

President's Report

Australian health and medical research has been pulled from pillar to post over the last two years. On the one hand the Government has relied heavily on the sector mobilising and adapting to meet the challenge of managing and overcoming COVID-19 in Australia, while simultaneously the sector has been subjected to some of the worst Government support that has resulted in considerable workforce loss and desperately diminishing funding opportunities. While job losses have occurred across all sectors and are a personal crisis for those affected, the longstanding insidious erosion (even prior to the pandemic) of the health and medical research workforce and lack of funding for internationally competitive research is a major roadblock for discovery, innovation and translation pipelines, with far-reaching implications for health and economic outcomes.

As the population is now rapidly reaching vaccination milestones and the country is slowly opening up, the public will demand better services from sectors such as health and education, to combat diseases and provide preparedness for the next global crises; like climate change and further inevitable pandemics. The current situation requires bold, immediate and sustainable investment into the

health and medical research sector, more than ever before. As it has always done, the ASMR will lead from the front to advocate for our sector; a sector that drives discovery, translation and health policy to feed innovations that provide health, economic and social outcomes for all Australians in the hope of a healthy and equitable Australia into the future.

The foundation of Australian health and medical research comes from the NHMRC

Entering the Presidency in late November 2020, I was immediately met with the pandemic-delayed release of NHMRC Ideas grant (for funding in 2021) outcomes and the lowest success rate on record; with fewer than one in ten applications being funded. What ensued was a swell of discontent and disillusionment in the sector. The Society led a Twitter campaign (#advanceaustraliacare) calling for examples of research that were progressed by NHMRC funding and examples where promising research hadn't progressed due to a lack of funding opportunity (see @AdAustraliaCare). The response was overwhelming and a stark exemplar of what can be achieved with NHMRC support and what could



Dr Ryan Davis

be achieved if the NHMRC grant schemes were funded to international success rates.

It is still the Society's evidence-based opinion that immediate investment into the NHMRC is crucial and that a bold long-term outlook to sustainably funding the source of the research pipeline through the NHMRC is essential. Our pre-budget submission in January reflected this, calling for an immediate doubling of investment into the NHMRC to raise success rates closer to international averages, provide a modicum of stability to the sector and end the static annual investment of the last decade.

The recent outcomes of both Investigator and Ideas grants (for funding in 2022), saw a declining number of applicants and a further reduction in the total

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number of grants funded for both schemes, with success rates for Ideas grants falling even further below 10% than in 2020. Government investment into the NHMRC since the inception of the new grant schemes in 2019 has only increased by 1.8%, whereas the average size of an Ideas grant has increased 17% in that time, meaning fewer grants are able to be funded at these much higher values. While the NHMRC bears the brunt of criticisms associated with the granting schemes, the issues largely stem from a budget that is insufficient to meet international funding success levels around 20-30% and will only improve when the Government increases investment into the NHMRC.

The Medical Research Future Fund

The ASMR continues to advocate for transparency and integrity with regards to the MRFF, as it has done since the fund was legislated in 2015. While processes have been tightened in recent times, the Society was pleased with the announcement that an independent audit of the MRFF by the National Audit Office would take place in the middle of the year. Following a lengthy submission period and changing of the audit criteria, the Auditor General concluded that the Department of Health's management of financial assistance under the MRFF was largely effective. Apparently, clear governance and co-ordinating structures have been established and the management of MRFF grants was largely compliant with legislative and policy requirements.

While the audit report did identify a number of procedural issues and hinted at a lack of transparency in areas, it failed to act on these, instead restricting its recommendations to some minor reporting changes. This was not the expected outcome as it was felt the report overlooked important issues highlighted in submissions to the audit, including reduced transparency with reporting of grant outcomes, inadequate assurance of grants

being assessed consistently with grant opportunity guidelines, relevant public record on websites not being updated in a timely fashion, targeted grant opportunities lacking transparency, inconsistent and sometimes unreasonable timeframes for submission of applications, and a lack of association between the 10 year investment plan and the MRFF strategy (2016-2021) and priorities. Of particular concern, the Department of Health has not published an explanation of how grant opportunities are identified despite 19 of the 33 submissions to the audit considering this process to be unclear, resulting in perceptions of bias.

