

# Summary of Public Consultation Outcomes

## The Program Grants Scheme

### Population of Respondents

There were 168 responses to the questionnaire; however the respondents did not answer all of the questions. Population statistics worth noting include:

- 82 respondents (49% of the overall responses) were not a CI or PI on a current Program Grant. 33 respondents (20% of the overall responses) were considering applying;
- Only 11 PIs (7% of the overall responses) submitted a questionnaire;
- 6 respondents said they were a CI/PI but said they didn't hold a Program grant; and
- The responses were evenly spread between Program and non-Program holders.

#### *Researchers > 9 years post-doc*

136 respondents (81% of the overall responses) were researchers > 9 years post-doc with 47% of these respondents indicating they had not successfully or unsuccessfully applied for a Program, 47% indicating they are a CI on a Program and 5% being a current CI while also having unsuccessfully applied for a Program.

#### *Researchers < 9 years post-doc*

25 respondents (15% of the overall responses) were researchers < 9 years post-doc, 64% of which have never applied for a Program and 28% who are a CI on a Program.

### Issue 1

#### **Indexation of Program Grants**

*Question 29 – Do you consider the fixed budget over a period of five years a major problem in keeping Program Grants within budget?*

82% of respondents (126 out of 154 that responded to this question) considered that the fixed budget over the five year period of the Program was a major problem.

*Question 30 – Should Program Grants budgets be indexed?*

95% (148 out of 156 that responded to this question) agree that Program budgets should be indexed.

*Question 30a – Would you consider the usual NHMRC annual indexation (out-turn factor) to be an adequate index?*

85% (126 out of 148 that responded to this question) agreed that the usual NHMRC annual indexation would be adequate.

*Question 30b – Do you have an alternative solution?*

[Click here](#) to view the Raw Comments to these open questions.

*Question 31 – Do you have any comments about this issue?*

[Click here](#) to view the Raw Comments to these open questions.

## **Outcome**

Following due consideration and financial modelling, the Research Committee recommended to Council that existing Program Grants should be indexed annually. Programs funded from January 2005 will also be indexed. This will result in additional commitments of \$1.72 million in 2005, \$3.47 million in 2006, \$3.83 million in 2007, \$3.17 million in 2008 and \$2.45 million in 2009, totalling \$14.64 million over the next five years.

This recommendation is also in line with the Wills Report recommendation to fund research at an appropriate level and to provide larger and longer funding.

## **Issue 2**

### **Departing Chief Investigators**

*Question 32 – Do you believe the current rules surrounding a departing CI are detrimental to the progress and success of Program Grants?*

49% of respondents (67 out of the 138 that responded to this question) thought that the current rules surrounding departing CIs are detrimental to the progress and success of the Program.

*Question 33. Have you personally experienced the situation where a departing CI has impeded research on a Program?*

There were only six responses with the majority responding that there was no effect on the Program when the CI departed.

*Question 34 – Should it be possible to apply for a quantum for a replacement CI to the Program in the next Program Grant application round?*

87% (123 out of 141 that responded to this question) thought that it was a good idea for a replacement CI and quantum to be applied for in the next application round.

*Question 35 – Should the Program be able to identify a suitable replacement during the Administrative Review?*

85% (120 out of 142 that responded to this question) agreed to Program teams identifying a replacement CI during the administrative review.

*Question 36 – Should the quantum deducted from the Program budget when a CI departs be pro-rata of the quantum the CI was allocated by the original assessment committee?*

73% (103 out of 141 that responded to this question) agreed that the quantum to be deducted be pro-rata of the quantum the CI was originally allocated.

*Question 37 – Should the quantum deducted from the Program budget when a CI departs be pro-rata of the quantum the CI was allocated by the original assessment committee?*

71% of respondents (101 out of 143 that responded to this question) thought that it was appropriate for applicants to nominate the CIs quanta at application.

*Question 38 – Should the formula used to determine a Program’s budget be made available to the Program when awarded?*

88% (126 out of 143 that responded to this question) supported any proposal for transparency in determining and advising the Program’s budget.

*Question 39 – Should a departing CI be allowed to take their quantum away with them as an SIPG subject to competitive assessment at the next round?*

57% of respondents (82 out of 145 that responded to this question) agreed to CIs taking their quantum with them as a SIPG, subject to competitive assessment.

*Question 40 – Do you have any other comments regarding this issue?*

[Click here](#) to view the Raw Comments to this open question.

## **Outcome**

The Research Committee did not support informing the Program of the precise breakdown of the budget formula used to calculate the award. Once calculated, the Program budget is a one-line budget expected to support the entire Program team as presented by the applicants. Research Committee felt that a breakdown of the budget awarded to individual CIs could lead to expectations of entitlements to each CI that mitigate against the team acting in an integrated fashion.

Similarly, because Program funding is provided for the work of the team and not to individuals, it was felt that, if a Program CI wishes to exit the Program or change research direction, the Program funding must remain with the Program to achieve its aims (provided that, following the Administrative Review, the Program is considered to still be viable). Therefore a departing CI will not be permitted to take their quantum with them but the remaining Program team will be able to propose a replacement CI who will be assessed by the Program Grants Committee and, if appropriate, the Program budget would be re-adjusted.

A new procedure for administrative reviews is to be implemented in 2005. This procedure is as follows:

1. On departure of a CI, an Administrative Review would be initiated;
2. The Program Grants Committee would determine if the Program was still viable;
3. If the Program was still viable, the team would be given the opportunity to put forward a replacement CI within the following 12 month period with no reduction in funding provided that the replacement CI was integrated into the team and had a competitive RORA;
4. If the team did not put forward a replacement CI within the 12 month period, the grant would be reduced according to the current ratio (ie departing CIs percentage time on Program divided by total percentage times of all CIs on Program in original application); and
5. If the Program was not viable, the team would receive one year’s bridging funding which may include a reduction in funding caused by the departure of the CI, and then be terminated.

## Issue 3

### **Chief Investigators Access to Project Grants**

*Question 23 – Is there a major problem with the current rules governing Program Grant CIs access to Project Grants?*

64% of respondents (98 out of 154 that responded to this question) felt that there is a major problem with the current restrictions on Program CIs accessing Project grants.

*Question 24 – Does the current CIA rule on Program Grant holders applying for a Project Grant encourage new collaborations?*

71% (107 out of 154 that responded to this question) agreed that the current CIA rule does not encourage new collaborations, with the majority of respondents being researchers greater than 9 years post-doc.

*Question 25 a, b, c, d –Do the current restrictions on Program Grants CIs' access to Project Grants represent an impediment to their research careers, the program team, careers of the team and the careers of non-team members.*

In relation to current restrictions on CIs accessing Project grants, the majority of responses were from researchers greater than 9 years post-doc regardless if they were holders of a program grant or not:

- 58% of respondents (89 out of 153 that responded to this question) considered that the current restrictions did not assist their careers;
- 49% of respondents (74 out of 150 that responded to this question) believed that it affected the research of the Program team;
- 68% of respondents (100 out of 147 that responded to this question) felt that it affected the careers of the team;
- 63% of respondents (92 out of 146 that responded to this question) agreed that it also affected the careers of non-team members.

*Question 26 – Are you or have you been a CI on a Program Grant?*

43% of respondents (66 out of 153 that responded to this question) have been or are currently a CI on a Program Grant.

- a. The following identifies the number of Project grants which were applied for while a CI on a Program:
  - 60% of CIs applied for 0
  - 29% applied for 1
  - 5% applied for 2
  - 5% have not applied as they were ineligible (Old program grant)
- b. 8% of the above were successful and 21% are pending the outcome of this year's application round.
- c. 16% (11 out of 67 that responded to this question) have always held a Project grant concurrently with their Program.

*Question 27 – Would increasing the CIs’ quanta in the Program substantially reduce the need to supplement Program funding with Project grants?*

51% of respondents (77 out of 150 that responded to this question) agree that an increase in the CIs quanta would reduce the need to hold Project grants.

