The IUIS Clinical Immunology Committee (CIC) is currently looking for new members from all regions. If you are active in clinical and translational immunology and interested in joining the committee, please contact CIC chair, Pierre Miossec pierre.miossec@univ-lyon1.fr.
- Throughout 2021, IUIS ran the "Immunology without Borders" Webinar Series with presentations from Pamela Ohashi, Antonio Lanzavecchia, Eric Vivier and many more expert speakers. All past webinars are online and free to watch at your leisure. Click here.
- In collaboration with Immunopaedia and Frontiers, IUIS will host a monthly webinar series commencing in February 2022 and featuring high-level speakers covering hot topics in immunology:
- COVID-19 pathophysiology treatment & prevention
- Cancer & Immunotherapy
- Vaccines & immune memory

## DID YOU KNOW?

The IUIS website offers quick access to the Women Speakers Databases from ASI, Federation of Immunological Societies of Asia-Oceania (FIMSA), European Federation of Immunological Societies (EFIS), and American Association of Immunologists (AAI).

These searchable databases are the perfect place to find your next conference/ seminar speaker, session chair, review panel or editorial board member.

Visit the website here.

- Immunometabolism
- Neuroimmunology
- Pathogen-host immunity
- Immunology at the tissue barrier

Check out https://iuis.org/webinars/ for more information

 ASI's own Roslyn Kemp is the IUIS Secretary-General and in the December 2021 issue of the IUIS newsletter she has outlined some proposed governance changes to move the IUIS council and executive committee elections to online voting. Keep up to date by subscribing to the IUIS quarterly newsletter.

Joanne Reed \*

# 2022 - International day of immunology

APRIL 29

**2022 THEME: VACCINES** 

## EQUITY DIVERSITY & INCLUSION COMMITTEE UPDATE



It is with great pleasure that I am writing my first column in my capacity of the new Equity Diversity Inclusion (EDI) Coordinator and Chair of the EDI Committee.

I embark on this role after chairing Gender Equity Workshops at national and international events, serving as a member of the WEHI Gender Equity Committee and co-chairing the WEHI Flexible Work Reference Group, that works toward the design of policies that enable staff to create a better work-life balance. I cannot be more excited to bring my expertise in this space to the ASI, that continues to grow strong in the EDI portfolio.

> Images: Margaret Baird award winners Joanne Groom (top right) and Antje Blumenthal (right).

Thanks to the inspiring work of my predecessor, Dr Kylie Quinn, over the past two years EDI went from a Women's Initiative to a vibrant committee organising a range of activities including, multiple awards, events, and career development.

Furthermore, thanks to the hard work by the EDI committee, a proposal was favourably voted at the last ASI General Meeting in December 2021 to include the EDI coordinator as a member of the ASI voting council. This fantastic changes will now assist ASI, providing equity and diversity lenses to the decision-making process of the wider society.

Also, at the end of year, two winners of the 2021 Margaret Baird award were announced. I would like to congratulate the two recipients of the award that were too good to just choose one: A/Prof Joanna Groom from WEHI, who pioneer work showing how cell migration into lymphoid niches is intertwined with cell fate. Joanna is the co-chair of the WEHI Gender Equality Committee where she has developed and implemented policy to support for women in science. Joanna has written Gender Equity policy for the Federation of Immunological Societies of Asia-Oceania (FIMSA) and was featured as a guest contributor to a "World View" feature on Mentoring (Nature Immunology 2021). The second award went to Professor Antje Blumenthal, who leads the Infection & Inflammation Group at The University of Queensland Diamantina Institute in Brisbane. Antje applies her expertise in immunology to drive research aimed at improving our ability to treat severe bacterial infections. Her leadership in developing and implementing initiatives that promote equity, diversity and inclusion in science have gained her institutional and national recognition.

My first official duty as the new EDI coordinator was to chair these two talented scientists at the Margaret Baird Online Lecture held on in celebration of International Women's Day on the 8th of March. Joanna and Antje spoke about their scientific work, elaborated on





challenges that they faced as a woman in STEM and gave useful advice on strategies they employed to overcome them. If you didn't get a chance to attend, check out the recording of this event on the ASI website.

