



KEY FINDINGS AND OUTCOMES OF THE HEALTH AND MEDICAL RESEARCH EARLY TO MID-CAREER RESEARCHERS ROUNDTABLE

INTRODUCTION

The Minister for Health and Aged Care, the Hon Greg Hunt MP, asked the Department of Health (the Department) to convene a roundtable with early to mid-career researchers (EMCRs) in order to better understand the factors impacting their ability to remain within the health and medical research sector.

The virtual Health and Medical Research EMCRs Roundtable (the Roundtable) took place on Thursday 6 May 2021, 1-4pm AEST.

Prior to the Roundtable, written feedback was received from over twenty sources (individual EMCR perspectives, or summaries of the views of EMCR groups). This feedback was used as the basis for Roundtable discussion.

At the Roundtable, 27 EMCRs contributed their time to bring a valuable mix of diverse perspectives, views and experiences to the discussion on the drivers impacting their ability to remain within the sector and potential solutions to these challenges.

The CEOs and staff of both the National Health and Medical Research Council (NHMRC) Health and Medical Research Office (HMRO, responsible for Medical Research Future Fund's (MRFF) administration) were present to support and listen to the discussion.

The Department defines EMCRs as emerging researchers within their first ten years of academic or other research-related employment, following completion of postgraduate research training (with consideration for career disruptions). There is no age limit on who can be an EMCR.

THE ROUNDTABLE OUTCOMES

The following challenges and potential ideas for action were raised prior to and/or during the Roundtable. A summary is presented below in order of topics discussed, noting that there are many intersections between the topics and ideas for action.

Session 1: Security of employment

The key finding from feedback prior to the Roundtable was that secure employment allows EMCRs to plan their research projects, professional careers, and personal lives, and reduces uncertainty and stress. However, EMCRs reported facing multiple challenges in security of employment including short employment contracts (often only 1 year, sometimes 6 months), extreme competition for positions, low salaries, higher pay as a clinician than a researcher (resulting in lack of incentives for clinician scientists), and limited career progression opportunities.

Key strategies to address this issue raised at the Roundtable include restructuring grant opportunities and incentivising institutions to provide better support to EMCRs.

Ideas for action within the scope of the MRFF include:

<ul style="list-style-type: none"> • Include 'job creation' as an assessment metric in grant applications • Aim to revise salaries provided through grants, so that they are competitive against standard full-time incomes outside of research • Promote early visibility of grant opportunity opening, closing, and outcomes, so that EMCRs can plan ahead sufficiently for income stability and continuity purposes 	<ul style="list-style-type: none"> • Consider co-funded grant opportunities with research institutions and/or industry • Incentivise research institutions to support EMCRs (similar to Systemic Action for Gender Equality, SAGE). E.g. Institutions must meet criteria X and Y in supporting EMCRs to apply for grant opportunity A, or stream B. • <i>See also ideas for action under "Access to Grant Funding" as a key message heard was that grant funding leads to more secure employment</i>
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Ideas for action outside the MRFF include:

<ul style="list-style-type: none"> • Review the current structure of PhD programs within universities. PhD programs are usually targeted towards an academic career track. Consideration could be given to restructuring to facilitate acquisition of a diversified skill set during PhD studies that can be applied to careers outside of academia • Diversify the available career paths and job opportunities in Australia i.e. alternatives outside of academia that can leverage qualifications gained through academia • Encourage alternative income streams from the research generated 	<ul style="list-style-type: none"> • Provide non-MRFF incentives for institutions to support EMCRs and provide longer employment contracts • Encourage institutions to provide dedicated funding for EMCRs • Encourage institutions to provide incentives for senior researchers to train EMCRs • Encourage universities to recognise and/or compensate EMCRs for 'free' services such as student supervision
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Session 2: Access to grant funding

The key finding from the feedback prior to the Roundtable was that access to grant funding allows EMCRs to pursue novel research ideas and provides employment security. However, EMCRs reported facing multiple challenges in accessing grant funding including limited relevant grant opportunities, low success rates, short grant duration promoting short employment contracts, large salary gaps meaning multiple grants are required to cover a single position, limited available bridging support/overlapping funding/implementation funding, and pressure to focus on urgent research needs with high publication potential rather than explore novel, longer-term questions.

Key strategies to address this issue raised at the Roundtable include providing more dedicated funding for EMCRs, revising assessment models and increasing awareness amongst EMCRs of available grant opportunities and avenues to learn about funding process.