*Question 28 – Do you have any other comments about this issue?*

[Click here](#) to view the Raw Comments to this open question.

## **Outcome**

The following changes have been made to the Program Grants 2006 Funding Policy:

- Program Grants CIs may be the CIA on a Project Grant; and
- One other CI on the Project must not be a current member of a Program team and they must make a substantial contribution to the Project (to be assessed and determined by the Grant Review Panels).

## Issue 4

### **Part-time Chief Investigators**

*Question 14 – Do you consider part-time CIs appropriate in meeting the aims and purpose of the Program Grants Scheme?*

66% of respondents (104 out of 157 that responded to this question) agreed that part-time CIs were appropriate, although some suggested that this should only be in exceptional circumstances eg having unique research skills or researchers with a broad research interest area.

The respondents that disagreed to part-time CIs felt that the commitment to a program should be substantial and that it would diffuse the purpose of the scheme.

*Question 15 – Should there be a limit on the number of part-time CIs per application?*

72% of respondents (109 out of 152 that responded to this question) agreed that there should be a limit on the number of part-time CIs per application, but there were no suggestions as to what the limit should be.

*Question 16 – Should part-time CIs be allowed to divide their time between Programs and Projects?*

78% of respondents (86 out of 110 that responded to this question) agreed that part-time CIs should be allowed to divide their time between Program and Project grants.

*Question 16a – If Yes: Should the minimum NHMRC time commitment to a Program be 50%?*

82% of respondents (92 out of 112 that responded to this question) agreed that the minimum time commitment to a Program should be 50%.

*Question 16b – Should the 50% Program CI be restricted to 2 or 3 concurrent Project Grants?*

62% of respondents (63 out of 101 that responded to this question) suggested that 2 Projects should be permitted to be held concurrently with a Program with 38% voting for 3 concurrent

Projects.

*Question 16c – What restrictions, if any, should there be on eligible Project Grant applications?*

A total of 21 respondents suggested that one of the restrictions on a part-time CI holding a Project grant should be that there is no research overlap. This rule was in place from 2001-2003 but was removed this year as it was extremely difficult to manage due to the broad research aims of a Program and the difficulty in identifying if there is in fact any overlap. 8 respondents believed there should be no restrictions as opposed to 6 respondents commenting that the restriction should be the same criteria as for full-time CIs.

*Question 16c – What restrictions if any should there be on eligible Project Grant applications?*

[Click here](#) to view the Raw Comments to this open question.

*Question 17 – Do you have any other comments relating to this issue?*

[Click here](#) to view the Raw Comments to this open question.

## **Outcome**

The following changes have been made to the Program Grants 2006 Funding Policy:

- Part-time CIs may apply only in exceptional circumstances, eg if they bring unique and essential skills to a team;
- The minimum NHMRC time commitment of a part-time CI will remain at 50%; and
- A 50% part-time CI may hold up to two Project Grants providing they are only a CI on one Program Grant, and only in exceptional circumstances.

## Issue 5

### **Status of Principal Investigators**

*Question 18 – Is the status of PIs on Program Grants a problem?*

It was clear from the responses received that there is little support for the continuance of the PI category, in its current format. It should be noted that the response from PIs was minimal (7%).

*Question 19 – Would you be in favour of allowing Program Grant PIs to apply concurrently for a NHMRC New Investigator grant?*

There was overwhelming support for this proposal

*Question 20 – Should the current restrictions on Program Grant PIs applying for Project Grants be further relaxed?*

*Question 20a – If Yes: Should PIs be able to apply for:*

- 1 Project only as a CI with no restrictions on collaborators;*
- up to 2 Project Grants as a CI with no restrictions on collaborators*

*Question 20b – Should PIs be able to be named as the CIA (with or without additional CIs) on a Project Grant?*

There was also overwhelming support to relax the restrictions but no real solutions were offered on how to rectify the problem except for reviewing the restrictions on holding Project grants.

*Question 21 – Would the new title ‘Program Fellow’ positively alter the perceptions of PIs’ status on Program Grants?*

There was very little difference in the number of responses for and against renaming PIs to ‘Program Fellow’.

*Question 22 – Do you have any other suggestions or issues you would like to raise?*

[Click here](#) to view the Raw Comments to this open question.

## **Outcome**

In response to this issue, a new model will be developed for a new investigator category (eg: co-investigator) in conjunction with Project Grants Committee (PGC), Research Fellowship Committee (RFC) and Training Awards Committee (TAC) for introduction in the 2006 application round.

The following changes have been made to the Program Grants 2006 Funding Policy:

- PIs may apply for and hold an NHMRC New Investigator grant if they meet the usual eligibility criteria;
- PIs have unrestricted access to one Project grant (including New Investigator grants) provided that the usual eligibility criteria are met; and
- PIs may be the sole CI on a Project grant.

## **Issue 6**

### **Averaging of Chief Investigator’s Record of Research Achievement**

*Question 7 – Do you consider the averaging of CI’s RORA to be equitable and appropriate?*

51% out of the 158 responses to this issue (94% of the overall responses) thought that the current system was inequitable and inappropriate.

*Question 8 – Should applicants be allowed to nominate one or two “uncounted” CIs on a Program?*

*Question 8a – If Yes: Should the applicants nominate the “uncounted” CIs?*

*Question 8b – Should the Program Grants Committee decide which CIs are not included in the RORA score?*

61% of respondents (96 out of 157 that responded to this question) supported the inclusion of an “uncounted” CI. They also agreed applicants should be allowed to nominate who would be uncounted rather than the Program Grants Committee.

*Question 8bi – On what criteria should this be based?*

[Click here](#) to view the Raw Comments to this open question.

*Question 9 – Do you have any further suggestions about this issue?*

[Click here](#) to view the Raw Comments to this open question.

## **Outcome**

The indifferent response to the “uncounted CI” and the lack of alternative options has resulted in no change to the Policy. The current process of CI averaging will continue.

The issue of CI averaging will again be considered during the development of the model and criteria for the co-investigator category.

## Issue 7

### **Overseas Chief Investigators**

*Question 10 – Do you believe that the exclusion of international investigators on Program Grants impedes the potential of research funded through this Scheme?*

59% of respondents (93 out of 157 that responded to this question) did not agree that the exclusion of international investigators on Program Grants impeded the potential of research funded through the Program Grants Scheme.

*Question 11 – Should one overseas CI be permitted on a Program Grant application whose RORA contributes to the team average?*

75% of respondents (116 out of 154 that responded to this question) did not agree with the inclusion of an overseas CI contributing to the team RORA average. There were some concerns (9 responses) that their inclusion would simply be used to inflate RORA scores and therefore success rates. To avoid this a number of respondents (8) suggested that they could be included in the collaborative gain and team evaluation only.

*Question 12 – Are you in favour of one or two ‘uncounted’ overseas CIs being allowed on a Program Grant application?*

52% of respondents (80 out of 154 that responded to this question) were in favour of including an uncounted CI on a program. In response to the criteria that could be applied, 18 respondents suggested that the only way to show that an overseas CI was a real contributor to the Program would be through an established high impact track record of collaboration with one or more of the CIs.

*Question 11a – What criteria should be applied to ensure an overseas CI without a quantum is a real contributor to the Program and not merely being used to bolster the team RORA average?*

[Click here](#) to view the Raw Comments to this open question.

*Question 13 – Do you have any other comments relating to this issue?*

[Click here](#) to view the Raw Comments to this open question.

## **Outcome**

The relative support from the research community not to change the current policy was supported by the Research Committee.

The role of overseas CIs' in a Program will be considered during the development of the co-investigator model, potentially contributing to the Team and Collaborative Gain score.

