

Response to the 'Current and Emerging Issues for NHMRC Fellowship Schemes' consultation paper by the EMCR Forum of the Australian Academy of Science

Dr Kate Hoy (lead author, Deputy Chair), Dr Sharath Sriram (Chair), Dr Andrew Siebel (Deputy Chair), Dr Nikola Bowden, Dr Adrian Carter, Dr Maggie Hardy, Dr Rachel Popelka-Filcoff, Dr Michael Crichton, Professor Andreas Fouras, Dr Roslyn Hickson.

Introduction

The Early- and Mid-Career Researcher (EMCR) Forum of the Australian Academy of Science provides this response to the consultation paper on the current and emerging issues for the NHMRC Fellowship schemes. The EMCR Forum is the national voice of over 3,500 EMCRs across Australia. We represent researchers with up to 15 years post-PhD (accounting for career interruptions) and those experiencing career transitions. We would be pleased to provide further assistance by discussing any of the points raised in this response in greater detail.

The NHMRC Fellowship schemes are currently one of the few mechanisms through which EMCRs are supported to achieve an independent research career. As the national representative body for EMCRs (those with up to 15 years of experience post-PhD), the EMCR Forum of the Australian Academy of Science **strongly supports the NHMRC's commitment to continuing to support outstanding researchers through Fellowships.**

The sustainability of Australia's research workforce depends on the adequate support of EMCRs through schemes such as the NHMRC Fellowships. Any changes to these schemes must carefully consider the impacts on EMCRs, as they are one of the most critical components of Australia's research future.

In the preparation of this submission, the EMCR Forum ran an open survey consultation with Australian EMCRs, inviting their views on issues raised in the consultation paper. Our submission includes the views of the EMCR Forum Executive and survey responses.

Responses to specific issues raised in the consultation paper

Issue 1: The balance is changing between the number of research grants available and the number of Fellowships.

As stated in the consultation paper, the number of funded Project Grants is predicted to continue fall in coming years. In addition, the majority of project grants are held by Chief Investigators who are not NHMRC Fellows, nor are they EMCRs. The average age of a lead investigator on an NHMRC

grant in 2013 was 48 years of age. Any change in the ratio of number of research grants and fellowships will therefore have a profound effect on the careers of EMCRs.

Question 1: How should NHMRC's funding balance between research grants and fellowships be adjusted as the total number of Project Grants available falls progressively over the next few years?

The Forum provides the following recommendations:

- **No reduction in the number of NHMRC Fellowships provided.** Fellowships provide crucial support allowing EMCRs to develop their independent research. If Fellowships were reduced in favour of a greater number of Project Grants, the majority of which are not awarded to EMCRs, the pathway to independence will be severely compromised. Talented researchers early in their careers would essentially be required to work on other people's grants, stifling their careers and research innovation, or be forced to move out of research.
- **Reduction in the number of NHMRC Project Grants that can be held by a single investigator and a budget cap on five year grants.** An increase in both the number of funded NHMRC Project Grants, and broader funding of researchers, can be achieved by means other than reducing Fellowships. We believe that a reduction in the number of NHMRC Project Grants that can be held as CIA (i.e. maximum of 2) and as a CI (i.e. maximum of 4) would allow a more equitable distribution of funds throughout the research community. In addition, consideration of a budget cap (i.e. \$2 million) for Project Grants would increase the success rate within the steady state budget.
- **Provide project funding with Fellowships.** The common situation of having Fellowship funding without money to conduct the projects is counterproductive. NHMRC should include a degree of project funding with each Fellowship awarded, in order to reduce the burden on the NHMRC Project and Program Grant Schemes. This would be particularly beneficial for those at the ECF and CDF levels. Such project funding could constitute one CI Project Grant position as per the above recommendation on the number of Project Grants that can be held as a CI.

Issue 2: Is the structure of NHMRC fellowship schemes still appropriate?

The current structure of the NHMRC Fellowship schemes does not adequately allow for the progression of new researchers. In particular, the severe drop in the number of Fellowships available from ECF to CDF has created a bottleneck at this career stage. This is a critical stage in the development of a research career and the current bottleneck needs to be addressed.

Question 2: To increase the turnover of NHMRC Research Fellows, should these schemes be seen as 'up and out schemes', whereby Fellows wishing to reapply can only do so at a higher level?

The Forum provides the following recommendations

- **Introduce 'up and out schemes' with a number of considerations.** There is currently a severe bottleneck at the ECF to CDF progression; with a lack of turnover at the more senior level a second bottleneck in funding at the CDF to SRF/PF level is now evident. This is not a sustainable model for career progression. Whilst an 'up and out' approach would help to address this,

consideration must be given to consistently high-performing researchers that progress through the schemes and will perhaps end up without salary support.

- **Limited Fellowship renewal at senior levels and shift assessment focus from track record to mentorship.** A limit of two renewals for the Fellowship categories above ECR (i.e. 2 CDF, 2 SRF, 2 PRF, 2 SPRF). This would allow for increased turnover and support of emerging researcher leaders, as well as provide up to a possible 42 years of career Fellowship support. In addition, the more senior Fellowships (PRF and SPRF) should have significantly greater weighting on the mentorship criteria (i.e. 50%). This will help to ensure the most senior researchers are contributing to the training and support of future research leaders.

Question 3: Are there too many Fellowship levels? Does this structure impede the career progression of rapidly rising stars in health and medical research?

