NHMRC Fellowship Schemes

Response to the NHMRC Consultation Paper

Introduction

The Illawarra Health and Medical Research Institute (IHMRI) welcomes the opportunity to contribute to the consultation by the NHMRC on its Fellowship schemes. This submission is provided from the perspective of a young institution in a regional setting. IHMRI aims, through growth, capacity building and excellence in research to address prominent and sometimes unique health issues in the region as well as contribute new knowledge for application generally in health and medical research.

The NHMRC’s support for medical research fellows is an essential element in assisting institutions, such as IHMRI, achieve their important contributions to their regions. IHMRI and the Hunter Medical Research Institute (HMRI) are the only medical research institutes in NSW located outside the Sydney metropolitan area. They actively engage in regionally-specific research that is not always the subject of research undertaken by the major institutions in capital cities. Further, the attractiveness of conducting research in a regional setting is harder to establish unless there is a viable critical mass of researchers who are nationally and internationally competitive. In this context, the NHMRC’s merit-based, competitive fellowship programs are a vital element in providing the opportunity for building research efforts that are directed to addressing the prominent health issues of regional settings.

The following responses to the questions posed in the NHMRC’s consultation paper have been framed in the context just described. We recognise the complexity of the issues raised and that difficult, generalised decisions will have to be taken to make ends meet. Our comments reflect consideration of our own preferences as well as the imperatives that we believe should underpin the fellowship system in the future.

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?

We believe that it is essential that the NHMRC should retain its merit-based salary support system for health and medical researchers in Australia. There is a need for the NHMRC to ensure that Australia has an adequate level of health and medical research expertise so that (a) both medium- to long-term and immediate health challenges can be addressed, and (b) Australia has a capacity to contribute to and absorb information from global research efforts.

The consultation paper points to the dramatic future decline in support for research activity generally, be it funded through project grants, special purpose grants and salary support grants (fellowships and the like). Having indicated the importance of retaining the fellowships system, we believe that the forecast reductions in grant funding will have to be accompanied by a reduction in the number of fellowships that can be supported.
We believe that the current system is weighted too heavily in terms of numbers of awards at the ECF level. The current pyramid structure of the Fellowship scheme has a very large base with double the number of ECFs supported compared to CDFs. The NHMRC is urged to review the shape (in terms of numbers at each level) of the career pyramid to determine the number of ECF awards that could be offered, taking into account assumptions (based on historical trends) on natural attrition of researchers at higher levels and the likely number of fellows at the SPRF level. Responses in other parts of this submission are also relevant to this point.

Obviously, NHMRC awards will become even more competitive in the future. There are two further points that arise in the context of a reduction in the number of active fellowships across the system. First, we believe that the award of a fellowship at any level under these new conditions should be accompanied by research support (either at project grant or program grant level, depending on merit). The current situation where a fellow may have no support from the NHMRC to conduct research diminishes the value of the system as a whole, and would not be tenable in a more competitive environment. In constrained times, if the research to be conducted is not meritorious of an award (the assessment of which must include track record), then neither is the fellowship.

Second, and with reference to the earlier comment about increasing the capacity for research in regional settings, we recognise that increased competition will have an important impact on this aspiration. We note that in 2014, more than 60% of successful ECF awards were in 8 institutions in major capital cities. Further, 7 of 49 institutions awarded NHMRC funding of any kind were regional institutions. Of these, 6 institutions submitted 35 applications for CDFs. Only 1 CDF was awarded (3%). We believe that a further constrained fellowship scheme should not disadvantage growth and development of researchers, research groups and institutions in these areas. This is particularly pertinent as both federal and state governments and various recent reviews of health and medical research in Australia stress the need to engage more clinicians in research and to fund and support more effective translational research that is embedded within health service delivery contexts.

However, regional institutions experience more obstacles in attracting and retaining successful researchers (including clinician researchers) and as such these institutes need support to grow and develop research groups of sufficient capability and capacity to target regionally relevant health issues. Experience to date at the HMRI and IHMRI indicates that collaboration with and integration of the resources of the local health service, service providers and the community is often easier in regional areas so that translation of health & medical research into improved health care can be tested/achieved more effectively. Consequently, any strategy that lifts research activity in regional settings is likely to have high value generally.