## **Issue 8**

### **Other Issues**

*Question 41: Do you have any other observations or suggestions about any aspect of the Program Grants Scheme not covered above?*

[Click here](#) to view the Raw Comments to this open question.

## Summary of Raw Comments

### Indexing Program Grants

Two open-ended questions were asked relating to indexing program grants.

#### **Question 30b: Do you have an alternative solution?**

##### **Respondents: Have not successfully or unsuccessfully applied for a Program Grant**

Only do this if all grant types are indexed

CPI?

The out-turn does not adequately cover inflation. Given Program Grants are supposed to fund elite teams and given the restriction in applying for additional Project grants, the 5-year Program grants must be managed to ensure they are financially viable for the 5 year term. Research costs increase significantly higher than the rate of inflation and higher than the NHMRC out-turn factor. Program budgets should be indexed at a fixed higher multiple than these (maybe twice).

5% p/a increase in salary allowances

It would be nice to make all indexation larger to cope with salary expenses

It should at least be the CPI

Allow applications from Program Grant holders for "top-up" funds. This would be a competitive round each year.

Indexing should be applied to all funding schemes, not just a selection.

If it is to be indexed why not use the CPI?

##### **Respondents: Unsuccessfully applied for a Program Grant**

The basic problem is not indexing its the low quantum of funding to start of with. If funding levels were reasonable, this would much less of an issue

If NHMRC provided a proper salary scale, as it used to, this would considerably help with the indexation issue

Outturn increases at a rate that is much less than the annual growth in grant amounts awarded, eg projects. I would suggest that indexing by outturn while better than nothing, will not provide growth that will keep the Program quanta competitive against projects.

##### **Respondents: Successfully applied for a Program Grant**

Should be increased slightly to take into account yearly increments and enterprise bargaining agreements

This has to be adequately reviewed. Fixed budgets over five years limit your flagship research groups. This is particularly true if NHMRC funding allocations alter dramatically or if PSP salary ranges change. The example to highlight this is "old" versus "new" Programs, whereby "old" Programs do not have PSP, have very low budgets, and are effectively at half (or lower) the funding levels of current Programs. This should have been addressed by RC.

Indexing should match increases in Project grant funding from one year to the next.

Implement indexation but also institute a mechanism under which teams can apply for a real budget increase mid-cycle, predicated on demonstration of momentum and success. This would not be the

same as submitting a new application i.e. renewing early.

This mechanism would apply if the increase requested is below a certain level (say 20%) of the original budget awarded. Teams would apply at the end of year 2 (or mid year 3) for extra funding starting in year 4.

Not really. The system always needs more money. Maybe awarding fewer programs might allow some flexibility in future years.

This has to be adequately reviewed. Fixed budgets over five years limit your flagship research groups. This is particularly true if NHMRC funding allocations alter dramatically or if PSP salary ranges change. The example to highlight this is "old" versus "new" Programs, whereby "old" Programs do not have PSP, have very low budgets, and are effectively at half (or lower) the funding levels of current Programs. This should have been addressed by RC.

See above - index to average project grant for each year.

### **Respondents: Successfully applied for a Program Grant and unsuccessfully applied for a Program Grant**

Needs to take account of EB agreements at Institutes and Universities - perhaps the national average EB figure. In reality this is what we have to pay out! For me this means a 6% increase in salaries per year.

Salaries are increased through enterprise bargaining across the universities and research institutes, and consumable costs are linked to the rate of exchange with the US dollar, and these both could be factored in. I presume that the intent is not to make the team less productive in the last years of the grant. The alternative would be to agree a yearly aliquot that would apply equally to the first year of a new grant or the 5th of an older one!

There will always be continual enterprise bargaining agreement salary increments EVERY year of a Program grant as well as increased costs each year on laboratory consumables and reagents. This MUST be recognised. By the 3rd or 4th year of a Program grant measures have to be adopted to cater for this as by the end of the 4th/5th year money will run out. NHMRC should seriously consider budgeting for a 7.5% out-turn on ALL Program grants, each year.

No easy solution, but the out-turn factor seems to be unrealistically low given the increases in costs that most laboratories face. Perhaps an increase in the value of the out-turn would be appropriate.

Ignore the above answer - once you've ticked a box you can't untick and change it back to a 'don't know' and I can't submit this without answering 30a even though I have no idea what the current NHMRC indexation factor is.

## **Question 31: Do you have any comments about this issue?**

### **Respondents: Have not successfully or unsuccessfully applied for a Program Grant**

Five years is a long time to have a grant not indexed, particularly for money which is not provided up front. These are large grants as opposed to some of the personal support situations. It is probably hard for institutions to effectively spread these in an indexed form over the 5 years. Indexing them would also buy peace and quiet.

Indexing should only occur if all other grants eg projects are also indexed. Applicants should be able to calculate a reasonable budget themselves, without recourse to indexing.

Within the University system, salaries continue to grow at healthy rates annually, but the NHMRC level of funding does not reflect this at all. Clearly this could be a major problem towards the end of a 5 year grant.

This problem arose for previous 5-year fellowship Project Grants. It makes all 5-year grants highly unattractive since funds for the last couple of years are eroded by cost increases not covered by current indexing methods.

The fixed budget problem is compounded even more when the initial budgets are heavily cut.

I would be hesitant in encouraging more NHMRC funds being taken away from Projects and into Programs generally. Given that earlier career investigators are not included on Program grants, they rely completely on Project grants for research funding which is already insufficient for most scientists to get started in the careers as independent scientists. We are at major risk of having a "hole" in the availability of good scientists 10 years down the track to conduct high quality research in Australia.

Should be review of funding allocations for new Program grant awards in line with panel recommendations and patterns of funding from previous years.

Additional information regarding question 30. Yes the Program Grants should be indexed.

Additional information regarding question 31. Yes this, or an appropriate CPI adjustment.

### **Respondents: Unsuccessfully applied for a Program Grant**

The budget needs to be also adjusted to account for other types of changes, for example PIs leaving the program to become independent researchers. In this case, the equivalent PSPs need to be deduced.

### **Respondents: Successfully applied for a Program Grant**

On a Program Grant worth ~1.5 million a year (without indexation) the team loses about 1 position every year, which is a significant loss.

This is a very serious issue. Over a 5 year period the income potentially lost by not being indexed is huge and really makes a Program member wonder why they bothered joining a Program. It is an inequity that should never have existed.

The decrease - in real terms - of the Program budget over five years is a critical issue, and is caused by inflation, the increasing cost of consumables and equipment, and increased personnel costs due to enterprise bargaining.

In our Program, under the present circumstances, we projected a 25% decrease in real terms by year five, which means lay-offs of team members starting in years two or three.

For a scheme which is predicated on putting together and maintaining large teams, this is a disaster.

I think applicants have to (and do) recognise that a program is a trade off between longer term security, and the possibility of larger budgets through multiple project grants. The really brave will

aim for 6 projects each of unlimited budget. So the program budgets do not need to increase substantially over the 5 years, and certainly should not invite applications for increases for any specific region, but annual indexation would be a considerable help to the applicants, without hugely stretching the NHMRC budget.

From my perspective as relatively junior program grant member the fixed 5 yr quanta means I have no opportunity to grow my lab or funding level in this time period. This situation encourages program to renew as early as allowed

This is as major problem for the current program grants. The NH&MRC does not recognise University salary scales which means that staff on programs already earn less than those in university departments (especially if the program is held in a research institute). This makes it extremely difficult to hold back any funds to allow salary increments or COL increases for 5 years!!

In fairness, currently funded Programs should also be indexed.

Give the amounts awarded in Program grants and the five-year time frame it is essential that they are indexed.

Current quanta are now relatively low with respect to projects - so excellence is

Being penalised, not rewarded.

I would suggest that the NHMRC adopt what currently exists in the NIH system and consider the possibility of implementing an option of a 'supplementary' grant to a Program that would have to be argued on a proven major unforeseen need (e.g. change of technology platform, or significant increase in inflation over and above the normal out-turn).