Just prior to the release of the ANAO report in September, the Government presented the Investment Funds Legislation Amendment Bill 2021 to Parliament that proposed amendment of the MRFF Bill 2015 to "streamline processes". Amongst other amendments, the Bill proposed to cap annual disbursements at \$650 million (despite initial promises and current investment returns of \$1 billion per year), raise the investment mandate risk and to remove the legislative security of the \$20 billion endowment, which was intended to fund health and medical research in perpetuity. The Bill was subsequently referred to the Senate and the ASMR was invited to give evidence at an inquiry in late September. Encouragingly, there was general consensus in submissions from across the sector, recommending that instead of a capped annual disbursement that a minimum disbursement be adopted to allow flexibility in line with annual investment return and that under no circumstances should the MRFF endowment account be unsecured. Frustratingly, the inquiry report overlooked the consistent recommendations of the witnesses and the Bill was endorsed without changes. If passed, the Bill will severely restrict the funding potential of the MRFF and puts in jeopardy the \$20 billion corpus against which annual disbursements are raised.

Many politicians and others point to the Medical Research Future Fund (MRFF) as a panacea for all the funding ills of the sector. Yet the declared purpose of the MRFF is to support the translation and commercialisation end of the research pipeline. In order to meet these aspirations, the discovery research and researchers, predominantly supported by NHMRC grant schemes, must be appropriately and sustainably supported. There is clearly much to be done by the ASMR.

Consultations and connections

In February the ASMR launched a Parliamentary Friends of Health and Medical Research with co-chairs Clare O'Neil MP (ALP) and Dr Katie Allen MP (LP). The Friends group is intended to provide a direct link with Parliamentarians that will enable stakeholders to espouse the benefits that a well-supported and adequately funded health and medical research sector can provide. It hasn't been possible to hold another Friends group event this year, but we look forward to utilising this platform as an important means of directly engaging politicians en masse to advocate for the sector.

Throughout 2021 the ASMR has contributed a number of submissions to consultations, inquiries and the like, was represented at a number of roundtable discussions and also engaged in a number of partnerships, including the clinical trial participant registry 'Join Us' and the Australian & New Zealand Council for the Care of Animals in Research and Teaching (ANZCCART), who are leading a working group to prepare an Openness Agreement for the use of animals in research and education.

Public and Scientific Advocacy

The ASMR continued it's public and scientific advocacy under the uncertainty and restrictions present throughout the year. With the risk of snap lockdowns and border closures, ASMR Medical



Clare O'Neil MP



Dr Katie Allen MP

Research Week® events were largely run in a virtual format. However, the 2021 ASMR medalist, Professor Kelvin Kong, an Ear, Nose and Throat surgeon with a passion for closing the gap and providing ear health for all Australian children to ensure they realise their dreams, gave captivating addresses to Gala events in WA, QLD, SA and Newcastle via live stream and live to events in NSW and at the National Press Club

The other big event on the Society's calendar is the National Scientific Conference. As political intent has shifted research funding and focus toward translation and commercialisation in recent times, this year's theme of inspiration to innovation, considers the entire research pipeline in an effort to contextualise fundamental questions like "where could my research ultimately lead?", "how do I get it there?", "what do I need that I don't already have?" and "who do I need to accompany me?".

The Society turns 60 and other milestones

2021 has seen the 60th diamond jubilee of the ASMR, with the inaugural Board meeting occurring on 9 August 1961. Celebrations have been muted due to ongoing COVID-19 restrictions, but it is hoped the Society will be able to celebrate properly in 2022. Nevertheless, this is a great milestone for the Society and is a time to reflect on the critical work done and the contributions from so many individuals on State committees and the Board over six decades.

