



**emcrforum**

# EMCR Forum Annual Report 2019

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# 2019 highlights

## SCIENCE AT THE SHINE DOME EMCR PROGRAM

A carefully designed early- and mid-career researcher (EMCR) program was delivered for EMCRs attending the Australian Academy of Science's flagship annual event, Science at the Shine Dome. The program featured a masterclass on work-life management, a networking dinner with Academy Fellows and professional development workshops. The EMCR program was presented by UniBank.

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## REPRESENTATIVE NETWORK

The Representative Network was expanded, with government workplaces and research institutions contributing representatives to join the EMCR representatives from Australian universities. This will improve communication and the exchange of information between the 5500+ members of the EMCR Forum, the Forum Executive and the Academy, and support engagement with funding bodies, policymakers and decision-makers. See page 8

## GUIDE TO INCREASING DIVERSITY IN COMPETITIVE SELECTION PROCESSES

A best practice guide to increasing diversity in competitive selection processes, such as prizes and awards, was released. The development of this resource led to an article in The Conversation, a commentary piece published in Nature, and modifications to the nominations process for the Australian Academy of Science's honorific awards and the Prime Minister's Prizes for Science. See page 24

Professor David Day, the Academy's Secretary Science Policy, welcomes EMCRs to the masterclass at Science at the Shine Dome 2019. PHOTO:

AUSTRALIAN ACADEMY OF SCIENCE



# Message from the Chair

Welcome to the EMCR Forum's inaugural annual report. As the 2019 Chair of the Forum Executive, I am excited to launch our first annual report summarising the highlights of what we, the EMCR Forum, have achieved in 2019.

I would like to thank the Co-Deputy Chairs of the Executive, Dr Emma Beckett and Associate Professor Drew Evans for their support, and all the Executive members for their tireless work in planning, developing and delivering all the events, submissions and initiatives throughout the year. I would also like to thank the members of the Representative Network for their engagement with EMCRs at their respective organisations and for their feedback on the trial phase of the Representative Network, as well as the broader membership of the EMCR Forum for responding to our calls for input to inform how we represent EMCRs in policy submissions and at meetings and workshops. All of this would not be possible without the support of the Academy's Council and the behind-the-scenes work by the Diversity and Inclusion unit at the Australian Academy of Science.

Our engagement with funding bodies and policymakers has impact and resonates with those making decisions. The EMCR perspective at the National Health and Medical Research Council (NHMRC) Research Quality Workshop opened the door to a wider audience at the Springer Nature Research Quality Symposium, allowing our voices to be heard by those on editorial boards, senior management of research institutes, universities and funding bodies. The launch of our best practice guide to increasing diversity in competitive selection processes has been read broadly and already precipitated changes in nominations processes for national science awards.

We recognise that the challenges facing EMCRs are common all around the world, and we have re-engaged with the Global Young Academy for future collaborations.

Each year, the Executive selects a theme around which to focus our activities and events, and the 2019 theme was maintaining mental health and wellbeing. This focus was embedded in the activities delivered as part of the EMCR program at Science at the Shine Dome 2019.

Our engagement with EMCRs and other interested parties continues to grow via our website, our newsletter, e-updates and social media.

The three successful events funded by the Theo Murphy Initiative (Australia) in 2019 engaged more than 300 EMCRs in discipline-specific discourse and professional development opportunities.

On reflection, this report demonstrates the great deal that we achieved by having our collective voice heard. We will continue to advocate for an inclusive and diverse national research environment through stable funding policies and sustainable career structures. Be the change you want see.



Associate Professor Vanessa Wong

*“We will continue to advocate for an inclusive and diverse national research environment through stable funding policies and sustainable career structures. Be the change you want see.”*

# 2019 EMCR Forum Executive

The EMCR Forum Executive (the Executive) is a group of 12 volunteers who work closely with the Australian Academy of Science to amplify the voice of Australia's EMCRs and set the strategic direction of the EMCR Forum's activities. The Executive meets with decisionmakers in government and various agencies to ensure the views of EMCRs are considered when decisions and policies are being made.

We liaise with national organisations to facilitate initiatives that support the careers of EMCRs and positively contribute to the Australian science sector. We also provide a direct link between the EMCR Forum and the Council of the Australian Academy of Science, advising the Council on issues relating to EMCRs and their participation in the STEM sector. The Executive is an inclusive group which aims to be as diverse and equitable as possible. Members of the Executive serve for a period of up to three years. Incumbent Executive members are recruited each year through an open call to EMCR Forum members for expressions of interest, followed by an interview with shortlisted candidates. The Executive meets face-to-face at least once a year in Canberra to welcome new members and set the agenda and advocacy focus for the coming year. The Executive meets regularly through virtual meetings and delivers activities, initiatives and submissions via smaller working groups.

*“The Executive is an inclusive group which aims to be as diverse and equitable as possible”*