### **Respondents: Successfully applied for a Program Grant and unsuccessfully applied for a Program Grant**

It is vital that Programs be indexed. At my institute EB agreements for the next 3 years mean research salaries will rise 18% of that time. If one also assumes some increase in consumables it quickly becomes apparent that Program holders will be much worse off than those on indexed Projects. As the CIA on a Program I would consider relinquishing it if it is not adequately indexed.

We currently have Program funding but have found the non-indexing of the budget to be a major constraint in the last 2 years of the 5 year funding cycle.

The applicants can always reapply before 5 years if they feel they can score better quanta at that stage.

NHMRC indexing takes no account of the increasing seniority of people employed on grants and therefore does not cover the costs of salaries.

## Summary of Raw Comments

### Departing Chief Investigators

Question 40: Do you have any other comments regarding this issue?

#### **Respondents: Have not successfully or unsuccessfully applied for a Program Grant**

The question might be avoided by the single investigator scheme

The criteria used to determine quanta should be explicit so that researchers can plan their team and program. However, giving an exact breakdown would likely cause problems with the team, with some CIs 'worth' more than others. Those with lesser quanta may find it more difficult make a leading contribution.

If a CI departs a Program, the whole Program must be subjected to a review at the earliest opportunity. This should be as stringent as the original application process and should especially consider whether the changed circumstances of the Program team now make them inappropriate to be funded under the Program scheme's objectives. This review should assess all the circumstances of the change in team and the Program team should submit a proposal of how the Program will now be organised, which is assessed against all the usual criteria. If it no longer would be fundable as a Program, the revised proposal should be split into Projects and funded in this manner. The departing CI should not be entitled to any funds from the Program (unless they continue to be involved in their new appointment). They should have to apply for their own funding under their new circumstances.

I don't believe in an separate SIPG funding scheme. Departing CIs should receive their share of quanta (according to how it was originally allocated) and hold this only until they can next go up for competitive project grant funding.

Very difficult issue. Quanta should be allocated on merit and therefore not necessary for applicants to nominate their quanta but the award of quanta should not be subject to higher level political interference for reasons of national funding equity as seems to have happened in current round.

The grants are provided on the basis of the collaborative synergies of the group. The departing should be able to apply for SIPG, but the basis that is done entirely independently of the Program and its consequences.

As programs are for teams, team disbandment should not be encouraged within the funding round

Although potentially hurtful I think it is good for CIs to know about the quanta (or even lack thereof) awarded at review. It may provide an independent reality check

The departure of any CI should immediately come to the Committee's attention and a decision should then be made by the Committee which should have available all information including the basis of all the original funding. They may make an executive decision where a CI is retiring from a relatively large Program, it may be possible for the Committee to set an appropriate reduction in funding that isn't necessarily strictly tied to the original quanta. In other circumstances, a formal structured review will be appropriate. At that time, the review panel should have the ability to assess the impact of the withdrawal, a replacement strategy if clearly appropriate and justified, and a reassessment of funding having regard to the average funding and the original distribution of quanta. Within some specified constraints, a functional compromise should be achieved. This is a context in which the impact on PI's and other employees, obviously has to be considered and where, depending on the time the Program has to run, certain decisions may be made. Thus, where a CI retires with but one year to go, maintenance of essentially the status quo for a year might be entirely sensible if the whole thing then comes up for review again. Conversely, retirement of a CI early in the Program must surely bring the viability of the whole Program into question. In each case the need to protect the security and viability of the junior investigators means that a blunt policy such as withdrawing the full quanta is not appropriate. The notion that a CI might flit in and out of Programs taking their money with them

is clearly not acceptable. The consequences are too complicated to contemplate. It is totally contrary to the entire philosophy of the whole notion of a Program Grant.

The departing CI should be allowed to apply for a new SIPG project in anticipation of leaving the program.

Again the answers to many of these Q. is probably & therefore the best solution is to judge it on a case by case basis.

In relation to 39, some flexibility in that if the other CI agree then the departing CI could take the money, but this quanta could not be replaced into the program grant at the next round.

Seems ridiculous to be secretive about the relative merits of different CIs. Everyone can figure it out anyway, and we are all adults.

Essentially the Program is awarded to the team on the basis of the synergies of their expertise, talent and efforts. Break-up of the Program team should be discouraged. In the event a CI leaves the Program, the viability of the Program should be preserved as much as possible given the original investment. Therefore a replacement CI seems a sensible, if not always realistic, option. Funding for the replacement CI should be on the same basis as the other CIs. The option for the departing CI to apply for an SIPG also seems reasonable to discourage CIs from leaving Programs this should be on a competitive basis at the next round.

Rules that support the mobility of funds should be promoted

### **Respondents: Unsuccessfully applied for a Program Grant**

An unfunded CI should be allowed to leave the program (not taking any funds), to enable them to compete for funding in later years, perhaps when their RORA increases. The present system ties them for 5 years to a disadvantaged budget system.

A CI should be able to move elsewhere but still remain part of the Program.

### **Respondents: Successfully applied for a Program Grant**

Q37: this happens in effect as Program grant applicants are asked to nominate an overall budget, which is generally summed from individual quanta.

Q38: this is a tricky issue, as it could have the potential to cause friction within groups. Nevertheless, astute applicants can deduce the funding formula already as the permutations of quanta appear to sum to unique totals, at least for smaller (<7) groups.

OTHER COMMENTS: the administrative review process appears to have only one possible direction of budget outcome : either REDUCE the budget (or maintain status quo). There is no scope for other changes that should INCREASE the budget (eg attracting a stellar CI to the Program; high impact research breakthrough that requires immediate additional funding to take it further). It seems lopsided (and negative) to focus the Admin review only on "losses" and not on "gains".

I think that there has to be negotiation about the departing CI taking their quanta. In some cases it may be a clean cut ie they can move an entire segment of a research program. IN a large epidemiological study, it could mean that the whole study is under funded and the program undermined. I think that there needs to be some flexibility in this policy - to account for different types of research ie public health vs lab based research. In public health, researchers can still access the data from a study they were previously involved with but in lab based research, researchers will need the funds for their own laboratories.

However, there needs to be commitment from all CIs at the beginning and some agreement as to what would happen if one left. On the other hand, there needs to be protection for the individual CI in the case that things go "wrong" in the course of the grant or unforeseeable changes to their situation occur that mean they have to leave.

Yes to Q39 providing they continue the work outlined in the Program

To allow individual CIs to take their quantum with them could encourage the break-up of teams.

I haven't answered some Qs here as I don't have strong feelings about some of these and can see problems either way!

Q38 is very important and the funding process has to be transparent for both the team members and for the NHMRC to justify their budget allocation

While the spirit of program teams should be just that, ie one of a team, realities dictate the need to know the quanta awarded to each CI. If a CI has not been awarded any quantum, the team should have the option of applying to have that investigator's status downgraded to that of a PI or program fellow

I see this as an issue only if the CI is leaving the country. Many Program teams have members that are based in different geographical locations in Australia. While a CI remains in Australia, s/he should remain part of the Program. Therefore there should be no reason to split off quanta as a SIPG.

It would be very helpful for the program recipients to be told the allocation of quanta to each CI that the assessor panel decided.

Assuming geography is no barrier to successful program grants, presumably a CI would only be departing if moving overseas, a new research area or a completely different job. As such, they should not need to take program grant money with them. If the system was altered to allow for the holding of project grants by CIs, dramatic research shift and the changing of fields would be possible.

I see it as a disadvantage to easily allow CIs to leave and it compromises the team approach. Perhaps the CI should be given 80% of quantum if they depart and 20% to the Program

The quanta for each CI should definitely be known as this will give each CI an idea of where he/she fits in the scheme in the eyes of the committee and will allow them to plan for future applications (or to pull out of the scheme if necessary).

