Australian Government
National Health and Medical Research Council
N H M R C

CONSULTATION PAPER

on NHMRC's Research Fellowships Scheme

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Consultation Paper on NHMRC's Research Fellowships Scheme – 22 May 2009

Introduction and background

NHMRC's Research Fellowships scheme, in place now for decades, has been an outstanding success. Many of Australia's current and past research stars have been supported though the scheme and NHMRC remains strongly committed to it.

As part of its role in reviewing NHMRC research policy, Research Committee has been considering whether any refinements and changes should be made, to ensure that Australia continues to gain maximum value from the scheme.

There are a number of other current matters that are also relevant to Research Committee's considerations at this time. These include:

- NHMRC will develop a new Strategic Plan during 2009. Under the revised NHMRC Act, NHMRC's Strategic Plan (2010-2012) is required to include a **strategy for medical research and public health research** and also to identify the **major health issues likely to arise** and how the organisation intends to handle them. The Fellowships scheme will not only be a major component of that strategy for health and medical research, but can also be a major instrument in bringing together research expertise to solve the major health issues arising.
- NHMRC has greatly expanded its support for the postdoctoral years over this growth phase, especially through the expansion of the Career Development Awards (CDA) scheme which provides postdoctoral support up to 12 years post PhD. In 2004 there were just 115 CDAs; in 2009 there are 278 CDAs and there are expected to be 333 in 2011. Many of these researchers will seek to enter the Fellowship scheme.
- The Government has recently announced that it will support 1000 new **Future Fellowships**, including in health and medical research, through the Australian Research Council. These Fellowships appear likely to be similar to the more senior CDAs and to the Senior Research Fellow (SRF) level in the NHMRC Fellowship scheme.
- There are changing opportunities at Australia's Universities, as new medical schools are established and as a "baby boomer" generation retires. One of the reasons that NHMRC's Research Fellowship scheme has been so important to Australia is that it has allowed the training and retention here of many outstanding researchers. During periods of slower growth in universities in recent decades there have been few opportunities for employment of new academics at Australian universities. On the other hand, many senior research leadership positions at universities have been filled by NHMRC Research Fellows, to the considerable benefit of the higher education sector.
- After several years of growth, the NHMRC budget to support health and medical research has entered a plateau phase.
- NHMRC has commissioned a demographic study of the health and medical research workforce, due to report in mid-2009.

NHMRC Research Fellowships are fulltime, allowing the researcher to pursue research unimpeded by other duties. However, Fellows are able to spend up to 20% of their time on the pursuit of other health research related activities and NHMRC Fellows make an important contribution to scientific societies, universities and research institutes, hospitals and other healthcare organisations, and to the NHMRC through involvement in peer review.

NHMRC Fellows are employed by their university, institute or hospital. NHMRC provides a support package to the employing body. The nature of the contract of employment of Fellows is a matter for the employer and Fellow, and NHMRC sets few ground rules in order to provide flexibility to suit the local conditions.

Fellows are appointed at one of four levels, as a five-year appointment. There is a 6th year extension if Fellows fail to gain a new Fellowship when applying in their 5th year. A further 7th year grant may also be made if the Fellow is again unsuccessful in gaining a new Fellowship.

The Fellowships scheme is highly competitive and appointment as a Fellow is strongly sought after. The success rate for Fellows seeking to be awarded a subsequent Fellowship is high; a total of 313 applicants have applied for either a renewal or a renewal with promotion from 2003 to 2008, with 247 of these (79%) being successful in obtaining a subsequent Fellowship.

Appendix A contains further statistical information on the current scheme, including:

- number of Fellows at the four levels and package amounts
- state distribution
- statistics on the four research area categories of Fellows
- statistics on Fellows at universities, medical research institutes (MRIs)and other institutions
- statistics on gender, age, including age at first appointment
- success rates of applications.

NHMRC also supports a Practitioner Fellowships scheme which provides a Fellowship at one of two levels at between 30% and 70% FTE. The Practitioner Fellowships support leading researchers who are working as providers of health care. The scheme was introduced by NHMRC following its commissioning of a Clinical Research Review ('The Chalmers Report') in 2001. Active clinicians undertaking high quality research are key components of the translation of research into improved clinical practice. NHMRC has recently re-committed to the Practitioner Fellowships scheme.

Your comments are sought

NHMRC's Research Committee raises the following questions and issues for comment and input from the research and wider community. Any adjustments will be introduced for the application year 2010 and none of course will be retrospective. Any changes will be based on recommendations from the Research Committee that are supported by NHMRC Council, and that can be supported financially.