Associate Professor Vanessa Wong  
Chair



Dr Emma Beckett  
Co-Deputy Chair



Associate Professor Drew Evans  
Co-Deputy Chair



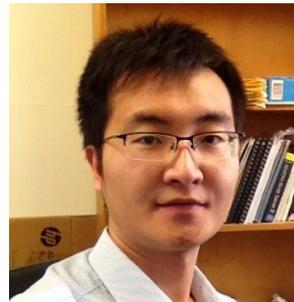
Dr Alexie Papanicolaou



Dr Zsuzsa Banhalmi-Zakar



Dr Michelle Christie



Dr Jinzhe (James) Gong



Dr Justine Shaw



Dr Adrian Murdock



Dr Irene Suarez-Martinez



Associate Professor Michael Bowen



Dr Gina Ravenscroft

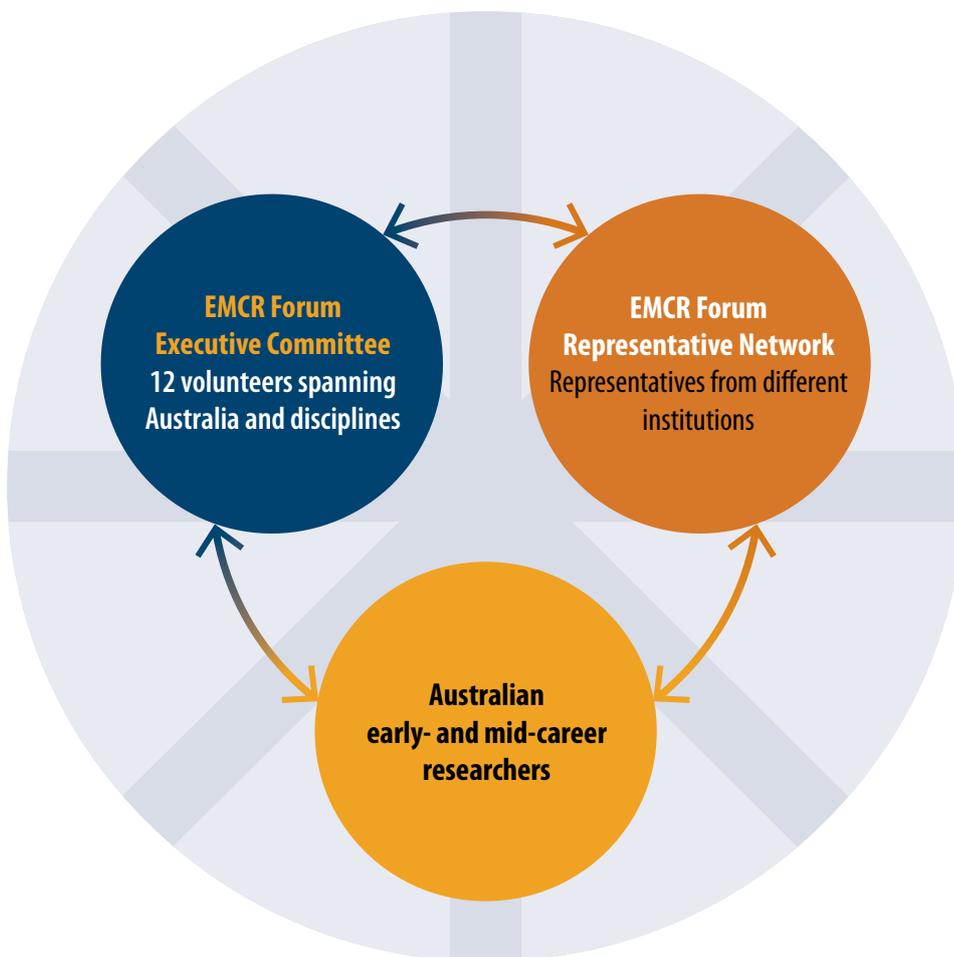
# Membership

## An engaged and effective membership

The EMCR Forum represents EMCRs across all scientific disciplines in Australia and is the national voice of Australia's emerging scientists. The EMCR Forum advocates for improvement in the national research environment, focusing on sustainable and transparent career structures, stable funding policies, career development opportunities, raising awareness of issues facing the future of science, and building a diverse and inclusive scientific sector.

To have an effective voice, the EMCR Forum must maintain a strong, large and engaged membership. This strengthens the voice of EMCRs and allows them to better advocate for changes to improve policies, career pathways and funding relevant to EMCRs.

*“The EMCR Forum advocates for improvement in the national research environment.”*



## EMCR Forum membership in 2019

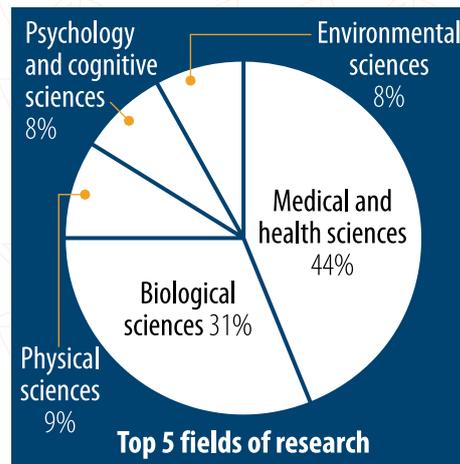
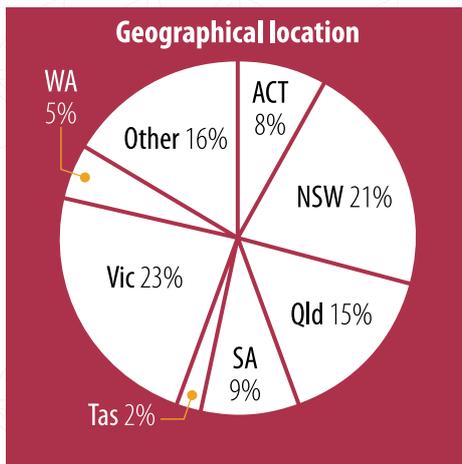
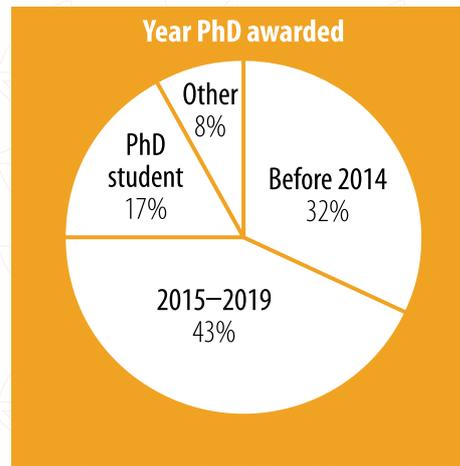
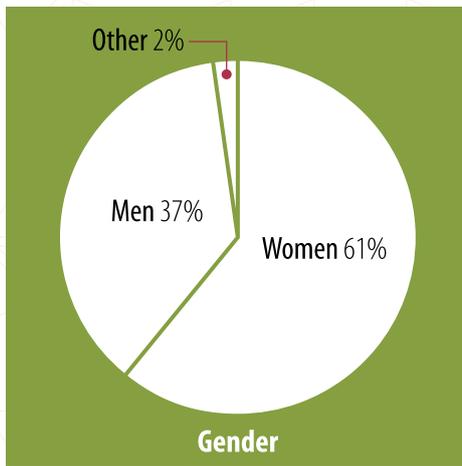
**5315**

EMCR Forum members

**15%**

Increase in members in 2019  
(675 new members)

## Demographics of new members



# Representative Network

The Representative Network comprises EMCRs nominated by their employer to act as a link between local EMCRs and EMCR activities, and national events and initiatives driven by the EMCR Forum Executive.

