

## \*\* EMCR Forum Annual Report 2022



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# A note from the EMCR Forum Chair 2022

It has been a privilege to lead the EMCR Forum through such an exciting and productive year. Working part-time while chairing a national committee comes with obvious challenges, and I would not have been able to hold this role without co-Deputy Chairs Dr Vanessa Moss and Dr Mohammad Taha who supported me beyond the imaginable, on top of bringing the most fantastic sets of skills into the 2022 leadership team.

We started by welcoming Zach Ghirardello as the Academy's new Diversity & Inclusion (D&I) Director, and later in the year we welcomed Dr Mari Kondo as our new EMCR Program Manager. They both brought new perspectives into the Forum, making our work better and more impactful from the first day they joined. The Forum would not have gone far without their guidance, and I am very grateful for their incredible support, kindness and availability.

I do take this opportunity to thank the whole <u>2022 Executive team</u> for working tirelessly, on a volunteer basis and in their free time, to make sure the voice of the community that we represent and the diversity of this voice reaches those tables where decisions are made.

Working with this team has been a real privilege. I am grateful for their commitment and support; concluding the year personally enriched by the strong connections that have grown, and professionally enriched by the many new skills I developed through learning from them.

From my personal perspective, there are two sources of fuel that power the Executive team to be such a high-achieving committee:

- 1. the opportunity for channelling the frustration we experience as EMCRs into championing change in various advocacy areas
- 2. the opportunity to learn new skills through working with the Academy and through peer-to-peer mentoring (learning from each other's strengths).

It is thanks to a combination of these two factors that this year, the Forum laid the basis for four important, long-standing goals to be achieved:

- **initiation of engagement with the ARC**, resulting in invitations to ARC consultations, establishment of regular meetings between the Forum and ARC, and co-organisation of a national workshop to support 450+ EMCR fellowship applicants
- initiation of engagement with the Aboriginal and Torres Strait Island EMCR community, resulting in the appointment of two Indigenous EMCRs for the first time on the Executive
- initiation of international engagement, through preparing and submitting the documentation for Affiliated Membership to the International Science Council (accepted in early 2023) and contributing to activities of the Global Young Academy
- initiation of engagement with a broader EMCR community, by revising the definition of an EMCR to make it inclusive of non-linear/non-traditional career paths. This resulted in improving the diversity of the Executive (which now also includes one EMCR working in industry) and the network, which amplifies the Forum's capacity to address the challenges of our research system.



Associate Professor Raffaella Demichelis

The Forum has been very active in the media and communications space. We: maintain a Twitter account (5,000+ followers) and a LinkedIn account (still under expansion); publish three newsletters per year highlighting opportunities, updates and showcasing research careers; and collaborated with the Academy Media and Communications Team, including for an interview with **Nature News** about the 2022 federal election.

Within the Policy and government submissions area, we have focused our attention on two main items that impact research funding:

- a <u>submission</u> on the <u>Research Block Grant reform</u>, highlighting the dangerous consequences of cuts to fundamental research funding
- a <u>submission</u> to the review of the ARC Act, highlighting the importance of fundamental research, while suggesting the ARC embrace an intersectional approach, improve communication and be an active advocate for research funding.

#### Additionally, the Forum:

- started multi-year projects that will produce long-term benefit to EMCRs, through strengthening engagement with our cohorts and stakeholders, and paving the way for a more sustainable definition of careers and future
- contributed to redesigning the Theo Murphy Initiative scheme and assessed proposals
- initiated the important work of redesigning our network of representatives across
  Australia (RepNet), to strengthen the relationships between the Forum and
  institutions/local networks and enhance the transparency and accountability of the
  EMCR executive
- supported/organised/contributed to international panel discussions and workshops about research, equity, and inclusion.

The Forum benefited from collaboration with the Future of Meetings initiative (CSIRO). The collaboration brought key experience and connections that empowered the Forum to advocate for the importance of developing capacity to support effective virtual meetings, while addressing both the sustainability and equity problems at the same time.