1. Aims of the Research Fellowship scheme

The currently stated aims of the Research Fellowships Scheme are:

- to support highly productive Australian biomedical and health research scientists in research of the highest quality
- to create knowledge through investment in research which benefits Australia
- to foster an intellectual environment which builds the capacity of Australian research for the future
- to encourage knowledge transfer to improve health and to contribute to Australia's prosperity.

Can these aims be significantly improved?

2. Alignment between the aims of the scheme, selection criteria, scoring and ranking processes and feedback report to applicants

Ideally the aims of the scheme, the review and ranking of applications should be aligned with the selection criteria, as should the feedback report provided to both successful and unsuccessful applicants.

The current policy document does not provide clear alignment between these elements of policy and the peer review process. The description of the ranking process in the current policy document is very brief.

A proposal for the scoring and ranking process for Research Fellowships is outlined in Appendix B and your comments are sought.

3. Position Classification Statements

These statements set out broad outlines of baseline activities, attributes, achievements and expectations within the four levels of the Research Fellowships scheme.

It is suggested that this be removed from the NHMRC Research Fellowships Policy documentation and be replaced by a more concise and less prescriptive statement about NHMRC's expectations of the different levels of award in the scheme.

A **position description** is the responsibility of the employing organisation.

4. Numbers of Fellows at different Fellowship levels

The numbers are given in Table 1 below.

NHMRC seeks to have a **pyramid shape** to its scheme, with more Fellowships at the SRF levels than at PRF, and at SPRF. This is in accord with the recommendations of previous reviews (Wills Committee) and with normal academic structures, and provides relatively more opportunities at the less senior levels.

Your comments are sought on the relative numbers at the different levels and, in view of a plateau NHMRC research budget, where any adjustments need to be made to current relative distribution over coming years.

TABLE 1 Numbers of appointments each year of Research Fellowships, Senior Research Fellowships, Principal Research Fellowships and Senior Principal Research Fellowships, and of Career Development Awards, since 2003

Funding Year	2003	2004	2005	2006	2007	2008
RF/SRFA	49	65	70	67	78	94
SRFB	66	67	69	80	88	103
PRF	75	78	81	85	86	88
SPRF	57	63	65	64	71	70
Subtotal	**247**	**273**	**285**	**296**	**323**	**355**
CDAs	81	115	142	185	207	245
TOTAL FOR ALL CDAs AND RESEARCH FELLOWS	**328**	**388**	**427**	**481**	**530**	**600**

5. Are the current four levels of Fellowship appropriate?

These levels reflect the origins of the Fellowships scheme as a parallel academic appointment scheme. Do you have any comments on whether NHMRC should simplify the scheme?

Should the approximate linkage of Fellowship support packages with academic salaries persist? (NB: These vary between different research institutions as a result of enterprise bargaining). An advantage is that this allows ready movement between Fellowships and academic salaries and helps to provide benchmarks for research performance in health and medical faculties. On the other hand, full-time Research Fellowships and academic appointments (teaching and other academic responsibilities as well as research) are not equivalent jobs.

6. Fellows re-applying for appointment

The Fellowship Scheme was developed initially as an alternative career structure to the academic structure (levels C, D and E). Following the phasing out of block funding, the scheme was changed to an open competitive scheme. NHMRC offers Fellowships at 4 levels, available to the best candidates for appointment at each level.

Some elements of the previous scheme persist, such as researchers already holding Fellowships and applying for re-appointment being automatically granted an interview, whereas this is not the case for applicants who are not already Fellows. Should NHMRC continue this preference given to researchers who already hold a Fellowship during the application process?

If NHMRC seeks to appoint the best researchers to the Fellowship scheme, to pursue research fulltime for optimal research outcomes, no particular preference would be given to existing Fellows re-applying. On the other hand, given the 5 year, non-tenured nature of the Fellowship, some advantage for existing fellows when re-applying might be regarded as fair.

7. Application process

Currently, applicants who are already Fellows apply to the scheme at a particular level and the peer review panel decides whether or not they should proceed to assessment at this level or another level. For example, an applicant could apply at PRF level but proceed to external assessment/interview at SRFB level. In addition, applicants who currently hold Fellowships may be ranked in more than one level by the peer review panel if they apply for a higher level but are regarded as more competitive for a lower level. This provision does not apply to first time applicants to the scheme at PRF or SPRF levels. These first time applicants are assessed at the level at which they apply.