The Forum provides the following recommendation

- **Retain the existing Fellowship levels.** A reduction in the number of fellowship levels would result in fewer opportunities for applicants to progress. Stricter eligibility rules across the levels are recommended to ensure that each of the schemes support researchers at the stage they were initially intended to. For example, Associate Professors should not be able to apply for ECFs. Highly successful researchers have ample opportunities within the current scheme to jump levels (e.g. can apply for both CDF level 1 and 2).

Question 4: Taking into account that awarding longer grants means fewer grants overall in steady state funding, should NHMRC extend the duration of Early Career Fellowships to more than four years? Should the Career Development Fellowship be extended beyond five years to, say, seven or ten years?

The Forum provides the following recommendation:

- **Increase duration of funding to allow greater job security.** Increased stability of funding is critical for the career progression of researchers as well as for the conduct of high quality science, particularly for more innovative projects. At a minimum, the CDF fellowships should be increased to five years to bring them in line with the more senior fellowships, and to provide additional time to set up a new research group at this very critical career establishment stage.

Issue 3: Should there be a stronger strategic approach to granting Fellowships?

The EMCR Forum strongly supports a greater diversity in the Australian research workforce and believes that this will only be achieved with a strategic approach.

Question 5: Should NHMRC identify particular areas that require capacity building for the future and maintain support for those areas for long enough time to make a difference? What else should be done to support women and increase participation and success by Aboriginal and Torres Strait Islander researchers?

The Forum provides the following recommendations:

- **Adoption of recommendations from the Women in Health Sciences workshop.** A strategic approach to allow greater retainment and progress of female researchers is vital. We commend the NHMRC's recent announcement of the planned 're-entry fellowships'. The NHMRC has established a Women in Health Science Working Committee to advise it on the best ways to support gender equity in science; we strongly endorse the ongoing support of this committee and its recommendations.
- **Strategic approaches to increase diversity in Australia's research workforce.** Equity in the research workforce requires greater participation by researchers from across diverse backgrounds. Greater diversity will equate to better science. To this end, we recommended dedicated Fellowships within the existing schemes for Aboriginal and Torres Strait Islander researchers.
- **No change to the way in which NHMRC currently identifies and funds priority areas.** Further restrictions on the areas of health and medical research which will be funded runs the risk on constraining science and limiting discoveries in other areas that may become a priority in coming years. A combined approach, of injecting funds into identified priority areas and providing broader funding in the Project Grant scheme, as the NHMRC currently does, is an appropriate solution.

Question 6 Is there a better solution to encouraging diversity in careers than those based on years post-PhD?

The Forum provides the following recommendations

- **Implement a boarder eligibility requirement which looks at 'research/academic' active years post PhD.** It is important to retain the years post PhD requirement to allow opportunities for EMCRs to enter the system. However, these rules do not adequately prevent more senior researchers from applying for early- to mid-career Fellowships. This is particularly relevant in fields where an individual may be able to accrue significant clinical, industry or commercial experience, prior to obtaining a PhD. For example, as the consultation document points out, '**a Level D academic at the top of their career could apply for a Career Development Fellowship unless some eligibility rules were in place**'. Consideration of research opportunities prior to the PhD should also be considered with respect to eligibility, or at a minimum should contribute to the 'relative to opportunity' criteria. Within such requirements, consideration should be given to time taken out of the traditional 'research/academic' environment for boarder reasons. For example, time taken out in industry or public service should not be counted in 'years post-PhD', in addition to the current career disruptions taken into account.
- **Broader track record assessments will encourage greater diversity.** There should be increased focus on impact and quality of past research, innovation and scientific quality of proposed research and science communication and engagement. Currently there is a narrow focus of number of publications, which discourages diversity and stifles innovative science.

Issue 4: Responsibilities of employing institutions and the health and medical research sector.

The responsibilities inherent in supporting research fellows fall across employing institutions, the health and medical research sector and the NHMRC.

Question 7: Should employing institutions be expected to provide more certainty to their employees than now?

The Forum provides the following recommendation

- **Employing institutions should be expected to provide a greater degree of certainty for ongoing employment for the researchers they employ.** Employers should be strongly encouraged to do everything within their power to provide a greater degree of certainty for the researchers they employ. This could include the provision of bridging Fellowship funding, small Project Grant funding for successful NHMRC Fellows, and a requirement that employers provide **minimum** four year contracts for successful ECF and CDFs and **minimum** five year contracts for the more senior Fellowships.

Question 8: Would this be achieved if NHMRC required institutions to commit to one or more years of ongoing support for researchers exiting from NHMRC Fellowships?

The Forum provides the following recommendation

- **Employing institutions should be strongly encouraged to commit to 1-2 years of support for researchers exiting an NHMRC Fellowship.** While it would be the ideal situation for all institutions to be *required* to commit to such support, there is a danger this could disadvantage smaller institutions and limit the diversity of researchers able to apply.

Question 9: Should this be restricted to Early Career and Career Development Fellows?

The Forum provides the following recommendation

- **Encouragement of additional 1-2 year commitment post-NHMRC Fellowship across the board, but prioritised for ECF and CDFs.** In the current funding climate concerns regarding on-going support are felt by researchers at all levels. Encouraging institutions to continue to support all research Fellows is critical. However, should the NHMRC consider prioritising this approach, it should be first directed towards ECF and CDFs, a career stage where lack of certainty results in a greater proportion of lost research workforce.