Ideas for action within the scope of the MRFF include:

<ul style="list-style-type: none"> • Allow EMCRs to be listed as a chief investigator on more than one application within a grant opportunity • Provide feedback to unsuccessful grant applicants to allow them to improve their applications for future grant opportunities 	<ul style="list-style-type: none"> • Different funding models <ol style="list-style-type: none"> 1. Options for dedicated funding for EMCR only grant opportunities and/or streams so that EMCRs are competing with researchers of a commensurate career stage
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<ul style="list-style-type: none"> • Aim to increase communication to the sector and/or communicate using different channels so that EMCRs are aware of MRFF priorities and opportunities for grant funding, peer review involvement, consultation on MRFF forward planning • Assessment of grant applications: <ol style="list-style-type: none"> 1. Better consider 'relative to opportunity' as EMCR track records will look different to those of more senior researchers 2. Alter framing and weighting of assessment criteria to allow EMCRs to showcase and gain recognition for their media, social media, relationship building and community work. E.g. EMCRs could provide and be assessed on a narrative of their background and what that means for their future potential, rather than providing metrics 3. Better recognise experience outside academia (e.g. recognition of previous industry, clinical, policy- based experience) 4. Better recognise research area mobility (e.g. impacts on track record due to pivoting research focus in response to COVID-19) 5. Better recognise that track record metrics will look different for different research areas (e.g. clinician researchers vs biomedical researchers) 	<ol style="list-style-type: none"> 2. When running EMCR focussed grant opportunities, seek to create smaller steps/increments in EMCR career stage to compare like against like (e.g. separate streams for researchers 0-2, 2-5, 5-7 and 7-10 years post PhD) 3. Explore seed funding grant options with small funding amounts to help EMCRs build their track record, generate data on novel ideas and/or improve their future capacity for managing grants. Such grants could have a senior researcher "sponsor" 4. Explore stage gated funding opportunities to allow EMCRs to develop an idea and grow their independence 5. Explore creation of grant opportunity specifically for EMCRs teams from different fields to encourage cross- and multi-disciplinary collaboration 6. Receive idea pitches from EMCRs and connect EMCRs with similar ideas, so that they can collaborate on a grant application 7. Provide EMCRs with more opportunities to be competitive for grants that are focused on translational outcomes 8. Include EOIs as part of grant application process to reduce burden on researchers who may write a full application when they are clearly not competitive 9. Provide grants of longer duration, where possible
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Ideas for action outside the MRFF include:

<ul style="list-style-type: none"> • Institutions could improve communication so that all relevant information is provided to all researchers. There is a perception that some institutions are filtering information with the impact that some (and not all) EMCRs are able to submit applications and/or be involved in peer review • Institutions could provide support to all EMCRs preparing grant applications, independent of whether those applications are for category 1 funding or other funding 	<ul style="list-style-type: none"> • EMCRs, institutions and industry could consider how to establish networks for collaboration and information flow in order that EMCRs can build connections to put EMCRs in the best position to apply for relevant grant opportunities and have the most competitive team on that application
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Session 3: Workplace culture

The key finding from the feedback prior to the Roundtable was that it is important that workplaces set realistic expectations of what 'success' looks like and promote a healthy work-life balance. However, EMCRs reported facing multiple challenges due to workplace culture including maintaining a healthy work-life balance with large workloads (including research, teaching, administration, student supervision, service

contributions, repeatedly applying for job contracts/grants), lack of technical assistants, unpaid hours to “keep up” in competitive environments, hyper-competition that impacts on collaboration, high expectations on what EMCRs should be achieving, and workplaces that do not have a nurturing culture.

Key strategies to address this issue include better forward planning of grant opportunities and public accountability for cultural issues.

Ideas action within the scope of the MRFF include:

<ul style="list-style-type: none"> • Release an annual calendar of upcoming grant opportunities to facilitate work planning for EMCRs • Revise sequencing of grant opportunities (e.g. receive outcomes from opportunity A, before you have to apply for opportunity B) • Extend open periods for grant applications to reduce deadline pressure on EMCRs • Change the research funding model to emphasise collaboration rather than excessive competition with peers 	<ul style="list-style-type: none"> • Include mentoring programs as part of grant proposals and assessment criteria • Incentivise research institutions to support EMCRs (similar to Systemic Action for Gender Equality, SAGE). E.g. Institutions must meet criteria X and Y in supporting EMCRs to apply for grant opportunity A, or stream B.
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Ideas for action outside the MRFF include:

<ul style="list-style-type: none"> • Increase clarity and establish guidelines within institutions on the role of an EMCR. Current EMCR KPIs are based on narrow metrics that don't recognise the actual scope of the role in practice • Promote mentoring culture within institutions • Change the research funding model to emphasise collaboration rather than excessive competition with peers • Promote/increase visibility of 'healthy' role models within organisations 	<ul style="list-style-type: none"> • Encourage institutions to provide increased resources to assist EMCRs in their day-to-day work • Aim for an increased transparency of workplace cultures. Encourage organisations to be accountable for poor workplace culture and incentivise/reward those with positive and healthy cultures (e.g. mentoring programs, child care support, promotion of industry/policy placements, backfilling of positions whilst EMCR on a placement) • Consider ways to measure researcher output relative to time input (e.g. output of someone who works 50h per week vs 80h per week)
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Session 4: Provision of training and support

The key finding from the feedback prior to the Roundtable was that EMCRs need appropriate support to progress from pure researchers to leadership roles in academia and/or to careers in other sectors (e.g. industry, research policy). However, EMCRs reported facing multiple challenges including limited mentoring and sponsorship (advocacy) by senior researchers, limited networking opportunities for (new) collaborations, lack of formalised management training and limited training/information on pursuing career paths outside of academia.