NHMRC believes that this process should be the same for all applicants, leaving it to the peer review panels to recommend the level of appointment, regardless of whether the applicant is a first time applicant or a researcher reapplying for a Fellowship.

Your comments are sought.

8. Early re-application

Currently, Fellows may apply for re-appointment at a higher level (i.e. a 'Promotion out of Synchrony') in the second or third year of their current Fellowship. This allows outstanding Fellows to gain a higher level Fellowship within two years of their initial appointment, but it adds substantially to the peer review load of the panel and, with the current policy of conducting interviews, it also reduces the number of new applicants that can be interviewed.

Should this policy continue?

9. Fellowship Interviews

Should the current system of interviews be retained, or should all applicants be given the opportunity to provide a written response to the peer review panels? The Research Fellowships peer review panels examine all applications and short-list around half for interview, currently all applicants holding a Fellowship and the most competitive of the new applicants.

One reason to continue with interviews is that they provide Fellows with an opportunity to directly argue their case to the peer review panel and to discuss any special issues that cannot or have not been addressed in the written application. On the other hand, many feel that interviews tend to favour the more articulate Fellowship applicants and that a fairer system is that review should be on the basis of the written application, peer review panels' written comments and applicants' written rebuttals.

10. Seventh year Grant-in-Aid support for unsuccessful applicants

Existing Fellows who apply for a new Fellowship but who are not successful, are offered a 6th year of Fellowship support. NHMRC strongly supports this policy, since Fellows do not learn until weeks before the end of their Fellowship the outcome of their application for a new Fellowship.

Fellows who are again unsuccessful in their 6th year application can apply for a further year of support (a Grant-in-Aid, which is a further year of the salary package).

Should the 7th year Grant-in-Aid be retained?

An advantage for the applicant is that it provides a "safety net", which supports the Fellow in transition to a new position and a different means of support. On the other hand, the funds involved could otherwise be used for new Fellowship appointments.

11. Head of Department Report

Currently, applications also require a Head of Department report. NHMRC proposes to replace this report with a signed assurance from the Head that they will support the Fellow and administer the Fellowship award appropriately.

NHMRC peer review panel members have indicated that reports from Heads of Department add little value to the peer review of applications. They point out that the Head of Department has a conflict of interest in providing a report on the applicant's suitability for award and that the important matter is that the Head of Department provides confirmation that resources and infrastructure will be provided for the applicant if they are successful.

Your comments are sought.

12. Career Development Awards and the NHMRC Fellowship scheme

Table 1 also gives the numbers of Career Development Awards recipients. Many Career Development Award recipients aspire to become NHMRC Research Fellows.

Currently, there are up to 200 applicants for appointment as NHMRC Research Fellows in any one year and around 80 appointments. In 2008, 63 of the 192 total applicants were existing Fellows seeking appointment to a new Fellowship, and of these 42 were successful. For applicants in 2008 who were existing Fellows, this equates to a success rate of 66.7%. Existing Fellows who are reapplying for appointment are highly competitive, having been full time researchers for at least four years and having significant achievements to have gained appointment in the first place.

Additional competitive pressure each year for appointment as a Fellow also comes from the wide range of researchers other than existing Fellows and CDA recipients who are potential applicants to the Fellowships scheme. These include researchers supported on non-NHMRC Fellowships, researchers returning from overseas, researchers supported on NHMRC research grants (Projects, Programs – estimated to be more than 5,000 people in total in 2008), and sometimes university and other staff who wish to become full-time NHMRC Research Fellows.

The result is that only a relatively small proportion of CDAs completing their tenure are likely to gain appointment as an NHMRC Fellow (see Table 2).This raises several questions including:

- Should the number of CDA appointments remain at the current level if the prospects of becoming a Research Fellow are less than 50%?
- Should these NHMRC CDAs be given any special access to NHMRC Research Fellowships?

NHMRC seeks comment on the pathways between the CDA and the RF scheme.

TABLE 2: Success Rates 2006-2008 for CDA holders applying for Research Fellowships

Fellowship applicant year	Number of applicants	Number of CDA Holders applying	Percentage of applicants with CDA	Number of successful CDA applicants	Success rate for CDA holders	Number of applicants other than CDAs	Number of successful applicants other than CDAs	Success rate for non-CDA holders
2006	186	26	14.0%	8	30.8%	160	69	43.1%
2007	197	40	20.3%	18	45.0%	157	63	40.1%
2008	192	41	21.4%	15	36.6%	151	65	43.0%

Note: These data count all holders of a NHMRC CDA since 2000 and does not differentiate between length of time between finishing the CDA and commencing the Fellowship eg. a Fellowship applicant in 2008 who completed a CDA in 2004 is counted the same as an applicant who finished their CDA in 2008.