The aim of the Representative Network is to represent and communicate the interests of EMCRs at each organisation to the EMCR Forum Executive. In addition, the Representative Network shares information from the Executive and the Academy with EMCRs at their own organisation. The Representative Network plays a crucial role in the Forum's ability to reach and equitably represent all of Australia's EMCRs.

We would like to acknowledge the contribution, support and input of the members of the Representative Network in 2019 (Table 1)

**Table 1. Members of the Representative Network in 2019**

Organisation	Department	Name
ANSTO		Dr Simone Richter
Australian Bureau of Statistics		Dr Junmei Jing
Australian Bureau of Statistics		Oksana Honchar
Australian Catholic University	Centre for Exercise and Nutrition	Dr Donny Camera
Australian Catholic University	Centre for Exercise and Nutrition	Dr Evelyn Parr
Australian National Botanic Gardens	National Seed Bank	Dr Lydia Guja
Australian National Botanic Gardens	Australian Biological Resources Study	Dr Haylee Weaver
Australian National University	ANU College of Health and Medicine and ANU College of Engineering and Computer Science	Dr Vini Gautan
Australian National University	Department of Nuclear Physics	Dr AJ Mitchell
Bureau of Meteorology		Dr Claire Spillman
Charles Darwin University	Menzies School of Health Research	Dr Teresa Wozniak
Curtin University	School of Psychological Science	Dr Patrick Dunlop
Curtin University	Faculty of Science and Engineering	Dr Katarina Miljkovic
Curtin University	Faculty of Science and Engineering	Dr Mark Hackett
Deakin University	Institute for Frontier Materials	A/Prof Luke Henderson
Deakin University	School of Life & Environmental Sciences	Dr Emily Nicholson
Edith Cowan University	School of Medical and Health Sciences	Dr Elin Gray
Flinders University	Flinders Medical Centre	Dr Amy Wyatt
Florey Medical Research Institute		A/Prof Dominic Hare
Florey Medical Research Institute		Dr Emma Burrows
James Cook University	College of Medicine & Dentistry	Dr Smriti Krishna
James Cook University	College of Science and Engineering	Dr Daniel Smith
La Trobe University	Department of Physiology, Anatomy and Microbiology	Dr Ashley Franks
La Trobe University	Department of Community and Allied Health, La Trobe Rural Health School	Dr Nerida Hyett
Macquarie University	Department of Mathematics	Dr Sophie Calabretto
Macquarie University	Department of Biological Sciences	Dr Christopher Reid

Organisation	Department	Name
MCRI		Dr Sara Howden
Monash University	Monash Alfred Psychiatry Research Centre	Dr Caroline Gurchich
Monash University	Central Clinical School	Dr Chris Moran
Monash University	School of Biomedical Sciences	Dr Kelly Walton
Murdoch University	School of Engineering and Information Technology	Dr Nicola Armstrong
Murdoch University	Centre for Fish and Fisheries Research	Dr James Tweedley
Queensland University of Technology	The School of Biomedical Sciences	A/Prof Chamindie Punyadeera
Queensland University of Technology	Faculty of Health	Dr Johanna Kenyon
Southern Cross University	Southern Cross GeoScience research centre	Dr Hanabeth Luke
Southern Cross University	Southern Cross GeoScience research centre	Dr Renaud Joannes-Boyau
Swinburne University of Technology	School of Software and Electrical Engineering	Dr Tatiana Kameneva
Swinburne University of Technology	Department of Mathematics	Dr Louise Olsen-Kettle
Swinburne University of Technology	Centre for Sustainable Infrastructure	Dr Behzad Nematollahi
The University of Newcastle	School of Environmental and Life Sciences	Dr Hanna Power
The University of Newcastle	School of Engineering	Dr In-Young Yeo
The University of Notre Dame	Institute for Health Research	Dr Ryan Anderton
The Walter and Eliza Hall Institute of Medical Research	ACRF Chemical Biology Division	Dr Onisha Patel
University of Melbourne	School of Chemistry	Dr Lars Goerigk
University of New England	School of Science & Technology	Dr Mary McMillan
University of New England	School of Science & Technology	Dr Brendan Wilkinson
University of New South Wales	School of Biotechnology and Biomolecular Sciences	Dr Natalia Castaño Rodriguez
University of New South Wales	The Kirby Institute	Dr Richard Gray
University of Queensland	Institute for Molecular Bioscience	A/Prof Lachlan Coin
University of South Australia	School of Pharmacy and Medical Sciences	Dr Paula Facal Marina
University of Southern Queensland	Institute for Agriculture and the Environment	Dr Ben Allen
University of Sydney	Station Q	Dr Maja Cassidy
University of Sydney	School of Life and Environmental Sciences	Dr Samantha Solon-Biet
University of Technology Sydney	School of Electrical and Data Engineering	Dr Peiyuan Qin
University of Technology Sydney	School of Life Sciences	Dr Catherine Burke
University of Western Australia	Political Science and International Relations	Dr David Mickler
University of Wollongong	School of Biological Sciences	Dr Bethany Hoye
University of Wollongong	School of Earth and Environmental Sciences	Dr Lloyd White
Western Sydney University	School of Science & Health	Dr Emma George
Western Sydney University	School of Social Science & Psychology	Dr Sebastian Pfautsch

## RepNetwork 2.0

The Representative Network was established in 2017, with a trial period running from 2017–19. The first stage of the trial focused on seeking EMCR representatives from all Australian universities. In late 2018 and 2019, we expanded the Representative Network to government workplaces and research institutes. This broader rollout beyond the university sector reflects our concerted effort to gain broad representation from employers of STEM EMCRs across all sectors.

In 2019, representatives administered events for EMCRs at their institutions and provided valuable support to the Forum Executive on numerous activities and policy submissions. We are extremely grateful for their ongoing support and hard work in representing the interests of EMCRs in their workplaces and communicating important information from the EMCR Forum.

In 2019, the final year of the initial trial period for the Representative Network, we began putting plans in place to revamp the network, incorporating the feedback from representatives as well as our learnings and observations from the initial trial period. These considerations will be incorporated into updated Terms of Reference and new structure, deemed 'RepNetwork 2.0', to be implemented in 2020. The initial iteration of the Representative Network took a flexible and representative-driven approach, acknowledging that all workplaces are different, and the representative should be given the freedom to fulfil their role in a way that best suits their work environment. However, the review identified that a more structured approach would facilitate greater engagement across the network and further support for representatives in their role.