Furthermore, after 27 years of service to the ASMR, it was fitting that our Senior Executive Officer, Cath West, was recognised for her services to the health and medical research sector with a Member of the Order of Australia in the Queen's birthday honours list. Cath's guiding hand has helped shape the Society and the sector and her guidance has seen numerous Directors and State committee members flourish in their roles over the years.

One such Director is Dr Daniel Johnstone, who after nine years service to the ASMR Board is stepping

down. Dan became a Director in 2013, a member of the ASMR Advisory group in 2016 and assumed the Presidency in 2017. The Society owes Dan a great debt of gratitude for his considerable commitment to and stewardship of the Society over the last decade and we wish him every success.

Changing of the guard

It has been an absolute honour to serve as President of the ASMR in 2021. I expect that 2022 will see a return of face-to-face events in some regards and with the Federal election imminent, our advocacy will intensify and broaden. I am therefore pleased to be handing over the Presidency to Associate Professor Tony Kenna, who has demonstrated an aptitude for political advocacy and leadership.

Finally, I would like to extend my sincere gratitude to all those who have supported me through my Presidency and have contributed to the Society over the last year and beyond. In particular, Cath West and Kat Christensen in the Executive office, the Board of Directors, the State committees and of course the members.



Cath West ASMR Executive Office



Thank you to Dr Daniel Johnstone for his 9 years of service to the ASMR.

ASMR wishes all our members a very happy and safe Festive Season.

We hope you get time to enjoy a break over the summer period.



60 YEARS OF PUBLIC, POLITICAL AND SCIENTIFIC ADVOCACY

2022 Incoming President: Associate Professor Tony Kenna

Meet Associate Professor Tony Kenna, from Queensland University of Technology School of Biomedical Sciences who is the Incoming President of the ASMR.

Tony's research is focused on investigating human autoimmune disorders. Autoimmune disorders occur when a person's immune system mistakenly attacks healthy cells and tissues in their body causing tissue damage and a range of symptoms associated with

the immune attack. His work focusses on rheumatic diseases which affect about 2–3% of the global population. His lab studies two rheumatic diseases in particular – ankylosing spondylitis and systemic sclerosis. Both conditions are life limiting and both are in desperate need of cures. The lab studies how the immune system works, in particular they are focussed on better understanding uncontrolled inflammation. This is important because there isn't much knowledge about why this uncontrolled

inflammation occurs in some people and not in others.

My vision for next year is to position Health and Medical Research as a priority for our Federal leaders and advocate for sustainable support for the sector and its skilled workforce. And my goal is to advocate for an immediate doubling of the NHRMC budget to move grant success rates closer to international benchmarks.



Associate Professor Tony Kenna President, Strategy and Governance

Welcome to new or re-elected ASMR Board members:



Dr Ryan Davis Immediate Past President, Honorary Treasurer



Professor Christoph Hagemeyer Executive Director, Sponsorship



Dr Kristen Barratt Director, NSC



Dr Melissa Cantley Executive Director, Hon Secretary, Professional Development



Dr Chantal Attard
Director, ASMR Medical
Research Week®



Dr Emily Colvin Executive Director, ASMR Medical Research Week®



Dr Lila Landowski Director, Media



Dr Erin McGillick Director, Media



Dr Dona Jayakody Director, Newsletter



Dr Denuja Karunakaran Director, Membership

Translation pathway

Professor Mark Hutchinson
Director of the Centre of Excellence
for Nanoscale BioPhotonics,
Australian Research Council Future Fellow,
Neuroimmunopharmacology Lab Leader,
The University of Adelaide
Science and Technology Australia, President

What a year... What a month... What a week... What is the future for Australian science and what can WE do to advance our own journeys?

We seem to be in an era of setting records, and unfortunately many of them seem to be going in the wrong direction. Of recent specific hurt and frustration are the historically low NHMRC ideas grant success rates. This has caused many to cry foul of the funding agencies for the lack of cash to go around. Yet the agencies themselves do not set this budget. They aren't perfect, but they do tirelessly administer the taxpayer investments into scientific endeavour across the country.