The now established EDI committee continues to grow and I look forward to working together with them over the next two years. We always welcome new members. If you are passionate about helping women and under-represented groups achieving their full potential in immunology, please register your interest by e-mailing me on hansen@ wehi.edu.au

Diana Hansen | EDI Coordinator \*

# **Career Advancement Awards**



Australian National University

Anukriti Mathur is an earlycareer researcher who is a postdoctoral fellow and completed their PhD at the Australian National University, Canberra, under supervision of Prof. Si Ming Man. Prof Man's laboratory investigates the role of innate immunity in infectious diseases and cancer Pattern-recognition receptors are germ-line encoded innate immune sensors which detect pathogen-associated molecular patterns (PAMPs) and dangerassociated molecular patterns (DAMPs). These receptors activate signalling pathways and mediate the production of inflammatory cytokines, type l interferons and other antimicrobial molecules. The lab uses cutting-edge technology to study the mechanisms by which host sensors recognise bacteria, viruses and parasites, and how these sensors shape the overall immune response to infection. The Man group also studies the molecular basis by which uncontrolled inflammation can lead to

the development of cancer, autoimmunity and inflammatory diseases.

Anukriti completed her Bachelor of Technology in Biotechnology at Amity University, India. She received a Master of Engineering in Biotechnology from the Birla Institute of Technology & Science, Pilani, India. Her research focuses on understanding the molecular mechanism of bacterial toxins in inducing cell death and inflammation. During her PhD she identified two novel bacterial activators of the innate immune inflammasome sensor NLRP3 and potential therapeutic targets to treat and prevent bacterial infections. Work from her PhD has been published, with two first/cofirst author research articles in leading scientific journals Nature Microbiology (2019) and Nature Communications (2020). Furthermore, she has written three review articles in Journal of Leukocyte Biology (2018), Microbiology & Molecular Biology Reviews (2018) and Trends in Microbiology (2021). Anukriti's research has been recognised by 11+ awards from professional societies including, the Sidney & Joan Pestka Graduate Award 2019 by International Cytokine



& Interferon Society. She presented her research at 6 national and international conferences. Her research has been featured on 50+ global media outlets such as BBC, ABC, Channel 7& 9, Canberra Times. She has been awarded two early career grants from Gretel and Gordon Bootes Medical Research Foundation and three grants from the biotech company Beta Therapeutics.

With the help of the ASI Career Advancement Award 2021, Anukriti worked to deepen the understanding of the molecular mechanisms involved in inflammasome activation by lecithinase from the human bacterial pathogen *Clostridium*  perfringens. She found that lecithinase induces the release of the inflammasomedependent cytokines IL-1ß and IL-18, and the cytoplasmic protein lactate dehvdrogenase independently of the poreforming protein gasdermin D and the plasma membrane rupture mediator protein ninjurin-1. Her work expands the growing repertoire of PAMPs that can be recognised by inflammasome sensors and defines a mechanism by which a phospholipase can be recognised by the mammalian innate immune system. The ASI Career Advancement Award will provide Anukriti with post-PhD funding to assist in successful completion of her project and publication of her findings. 🌻

# **Career Advancement Awards**

## LUCY COOPER

Department of Biochemistry and Molecular Biology Immunity Program, Biomedicine Discovery Monash University I am very grateful to have been awarded the ASI Career Advancement Award. I am a final year PhD student in Kim Jacobson's lab at the Monash Biomedicine Discovery Institute at Monash University. I completed a Bachelor of Science with a double major in Pharmacology and Physiology



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- Fresh Mobilized Leukopaks
  Cryopreserved Leukopaks
- Fresh Whole Blood

Contact us to discover our portfolio: Bioscience.Australia@Lonza.com www.LonzaBioscience.com.au Capsugel Australia PtyLtd (a wholly subsidiary of Lonza) at Monash University in 2015. Following a brief stint in the corporate world, I decided I much preferred the creativity and excitement that comes with science and returned to Monash to pursue research in the BAM (B cell, Antibody, Memory) lab. This work led to a first author publication assessing the role of the transcription factor Eomes in B cell differentiation. My experience in the BAM lab sparked my interest in B cells and in 2018 I began my PhD, focused on determining how humoral memory becomes dysregulated during chronic viral infection.