We look forward to continuing to work with the Representative Network as we implement the new support and engagement structure in 2020.

**The EMCR Forum Representative Network brings together EMCRs who are passionate to represent the interests of EMCRs in their workplaces. Below: Members of the EMCR Forum Executive in 2019.** PHOTO: AUSTRALIAN ACADEMY OF SCIENCE



# Operational excellence

## EMCR Committee of Council

The EMCR Committee of Council oversees the Academy's activities targeting EMCRs, including the Theo Murphy Initiative (Australia) in association with the Royal Society (Australia) Board. The EMCR Committee of Council works closely with the EMCR Forum, supporting and amplifying the voices of Australian EMCRs.

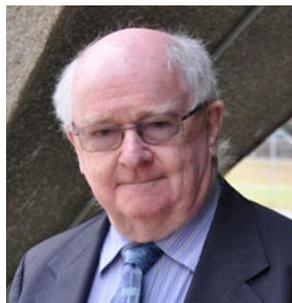
The 2019 members of the EMCR Committee of Council were:



**Professor David Day**  
Chair



**Professor Helene Marsh**  
Council Representative



**Professor Max Colthart**  
Council Representative



**Associate Professor Vanessa Wong**  
ex officio, Chair  
EMCR Forum Executive



**Associate Professor Drew Evans**  
ex officio, Co-Deputy Chair  
EMCR Forum Executive



**Dr Emma Beckett**  
ex officio, Co-Deputy Chair  
EMCR Forum Executive

## Academy support

The EMCR Forum and Executive is well supported by the Diversity and Inclusion unit of the Australian Academy of Science. In 2019, the following Academy staff directly supported the EMCR Forum:



**Laura Navarro**



**Dr Sandra Gardam**



**Dr Jana Phan**

Staff from across the organisation also provided support as needed.

## Operational improvements

The EMCR Forum Executive has recognised that many members of the EMCR Forum would like to be better informed about how their contributions shaped the Forum's response to requests for input into policy and funding changes, the impact of the submissions, reports, events and engagement activities for and by EMCRs, and the interactions and opportunities that have been generated from their contributions. This annual report demonstrates to members that their time and input is valued and communicated to relevant stakeholders, and contributes to positive change in the science sector. The annual report also ensures transparency in what we do and offers members our sincere thanks for their continued engagement and contributions.

# Outreach and engagement

## Website, newsletter and social media

The primary means of communication to members, stakeholders and interested parties is via the EMCR Forum webpages hosted on the Academy website, and through the Pathways Newsletter, regular email updates and the EMCR Forum Twitter account.

Two issues of the Pathways newsletter were released in 2019. The April edition was edited by Dr Emma Beckett, and the August edition by Dr Gina Ravenscroft. Regular segments included 'EMCR Agony Aunt', 'On the job with...', 'What have we been up to?' and 'Inspiring EMCRs'. Featured articles focused on tips for engaging with industry and entrepreneurship, using Expert Connect, and how to define the role of an EMCR and what that means in practice. The newsletter was distributed to more than 4200 EMCRs with an open click rate of 34%.

The EMCR Forum's Twitter following increased by approximately 600 followers in 2019. Monthly tweet impression ranged from 7000 to 130,000, prompting us to strive for more consistent engagement in 2020.

**480,000+**

Twitter impressions

**4200+**

EMCRs received newsletters and updates

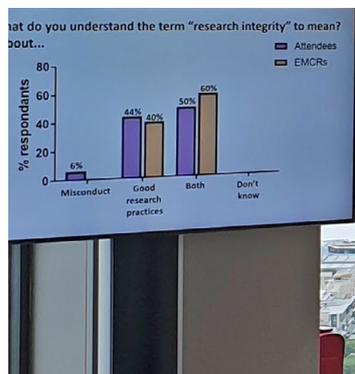
## Events

### NHMRC Research Quality Workshop

On 30 July 2019, the National Health and Medical Research Council (NHMRC) held a workshop on its research quality strategy. Dr Emma Beckett attended on behalf of the EMCR Forum. Through the workshop, research quality was found to be threatened not only by misconduct in research, but also wasted data and 'sloppy' science.

Attendees included vice-chancellors (VCs), deputy vice-chancellors (DVCs), pro vice-chancellors (PVCs), heads of research institutes, heads of research support teams, policy analysts and representatives of the Australian Society for Medical Research (ASMR). The EMCR Forum was the only voice in the room that was exclusively dedicated to the EMCR portion of the STEM workforce. As a result, we were given the opportunity to highlight EMCRs' increased exposure to roles in projects with poor research quality or processes, or indeed being directly pressured into producing low-quality research. Dr Beckett highlighted that EMCRs are particularly vulnerable to research quality issues as they are part of a highly mobile and insecure workforce, which is at higher risk in terms of loss of data or miscommunication. EMCRs are often in subordinate positions and may be under pressure to produce results rapidly or may be misled or undertrained in data analysis or data storage techniques. EMCRs may also be positioned as expendable scapegoats when misconduct is uncovered, or low-quality research emerges.

Potential solutions suggested to reduce this burden on EMCRs included improving stipulations around training and oversight, and improving access to technology for data storage, sharing and interrogation. Longer-term improvements in workforce stability and employment certainty would also address this challenge by decreasing the pressure for



Dr Emma Beckett presents the result of the EMCR survey on research integrity at the Nature Research Quality Symposium in Melbourne.

PHOTO: EMCR FORUM

EMCRs to publish results quickly to secure their next contract or grant, although it was acknowledged that there is no simple solution for this problem. Discussion also centred around the new grant structures, with the aim for the 'ideas' grants to drive more innovation and less waste on 'safe' research. However, the discussion that followed focused on the need for funding to allow for replication studies to ensure quality, reproducible research.