Is all hope lost? No. But I argue we need to approach the future Australian science endeavour in a different and sustainable way.

Generally, in Australia we think that Research and Development, often shortened to the simple acronym of R&D, is simply one entity or simple action. It so easily rolls of the tongue. It is clear that R+D is needed for the realisation of translational impact. Yet in practice in most business and academic institutions we separate and, at extremes, silo the R & the D in both time and space. This can be in the form of factors that stop two researchers coming together through departmental and faculty delineations within a single University. Or perhaps it is the assumption

that a collaboration of STEM scientists is all that is needed to enable impact... When in reality a convergent team of HASS, STEM and Professionals who share a common language and vision is what repeatedly gets results. I am sure we can all point to examples in our institutions where our ability to achieve translational impact is hampered.

Universities in Australia are, on average, primed for big R research, but still have little d development experience and capabilities. Thus, the Australia academic r&D status. This r&D nature of Universities in Australia contributes significantly to creating the foreseeable valleys of death in translation pipelines, and the too often reported failure of the system to create impact. Conversely, the Australian SME industry are broadly capable of little r research, but have extensive big D development experience and capacity. This translates to the current status of the disconnected academic and industry sectors in Australia. This is a huge missed opportunity that causes hesitation to invest further tax payer funding into research, when ALL the translational benefits are not scaling. Unfortunately, the answer is not as simple as putting the academic R&d together with the industry r&D to realise impact through some magically assembled new R&D translational pipelines.

In my opinion this boils down to the lack of human capital capable of unified R&D, and the stasis we find ourselves in where R&d versus r&D see success and how we are rewarded for it. The R&d culture in Australian Universities has led to multiple generations of very successful, but lower than international impact standards Bench-to-Bookshelf-Scientists. In such a Bench-to-Bookshelf-Scientists world it is possible to go an entire undergraduate and PhD candidature

(and in some cases whole academic careers) without ever meeting, in professional capacities, end users or consumers who will be impacted by your discoveries. Consider your own situation. Your own research area. When did you engage intentionally and directly with end users or consumers to learn from them and share the potential impact of your science? This is not presenting at conferences. This is not competing in a 3MT. This is real and intentional end user and consumer engagement to learn how your science could impact their lives or their jobs or their community. This type of engagement creates urgency. It creates ideas and anecdotal observations that can turn into testable hypotheses and huge breakthrough discoveries. These engagements mean that the communities that you and your science will need to have impact are already known to you and your team when you need them. It also means that you may need to acknowledge that, whilst as brilliant as the science that is currently being undertaken, the solution that would really have impact today is far simpler than you are making it.

This journey beyond the Bench-to-Bookshelf may take to into the realm of the Boardroom. I posit that whilst R&d is aligned with Bench-to-Bookshelf, the future of R&D will need Bench-to-Boardroom scientists. Individuals who model the Bench-to-Boardroom approach have "comb shaped" convergence experience and capabilities, and/or are members of complex teams who can realise this impact (see (Committee on Key Challenge Areas for Convergence and Health, Board on Life Sciences, Division on Earth and Life Studies, and National Research Council. 2014. Convergence: Facilitating Transdisciplinary Integration of Life Sciences, Physical Sciences, Engineering, and Beyond.



Professor Mark Hutchinson

Washington (DC): National Academies Press (US).) and figure 2 in Hutchinson, Mark R. 2020. "Science Convergence Applied to Psychoneuroimmunology: The Future of Measurement and Imaging." Brain, Behavior, and Immunity, April. https://doi. org/10.1016/j.bbi.2020.04.029. These teams of Bench-to-Boardroom scientists are inherently connected with and responsive to their end user and consumer bases. For successful Bench-to-Boardroom scientists the responsivity to the needs of others does not lead to scattered attention, rather an urgency and focus to deliver outcomes that work and scale to the real-world. Does this mean that all the blame falls on the R&d sector? No, but when opportunity opens a door, I tend to want to walk through it, and I see this door to a bridge that is being provided that this point in time to those who are on the R&d side so that we might be the first to crosse the historic R&d versus r&D divide.