The current situation where budget calculations by the committee determine the allocation, but are not made known to the applicants, is absurd. This leads to prenuptial-type arrangements that reflect the degree of the CIs to negotiate with one another, nothing else. What is the rationale for refusing to release the budget calculations by the committee?

In Q39, only if SIPG Scheme is in place. Need to be careful as may inadvertently encourage break-ups.

Allow replacements.. and allow committee to decide their quanta, until competitive renewal!

The \$ awarded to each CI should be transparent and this amount should be deducted if the CI leaves the Program. If the CI is not contributing to the program they should not get the \$ associated with it and should be free to apply for projects.

We have been severely hampered by NHMRC withdrawal of funds when one of the CIs moved overseas. There should be criteria to allow continuation of funding if there is strong evidence that:

1. the CI going overseas has long collaboration with the rest of the program
2. there is adequate supervision of staff remaining in Australia
3. mechanisms are in place for ongoing collaboration, including teleconferences and visits to and from Australia
4. processes are in place that ensure work started will be completed

There may not be a uniform solution to this - each program/ CI may have different major issues to be addressed re program viability/ quanta

As stated above, the scoring grid and thresholds for CIs quanta need to be publicly available. This would assist in CIs making judgements above the quantum each team member might attract.

The problem with locking in the proportions at the time of grant submission and/or review is that it does not take into account the possible shifting of emphasis as the Program's research evolves

## **Respondents: Successfully applied for a Program Grant and unsuccessfully applied for a Program Grant**

If Programs were funded at the same amounts as the requested budget, then it would not be a problem. However, this doesn't seem to be the case. So without clear guidelines as to how the NPGs have been funded, it opens up huge subjectivity as to how the team members distribute the funding and in our experience the more junior investigator loses out.

The aim should be to foster real Program type work. Adding new layers of rules about SIPG etc merely clouds the main issue. The underlying principle should be that if you are in the Program system, you are IN for 5 years and you are OUT of the other system (see comments above).

Above should be conditional on reason of CI departure. Some reasons being inevitable, others not.

In reality the quanta are spent according to scientific need and productivity and not "who earned the money", but there needs to be some process for allocating a fair aliquot to a departing CI.

Programs are collaborations at present - the departing CI will generally continue to collaborate and that should be encouraged - if the departure is overseas, then the best situation is for the collaboration to continue and the grant to be adjusted but if that can't work then a new CI (if suitable, available and willing) should be allowed to join for the remainder of the program.

It would be extremely valuable for CIs who appear not to have received a quantum to be informed of where their formula was not successful and how this might be improved in future applications/renewals.

## Summary of Raw Comments

### Chief Investigator's Access to Project Grants

Question 28: Do you have any other comments about this issue?

#### **Respondents: Have not successfully or unsuccessfully applied for a Program Grant**

I am against any option that further reduces the available project grant fund in favour of allowing those on program grants greater funding. There is little enough funding as it is without compromising access to these funds further.

The key issue is simply financial. If Program Grants were funded at a level that did indeed provide adequate dollars for "all the research of the Program team" then this issue would not arise. As noted, the average quantum of a Program Grant is \$280k per CI, which is very poor given the calibre and track record of such CIs. This quantum should be increased to a realistic level of say the equivalent of 4 project grants per program grant CI. Then the restrictions of Project Grant applications can be better justified.

I believe investigators on Program grants already have a substantial security advantage than Project funded researchers at the same career stage. Giving Program CIs increased access to Project funding would be double-dipping.

While I answer yes to 27, I don't think it would decrease the number of applications for supplementary project grant funding. I believe that Program CIs will always try to maximise the amount of funding, regardless of Quanta size.

CIs should be allowed a lot more flexibility to hold project grants outside the program - this is the only way to develop new or high risk ideas; many researchers work in more than one field; additional project grants might be needed to start new collaborations that will perhaps influence the next round of a program's funding etc. If programs are too restrictive the scheme has defeated its purpose of encouraging large flexible collaborative research agendas

With regard to Q.27, a larger quantum per CI may reduce the need for additional funds to run Program components or projects closely related to them; but it probably won't help the funding of new initiatives much.

Current round of Program funding for 2005 commencement has clearly followed different rules from previous years with markedly lower funding levels ie lower quanta values than could possibly have been scored by the applicants if they had ranked highly enough to obtain Program funding recommendation. Presumably this has been politically driven in a pre-election environment to allow funding of more grants scattered across Australia but has severely departed from Program funding philosophy established with New Program scheme and as applied in earlier years.

Unless there is "new" money to compensate (and ideally expand) the pool of funds available for Project Grants, I would oppose any redirection of the already too little funds away from Project Grants towards Programs. The answers to questions 25. and 27. can be argued as "Yes" but to redirect funds as a response to these points will cause damage elsewhere and is not (in my opinion) justified.

For a senior researcher with good track record, the current restriction is not a problem. For more junior researchers, it may restrict their ability to develop new collaborations or to develop new areas of research outside the current program.

The people most disadvantaged from Program Grants are early career investigators who either hold or intended to hold a project grant with someone who applies and is successful in obtaining a Program Grant. The one grant rule can restrict this career boost for early career scientists.

Obviously the level of quanta is somewhat restrictive, but I suppose people at the top level should more readily attract alternative avenues of funding. So there is an argument both ways.

In relation to question 27, increasing the CI's quanta will probably increase the overall productivity and track record of the Program Grant CI's and thus further put pressure to supplement their funding with project grants, since the "productivity" of these CI's will most likely be significantly greater than non-Program Grant CI's. Productivity should be assessed relative to the level of funding enjoyed by individual CI's.

The most important issue is providing opportunity for CIs to be on Project Grants with new staff, or with other new investigators in order to encourage new careers in research.

The benefits of programs are clear to those applying. They aim to provide synergies through collaboration. These synergies should be fully explored within the program rather than seen a lever to compete within project pool of funds.

As alluded to in my response to question 22, I am strongly of the opinion that allowing CI's access to Project Grants was a big mistake. It is a mystery why this decision was made. The reasons for this are:

1. The intent of the Program is to give the CI's 5 years stable funding so that they can focus on research; spending their time on endless Project Grant writing, rebuttals, etc., etc. is wasting the NHMRC's time and money.
2. The Project Grant Scheme is totally strapped to the point of almost being non-functional. Expanding the pool will help no one.
3. The two schemes in principle are different but have significant overlaps which allow for distortion. Thus, a Program Grant funded and generated track record can be used effectively for leverage in the Project Grant Scheme. Thus, the net effect in reality is a double dip. The NHMRC is not getting a proportionate value for this extra spend.
4. This issue is wasting a lot of time, energy, angst and emotion. A clear cut set of rules would save everybody a lot of trouble.
5. If the NHMRC is to get better leverage for its money spent, then it would be for CI's to invest their "spare time", not on writing NHMRC Project Grants, but on writing NIH, commercial, etc., etc. grant funding applications.
6. The suggestion that this restriction in some way impairs their careers is similarly a nonsense. The whole point of Program is to give the CI's a defined budget with significant flexibility to pursue scientific initiatives as appropriate. They are not constrained by lack of access to Project Grant Scheme.
7. In the old Program Grant Scheme, applicants were not allowed access to Projects under any circumstances other than as AI's on Projects. There is no evidence that there was any disadvantageous impact.
8. The only defensible argument in this whole section is that it may be appropriate to increase the quanta to reflect a revision of the policy.

I understand that some restriction on the number of grants held by a CI has some benefits. However, in some areas of research a CI may be involved in a number of different research topics and the restrictions have a negative effect. The introduction of "part-time CI" would go some way to solve this problem.

Junior researchers named on a program grant are at a major disadvantage because of this ruling. They cannot be CIAs, and even associate with other good CIAs from an unrelated program.