### Nature Research Quality Symposium

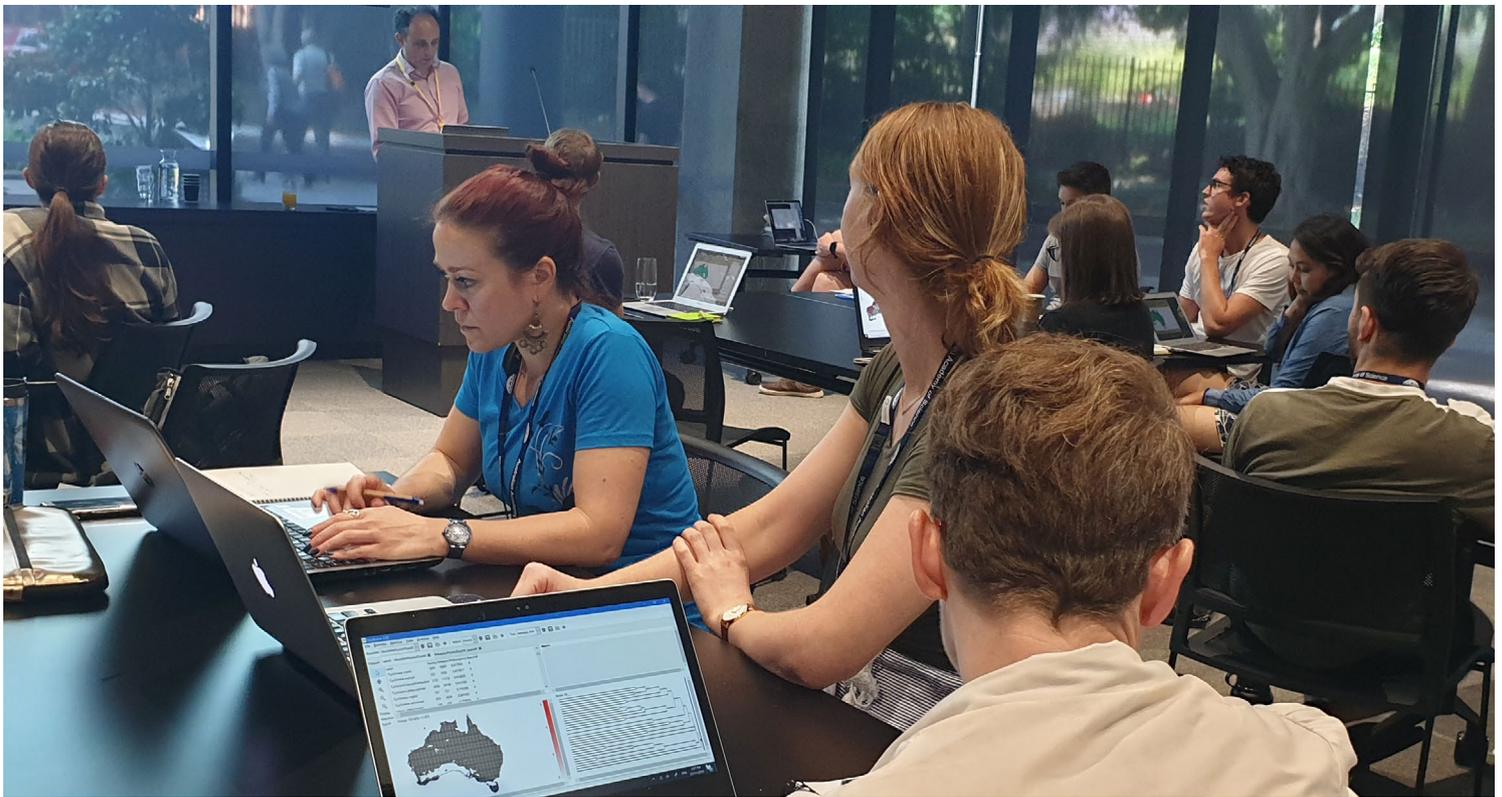
Representatives of the EMCR Forum (Executive members Dr Emma Beckett, Associate Professor Michael Bowen, Dr Michelle Christie and Dr Vanessa Wong), and EMCR representatives (Dr Michalis Hadjidakou and Dr Radoslaw Panczak), were invited to participate in a Springer Nature Symposium on Research Integrity: fostering quality research practices which was held on 25 October 2019 in Melbourne. The attendees at the workshop included VCs, DVCs, PVCs, chief scientists, leaders of key research institutes and academies, and the CEOs of the ARC and NHMRC. The aim of the symposium was to develop commitments to actions by attendees in research integrity and quality research practices, including data and methods sharing and accessibility via presentations from keynote speakers, panel discussions and workshops.

Keynote speakers included Professor Marcia McNutt, President of the US National Academy of Sciences, who is a champion for research integrity in the United States, and Professor Anne Kelso, CEO of the NHMRC and Fellow of the Academy who is championing research integrity in Australia. Opening remarks were presented by Dr Magdalena Skipper, editor-in-chief of Nature, and Australia's Chief Scientist Dr Alan Finkel.

Dr Emma Beckett was a member on the Training and Accreditation panel, and Dr Radoslaw Panczak was a member on the Data Sharing and Accessibility panel. Both highlighted the unique vulnerability of EMCRs in the context of career progression and research integrity.

Prior to the symposium, the attendees, most of whom were senior scientists, were asked to complete a survey on research integrity. The same survey was completed by Australian EMCRs, with the distribution of the survey facilitated by the EMCR Forum Executive. The results of the survey were presented at the symposium and the EMCR Forum was given the opportunity to present the perceptions of EMCRs and compare them with those of the senior scientists, with key findings below.

1. More EMCRs than senior scientists described research integrity as encompassing both considerations of misconduct and good practice.
2. There is disparity between EMCRs and senior scientists on the perception that their institution provided training on research integrity, with 84% of senior scientists and 58% of EMCRs indicating that training on research integrity was provided.
3. Senior scientists are more likely than EMCRs to think that the training offered was useful.
4. High numbers from both groups agreed that research integrity training should be mandatory at all career stages.



Participants at the Genomes and Biodiversity workshop learn about spatial analysis of biodiversity. PHOTO: AUSTRALIAN ACADEMY OF SCIENCE

The findings highlighted the key differences in what the senior scientists believed was useful training in research integrity and mentoring, and what was experienced by the EMCRs undertaking the training and receiving the mentoring.

Three facilitated workshops were then used to further explore key issues in research integrity and quality, and to develop actions for the attendees.

### Theo Murphy Initiatives (Australia) activities

The Theo Murphy (Australia) Fund was established with the purpose of furthering scientific discovery in the fields of STEM. The fund is made available by the Royal Society of London and administered by the Australian Academy of Science.