What are some next steps? How can you build the "comb shaped" capabilities and experience in Bench-to-Boardroom science beyond the T-shaped experience you have amassed thus far? First of all, the examination of your individual immense talents

and the specific identification of areas of future new knowledge or experience is key. This transition and acquisition of knowledge doesn't have to be a rapid acceleration. This can be a planned and intentional growth of new skills. Often the first simple step might be to learn who your end users and/or customers might actually be. This may surprise you..... In a real world example I have had this year, I learnt that my immediate customer was not an end user, but rather a Bank. Yes a Bank!!!! Think how differently you might need to tell your story if you were talking to a Banker versus a patient or a clinician...

I now take it upon myself to always ask in ECR workshops, careers sessions, and seminars how many people have met with and learned from end users or consumers of their own research. A common response to my question is that Bench-to-Boardroom science is yet another distraction from doing the real work of science. My answer to today to this response is simple. I would like you to reflect upon the fact that the funding rates are now single digit success. Therefore, I do not consider tireless grant writing a productive use of all my time. Nor do I suggest we should all just start yelling at our elected officials

with ambit claims that there should just be more money for science research. Instead, I propose we generate the case for others to invest and support our impactful science because we have taken our breakthrough ideas and not just published them, but we have pursued them through to a real-world use. Further investment follows successful and tangible return on investment. It is illogical to think that deepened investments should be expected into the same schemes that have not yielded the expected returns (perhaps the expected returns have been unreasonably high, yet still these are the fund providers anticipated returns).

This is not a quick fix. This is not a simple journey. It is not any easier than the other path. However, I can see this journey of Bench-to-Boardroom science is one that I have controllability over and that will create a legacy for my students to work from for generations to come. I believe that that the evidence of the clear return on investments from funding research that enables Bench-to-Boardroom impact will enable a connected and sovereign R&D ecosystem where fundamental discovery science is intentionally fostered in a translational ready system.

Last chance to renew membership for the 2021/22 financial year.

Your membership to the ASMR is vital to ensuring the continued public, political and scientific advocacy of the Society on behalf of the health and medical research sector and researchers throughout Australia. Membership to the ASMR supports:

Political advocacy

Representation and evidence-based submissions to government on issues critical to health and medical research investment and support for the sector.

Scientific advocacy

Research awards, annual state scientific meetings, our annual National Scientific Conference, professional and career development programs, online mentoring program, member directory.

Public advocacy

ASMR Medical Research Week[®], which includes the ASMR Medallist Tour, Gala Dinners. Science in the Cinema and

Pub events, radio broadcasts, national schools quiz, rural schools tours, and our strategic media campaign.

Those who still need to renew their membership will be notified in the coming days. To ensure your membership benefits continue, make sure you have renewed your ASMR membership before December 31st 2021.

Those unpaid at 31st December will be categorised as unfinancial and will not receive any further email communications.

Reflections on the state of play of Australian Health and Medical Research from an "old fart"

Professor Rob Ramsav

Hard to know what an emerging medical researcher would want to read that might be written by a fading old researcher like me, but I am giving it a blast because I still care and love medical research and discovery.

I represent the trailing edge of the "baby boomer" generation — a cohort that has enjoyed the explosion of knowledge and technology driven by the "biological revolution" supported by (some) funding consistency and lots of opportunities.

I am partly sad, but mostly pretty angry about where we are in 2021/22 in the medical research sector. Our research leadership, Federal Government and medical research funding agencies are failing to support the next generation. The global pandemic has exposed the structural weaknesses, including the underlying anti-intellectual culture of the Australian mainstream media. The Federal Parliament and many in our sector have just accepted — the denigration and desecration of the system that will provide the solutions to this crisis. Indeed I despair in saying perhaps even fostered some of this antagonism.