Key strategies to address this issue include formal training and mentoring programs for EMCRs.

Ideas for action within the scope of the MRFF include:

<ul style="list-style-type: none"> • Give senior researchers greater recognition in assessment of grant applications for the quality of student support/mentoring they provide and use more than number of PhD completions as the metric. E.g. where have their students ended up, obtain a reference from a post doc. • Include mentoring programs as part of grant proposals and assessment criteria 	<ul style="list-style-type: none"> • Redesign the MRFF Researcher Exchange and Development within Industry (REDI) initiative to further promote EMCR engagement in commercialising and translating research with industry partners of all sizes • Facilitate work experience transitions, e.g. by providing funding to backfill researcher's position so that they can take up a temporary placement in industry
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Ideas for action outside the MRFF include:

<ul style="list-style-type: none"> • Provide formal training to EMCRs around general grant/research management and leadership • Provide formal mentoring programs for EMCRs, including mentors within and external to the EMCR's specialty area • Train senior researchers on how to mentor EMCRs • Create incentives to senior researchers to train and mentor EMCRs appropriately (i.e. provide quality mentoring, not just another PhD completion) • Promote structured succession planning within research groups. This may also include consideration of senior authorship guidance and positioning on grant applications • Review the current structure of PhD programs within universities (see session 1 ideas) 	<ul style="list-style-type: none"> • Promote seminars/career fairs for PhDs for exposure to non-academic industries looking to recruit PhDs and to hear from individuals who have successfully transitioned • Promote work placements in industry/policy/etc • Promote industry/research policy as a viable career option, not a "failed" academic career • Create industry incentives to employ highly skilled EMCRs who do not have prior industry training • Create financial incentives for NGOs, private practices, etc. to undertake meaningful research using qualified researchers • Decentralise policy jobs – currently Canberra-centric
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Session 5: Support for diversity

The key finding from the feedback prior to the Roundtable was that diversity needs to be championed to ensure a wide range of perspectives are embedded in research and that individuals from all backgrounds are valued. However, EMCRs reported facing multiple challenges with respect to diversity including there being too strong a focus on academic metrics (e.g. number of publications), that being associated with an established lab and under an existing research program is more likely to result in success than exploring new questions/innovative ideas, there being a lack of diversity in peer reviewers (e.g. with families, women, culturally and linguistically diverse, rural backgrounds), a failure to recognise future feasibility/impact of commercially geared research, that research involving protected IP cannot be published, and overly restrictive career disruption guidelines.

Key strategies to address this issue include embedding of diversity within research. Note that a clear message was that strategies should support diversity, so that it does not become an additional burden for those of a minority population.

Ideas for action within the scope of the MRFF include:

<ul style="list-style-type: none"> • Include greater diversity on Grant Assessment Committees to reflect the community (e.g. industry v academia representation, women, CALD, rural, carers, consumers, internationally-based people) • Address unconscious bias in the assessment of applications – e.g. words like “strong” are male biased • Address safety of personal information, so that information disclosed to peer reviewers in applications (e.g. to identify diversity and/or career stage such as Indigenous background, mental health career disruptions) does not have a potentially negative effect on the application through conscious or unconscious bias from peer reviewers (e.g. bias) on the grant applicant. • Revise assessment criteria metrics so they do not disadvantage female EMCRs • Review career disruption guidelines 	<ul style="list-style-type: none"> • Introduce ‘relative to opportunity’ metrics to account for regional/rural researchers or those from smaller institutions. There are likely understandable differences between the track record and research proposals of these groups compared to peers from larger institutions/metropolitan regions • Promote diversity in research teams such as equal representation from industry, biomedical research, clinical research, academia where relevant • Enable consumers and patients to be listed as Associate Investigators to encourage their involvement in research • Amend grant opportunity requirements so that research can be done with and within the relevant community
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Ideas for action outside the MRFF include:

<ul style="list-style-type: none"> • Encourage institutions to address conscious and unconscious bias within their organisation so that diversity of EMCRs is supported, valued and cultivated • Create structures and guidelines to support diversity and create meaningful change within organisations 	<ul style="list-style-type: none"> • Increase paternity leave to normalise equitable division of parenting responsibilities • Incentivise moves to rural, regional and remote areas to conduct research issues there and build research capacity.
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