The rest of this document will discuss in more detail how the EMCR Forum's work is structured, what is our mission, complete/pending initiatives and outcomes in 2022.

The EMCR Forum highly values the support and mentoring we receive from the Australian Academy of Science, and the Academy's commitment to championing change in the national research system so that Early- and Mid-career researchers—the future of science in Australia—are not left behind. Throughout the year, we have interacted with various teams and Fellows, and we have been involved in a variety of Academy activities and working groups. We hope that this productive collaboration can continue and grow in the future.

Finally, we are grateful to the vibrant national community of EMCRs, a continued source of inspiration to us. We do our best to represent their voice and to provide them with resources to grow professionally in a challenging research environment. We look forward to continuing and expanding on this quest in the future, with a great and diverse cohort of new Executive members joining in 2023 and a fantastic new leadership team—a warm welcome to them all!

Associate Professor Raffaella Demichelis, Curtin University Chair 2022, EMCR Forum

## Who are the EMCR Forum

The Early- and Mid-Career Researcher (EMCR) Forum is supported by the Australian Academy of Science and fully run by EMCRs for EMCRs.

The Forum Executive Committee is made up of 12 EMCRs (13 from 2023), selected in a competitive process that has diversity as a selection criterion. This is to ensure that the voice of Australian EMCRs in STEM is fully captured and represented. A brief introduction to the 2022 team is available at the end of this report (Appendix).

Our network counts 6.000+ members across Australian academia, industry, not-for-profit, government, and commercial sectors. Membership is free, and benefits include access to opportunities, professional development, resources and information relevant to EMCRs.

The Forum has established a working group of about 30 representatives (RepNet) across Australian institutions to help link with local communities.

The Forum receives considerable and incredibly valuable support from the Academy of Science, especially by Dr Mari Kondo (EMCR Program Manager, ongoing) and Zach Ghirardello (D&I Director, 2022), both profiled in our newsletters, and by the Academy's Policy and Media teams.

More about the history of the EMCR Forum is in this issue of EMCR Pathways.





Top: 2022 Forum Executive members at the Strategic planning meeting. Notably, since early 2020, the Forum has been operative, efficient, and effective while working fully remotely. **Above**: The Academy's president, Professor Chennupati Jagadish, D&I director Zach Ghirardello, EMCR program manager Dr Mari Kondo, Academy Fellow Professor Tom Calma, EMCR Forum Chair Associate Professor Raffaella Demichelis, EMCR Executive member Dr Charlie Morgan, and Academy's Chief Executive Anna-Maria Arabia.



EMCRs attending Science at the Shine Dome 2022, Canberra, and meeting with EMCR Forum Executives and EMCR program manager Dr Mari Kondo.

### What we do

The EMCR Forum's focus is on advocating for:

- accessible, sustainable, and agile research career structures
- · transparent and fair funding systems
- inclusion, equity, diversity and intersectionality.

The Forum does this through a variety of means, including:

- designing and delivering/supporting professional development for EMCRs
- communicating the specific challenges faced by EMCRs across Australia directly to funding bodies, peak bodies and governmental organisations
- partnering with organisations, funding bodies and government on events for EMCRs
- preparing submissions for consultations and public inquiries on issues relevant to EMCRs (all public consultations are available here)
- engaging with EMCRs through social media (<u>LinkedIn</u> and <u>Twitter</u>) and the <u>EMCR</u>
   Pathways newsletter
- collaborating with the Academy of Science on various projects.

Our strategic plan is shown below and available here.



## How we operate

The EMCR Forum's work is structured according to the table below, with a defined set of core tasks (the same every year) and one-year projects (either the organisation of Science Pathways—the premier conference on professional development for EMCRs in Australia—or a set of other activities).

Subgroups of Executive members are assigned portfolios, with a Chair and two Co-Deputy Chairs supervising and contributing to all areas on top of their assigned portfolios.