The Theo Murphy (Australia) Fund supports a number of activities annually which provide tangible benefits to Australia's EMCR community, and aims to provide benefits and opportunities to as many EMCRs as possible. Four activities were selected as part of the July 2019 – June 2020 round, three of which were delivered in 2019.

### Genomes and Biodiversity

The [Genomes and Biodiversity: Research and Career Development workshop](#) hosted 50 EMCRs and PhD students in the life sciences at a three-day event in November 2019 at the University of Sydney. The workshop included hands-on training in managing big data, professional development, opportunities to present their research and opportunities to make connections with other life sciences researchers for collaboration and the sharing of ideas.

Academy Fellow Professor Steve Simpson, from the University of Sydney, opened the event, followed by a keynote presentation from another Fellow, Professor Edward Holmes, also from the University of Sydney. Dr Ida Moltke from the University of Copenhagen presented highlights from genetic studies of the Greenlandic population, and the event concluded with a public talk by Dr Rebecca Johnson, formerly of the Australian Museum and now based at the Smithsonian.

Attendees provided very positive feedback and made the most of the opportunity to network with other researchers from different backgrounds, reinforcing the importance



The EMCR discussion panel on commercialisation at the Synthetic Biology Australasia 2019 conference. PHOTO: AUSTRALIAN ACADEMY OF SCIENCE

of the support for these types of activities for career development. Several mobility grants were offered, allowing the participation of EMCRs who otherwise would not have been able to attend.

Additional support for the Genomes and Biodiversity workshop was provided by the University of Sydney and the University of Copenhagen.

### Synthetic Biology Australasia

A range of activities for EMCRs were supported at the [Synthetic Biology Australasia \(SBA\) 2019 conference](#) in Brisbane in October 2019. The program was specifically designed to support the career development of EMCRs working in the field of synthetic biology and increase the opportunities to engage meaningfully with peers and industry representatives at the conference. More than 200 researchers and industry representatives shared their synthetic biology research and discussed the future directions of one of the fastest growing areas in science.

The EMCR-specific program featured an open circle discussion session on building successful careers and gaining transferable skills, a researcher-industry networking function, poster session, expert panel on kick-starting the Australian bio-economy with synthetic biology, and a training session on commercialisation delivered by CSIRO's national science and technology accelerator, the ON Program.

Mobility grants were offered to support diversity and inclusion at the conference and were designed to offset the expenses associated with attending SBA 2019 for those EMCRs who required carer support or had caring responsibilities, and/or cover the travel costs of attendees from traditionally underrepresented demographics. Ten mobility grants were awarded to EMCRs from a diverse range of fields after a competitive selection process.

Additional support was provided by the University of Queensland, CSIRO, and Synthetic Biology Australasia.

### Re:produce Workshop

More than 60 EMCRs from across Australia met in Brisbane in December 2019 to discuss strengthening reproducibility in science. The lack of reproducibility of scientific claims has emerged as a hot topic in recent years, with the outcomes of some high-impact studies unable to be reproduced.

The [Re:produce workshop](#) included sessions designed to empower researchers to make their research more open, transparent and verifiable. The program featured topics such as open science, the statistical foundations of reproducible science, and open code and documentation tools. A panel discussed the challenges of increasing the reproducibility of research and how to overcome these obstacles.

The Academy's presence at the event included Fellow Professor Christine Beveridge from the University of Queensland, who welcomed attendees to the event. Professor Ginny Barbour, a member of the Academy's National Committee for Data in Science, shared valuable insights during the panel session and led a training session on open access.

## Engagement

- **Presentation on the EMCR Forum at the 19th Australasian Polymer Summer School, University of Sydney.**  
Associate Professor Michael Bowen, 5–7 February 2019
- **EMCR Forum Representatives at the International Network for Government Advice (INGSA): Australian Dialogue workshop.**  
Dr Emma Beckett and Dr Vanessa Wong, 17 April 2019
- **Presentation on the EMCR Forum and facilitation of panel discussion at the UNSW Faculty of Science Early Career Academic Network (ECAN) Career Development Workshop.**  
Dr Vanessa Wong, 29 May 2019
- **Hosted Kindness in Science Workshop at the Telethon Kids Institute.**  
Dr Gina Ravenscroft and facilitated by Eva Zellman, July 2019
- **Hosted Kindness in Science Workshop at the Harry Perkins Institute of Medical Research.**  
Dr Gina Ravenscroft, August 2019
- **Presentation on the EMCR Forum at Monash University's Early Career Researcher Symposium.**  
Dr Vanessa Wong, 13 September 2019

## Media

- [Early-career researchers push back against the pressure.](#) Published in Research Professional, 29 August 2019.
- [Science prizes are still a boys' club. Here's how we can change that.](#) Published in The Conversation, 21 October 2019.

# Policy, advocacy and influence

## Submission to the Productivity Commission's inquiry into the effect of mental health

In late 2018, Treasurer Josh Frydenberg requested that the Productivity Commission undertake an inquiry into the role of improving mental health to support economic participation and enhance productivity and economic growth. The EMCR Forum submitted a [response](#) on behalf of EMCRs working in the STEM sector.

The STEM sector's productivity and long-term sustainability is under serious threat from overwork (exceeding 38 hours a week), job insecurity and ineffective organisational responses to the causes of poor mental health. A review of the mental health of the STEM workforce in Australia is still urgently needed. While some previous work investigated the mental health of tertiary students ([National Tertiary Student Wellbeing Survey 2016](#)), a detailed analysis of the academic workforce has not been performed.

The EMCR Forum, in collaboration with the Australian Brain Alliance EMCR (ABA EMCR) Network, made a submission to this inquiry. The inquiry aimed to examine how sectors beyond health, including education, employment, social services, housing and justice, can contribute to improving mental health and economic participation and productivity. Our submission focused on the issues identified under 'mentally healthy workplaces'.

To prepare our submission, we conducted a five-question survey through Twitter and via email for members of the EMCR Forum and the ABA EMCR Network. A total of 112 responses were received. The main topics covered in the submission were mental health in the workplace, and prevention and early intervention.