It is incredible to me that the University sector was excluded, not once but three times from access to Job Keeper. This was at a time when large franchises have been shown to be cashing in on Job Keeper resulting in increased executive bonuses and profits. The impact on the tertiary education sector is hard to quantify accurately given the already casualised work force, but a fair guess is that 40,000 workers have lost their already tenuous jobs and income.

I ask "where did many of our current crop of antiintellectual journalists and lawyers, accountants and arts graduates — metamorphosed into politicians — get their education?" Where did they develop their debating and communication skills? Where do they think the new technologies will come from that they pin their hopes on?

Answer — At the very universities that are being hammered by the lack of national vision and neglect.

The COVID19 response has highlighted the impressive depth of immunologist, virologists and epidemiologists trained in our universities and supported in part by medical research funding. How immediately funding has been impressively found to react to this health emergency — the very role for which the MRFF was designed. Lots have

been said about the many flaws of the MRFF but the real problem is with NHMRC. It just does not have enough money. The recent nine percent success rate for Ideas Grants along with unfunded "outstanding-rated" applications is a national disgrace. I have two messages:

- Federal parliament stop messing around and simply initiate a doubling of the medical research endowment fund — the best health insurance policy a country could hope for!
- Emerging medical researchers don't just get angry like me, get active and remind your local member and candidates in the next federal election, why we still have a first-world health system — it is evidence based, research-led and brilliantly gifted.

Professor Rob Ramsay was elected to Life Membership of ASMR at the AGM of November 26, 2012.

This honour acknowledges his loyalty, perseverance and dedication to the ongoing success of ASMR's public, political and scientific advocacy since joining the Society in 1992.

Rob continues to lend his unstinting support whenever and wherever called upon.



Professor Rob Ramsay

ASMR's vision for the future

Incrementally increasing investment into NHMRC to reach 3% of total health expenditure by 2025/26 will generate \$58 billion in health and economic benefits.

For tips and resources that you can use to advocate for increasing Australian research funding visit

https://asmr.org.au/ tips-and-advice/

The death of transparency

Mr Geoffrey Watson SC
A Director of the Centre for Public Integrity
Barrister

Openness and transparency in government decisionmaking is the foundation of good government. The reasons are obvious: the more the public knows, the better it will be when it comes to electing members of parliament. The more we know about decision-making the better: we are entitled to know why one course was pursued in preference to another.

Yet a succession of governments, our elected representatives, has challenged the *right* of the public to know about its decision-making and today there is a heavy cloak of secrecy over federal governing. But it wasn't always this way. Australia was ahead of the world when it designed the legislative framework and introduced the *Freedom of Information Act* in 1982. If it were applied properly, it would still work well today. But the problem is not with the legislation – the problem lies with those who evade compliance; our politicians and politicallymotivated bureaucrats. The *right* to freedom of

access to governmental decision-making has been compromised.

Politicians have always wished to keep matters secret; so have bureaucrats, but never to the extent that we see now. Rules imposed by the *Freedom of Information Act* are broken and ignored, requests for information are routinely refused and timelines are never obeyed. A person seeking access is often confronted with skilled, government-funded legal opposition, expense and delay. Only the most determined or foolhardy persist, but even if they do, by the time the process is over three years will have passed, so the issue which was once pressing and important has lost its sting.

And so, the politicians win. Victory by foul means — obfuscation, false legal arguments, expense and delay. Sadly, the framework of the *Freedom of Information Act* is now being used to obstruct, not facilitate our right to information, integrity and transparency.

Who killed transparency — and when did they kill it you may ask? Transparency died on Friday, 8 November 2013 at a televised media briefing called by the then Immigration Minister, the Honourable

Scott Morrison. Sixty-three human beings had been rescued from a leaky boat and people wanted to know what had happened. The Press asked — "What's become of that boat of asylum seekers?" The response was that no comment would be made — it was a secret because it involved "On-water matters".