Depending on the breadth of knowledge and personal advocacy goals of the Executive members, opportunities available, and priorities, there are years when certain portfolios are more productive than others. If measured over two to three years, impact and productivity are high in all portfolios.

#### Core tasks

Media & communications

Engagement with funding bodies

Policy or government submissions and position statements

RepNet convening team

Theo Murphy Initiative

International engagement (new 2022)

Equity, diversity, inclusion and intersectionality (EDII)

Strengthening engagement with non-academic and non-STEM EMCRs\*

#### One-year projects

Redefining success (2022)

Science Pathways conference (last in 2021, next in 2023)

<sup>\*</sup> Run as part of the EDII portfolio in 2022

# What we have been up to in 2022

#### Core tasks

#### Media & communications

#### Dr Yee Lian Chew, Dr Emily Finch and Dr Charlie Morgan

One of the main strengths of the EMCR Forum is our commitment to collect and highlight the diversity of the voices of EMCRs in Australia, to support our community and to be accountable. We engage with our community through two active social media accounts (<u>Twitter</u>, <u>LinkedIn</u>), one email address (<u>emcr@science.org.au</u>) and publish three newsletters per year.

Throughout the year, this team has collected and shared:

- career profiles showcasing the diversity of careers in STEM
- news relevant to the STEM sector
- highlights about professional development events, open consultations, opportunities for EMCRs, equity and diversity initiatives
- EMCR Forum's achievements and the progress of our work.

We are grateful to all our members who have engaged with this team, sharing opportunities, highlights and stories, and to the Academy Media team for their collaboration.

The Diversity and Inclusion team of the Academy of Science, in particular Aisha Setipa and Dr Mari Kondo, have monitored our email address and shared periodic collections of EMCR-relevant opportunities with our network.

#### **Engagement with funding bodies**

### Team ARC: Dr Tim Lau and Associate Professor Raffaella Demichelis Team NHMRC: Dr Yee Lian Chew and Associate Professor Angela Laird

The Forum has been successful in initiating and developing active engagement with funding bodies such as the ARC. The aim of the continual engagement with funding bodies is to provide them with feedback from EMCRs in the STEM fields, while also opening up mutually beneficial dialogue between funding bodies and EMCRs. This is in the spirit of making sure that the voice of EMCRs and its diversity are represented in key decision-making processes.

Dr Tim Lau and Associate Professor Raffaella Demichelis attended consultations and drafted feedback documents regarding the new ARC Industry Fellowship scheme and the National Interest Test, with inputs obtained from the entire Forum Executive. The Forum also organised, in collaboration with the ARC CEO Ms Judi Zielke, a consultation on the National Interest Test specifically targeting EMCRs, to collect more diverse and broader feedback from our community.

On 16 November, a sub-team lead by Dr Tim Lau and composed of Associate Professor Raffaella Demichelis, Dr Yee Lian Chew, Dr Charlie Morgan and Dr Emily Finch organised the workshop 'Achieving success within the ARC grants scheme' in collaboration with the ARC (450+ registrations). ARC Executive Director Dr Mary Kelly delivered a talk focusing on

ARC priorities, NIT and ROPE statements, specifically developed for an EMCR audience, and provided a unique opportunity for EMCRs to ask questions directly of the ARC. The poll results from this event (below) indicate that most EMCRs benefitted from this workshop. The Forum will endeavour to conduct similar workshops in collaboration with the ARC in the future.

Associate Professor Angela Laird and Dr Emma Burrows met with the NHMRC CEO and team in a consultation in response to a discussion paper proposing options to reach gender equity within successful applications of their Investigator Grant scheme. The Forum provided feedback relating to the impact of these potential options on EMCR. Following the consultation period, the NHMRC did make changes to improve gender equity within this scheme.