13. ARC Future Fellowships Scheme

What (if any) adjustments are needed to NHMRC People Support Programs in light of the introduction of ARC Future Fellowships? (see http://www.arc.gov.au/ncgp/futurefel/future_default.htm)

14. Gender imbalance

There are fewer women than men in the NHMRC Research Fellowships scheme as Table 3 illustrates:

TABLE 3: Number of Research Fellows in the Fellowships scheme, April, 2009

Women	Men	GRAND TOTAL
115 (31%)	261 (69%)	**376**

This gender imbalance appears to be mainly the result of fewer women applying for NHMRC Research Fellowships than men. In 2008, 126 men applied to the scheme, compared with 66 women. Having applied, the success rates for women and men are similar (see Table 4).

TABLE 4: Success rates for male and female applicants for appointment as NHMRC Research Fellows at all four levels

Application year	Success rates for men (%)	Success rates for women (%)
2005	44	37
2006	39	49
2007	42.5	42.9
2008	42.9	39.4

In the Career Development Awards, there are also fewer women than men.

TABLE 5: Numbers of Career Development Award Fellows, April, 2009

CDA type	Women	Men	Not available	Total
Biomedical CDA	63	97	1	**161**
Clinical CDA	11	24		**35**
Population Health CDA	25	19		**44**
Industry CDA	0	4		**4**
Partnership CDA	2	0		**2**
ALL CDAs	101 (41%)	144 (59%)	1	**246**

In contrast, there are more women than men in the NHMRC Training Fellowships scheme (Table 6).

TABLE 6: Numbers of Training Award Fellows

Type of Training Fellowship	Women	Men	Total
Australian Training Fellowship	223	140	**363**
Overseas Training Fellowship	97	91	**188**
ALL Training Fellows	320 (58%)	231 (42%)	**551**

These data seem to show that after applying in roughly equal numbers to men up to the CDA level, the number of women applying for NHMRC Research Fellowships falls away sharply.

What can be done to make the NHMRC Fellowships scheme equally attractive to women and men, so as to ensure that there are more female applicants?

15. Increasing the flexibility of the Research Fellowships Scheme – Fellows able to suspend award for up to two years

Currently, there is no provision in the NHMRC Fellowships policy for Fellows to suspend their Fellowships, though suspension under very special circumstances is considered on a case-by-case basis at the discretion of the NHMRC.

NHMRC wishes to increase the flexibility for Fellows and proposes that Fellows be permitted to suspend their Fellowships for up to two years, if other employment opportunities relevant to research or if family commitments arise during the Fellowship. Examples might include commercialising their research, taking up a research related appointment such as Dean of Research, or Acting Director of an Institute, or a temporary overseas position. This policy would allow the Fellow to resume their fulltime NHMRC Research Fellowship, with the Fellowship tenure extended for a period equivalent to the period of suspension.

NHMRC also proposes that Fellowships could be suspended for family reasons, for parenting leave or for compassionate reasons and in cases of illness.

16. Proposed Emeritus Fellowship

NHMRC has been approached by Fellows who do not wish to re-apply for a Fellowship at a retirement age, but intend to continue in research. Such Fellows may have long been SPRFs and contributed at the highest levels to research and translation here and internationally. Should there be provision for a category of Fellowship for Fellows who wish to retire from the Fellowships scheme but keep actively working in their field? Fellows not reapplying for a full Fellowship near normal retirement age would thereby free up support for the appointment of new Fellows.

Fellows in this category could also be provided with a nominal "Research Allowance" (suggested $5,000) to cover such items as subscriptions, internet and conference registration. It could be available for the normal five-year period, for Fellows retiring at SPRF level, and its award would be based on a peer reviewed application. While the term "emeritus" describes the intent, NHMRC will consider naming the Fellowship after a major figure in Australian health research history.