The major issue is that a Program becomes essentially static in its research focus once initially funded. Although there is some flexibility to change directions/start new initiatives if the team agrees, this would be at the expense of existing research that may well still be viable productive research. This may be helped with increased funding but still an opportunity to apply for additional funding for new initiatives and to support new researchers recruited into the larger group should be considered.

The answer to most of these Q is probably & depends on both the CIs & the program & confirms that "one hat does not fit all heads".

The reason that a PI on a Program may wish to hold Project Grants may be based on the organisation of the scientific projects in their laboratory. For example, I run 3 major independent projects in my

laboratory and I would like to fund one with collaborators on a Program Grant and the other two unrelated projects with Project Grants. Under the present system this is not possible, which hinders my ability to obtain funding and inhibits my research.

Applying for a Program is a choice. It provides excellent funding with great flexibility. Part of this flexibility is the ability to develop collaborations within the area of the Program - indeed having the Program funding should enable this more readily. As the funding rules stand there is the option to establish another collaboration via a Project grant in an area that does not overlap with the Program. If a CI feels that the Program is not serving their purpose then there is always the choice of not applying for a Program and instead applying for multiple Project grants and extending collaborations on each individual Project. Increasing the CI quanta may help but I'm not completely convinced of this. In setting up and budgeting for the Program

Program grants are very generous and recipients should only be allowed access to project grants to establish different areas of research and/or with new collaborators. Otherwise research in Australia will be concentrated in areas that lend themselves to program grants to the detriment of the overall research effort.

Additional information regarding question 23. Currently CIs are interpreting the rules in a way that it is not worth their while to apply for further grants. Perhaps this is a case where a certain rule causes a particular type of behaviour. If the intent is to encourage CIs to be CIBs on grants, then some encouragement should be placed in the instructions. In addition some clarification on the allowable subject matter of the grant should be stated. Some of our scientists are senior members on the Project Grants panels and believe that most people sitting on these panels are still not clear on the definitions of these two groups of proposals.

Additional information regarding question 24. Currently we do not believe that it does, and that the prevailing belief from researchers is that they should not bother putting the effort in for these types of grants. (we note that only this year have these types of grants really started appearing at the Project Grants Panels)

Additional information regarding question 25. Much of the problem still relates to the amount of money available in the Program Grant Scheme. A moderate quanta still only represents 2-3 persons being employed, therefore the extra 50-75K available from the project grant is a very valuable resource. One argument would be to have increased quanta and to then block out the CIs from the Project Grants Scheme.

Additional information regarding question 26. The Institute has six researchers who hold Program Grant quanta a. None of our program Grant holders have applied for Project grant while on the programs, b. We have one example where a researchers also has a NHMRC project grant.

### **Respondents: Unsuccessfully applied for a Program Grant**

The current program grant quanta are fair, and represent substantially more than a typical project grant. Programs should not be for everyone; rather, applying for a program needs to be an informed decision balancing secure funding, amount of funds, and the opportunities coming from research within a larger team. This is appropriate for some types of research, but not others. I cannot sympathise with the people who go this way, and then change their minds and start crying poor. If your research requires independence and flexibility more than long-term funding and multidisciplinary aspects, then stay with project grants.

The level of funding on program grant is appalling low considering this is funding the countries best researchers. The only real incentive for programs is that one doesn't have to spend ones life writing project grants, but financially good researchers will get more funds by applying for multiple projects grants - this is a stupid situation that should remedied by doubling the funding of program grants

### **Respondents: Successfully applied for a Program Grant**

I am still a CI on an old Program Grant, and under these rules we have never been allowed to hold

Project support, even when applications were well beyond the scope of the program. The new Programs have relaxed the requirements to receive Project grant support, but any impediment limits the expansion of Program teams to tackle emerging areas.

Q27- is not the only solution. There are others areas distinct to the program grant that CIs want to pursue and want to do so as the CIA on a project grant.

Suggest CI can apply for 1 project as CIA and 1 as CIB or less

The rules currently are opaque. Most people don't understand them.

Money is not the only issue. Applying for a project grant often reflects the real need to make a new opportunity for collaborative research in a new field or make an intellectual commitment into an area that is unrelated to the Program Grant.

At the moment it is very difficult to prove to a cynical DP that any project grant application is new and outside the program. This stifles any new collaborations for the tenure of the program

Problem is that a CI who is not awarded a quantum has burnt their bridges with regard to rolled in project grants.

The issue of supporting a CI with the appropriate level of funding within a Program is a separate one. Undoubtedly, quanta should be raised.

A Program grant holder requires flexibility to explore new areas and perhaps recruit other CIs to the Program through collaborative links built on a Project grant. It is important the Program CI can be CIA on the Project since they are often the driver of the new area and do not feel inclined to defer ownership to another CI. There is no good reason why this flexibility can't exist.

As it currently stands the rules regarding eligibility to apply for project grants by program grant holders is very restrictive. Program grants are given for a particular program of research over 5 years. If the amount of money that was available on the program grant was very large (eg able to support 4-5 posdocs, RA's) and leave money for consumables etc there would not be a problem. This would mean giving every investigator a full quantum. However, if the CI's involved do not have a full quantum then they cannot hold another project grant as CIA. This means that one has to find collaborators to be able to hold another project grant which in my opinion is tantamount to looking for another program grant. If you cannot find other collaborators then your research funding is severely limited particularly as one is also limited to one ARC grant. To my mind this problem with project grants is the single biggest problem with the program grant and in its current state I would reconsider reapplying for a program grant.

Public health researchers often collaborate with networks of other researchers to undertake large-scale studies. Some of these potential collaborators already hold Program grants. It seems it is currently impossible for CIs from two separate programs to establish new research projects with each other.

As reflected in this questionnaire, the issue of project grants needs to be considered in the context of the program funding (amount and rules). There is a danger of some people getting too much money while others get none and this needs to be weighed up against the potential for lost opportunities due to inability to apply for project grants while on a program grant. On the whole, people on program grants are better funded and have to use their funds properly.

There should be two kinds of research grants: 1) 5 year "Established Investigator Grants" awarded according to summed RORAs and available to 1 or more CIs. 2) 3 year "Project Grants" awarded according to the scientific quality of the proposal.

I think the fact that I am a CI on a program, yet I could gain the same level of funding with two project grants, is making me seriously consider whether the program grant scheme is putting me at a disadvantage. A major concern I have is the push for quanta to be assessed based on commercialisation/clinical application. This is not a requirement of the project scheme, and will push basic research focussed CIs back to the project scheme.

It is possible to use non NHMRC funds to supplement program grant funds in some areas but not

others

This would decrease the number of applications to be reviewed

The quanta are adequate to generous. But the current RORA scoring system is not (see below).

Assessment and value of the quantity are restrictive and not internationally competitive with the best overseas groups.

Currently the quanta can be smaller than that available through Project grants, especially for Q1 or Q2. Raising the size of a quantum would help. However new collaborations and new directions should be promoted, especially in years 4 and 5 so that new technologies and partners can be brought in. Also new collaborations are essential for promoting originality and quality in a new program after the current one finishes.

The current situation is a disaster in multiple ways - difficult to administer, totally unfair to junior people linked (even vaguely) to programs, a deterrent to collaborations (if you can't be CIA, and have access to much of the budget, why use up your 'slot' when the rule might, and probably will, change next year - since NHMRC rules change every year!)

The quanta for Programs is far too low with the minimum quanta being at or just over two average NHMRC Project grants. Given the criteria associated with RORA scores, this is completely uneven. If the criteria for RORA were used to assess the track records of project grant applicants then the general scores would dive dramatically. As such, with inadequate quanta provided to Program grant holders (especially those at the lowest two quanta) means that other funding sources must be found to allow EXCELLENT science to proceed. The further capping of Program grant holders by the introduction of the rules such as those brought in this year (i.e Program Grant CIs cannot be a CIA on a project grant) is not consistent with a grant scheme that rewards scientific excellence.