### Policy and government submissions, position statements

#### Dr Tim Lau and Associate Professor Raffaella Demichelis

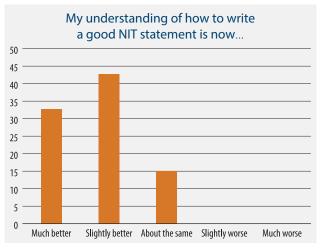
We started the year with the good news that our <a href="mailto:submission"><u>submission</u></a> on the University Research Commercialisation Scheme from 2021 had identifiable influence on the <a href="University Research Commercialisation Action Plan"><u>University Research Commercialisation Action Plan</u></a> announced by the government, containing some good perspectives from EMCRs. This submission was led by Dr Tim Lau, with inputs from Associate Professor Raffaella Demichelis, Dr Yee Lian Chew and former Executive member Dr James Gong.

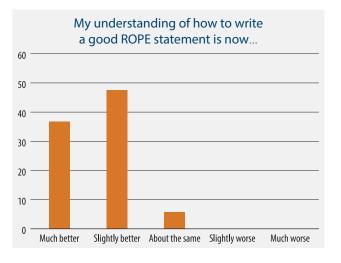
In 2022, the team prepared a <u>submission</u> on the <u>Research Block Grant reform</u>, highlighting the dangerous consequences of cuts to fundamental research funds, and a <u>submission</u> to the review of the ARC Act, highlighting the importance of fundamental research, and suggesting the ARC:

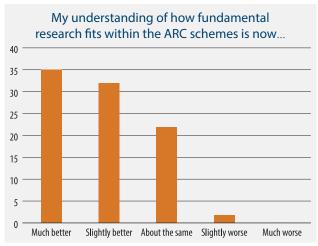
- embrace an intersectional approach to grant processes, organisational structures and policies, including a new and broader definition of success, together with an emphasis on funding opportunities to target specific underrepresented groups
- consult regularly with a diverse pool of networks and institutions
- further strengthen their policies in the equity and inclusion space
- deliver quality feedback to unsuccessful candidates
- introduce a two-stage process in grant applications
- limit minister veto and make it more transparent
- be an active voice in advocating for more research funds.

Dr Mohammad Taha represented the Forum's views in an interview with **Nature News**, featuring data and









information from the Academy of Science, about the upcoming federal election and STEM research, with inputs from the rest of the Executive.

We thank the Academy D&I, Policy and Media teams for their support, and the whole EMCR Forum Executive team for their input.

#### RepNet convening team

#### Dr Charlie Morgan and Dr Vipul Agarwal

The EMCR Forum has a network of representatives in Australian universities and research organisations that we call the RepNet. This network serves as a link between the Forum Exec and local communities of EMCRs. Work is ongoing to update, reshape and elevate this group, and expand it to include EMCR representatives from other networks (e.g., the EMCRs on the Academy's National Committees). A link is available <a href="here">here</a> for all EMCRs to share feedback, ideas and perspectives on this matter.

#### Theo Murphy Initiative

#### Associate Professor Raffaella Demichelis, Dr Mohammad Taha and Dr Vanessa Moss

In late 2021, the Diversity and Inclusion team proposed to reshape the <a href="Theo Murphy">Theo Murphy</a>
<a href="Initiative">Initiative</a> funding scheme into a scheme with three different streams in order to optimise support to EMCR activities. The Forum Executive has contributed feedback on the implementation of such changes and continues to provide feedback and suggestions to improve the way it operates. The Chair, Associate Professor Raffaella Demichelis, and both Co-Deputy Chairs, Dr Vanessa Moss and Dr Mohammad Taha, worked with the rest of the Academy's EMCR Committee of Council to review and rank the submitted Flagship proposals. The Forum Executive also support several TMI funded activities by promoting them and contributing material and presentations.

#### International engagement (new 2022)

#### Dr Vanessa Moss and Dr Mohammad Taha

In late 2022, the EMCR Forum started the process of becoming an Affiliated Member of the International Science Council, which was accepted in early 2023.

On 4 November, Co-Deputy Chairs Dr Vanessa Moss and Dr Mohammad Taha organised a workshop entitled 'Preparing Academia for the Future of Collaboration: Opportunities and Barriers' (session 15) delivered internationally as part of the Triennial Conference of the InterAcademy Partnership (IAP) and the Worldwide Meeting of the Young Academies. The workshop was run remotely to in-person (USA) and online attendees.