Through my PhD research, we have generated a novel system to study humoral memory. Using this system, I characterised memory B cell formation in acute vs. chronic viral infection and performed single cell RNA and ATAC-sequencing of memory B cells in chronic viral infection. Furthermore, I uncovered mechanisms underpinning the dysregulation of humoral memory. These findings will make significant mechanistic advances in our understanding of immunological memory and are likely to be broadly applicable to a number of different diseases.

The COVID-19 pandemic and subsequent restricted research activity in Melbourne in both 2020 and 2021 hindered my progress, particularly



in undertaking long-term infection experiments as well as long delays in the delivery of necessary reagents. Things started looking up as vaccine accessibility in Australia improved, and vaccine targets were being achieved just as my PhD was reaching its final months. I am incredibly thankful to ASI for this award and for providing funding initiatives during these difficult times. This award will provide me with funding as I prepare my thesis for submission and post PhD-gap funding while I finalise my PhD research and complete associated paper submissions to their full potential. \*



# Carer Awards

## **TERRI-ANN SCANLON**

The Walter and Eliza Hall Institute of Medical Research

Top: The Jenkins Lab as illustrated by Brigette Duckworth, PhD Candidate, Groom Lab, Immunology Division, WEHI.

Right: Our lab is undertaking critical work to develop novel treatments for adult and paediatric brain cancer, we are gracious to receive support from The Beanies for **Brain Cancer Foundation** 

I am a fourth year PhD candidate, in the Jenkins Lab, within the Immunology Division at WEHI. My PhD studies were to investigate T cell activation and the integration of co-stimulatory signals to direct the T cell response.

Our lab has developed a program of research focused on generation of chimeric antigen receptor (CAR) therapy for adult and paediatric brain cancer. Immunotherapy has become the fourth pillar of cancer treatment and could offer hope to patients with devastating brain cancers. CART cell therapy involves patient leukapheresis, and ex vivo activation of T cells, before transduction of the genetically manipulated CAR designed to specifically target tumour antigens. CAR T cell therapy has been particularly successful in the treatment and eradication of certain subsets of B cell leukemia and lymphoma, however efficacy is low in treating solid tumours. Our lab has established several brain cancer mouse models along with a target discovery pipeline using proteomics, to investigate and identify novel brain tumour target antigens. These tools will allow for the generation of innovative CAR designs to treat brain cancer.

My research project is focused on understanding and improving the ex vivo activation of T cells by predicting tailored T cell responses and looking at ways to improve tumour efficacy and T BRIG DOFS ART

cell engraftment. My research question was to interrogate the role that costimulatory signals play in skewing and influencing in vitro T cell proliferation and differentiation. With a better understanding of how T cells respond to different signals in vitro we aim to predict functional T cell characteristics for adoptive cell transfer. Current CAR T cell activation protocols utilise  $\alpha$ CD28 and  $\alpha$ CD3 coated beads to activate T cells allowing CAR transduction and generation of a sizable population of T cells for therapy. My PhD studies have uncovered novel T cell interactions



identifying  $\alpha$ 4-1BB as an alternative co-stimulatory signal which resulted in improved CD8 T cell expansion when compared to  $\alpha$ CD28. Additionally my work has detailed specific functional characteristics of 4-1BB co-stimulation driving greater cytokine and chemokine secretion by CD8 T cells.

With different co-stimulatory signals driving diverse T cell phenotypes in





Left: A heavily pregnant Lab shot. Above: My two boys thriving despite barracking for Carlton. vitro, the current clinical priming of CAR T cells with  $\alpha$ CD28 warrants further exploration to determine if alternative activation protocols could be implemented to achieve superior solid tumour clearance.