Based on the survey results, the submission made four recommendations:

1. Establish a national program to assess the mental health of all workers in the academic STEM sector, not only students. The assessment should make appropriate reference to the different career stages: early-career, mid-career, and senior academics
2. Establish support systems such as a national taskforce to educate employers on how to support productivity while managing the health risks associated with overwork
3. Normalise discussions about mental health to reduce stigma. While our submission focused on EMCRs, the academic sector in general stigmatises those with mental health issues
4. Create realistic expectations and reasonable workloads in the STEM academic sector.

## Election statement

In May 2019, the EMCR Forum [released a position statement](#) on the 2019 federal election, putting forward our recommendations and commitments to support STEM professionals in Australia. The main themes were:

1. Our shared commitment: establishing trust within the sector and the community
2. Support for STEM to benefit Australia: calls for more, and more stable, funding models for EMCRs in STEM
3. National capacity building: calls for strategies and investment to continue to build STEM opportunities and capability in Australia, with equity.

## Increasing women's participation in grant applications

On 24 October 2019, the EMCR Forum Executive received a letter from Professor Sue Thomas, CEO of the Australian Research Council (ARC), seeking input from stakeholders about three planned initiatives aimed at promoting women's involvement in ARC grant processes. The three initiatives were:

1. introduction of a target of at least 50% of applications per institution for the Discovery Early Career Researcher Award (DECRA) scheme being submitted by women by 2023
2. introduction of a target for the ARC College of Experts to be 50% women by 2023, and for gender parity on the Selection Advisory Committee by 2025
3. release of additional information on the ARC website about the proportion, by institution, of women included in applications for ARC grants.

The letter indicated that the ARC developed a discussion paper about these initiatives and that input was sought through the completion of an online survey by 12 December 2019.

The EMCR Forum Executive decided that the best way to capture input from Forum members was to compile a short survey of its membership. The member survey results informed the Executive's response to the ARC's online survey. A summary of the Executive's response to the ARC survey is as follows:

- The majority of the Forum members who responded support the creation of a 50% target for women in DECRA application, however, such a target can also negatively affect some women. For example, some women may be pressured to apply to meet the quota, although others believe this initiative may help women be more competitive on the job market. It was also noted that a quota stipulating the participation of women will preclude those who do not identify within the binary description of gender.
- It was suggested that the ARC publish the dates for decisions on grant applications and increase transparency on ROPE guidelines as additional mechanisms to increase support for women in early career research.
- There was overwhelming support to establish a target to increase the representation of women to 50% on the ARC College of Experts and Selection Advisory Committees. At the same time, members expressed concern that such targets may increase the administrative burden on women in disciplines where women researchers are underrepresented, taking time and resources away from other roles such as research. Responses also noted that there is an implicit assumption in this target that women cannot be biased against women, and this may not be the case, meaning that achieving this target may not necessarily lead to more equitable grant outcomes. It was suggested that this could be addressed with bias awareness training for the College of Experts and Selection Advisory Committee.
- EMCR Forum members were highly supportive of the ARC's proposal to publish data on institutional performance (applications by gender) on its website. However, disclosure alone cannot influence how women are treated in institutions. For example, women may be asked to participate in research proposals in name only, without true inclusion in a collaborative sense. Leaving negotiations regarding contribution to the leadership of the project, or sharing of the research funds, unclear could be detrimental to women. It was also recommended that further measures for disclosing gender balance be taken, such as extending the transparency to all other ARC grant applications, including gender parity of Chief Investigators (CIs) and Future Fellowship applications.
- The ARC should consider the implementation of a two-stage application process consisting of an expression of interest which is subjected to a blind-review, focusing only on the merit of projects first, followed by a second stage where information on publications, background, etc. is released. Such an approach could lead to a more efficient use of time for applicants and assessors and would particularly benefit part-time researchers, the majority of whom are women.

- It was highlighted that ECRs 'shadow write' Discovery Project applications (i.e. are not named as CIs) which are submitted under the name of a senior CI with a well-established track record, as a tactical move to increase the potential to be funded. If funded, the ECR usually benefits because they are the post-doctoral fellow employed on the project but are significantly disadvantaged because they are not recorded as a CI on the project. It was suggested that the ARC consider allowing named ECR CIs to draw salary from both Discovery and Linkage Project schemes.

## Feedback on guides supporting the Australian Code for the Responsible Conduct of Research

The EMCR Forum was invited by the NHMRC, ARC and Universities Australia to provide feedback on the guides to support the Australian Code for the Responsible Conduct of Research. The guides were focused on supervision of research students and collaborative research.

The key points that were communicated in the supervision of research students response were:

- bullying and harassment were not mentioned or addressed
- supervisors should ensure that the work that they are supervising is not exploitative and focuses on the development of the student's career
- consistent attribution of workload between co-supervisors is needed and should not be based on seniority
- monitoring of timeframes of candidatures should be clear to prevent supervisory exploitation of trainees
- the onus of responsibility of institutions should be clearly mentioned to prevent the exploitation of students, for example, by asking them to provide free or underpaid labour for the provision of tutorials or outreach activities under the guise of 'experience'
- institutions need to ensure that there is appropriate funding and resourcing available to adequately support candidates.

The key points that were communicated in the response regarding collaborative research were:

- different cultural norms or codes which may conflict with the Australian code should be recognised, and clear guidance provided about how to approach such situations
- the requirement for agreements to be in place prior to the start of any collaborations may limit collaborative research, and initial or scoping collaborations should be able to comment on the signing of a pro-forma agreement
- any agreement should include clauses which stipulate each partner confirms that the host and visiting researchers (including Principal Investigators acting as supervisors) are not under any disciplinary investigations with regards to bullying or sexual harassment.

## Engagement with the Global Young Academy

In 2019, the EMCR Forum Executive reconnected with representatives of the [Global Young Academy](#) (GYA). Through this engagement, the EMCR Forum Executive recognised that the GYA and EMCR Forum share many common values and that there are promising opportunities for future collaboration and engagement.

Dr Adrian Murdock represented the EMCR Forum and Australia by attending the 4th Worldwide Meeting of Young Academies (WWMYA) from 31 July to 2 August 2019 in Da Nang, Vietnam. This meeting was co-organised by the Vietnam Young Academy and the GYA. Attendees came from all over the globe and represented over 30 Young Academies (YAs) or similar organisations.

The theme of the meeting was promotion of peaceful and inclusive societies aligned with the United Nations' Sustainable Development Goals.

Presentations from different YAs highlighted the diversity of representative bodies, initiatives undertaken, and issues faced by EMCRs around the globe.