"On-water matters", you may recall, was a standard, stonewall response in the months that followed. It is not a legitimate basis for keeping matters secret, but the government got away with it. And once they got away with it, they got a taste for it, because that kind of secrecy has an alluring, addictive quality. Since 2013 we have seen an unprecedented attempt to keep government dealings and deliberative processes totally secret, with an overwhelming inclination towards secrecy.

Of course, the government could restore our *right* to access to information and the integrity and transparency the public demands — it only requires the political will to do so. The way in which the process has been corrupted is the result of a political choice — but as with everything, other political choices are available.



Mr Geoffrey Watson SC

First ASMR Professional Development Webinar for 2022

Careers in the Public Sector

Panelists:

Nicole Henry,
Office of the Chief Scientist

 $\textbf{Lynne Cobiac,} \ \mathsf{CSIRO}$

 $\textbf{Liz Visher}, \, \mathsf{ARC}$

Kaitlyn Parkes,

Dept. Industry, Science, Energy and Resources

Date:

Thursday, February 24th

Time:

4-5pm AEDT

Location:

Zoom

Registration: Free for

ASMR members.



ASMR perspective on peer review

Daniel Johnstone, Phoebe Phillips and Sarah Meachem

Independent expert review, in one form or another, has always been regarded as crucial to the reputation

and reliability of scientific research. As an organised mechanism for evaluating the credibility and merit of scientific work, it should not be viewed as a pesky inconvenience that impedes good science, wastes time and diffuses responsibility, but instead

as fundamental to the institution of science and the quest for truth and integrity.

ASMR National Scientific Conference

The ASMR NSC was held from the 22nd to the 23rd of November as a virtual event.

The theme for this year's conference was: "Inspiration to implementation: Examining the pipeline from discovery to translation and innovation"

Highlights:

231 Registrants

GatherTown platform enabled participants to interact and engage with others online, this included peers, poster presenters and event sponsors.

Firkin Oration

Jane E Harding DNZM MBChB DPhil FRACP FRSNZ, AWT

AWT Edwards Oration

Professor David Craik, UQ Laureate Fellow.

Plenary Speakers

Dr Rob Grenfell. Laureate Professor Peter Doherty and Associate Professor Josh Vogel

Professional Development sessions focussed on: Research Impact, Staying Ahead of the Curve and Communicating Your Science.

Congratulations to the award winners:

ASMR Campion Ma Playoust Memorial Award: Jack Chan

Sapphire Bioscience Best ECR Oral Presentation: Dr Katharina Richter

Cancer Childrens Institute Best ECR Poster Presentation:

Dr Laura Cook

United Bioresearch Best Student Oral Presentation: Emma Cheney

Victor Chang Cardiac Research Institute Best Student Poster Presentation: Georgia Clarke

ASMR Peter Doherty Leading Light Award: Professor Bruce Campbell

Best Social Media Engagement Award: Dr Michael Houghton

Thank you to the Local Organising Committee (LOC) for all their hard work in organising the NSC:

Dr Kristen Barratt (ANU)

Dr Cassy Spiller (UQ)

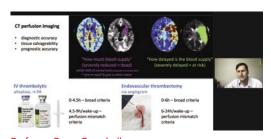
Dr Yen-Hua Crystal Huang (UQ)

Dr Conan Wang (UQ)

Dr Meltem Weger (UQ)

Dr Benjamin Weger (UQ)

NSC co-conveners: Dr Denuja Karunakaran and Dr Dona Jayakody



Professor Bruce Campbell -ASMR Peter Doherty Leading Light Award winner, 2021



Plenary talk by Laureate Professor Peter Doherty







GatherTown platform for the NSC - lobby, sponsor hall and posters

Thank you to all the sponsors of the NSC.



















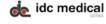


































ASMR Research Award

The ASMR Research Awards are offered annually to support postgraduate and early career researchers (<3 years post-PhD) in undertaking a short period of research at a distal institution within Australia.