The workshop centred on enabling adaptation and resilience in uncertain landscapes, with a focus on how traditional academic practices can negatively impact underrepresented and underprivileged communities. Our invited panellists offered





valuable, diverse insights across culture, gender, disabilities, and fields of expertise to bring a more holistic view of barriers in academia and how to tackle these challenges. We framed their contributions with an overview of how format, technology and intersectionality combine to impact academic inclusion.

Break-out discussions focused on barriers and opportunities for accessibility, inclusivity and sustainability, enabling attendees online and in-person to engage with each other and with panellists. These were facilitated by EMCR Forum Co-Deputy Chairs (Dr Vanessa Moss and Dr Mohammad Taha) and Executive members (Associate Professor Angela Laird and Dr Charlie Morgan), EMCR Program Manager (Dr Mari Kondo) and supported by 'The Future of Meetings'/TFOM (CSIRO) representatives. Participant feedback was optimistic and positive about improving future practices based on opportunities discussed, noting the importance of creativity, interactivity, and experimentation to improve the ways we meet and collaborate in the future.

The Forum's Chair Associate Professor Raffaella Demichelis was invited to represent the Forum as a panelist for the discussion 'Early- & Mid-Career Researchers and International Research Collaboration' at the 'European Research Days 2022—Australia and New Zealand' international conference (10 November). This is an annual flagship event of EURAXESS Australia and New Zealand, organised in collaboration with the Delegation of the European Union to Australia and the Delegation of the European Union to New Zealand. The EMCR Forum was also consulted by EURAXESS on the topic for their EMCR workshop: 'How to be an Efficient Peer Reviewer?'

Both these workshops were open to Australian EMCRs, free of charge and in virtual/hybrid mode.

Dr Vanessa Moss participated in the judging panel for the Australian finals of Falling Walls

#### Equity, diversity, inclusion, and intersectionality

#### **All Executive members**

Most Forum's activities described above, as well as those described in the one-year activity section, have a component in this space. We provide here a summary of activities and initiatives that have a focus in this area.

All Forum Executive members and the D&I team worked on improving the definition of EMCR, to better reflect the diversity of our EMCR community and the diversity of research careers.

Membership of the Forum is open to early- and mid-career researchers (EMCRs) actively engaged in STEM research, either as a researcher or in a role that substantially supports the delivery of research and that requires substantial research training and experience.

In principle, an EMCR is someone between 0 and 15 years of graduating from a PhD or equivalent (discounting career interruptions) and includes individuals in Australia's academia, industry, government, public, commercial or not-for-profit sector positions.

The Forum aims to be accessible and inclusive, so there are circumstances where self-identification as an EMCR can be accepted as criteria for what defines an EMCR. The Executive also recognises and is inclusive of alternative career pathways, individuals from underrepresented intersectional communities (as identified by the EMCR forum, Equality Australia, research institutions, government and funding bodies) who are considering or embarking on a research career and is open to considering membership of researchers without a higher degree but with equivalent professional experience.

This is the first formal step to open opportunities for more engagement with underrepresented groups, non-academic EMCRs and EMCRs in non-STEM fields. Indeed, it resulted in a more diverse range of EOIs to join the Forum Executive in 2023. Within this context, the Forum has also started engagement with the Aboriginal and Torres Strait Islanders EMCR community, resulting in two appointments in the 2023 Executive.

Throughout the year the Forum has supported initiatives in this space through featuring and promoting them in our media.

On 26 May, Co-Deputy Chair Dr Mohammad Taha represented the Forum at the Authentic Leadership Summit 4 STEMM conference organised by The Walt Institute, as a panellist in the discussion 'Race to the Top: Why do men have a headstart in STEMM?'

Dr Angela Laird, Dr Mohamnmad Taha and Dr Rowan Trebilco have joined as EMCR representatives on the Academy's Reconciliation Action Plan working group. Their first meetings are scheduled for 2023.