During my PhD studies I gave birth to two beautiful boys. At times my expanded family have made this journey difficult with the extra responsibility of parenting on virtually no sleep. Despite these challenges, my family have been a tremendous support mechanism when the stress and long days felt too heavy to handle. I have tried to be both a great scientist, and a great mother to my two young boys. However, when the pandemic begun, this balance was getting harder and harder to navigate, as working from home with their presence became virtually impossible. Receiving the ASI carer award has afforded me the

opportunity for childcare and allowed me to dedicate more time to writing my thesis undisturbed. This support has lowered my overall workload, resulting in less stress and an improvement to my general well-being.

Now that my PhD candidature has come to an end, I am interested in pursuing a post-doctoral opportunity where I can apply my knowledge of T cell activation and functional assays to interrogate the T cell response to viral infections. I am especially interested in vaccine development and understanding protective immunity so hope to build upon my knowledge in these areas. I hope to move forward with ease knowing the full support that is available through ASI and look forward to participating to the society in the future and continuing membership in the thriving immunology community. **\*** 

## Carer Awards

## RAMA DHENNI

Garvan Institute of Medical Research I am a PhD student at the Garvan Institute of Medical Research in the laboratory of Prof. Tri Phan. Originally from Indonesia, I moved to Sydney in 2018 with scholarship support from the University of New South Wales. Prior to this, I worked for Eijkman Institute for Molecular Biology in Indonesia for two years right after completing my master's degree by research with Prof. Michael Jordan at Cincinnati Children's Hospital Medical Center, Ohio, USA. My current research focuses in how and where memory B cells from vaccination especially interested in understanding of memory B cells reactivation.

I would like to express my gratitude to the ASI for the Carer's Award. This award allowed me to enrol my daughter to after-school care so that my wife could focus on taking care of our newborn son while I could spend more time doing experiments. This award is much needed especially for student like me who does not have family in Australia during this challenging time of pandemic. Thank you ASI!



# News from the Education SIG

Maria Demaria

The Education SIG held our 3rd Annual Meeting on February 4th. This year's theme was "Blame it on the pandemic: lasting innovations in a post-COVID world" and we were joined by nearly 60 participants, from Australia, New Zealand, and even the USA!

The first two sessions of our meeting focussed on lasting changes in learning and teaching in a digital world. Our keynote speaker, Professor Margaret Bearman (Deakin University) discussed her perspectives on the role of higher education in this increasingly digital world driven by the COVID-19 pandemic. This included how to harness technology and artificial intelligence, and the role of higher education in training students to succeed in a digital world. In particular, Margaret focussed on how to develop students' evaluative judgement through assessment, with one example of using rubrics to achieve this. Next was our invited speaker, Associate Professor Maurizio Costabile (University of South Australia). the recipient of the 2021 Cheers-Buchan Education Award.

Associate Professor Christina Cheers (ASI Honorary Life member) attended to present this award to Maurizio. In his presentation, Maurizio outlined his journey into becoming a Teaching Focussed academic and the evolution of his teaching over this time. Maurizio highlighted a number of his innovations, including interactive simulations to teach students about Haemolytic Disease of the Newborn and monoclonal antibody production, a flow cytometry practical designed to mimic immunodeficiencies without needing to acquire patient samples, and finally, the use of mind maps to link immunological concepts across lectures

Our second session on lasting changes in learning and teaching in a digital world began with a focus on the National Immunology Curriculum. Professor Michelle Swanson-Mungerson (Midwestern University, IL, USA), an American Association for Immunology (AAI) Education Committee member was heavily involved in the development of such a curriculum in the US (endorsed by the AAI and recently published in Immunohorizons, June 16, 2021, 5 (6) 448-465). She

Higher education at the crossroads: teaching and learning for a digital world Professor Margaret Bearman CRADLE, Deakin University

ASI Education Sig 4<sup>th</sup> February 2022



discussed her experience with us, outlining the process used by the Curriculum committee. and provided valuable advice. A/Prof Maurizio Costabile is leading the project for our own National Immunology Curriculum, which will begin taking shape this year. If you would like more information on this initiative, or would like to be involved, then please be in contact. The session ended with six lightening presentations selected from abstract submissions. Our speakers presented a range of innovative strategies they have created and used in the online environment from pre-, in-, and post-class



activities, to assessment, and group work.