In order to address the issue of research workforce as well as achieve high value outcomes, we suggest that a loading for fellowships awarded to regional institutions should be considered for infrastructure funding, salary support or a combination of the two. The same merit standards on selection of these applications should apply, but there should be a ‘regional loading’ on the awards that are made. This would assist these institutions to attract and retain stellar researchers and build critical research capacity.
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?

Under the forecast funding circumstances, we believe that an ‘up and out’ scheme, which does not allow for multiple successes at the same level, is one strategy that would ensure scientific excellence of the research network and optimum turnover whilst also allowing for career progression for ‘stellar’ researchers and substantial career experience for outstanding clinical researchers. This type of scheme should also allow researchers from non-traditional research career paths (for example clinicians devoting part of their career to research and researchers who have had career breaks or who are from overseas) to enter or re-enter at the appropriate level.

At the same time, adoption of an ‘up and out scheme’ should include an optional safety net for one additional year to allow for a repeat application for promotion in the event that the initial attempt was unsuccessful. If required, this safety-net period could have a different financial basis for research support compared to the final year of the normal fellowship period.

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

On face value, and assuming the ‘up and out scheme’ is adopted, the seven levels within the current NHMRC Fellowship scheme can allow for a potential continuous 35-40 year funded research career for a ‘stellar’ researcher. However, the scheme should retain flexibility to reward ‘rapidly rising stars’, as well as to provide opportunities for ‘stellar’ entrants at any of the higher levels.

With regard to ‘rapidly rising stars’, there should be opportunity for accelerated promotion to a higher level. If this is achieved, then the duration of NHMRC support from the pre-promotion to the post-promotion level could accumulate (see comments below on duration of support).

The issue of new entrants at higher levels needs full consideration. Allowing for new entrants on a competitive basis can be a strategy to ensure the highest standards of excellence in the NHMRC’s fellowship system. However, protection must also be offered so that new entrants are considered at the appropriate competitive level. It would be inequitable to consider a long-term Professor (albeit with some teaching and administrative responsibilities) as a candidate for an SRF, for example, with the institution making up the salary differential. These judgements are currently made by the NHMRC by assessing track record relative to opportunity. Perhaps the additional benchmarking against salary levels should be a criterion for assessing the appropriate entry level (i.e. Professor versus SPRF).

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 5 years to, say, seven or ten years?

The fellowship scheme is currently complex, with the number of years funded differing between levels. We believe that several changes to these arrangements could be advantageous. To simplify the scheme, and if the ‘up and out scheme’ is adopted, then we suggest that all levels should be
funded for 5 years, with variations on this duration restricted to certain circumstances as indicated further below. Providing a fifth year for fewer ECFs (as argued above) gives them 20% more time to build a research profile that is competitive for a CDF award. The CDF and higher levels should also be funded for 5 years, and all levels should have an optional one-year safety net arrangement for one re-application for promotion.

To allow for ‘stellar’ performers who have had accelerated promotion, as mentioned above, then it is suggested that as a minimum the duration of their award should be for the 5 years at their pre-promotion level plus 5 years at their promoted level. This could provide considerable incentive for ‘stellar’ performance. For fellows who reach PRF level early, or those who are already at the most senior levels of the scheme (PRF and SPRF), then consideration should be given, based on merit and track record, for one extension of the award for up to a further 5 years. These suggestions should be analysed further with detailed career scenarios modelled against cost implications.

Currently the criteria for application for an ECF is up to 2 years post PhD. This may be seen as very restrictive in a constrained funding environment, allowing time for one or possibly two applications. We would encourage that the ECF entry criteria be extended to up to 5 years post PhD. Coupled with 5 year funding for salary plus research, this allows more opportunity and flexibility for (the lower number of) ECFs and allows them to be more competitive at the next level.

**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?**

We support the principle that fellowships are awarded based upon excellence and rigour within a nationally and internationally competitive research environment. We do not support the notion that fellowships *per se* should be targeted to particular areas of research focus. This should be managed through shorter-term targeted calls for research through project grant schemes.