A 'Declaration on the Guiding Principles of a YA' was drafted during the WWMYA which led to lively discussion amongst attendees. This declaration includes several calls to action, with the aim of building a global community of bodies representing early- and mid-career scholars.

Although the EMCR Forum supports the aims and motivations of the YA model and the declaration, their current definition of excellence as a guiding principle conflicts with the Forum's aims of inclusion and representation. As such, at this time, the EMCR Forum Executive has not ratified [the statement](#).

Since the WWMYA, the EMCR Forum Executive has continued to engage with a number of YA and similar organisations with complementary values, and these relationships will strengthen in the future.

### **Attendance at Academy Council meetings**

A representative of the EMCR Forum Executive attends each meeting of the Academy's Council as an observer to provide an EMCR perspective on the proceedings. In 2019, the EMCR Forum was represented at the following meetings:

- 7 February: Dr Vanessa Wong
- 5 March: Dr Vanessa Wong
- 27 June: Dr Emma Beckett
- 10 October: Dr Adrian Murdock

# Science at the Shine Dome

## EMCR program at Science at the Shine Dome

Science at the Shine Dome is the annual flagship event of the Academy. The event was held from 28 to 30 May 2019 and was hosted in and around the iconic Shine Dome in Canberra. The event brings together scientists from all disciplines and career levels, and others interested in science, in a program that celebrates science in Australia. The EMCR Forum Executive delivered a tailored program for EMCRs attending Science at the Shine Dome.

The EMCR program was expanded in 2019, with support from EMCR Engagement Partner, UniBank. Seventy-one EMCRs, joined a series of activities designed to enhance engagement opportunities for EMCRs at the event. Executive members Dr Alexie Papanicolaou, Dr Irene Suarez Martinez and Associate Professor Michael Bowen, with the support of the Academy's Secretariat, delivered the activities of the new EMCR program, which featured a masterclass, a networking dinner and four professional development workshops.

The masterclass focused on work–life management and aligned with the Forum's 2019 focus area of mental health and wellbeing for EMCRs. More than 70 EMCRs attended the masterclass which identified challenges that affect mental health and discussed strategies to address these challenges.

## UniBank

Presenting Partner  
EMCR Engagement

Associate Professor  
Michael Bowen welcomes  
the participants of the EMCR  
program at Science at the  
Shine Dome 2019. PHOTO:

BRADLEY CUMMINGS





Attendees enjoy a networking opportunity between EMCRs and Fellows of the Academy at Science in the Shine Dome 2019. PHOTO: BRADLEY CUMMINGS

The masterclass included three expert panellists from the health sector. Dr Liana Leach, Senior Research Fellow at the National Centre for Epidemiology and Population Health (NCEPH), presented both her first-hand experience as an EMCR, and research into workplace mental health, parenting, and mental health in Australia. Mr Harry Lovelock, from Mental Health Australia, offered a policy- and government-focused perspective and Mr Zephyr Bloch-Jorgensen, founder of MAP Wellbeing, a free online wellbeing program, explored a holistic and practical view of work-life management.

Following the masterclass, EMCRs mingled with Academy Fellows at a cocktail reception before the EMCR-specific networking dinner, which was also attended by a number of Fellows and staff of the Academy.

Newly admitted Fellows to the Academy delivered their presentations on the second day. The day concluded with a gala dinner at the National Museum of Australia, highlighted by speeches from the Minister for Industry, Science and Technology Karen Andrews; the first Australian astronaut in space, Andy Thomas; and former chair of the Young Global Academy, Dr Eva Alisic. The night provided an opportunity to network with those attending Science at the Shine Dome and also with members of parliament, innovators, business leaders and foreign dignitaries.

Following the presentation of the 2019 Academy medals and awards on the third day, 58 EMCRs participated in one of four professional development workshops designed to extend their professional skills. Workshop topics were based on EMCR feedback from previous events, and covered:

- CV writing and interview skills, presented by Mr Paul Grainger from Professionals Australia
- grant writing, presented by Kylie Ball from Indigo Academy
- industry engagement, presented by Dr Julie Wheway from gemaker
- leadership development, presented by Philip Podgson from The Leading Partnership.

The EMCR Forum will continue to deliver an annual EMCR program at Science at the Science Dome. In addition to supporting the participation of EMCRs in Science at the Shine Dome, the EMCR program also provides valuable networking and professional development opportunities for the EMCR community.

Thirty-one EMCRs from 13 different organisations received support from their employers to attend the Science at the Shine Dome. Thanks to these 13 EMCR Supporters, the selected attendees were able to travel, stay, learn and network at this unique event and gain valuable insights to support their careers.

#### EMCR Supporters



# Increasing diversity in competitive selection processes

The Increasing Diversity in Prizes and Awards resource was released in 2019 as a [one page summary](#) and [best practice guide](#). This resource was the product of two EMCR-focused workshops, numerous meetings, and extensive input from the EMCR community.

The initial workshop was conducted at Science Pathways 2018: Diversify Your Thinking, which was held in Brisbane, to understand the barriers in applying for prizes and honorific awards and identify possible solutions. A follow-up workshop at Science at the Shine Dome 2018 explored the potential solutions in depth. Barriers and solutions fell into categories which included reach, advertising, messaging and assessment, and highlighted the importance of champions and mentors.

During this process, the EMCR Forum Executive was approached by representatives of the Fulbright Commission and the Department of Industry, Innovation and Science to improve the nomination and selection process for the Prime Minister's Prizes for Science with the aim of increasing diversity in nominees and award winners. Between 2018 and 2019, the advertising and nominations process for the Prime Minister's Prizes for Science were modified, and the diversity of award nominees and winners showed marked improvement in 2019.

In response to the best practice guide, the Academy also enacted changes to the nomination process of its honorific awards. These included increasing transparency by listing the members of each of the awards committees, including a list of frequently asked questions about the nomination process, and providing a contact email address and phone number for queries.

A summary of the findings from the workshops was published in an article in The Conversation, [Science prizes are still a boys club. Here's how we can change that](#), which was read by over 6000 readers and received more than 160 comments.

The best practice guide was also welcomed by Nature, which published the guide as a commentary piece.

The input and contributions from all EMCRs who attended the workshops is appreciated and acknowledged in developing the best practice guide.