All Executive members have contributed to consultations with the Academy of Science on a variety of themes related to inclusion and diversity, research integrity and sustainability. The Academy has recognised the importance of capturing the voice of EMCRs in their decision-making process. Starting in 2022, two members of the Forum Executive will be invited to contribute to Council meetings. This year, Dr Mohammad Taha, Dr Vanessa Moss and Dr Maithili Sashindranath attended two Council meetings.



#### **One-year projects**

When it comes to advocacy, we think that it's important to be both reactive AND proactive in considering bold, mid- to long-term plans. That is why the EMCR Forum Executive Committee started the year with our Strategic Planning Meeting to come up with some bold ideas to work on in 2022 and beyond. While originally planned as one-year activities, some of these projects have been reinvented and reshaped to better suit the incoming capabilities and discussions during the planning meeting of the new

EMCR Forum Executive of 2023. All these projects go under the theme of broadening the definition of success.

#### Broadening the definition of success

#### **All Executive members**

A lot of how 'success' is defined for EMCRs is through metrics such as the number of citations and publications, impact factor, number of patents, amount and frequency of grant funding. We do hear the frustration of our community in perceiving that the value of our research and our value as researchers are being reduced to a list of bare and out-of-context numbers.

This is why the Forum Executive wants to think bigger about how success is defined, and work on a definition that is more inclusive and more equitable.

We are aiming to do this in three ways:

- by focusing on how impact can be measured in different STEM sectors
- by empowering EMCRs (particularly from minority groups) to raise their own profiles and to strongly articulate the value of their work to managers and stakeholders
- by providing examples of diverse STEM career paths and tools to develop careeragility skills.

These are big goals that require cultural change. We are grateful to our colleagues at the Association of Australian Medical Research Institutes (AAMRI) and Science and Technology Australia (STA) for working with us to achieve our goals.

# Appendix: 2022 Executive Team



Associate Professor Raffaella Demichelis (Chair)
Land of the Whadjuk people, Noongar Country | She/Her
Curtin University, WA

Research and teaching in computational materials science and geochemistry



Dr Vanessa Moss (Co-Deputy Chair)

Dharug Country | She/Her

CSIRO, NSW

Research and operations in radio astronomy, telescope automation and collaborative intelligence



Dr Mohammad Taha (Co-Deputy Chair)

Naarm, Wurundjeri Land | They/Them

University of Melbourne, VIC

Research and teaching in electrical engineering, flexible/wearable electronics, smart-materials science and engineering



Dr Yee Lian Chew

Kaurna Country | She/Her

Flinders University, SA

Research and teaching in neuroscience



**Dr Timothy Lau** 

Kaurna Country | He/Him

University of South Australia, SA

Research and teaching in sustainable engineering



#### Associate Professor Angela Laird

Dharug Country, Land of the Wallumedegal people | She/Her

Macquarie University, NSW

Research and teaching in neuroscience



**Dr Emily Finch** 

 $Land\ of\ the\ Wurundjeri\ people\ of\ the\ Kulin\ Nation\ |\ She/Her$ 

ANSTO, VIC

Beamline scientist



Dr Charlie Morgan

Dharug Country He/Him

Children's Medical Research Institute, NSW

Research scienstist



Dr Vipul Agarwal

Eora Country | He/Him

University of New South Wales, NSW

Research and teaching in biomedical engineering and materials science



Dr Maithili Sashindranath

Land of the Wurundjeri people, Kulin Nation | She/Her

Monash University, VIC

Research in biomedical science and clinical project management



Dr Emma Burrows

Land of the Wurundjeri people, Kulin Nation | She/Her

Florey Institute of Neuroscience and Mental Health, VIC

Research in neuroscience



Dr Rowan Trebilco

Palawa Country in Lutruwita, traditional lands of the Muwineena people | He/Him

CSIRO Environment, TAS

Research in sustainable marine systems