Our final session focussed on Professional development for the next generation of educators. We began with invited speaker Professor Robyn Slattery (Monash University) who presented a number of teaching and assessment innovations for use in a post-pandemic environment. including ideas for structuring online lessons to enhance student engagement, and duet lectures to highlight the links between immunology and other biomedical science disciplines. This led to an Open Forum for our members,

Are you pushing the boundaries of what your traditional flow can provide?



beginning with a short talk from Dr Jessica Borger (Monash University) presenting a vision for a repository of two minute teaching videobytes as a resource members can contribute to, and use, with the aim of enhancing immunology education. Dr Kim Murphy (Monash University) raised the idea of our Education Committee forming relationships with education committees of other immunology societies to promote international connections. Next, Dr Danica Hickey (QUT) and Dr Jessica Borger launched a mentoring program for the ASI Education SIG that will run over the course of this year.

In 2022, the mentor program will concentrate on connecting experienced teaching academics with early career educators with the aim of fostering their growth in teaching immunology

(see end of this article for more information and how to submit your expression of interest). Dr Samy Sakkal (Victoria University), chair of the Education SIG, closed the annual meeting with a presentation from our sponsor, Elsevier. The winner of the Elsevier Best Speaker Award (from the best abstract presentation as voted by the audience) was Dr Kylie Shaddock (nee Webster, University of Sydney). Congratulations Kylie!

The Education SIG committee would like to thank the speakers, session chairs, and attendees who presented, facilitated, and participated in our annual meeting. It is always enjoyable to have the opportunity to share our passion for immunology education. Thanks to our generous sponsor, Elsevier. Finally, thank you to Odilia, our Annual Meeting Coordinator for all of her hard work in organising the event, and to Tyani Chan from ASI for administration support in the lead up to the event and on the day. We look forward to seeing you all inperson at the Education SIG session at ASI in Melbourne at the end of the year! •



Professor, Midwestern University and Member of AAI Education Committee National Immunology Curriculum Experiences from American Association for Immunology





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Are you looking to improve or stream line your teaching activities?

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Open to all ASI members from 'new to

teaching' to seasoned lecturers. This program will run from April to October 2022, with the first session scheduled for Friday 8th April (TBC).

If you are interested in being a mentee (or mentor) for 2022 please fill in a very short survey here.

Don't forget to register your interest! EOI for program closes: COB Monday 21st March 2022.

For more information please email jessica.borger@monash.edu or danica.hickey@qut.edu.au

# **CTI Update**

Tyani Chan | ASI General Manager & Rajiv Khanna | CTI Editor-in-Chief

In 2021 we enjoyed another successful year at Clinical & Translational Immunology (CTI) and it is a pleasure to keep ASI members updated on the growth of our society journal.

Ever since CTI received its inaugural impact factor of 7.271 in mid 2019, we have gone from strength to strength. We have:

- Maintained a strong number of submitted manuscripts
- ✓ Maintained a high number of articles published
- ✓ Increased numbers of downloaded papers

DOWNLOAD TREND

64.67k

2019

400k

300k

200k

100k

 Increased numbers of citations

2-YEAR CITATION TREND

1.02k

2021

1.5k

14

500

2019





CTI has truly become an internationally-renowned journal. When analysing the bibliometric data from the last few years, we have seen:

Countries across the globe downloading our CTI papers



have been possible without your support, so we'd really like to say thank you to each and every ASI member who has supported CTI.

ASI Members please remember - this is your journal. The success of both of our ASI journals has a large impact on the long term sustainability of our society as a whole, so please continue submitting your work and citing our papers.