1. There is a basic lack of equity – non-Program researchers can hold up to 6 project grants, and apply each year for more funding. Average program researchers are limited to 2-3 project grant equivalents under the Program scheme, and cannot apply for more funding. It is debatable whether the benefits of the five-year Program cycle outweigh the disadvantages, particularly the real decrease in spending power.
2. A talented researcher within a Program cannot develop an idea that falls outside the Program theme. Why place bureaucratic limits on our scientific talent? I strongly recommend that Program CIs be allowed to hold up to two project grants, with no restrictions.

The Program Grant CI's should also be encouraged to collaborate with members of other Program Grant teams. They should be allowed to apply for a collaborative project grant.

The current project grant rules of not being CIA make it virtually impossible to get any significant funding for a non overlapping project

It is imperative if PIs are allowed to apply for Projects that Program CIs are restricted in the current way. We want foster young investigators.

The current rule seems very arbitrary and having had the 'logic' behind it explained to me at a public consultation session I'm not convinced. I'm currently trying to further develop a very exciting and productive collaboration in an area outside of the Program Grant by applying for a Project Grant and the current ruling has impeded this process. If I give a 80% time commitment to the Program then I should be entitled to use the remaining 20% on Project Grants if I so wish. The original ruling that the Project Grant should be outside the area of the Program made more sense, although I understand that implementing this rule was complicated. I think the best compromise is that a Program Grant member cannot be CIA if the Project Grant is within the area of the Program (but this will still aid career development of scientists associated with the Program Grant member who are not actually on the Program Grant), but he/she can be CIA if the Project Grant is clearly in a different area, this to be decided by an access committee.

There should be sufficient opportunity to develop new initiatives outside the program grant for the CI. This will also allow CI to initiate new collaborations which are currently almost impossible.

As younger CI on a successful program grant the perception of an independent research career is difficult to establish under the current rules ie. see fellowship criteria.

The main problem I see is with the career development of mid-level scientists within a program team. They are excluded from having the "benefit" of applying for a project grant as CIA with their boss as CIB or CIC. When they then try to apply for the research support scheme they are denied a record of attracting funds.

I have just been awarded a Program Grant commencing in 2005. I have not previously held a Program Grant

I believe that it would be a good idea to reward outstanding CI's by giving them extra funds. This should, however, be restricted to truly outstanding researchers who rank in the top 1-3% internationally.

The quanta are static but the project grant dollars increase each year. Moreover, many groups now obtain greater total funding from project grants than they could from a program

I do not see Project Grant as a supplement to Program Grant, rather an opportunity to start new collaborations, expand existing projects funded under the Program and form new collaborations which can potentially lead to new Programs. Not to be able to be named a CIA on a Project grant is unnecessarily restrictive.

I feel that under the current scheme the Program CI's capacity to obtain Project grants is far too limited. I believe that even with 80% commitment to a Program a CI should still be allowed up to 3 Project grants, and as CIA if it is appropriate. If one considers that the average Project grant size currently is about 130K then the maximum quantum on a Program is equivalent to 3 project grants. CIs outside of a Program are allowed up to 6 Projects, therefore it would be equitable to allow Program grant holders to vie for the roughly the same total pot of funds, especially given the notion that Program grant CIs are meant to be the best of the best researchers.

Individuals will always try to work the system for as much as they can. I think that the only aspect that needs substantial change is the status of PIs.

Budgets for Programs need to be indexed to the average awarded per Projects, so that the two schemes do not artificially become more or less favourable financially. This would remove pressure to move between one and the other for purely financial reasons.

While I have said 'yes' to question 27, I feel this is not the appropriate way of solving the problem. I feel the maximum Program quantum is about right but highly recommend that access to additional Project grant funds be allowed. (see responses to questions 17 and 22).

Creating a broader range of quanta, down to \$100K for example, and awarding quanta to all performing members of the program in proportion to their RORA, rather than increasing the existing quantum amounts may go part way to solving some of these problems.

The CIs quanta is low compared with what could be obtained from 6 projects. The single investigator program concept will bring this into starker focus. The CIs quanta should be increased and indexed over time.

Current system is fair. People have to decide predominantly program system or projects.

If changes are made to the status of PIs, in particular access to at least ONE project grant, then their careers will not be impeded by the Program grant.

As someone with expertise in a particular platform technology, I have a number of collaborations in different areas. I believe my collaborators place a higher value on my expertise than is reflected in my RORA quantum. If I had more money (higher quantum) from the program grant I could support these collaborations without the necessity of project grant funding. As it is, I need access to the project grant scheme to support my diverse collaborative projects.

I would strongly suggest increasing CI's quanta in return for not allowing access to project grant funding. Since a CI's Program Grant-funded project is plastic, restricting new project grants to work

outside the Program is a nonsense.

### **Respondents: Successfully applied for a Program Grant and unsuccessfully applied for a Program Grant**

Since there's currently no restriction on people funded from the program applying for grants if not named CI or PI the intended effect of the restrictions are not being achieved. I'd increase the quantum per CI, restrict applications from funded non CIs to an exit strategy from the program as above, and not allow CIs to apply except as AIs on someone else's Project grant.

Increasing the quanta for CI's would reduce the need to seek additional NHMRC funding. However, making the RORA scoring unachievable is NOT a suitable alternative to increasing the quanta of those few who are in the top 1% or so internationally.

Again this is a vexed area. On the one hand one wants to encourage good work, prevent the operators monopolising the funding, and aid the careers of junior scientists. The balance is currently not right. The need for restrictions on CIs applying for Projects should actually be determined in reverse: determine what the optimal number of programs should be (given budgetary considerations and the constituency) and then 'take out' those scientists from the Project system. Other methods need to be considered to foster the development of the junior scientists.

My current role as a CI on a Program grant with limited funds is likely to lead to the premature demise of my independent research career. I now strongly caution younger investigators about being involved on program grants and in particular about taking on the position as a PI.

As a CI on a Program Grant I apply for (and get) overseas funding. In terms of \$\$\$s this is much more lucrative, and takes no more time, than applying for project grants.

The current quanta while perceived as generous do not completely compensate for no longer having access to projects. On average I was probably getting more funding from all my NHMRC Projects than the Program. Increasing the quanta would alleviate this problem.

The current rule that a Program Grant CI cannot hold at least one

Project Grant where they are CIA is very restrictive and not in the best interests of Australian science. It appears that most holders of Program Grants received less funds than they feel appropriate to carry out their research, and there are severe restrictions on the capacity of Program Grant CIs to supplement their research income with projects.

Old Program grant holders are not allowed to hold any concurrent Projects and this was certainly restrictive over time. It allowed little expansion of teams. However, new Program grants are awarded on a different basis and go to already very successful researchers who presumably already have teams of optimal size. It is up to the CIs to decide whether the funding from a Program can support their current and planned research or whether they would be better off staying with Project funding. The advantages of 5 year funding are offset by the lack of indexing, as well as by the problems of exit from the Program. However, unlimited access to additional Projects would be inappropriate, as CIs have committed more than 80% of their time to the work of the Program.

This new ruling is totally absurd and career limiting for ALL involved and should be removed immediately!

## Summary of Raw Comments

### Part-time Chief Investigators

Two open-ended questions were asked relating to part-time chief investigators.

#### **Question 16c: What restrictions if any should there be on eligible Project Grant applications?**

##### **Respondents: Have not successfully or unsuccessfully applied for a Program Grant**

Only on a topic relevant to their program

No restriction

No research overlap with program. Must include different CIs.

Should not be in area of Program.

This is just a device to allow people access to undirected funds as well as to project grants - it diffuses the purpose of the Program Grant

Part time CI's should only be allowed under exceptional circumstances (with the onus being on the applicants).

Eligible Project Grants should involve substantially different research from the Program Grant.