However, we do believe that clinicians, women and Aboriginal and Torres Strait Islander researchers require fellowship schemes that are designed to address the obvious and historical biases these groups have endured.

Clinicians require a parallel but separate fellowship scheme with separate criteria to reflect their expertise and experience. Their vastly different career paths from an academic researcher and their clinical experience means they should be assessed for an award under criteria that include their capacity to support translational research.

The obvious gender bias inherent in the fellowship system needs to be actively addressed. Women are consistently awarded proportionally fewer fellowships and project grants than men, as was the case in 2014 for ECFs, CDFs and RFs and project grants. This is despite often submitting a greater number of applications. In 2014, women submitted 150% more ECF applications than men but the
funding rate for women was 5% lower. Further, the number of fellowship applications by women fall significantly from CDFs to RFs. To address these issues in the short term we would support a quota system that could ensure an equal proportion of fellowship awards are funded between the genders or a scaling system is used to rank applications separately by gender. The highly competitive nature of the research funding system, and the observations by the NHMRC in the past that many unsuccessful applications are ‘fundable’, suggests that highly meritorious awards to female applicants could be made under such a system1.

The significant decline in women applying for fellowships beyond the ECF compared with men also needs to be addressed. Drivers for this decline need to be investigated and strategies developed to support and encourage women researchers in the fellowship career path. This should include a review of the criteria used to assess career disruption for women. The situation calls for positive discrimination.

Similarly, Aboriginal and Torres Strait Islanders also require a quota system to encourage, support and increase awards. The gender bias is even more obvious in applications from Aboriginaals and Torres Strait Islanders, with many less women applying for fellowships. This issue may need to be addressed separately from general gender bias.

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

Research excellence in the award of fellowships must be ensured and traditional metrics such as publications, citations, grants awarded, impact factors and years post PhD must be included to assess eligibility to fellowship schemes. However, to encourage entry into fellowship schemes by researchers not from a typical academic path, such as clinicians or industry researchers, other clear and logical metrics must be developed to allow for equitable comparison. Experience and qualitative measures of research outputs and capacity to lead and conduct research may need to be developed and included in criteria to assess eligibility. Entry into the fellowship scheme at any level should be accommodated and strategies developed, as discussed in Question 5 above, to actively encourage entry of researchers from a variety of careers.

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1 The situation regarding gender issues on project grant applications is more complex, given the multi-CI nature of collaborative arrangements on the vast majority of applications. An alternative solution is required to address any perceived bias in this and similar parts of the NHMRC funding system.)
Question 7: Should employing institutions be expected to provide more certainty to their employees than now?

It is essential for institutions to support researchers beyond a fellowship grant to ensure continuity of a research career, security and stability, and to avoid loss of highly skilled scientists. Further, as stated earlier, we support a ‘safety net’ built into the NHMRC fellowship scheme to provide some security and allow for contingency planning by Institutions for salaries and continued employment of researchers exiting fellowship schemes. Institutions will make their own policies in this regard to ensure their continued institutional competitiveness and to mitigate risks.

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?

and

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

We believe that it is not appropriate that the NHMRC should be involved in committing institutions to support NHMRC-funded researchers (at any level) beyond the term of that NHMRC support. The institution, in consultation with the fellow, should determine the term and conditions of any ongoing employment and support. The circumstances for individuals will vary considerably, and this should not be within the ambit of the NHMRC to decide once its funding obligations are complete.

Institutions that are committed to support NHMRC-funded researchers at all levels of the fellowship scheme need to ensure for themselves that they have the capacity and resources to support their fellows during and if necessary beyond their support from the NHMRC fellowship scheme.

The bigger question in this context is the competitive position of larger institutions with larger and more diverse sources of income (e.g. universities) versus smaller institutions, such as independent MRIs, to offer terms and conditions that will facilitate attraction and retention of their stellar researchers. This point is particularly relevant to the earlier discussion on research in regional settings, and the suggestion that a regional loading on NHMRC fellowships should be considered to support the specific needs of smaller, community-focussed MRIs such as the HMRI in Newcastle NSW and IHMRI in Wollongong NSW.