Last December we were very excited to congratulate Lisa Denny for winning the CTI Publication of the Year Award and to Katherine Kedzierska and Linda M Wakim who jointly won our CTI Social

Impact Award last year. Learn more about these awards by clicking here.

2020

We are very grateful for the Editorial team behind the tremendous growth of CTI; our CTI Editor-in-Chief, Rajiv Khanna, who is supported by our Deputy Editors Gabrielle Belz, Michaela Lucas, Lisa Ng, Seth Masters, Tobias Bald, Belinda Parker, Paul Neeson and Di Yu. There is an entire team to acknowledge and thank - please take a moment to view the CTI Editorial Team by clicking here.

We are very much looking forward to another fantastic year ahead and wish to thank you, our members, for your continued support. \*

These successes would not

2020

2021

219.55

## ICB to challenge the culture of scientific publishing

Adrian Liston and Anne La Flamme

*Immunology & Cell Biology* is committed to making a positive culture and repeating this at multiple journals is an inefficient and exhausting process". that quality science is a process that finds answers but also leads to further questions. We Immunology & Cell Biology updates – New Editorial Board

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# Immunology & Cell Biology

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### Immunology & Cell Biology





WILEY

## Sustaining Member Publications

### BD

#### Mammalian CHO Expression

Shukla et al., (2022). "Molecular Masks" for ACE2 to Effectively and Safely Block SARS-CoV-2 Virus Entry. International Journal of Molecular Sciences.

Doi: 10.3390/ijms22168963

#### **Mutant Libraries (Protein Engineering)**

Hou et al., (2021). microRNA-26a shuttled by extracellular vesicles secreted from adipose-derived mesenchymal stem cells reduce neuronal damage through KLF9-mediated regulation of TRAF2/KLF2 axis. Taylor & Francis Online

Doi: 10.1080/21623945.2021.1938829

#### **Plasmid DNA Preparation**

Parakasikron et al., (2021). Development of a human antibody fragment directed against the alpha folate receptor as a promising molecule for targeted application. Taylor & Francis Online

#### Doi: 10.1080/10717544.2021.1943055

## MILLENNIUM SCIENCE

Luminex Imaging Flow Cytometer (ImageStream®X Mark II)

Venkatachalam et al. 2021. The in vitro micronucleus assay using imaging flow cytometry and deep learning

NPJ systems biology and applications

DOI: 10.1038/s41540-021-00179-5

.....

Tonbo Biosciences anti-CD3 mAb

Yasunaga et al. 2021. Mechanism of action of a T cell-dependent bispecific antibody as a breakthrough immunotherapy against refractory colorectal cancer with an oncogenic mutation.

Cancer immunology, immunotherapy

DOI: 10.1007/s00262-020-02667-9

Tonbo Bioscience Ghost Dye Violet 510

Winslow et al. 2022. Adenosine receptor 2a agonists target mouse CD11c+T-bet+ B cells in infection and autoimmunity.

Nature Communications

DOI: 10.1038/s41467-022-28086-1

# Sustaining Member Publications

## **STEM CELL**

EasySep™ Human Neutrophil Isolation Kit (Catalog #17957)

Petersson et al., 2021

Bone Marrow Neutrophils of Multiple Myeloma Patients Exhibit Myeloid-Derived Suppressor Cell Activity

Journal of Immunology Research

doi: 10.1155/2021/6344344

EasySep™ Human Pan-Extracellular Vesicle Positive Selection Kit (Catalog #17891)

McNamee N. et al., 2022

A method of separating extracellular vesicles from blood shows potential clinical translation, and reveals extracellular vesicle cargo gremlin-1 as a diagnostic biomarker

Translational Oncology

Doi: 10.1016/j.tranon.2021.101274

RosetteSep™ Human CD4+ T Cell Enrichment Cocktail (Catalog #15022)

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Kazuo et al., 2021

HIV-1 viral blips are associated with repeated and increasingly high levels of cell-associated HIV-1 RNA transcriptional activity

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Doi: 10.1097/QAD.000000000003001



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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.

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