The 2020 winner of the ASMR Research Award is Dr Stuart Callary, Senior Medical Scientist & Mary Overton Early Career Fellow, Centre for Orthopaedic and Trauma Research, The University of Adelaide and Royal Adelaide Hospital

My research is focussed on improving the outcomes of patients undergoing hip replacement (THR) surgery. Many of my studies have used Radiostereometric Analysis (RSA), a 3D radiographic measurement technique, to accurately monitor implant movement. I am currently the Mary Overton Early Career Research Fellow funded by the Royal Adelaide Hospital Research Fund (2020-2022) and my new project is to investigate if implant stability can be predicted from patient specific computer simulations pre-operatively. Computer simulations, or in silico clinical trials, have used finite element models to predict the strain through peri-prosthetic bone and more recently implant micromotion. However, the predictions from computer simulations remain theoretical with no clinical validation. My accurate implant migration measurements using RSA off the opportunity to validate in silico trials. As such I have been collecting a comprehensive set of



Outcome from QUT visit

- · One day FE training course
- · Presented RAH clinical talks
- Improved understanding of the FE model:
 - Assumptions of normal' bone
 - Strains and loads applied
- Improved FE output 'Implant-Bone Contact'
- · New collaboration with Postdoc
- · Grant application in 2022





ENVIRONMENT PRINCIPLES OF ADELANDE

data on patients including CT scans, RSA and gait measurements pre and post THR. The main purpose of my trip to QUT was to visit Associate Professor Saulo Martelli, an expert in Biomedical Engineering and Biomechanics to gain a better understanding of the computer simulations and determine if we can improve the patient specific models. Undergoing a training course gave me a better insight into how the models are created from CT images and how some of previous studies assumptions of bone geometry and density were limited using healthy datasets rather than specific osteoarthritic bone more representative of patients undergoing THR. Presenting and discussing my clinical studies to the QUT team led me to a new collaboration with an

experienced Engineering Postdoctoral researcher, collection of pilot results after my trip and planning for a future grant application in 2022. Thank you to the AMSR for the opportunity to meet and learn from A/Prof Martelli and engineering researchers in his group.



Every \$1 invested into the NHMRC supported workforce returns \$3.20 in health and economic benefits

Increasing the NHMRC supported workforce by 40% could lead to net gains of \$35 billion



ASMR Research Award Winners

2000 Miss Raelene Lim

2001 Dr Patricia Mote

2002 Ms Vanessa Murphy

2003 Ms Mary Kavurma

2004 Dr Richard Allen

2005 Dr Gabrielle Todd

2006 Ms E Sutcliffe (D); Dr Elke Hacker (I)

2007 Ms A Lehane (D); Dr Di Yu (I)

2008 Mr A Mohamedali (D); Dr Louise Dunn (I)

2009 Dr D Johnstone (D); Dr Siobhan Shabrun (I)

2010 Dr Ivan Ka Ho Poon (I); Dr Justine Lees (D)

2011 Dr Alex Umbers (I); Ms Shervi Lie (D)

2012 Ms Emma Ramsay (I); Ms Kimberley Wang (D)

2013 Dr Xiaowei Wang (I); Ms Hannah Yong (D)

2014 Miss Stephanie Tan (I); Dr Melissa Cantley (D)

2015 Dr Kimberley Wang (I); Mr S Purushothuman (D)

2016 Dr Lucy Murtha (I)

2017 Dr Erin McGillick (I)

2018 Ms Lucy Furfaro (D); Ms Nicole van der Burg (I)

2019 Dr Kristen Barratt (I)

2020 Dr Stuart Callary (D)

The ASMR mission is to empower researchers for health and well-being with a vision for a healthy and equitable Australia

Affiliate Members

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Society Free Radical Research Australasia)
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To keep up with all the latest information and updates on ASMR events, awards and activities join us on social media.





Lions Eye Institute Limited







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