Appendix A: Research Fellowships statistics

BREAKDOWN OF RESEARCH FELLOW LEVELS IN 2008 (new and continuing)					
Level	SRFA	SRFB	PRF	SPRF	GRAND TOTAL
Package Amount	$112,000	$123,750	$135,500	$153,250	
Number	93	103	88	70	**354**

DISTRIBUTION OF RESEARCH FELLOWS BY STATE IN 2008 (new and continuing)	
ACT	9
NSW	75
NT	1
QLD	49
SA	26
TAS	2
VIC	175
WA	17
TOTAL	**354**

DISTRIBUTION OF RESEARCH FELLOWS BY THE "FOUR PILLARS" IN 2008 (new and continuing)	
Basic Science	245
Clinical Medicine and Science (inc Preventive Medicine)	68
Health Services Research	4
Public Health	37
TOTAL	**354**

DISTRIBUTION OF RESEARCH FELLOWS BY SECTOR IN 2008 (new and continuing)	
Medical Research Institutes	118
University	235
Other	1
TOTAL	**354**

DISTRIBUTION OF RESEARCH FELLOWS BY GENDER IN 2008 (new and continuing)	
Female	101
Male	253
TOTAL	**354**

AGE OF RESEARCH FELLOWS IN 2008 (new and continuing)				
Level	Mean	Median	1st Quartile	3rd Quartile
SRFA	47	45	42	49
SRFB	49	48	46	52
PRF	52	51	48	56
SPRF	58	58	53	64

Age of Research Fellows at the start year of their initial Research Fellowship

Appointment year	Mean	Minimum	Maximum	Median	1st Quartile	3rd Quartile
2001	45.0	31.6	62.7	43.1	39.5	50.5
2002	44.6	30.5	58.6	42.5	38.4	50.6
2003	44.4	34.7	65.2	41.8	40.6	47.4
2004	44.3	33.2	60.3	43.5	39.2	47.3
2005	47.7	38.5	62.0	45.3	43.9	51.8
2006	44.8	35.6	60.0	43.3	40.3	47.9
2007	45.4	38.2	64.3	44.5	42.0	47.9
2008	44.3	32.1	53.8	43.7	40.9	48.8

Note: These data capture the average age of those Fellows commencing a Fellowship for the first time in the given years. It does not include the age of individuals renewing appointments.

Appendix B: Proposal for Research Fellowship scoring and ranking procedure

This scoring/ranking procedure involves scoring numerically against the selection criteria as follows:

1. **Research Fellowship peer review panel (PRP) to short-list competitive applicants before interview using A/B/C system as follows:**

   A. **Clearly competitive**. High quality application that clearly supports the aims of the scheme and meets all the selection criteria.

   B. **Marginal**. These applications are less competitive and the SP has identified concerns which require consideration by the panel.

   C. **Clearly not competitive**. Does not match the aims of the scheme or does not meet the selection criteria or eligibility requirements or only partly meets these. Should not proceed to further peer review, unless required to in accordance with the Policy.

2. **PRP to score short-listed applicants based on their application, external assessor reports and interview. This evaluation is to be related directly to the aims and selection criteria for the scheme.**

3. **Following each interview, one spokesperson (SP) to provide the PRP with a summary and each member of the PRP to assign a score to the applicant (between 1 and 5, expressed within 0.5 and based on international comparison). Score sheets will be provided for this purpose (shown below). The scoring ranges are defined as:**

   5 – Outstanding (top 5% internationally)
   4 – Excellent (top 10% internationally)
   3 – Very good
   2 – Good
   1 – Fair

4. **Each selection criterion will be weighted. Proposed weights for selection criteria have been provided. These reflect the importance of record of research achievement in the assessment of Fellowship applications.**

5. **A final score out of 30 to be recorded for each applicant from each PRP member and an average mean score derived.**

6. **A rank list of applicants to be recommended to Research Committee.**

   Your comments on this are sought.

Proposed Research Fellowship scoring matrix

Applicant name:	
Application ID	
Research institution	
Type of application *(delete as appropriate)*	INITIAL APPOINTMENT RENEWAL RENEWAL WITH PROMOTION PROMOTION OUT OF SYNCHRONY
Level of Fellowship applied for *(delete as appropriate)*	SRFA SRFB PRF/SPRF
Peer Review panel *(delete as appropriate)*:	A B C D

Selection criteria	Score outstanding 5 Excellent 4 Very good 3 Good 2 Fair 1	Proposed weights
Vision for the next five years, intellectual leadership and contribution.		20%
Quality of research output (publications, patents, research translation). National and international profile. Success in obtaining grants.		70%
Research supervision and mentoring		10%
TOTAL SCORE (maximum 30)		100%