Part-time CIs should only be able to apply for half the number of project grants

That they do not overlap with aims of program

Substantially different from the program application

Program grant 50% CI can be CIA (or other CI) on project grant, but other CIs on project grant must not be on any current program grants

The topic different from the Program Grant.

None, if there is pro-rata score/commitment for each project it should all even out.

No restrictions as now but there needs to be a clear reason why the CI wishes to be part time on the Program

No more than one, and only this if in a completely different area. Given the financial restrictions on supporting project grants that are highly recommended, it is not fair if program CIs can also take too much of the project pot (having one's cake and eating it too). No-one is forced to apply for programs, and there are a number of researchers who obtain much more funding [and more flexible funding] from multiple projects.

The restrictions should be similar (pro-rata) to those applied to full-time CIs.

I consider that if CIs are really committed to a program grant then they should not be eligible to project grants at all. This cuts against the underlying principle of the program grants that the program is their focus and that having it meant that they could concentrate on their long-term research. The solution is not to open up the project grant system to this double dipping but to increase the dollar value of each program grant, even if that means offering fewer of them. Is this not obvious? The agenda is driven by the proliferation of fledgling institutes and their financial needs- the activities of those concerned with this development is unduly driving this agenda.

None apart from their being minimal scientific overlap.

The restrictions need to ensure that people cannot access more money via this mechanism than they would by applying for a 100% CI position on a program grant. ie if they obtained only 300K from a

CI position on a Program Grant but received 400K by being a 50% CI and having extra project grants this would create a unfavourable situation.

The initial aim was to give the investigators on program grants more freedom and more assured funding. There should be severe restrictions (as was initially envisaged) on applying for project grants especially if it has any relationship with the program. CI's on the Program should not be allowed to apply for Project grants together.

### **Respondents: Unsuccessfully applied for a Program Grant**

Commitment to the program should be substantial and not diluted by too many "outside" interests.

Not in the area of either program

No overlap

I can only understand the concept of a part-time CI if this person prefers to safeguard time to be dedicated to NON-NHMRC projects.

I believe that even the "one project grant permitted" rule should be allowed only in exceptional circumstances, i.e. if the investigator can make a strong case for the project being sufficiently different from the theme of the program, and that the impetus for this new project comes from a new, unexpected finding that needs to be followed-up in parallel.

The only restriction should be that the Project Grant applications demonstrably do not overlap with the Program Grant.

### **Respondents: Successfully applied for a Program Grant**

There should be no restrictions on project grant applications. NHMRC funding should be judged by the productivity of the person concerned and whether the area of research is considered eligible for funding following peer review via the usual granting process.

That they are truly outside the Program

The project grant application should not directly overlap with stated experimental aims of the program. This is difficult due to the looser nature of the research proposal section of a program, but the stated aims should be sufficiently distinct so that there is no blatant double dipping. Assessment of this would be at the level of the project grant GRP. This may require that a program grant summary/progress report with stated aims be included in the project grant submission, much like the project grant reports that are already part of the submission.

They should not be held with any of the CIs on the Program Grant or with anyone whose salary is paid from the Program Grant.

None as long as the project is clearly distinct from the program - it may be an adjunct to the program - this would require more detailed specification of what the program grant funds are to be spent on. ie the research plan in the current application is very general so you can't see exactly where the funds are going.

Restricting concurrent numbers would have the desired affect of keeping the current ethos of the Program Grants while still permitting applicant flexibility to support individuals working in related areas.

NONE - too difficult to administer, as the last 2 years have shown, and 50% of their quantum plus 2 projects (if they get them) is NOT excessive.

These individuals should meet the same criteria as a full time Program holder with another Project grant. The projects should not be with members of the Program or similar in content to the Program

If only one Project grant allowed, the only restriction should be that it is with different people to the program. No limit on CIA.

Similar to the current restrictions, i.e new research direction(s), new collaborators.

However, sometimes a project funded under a Program Grant can 'overgrow' and consume most if not all resources allocated to a CI. A separate Project Grant dedicated to such successful project should be eligible for funding.

There is no place for a part-time CI on a program grant.

No more than one project grant apart from the program

They should be of a standing compatible with a SFRA or above. If so, all CIs should receive the appropriate research funding.

The restriction regarding project grants should be the same for full time and part time CIs

None. We want NHMRC to fund the best research, full-stop. No impediments should be put in the way.

Projects ought to be reasonably outside the research domain of programs

None, but the CI's RORA would only count 50% to the program score.

This should be handled on a case-by-case basis by Program Committee. There are some scientists who may play an integral role on multiple grants (eg statisticians and bioinformaticians) and provided the \$ they obtain is pro rata to the time commitment there is no problem.

1 project grant in an area outside current program grant. No other CI can be CI on project grant.

### **Respondents: Successfully applied for a Program Grant and unsuccessfully applied for a Program Grant**

No overlap with Program Grants

The edict that the project should be in a "broadly different area" is unrealistic and not adhered to anyway. Projects should not be between CI's on the same program, but should be allowed in a related area.

Projects should be outside of the research covered by the program.

Distinct from the program - the part time CIs should bring unique skills that might be used to profit in several areas (eg Xray crystallography, epidemiology, Clinical trials management)

Project applications should not be in the area of the program.

As the number of possible simultaneously held Project grants is six, it seems reasonable that a 50% Program CI should be allowed three.

I don't see a need for specific restrictions.

## **Question 17: Do you have any other comments relating to this issue?**

### **Respondents: Have not successfully or unsuccessfully applied for a Program Grant**

More flexibility will give better teams

Part time contribution to a program would benefit more junior but independent researchers who want to build their track record in project grants and are keen to develop collaborations. At present, a more junior member of an experienced research team must choose to be 'in' or 'out'. If the direction of the program is led by the most experienced members, the more junior person may not have the capacity to develop their own research direction. Part time contribution to a program would also benefit researchers who have broad research interests or who already collaborate with a number of other groups that cannot easily be 'wrapped up' into a single program.

Program Grants should be for major programs of work and these should be the key focus of the research of the CIs. If they cannot commit the great majority of their time to this program of research, then perhaps they should not be a CI on the Program.

A commitment of 30% to a program would be sufficient in many cases and still ensure effective joint work

Research innovation and pursuit of new initiatives or leads is severely hampered by tying the CIs so completely to one program and one project

Not sure what you mean by part-time CIs. If you mean CIs who are employed part-time, there is no issue; if you mean a full-time researcher / academic who is only partly committed to the program, then they should commit at least 25% or so of their research time; they can do what they like with the rest... The whole idea of Programs as a way of cutting people out of projects is really counter-productive, especially as it seems that few programs can fully cover the research of all CIs and associated staff.

I prefer the single investigator proposal

I am unclear precisely how the score for part-time CI's is calculated within the overall grant score and this would potentially impact on my view of these issues.

People should either be in or out of the Program scheme. Being able to combine the two will lead to administrative nightmares for both the NHMRC and the administering institution.

I can understand why a part time CI might contribute pro-rata to the budget but why the contribution to the RORA would also be pro-rata seems ridiculous.

It is clear that certain individuals may make a really significant contribution to the Program, but that may be effectively a pro-rated involvement. Where their involvement is genuine, I can see no reason why that commitment should not be fractional and the budget based on that commitment should be pro-rated. If they chose to spend the other 50% of their time on another Program, then so be it. In the end their total support under the current system will still be no more than the 100% they might have achieved on one Program, and scientifically, this may be an entirely justifiable position.

The mix Project and Program is a disaster. The two schemes are quite separate and if individuals are allowed to operate in both domains, then the potential for manipulation is extremely high and the various committees have clearly demonstrated their inability to identify these issues. In the previous triennium, Research Committee moved strongly to a philosophy which avoided micro-management. This has really opened the doors for the manipulators and research entrepreneurs. Track record remains a component of Project Grants and arguably is in fact a larger component than was notionally intended in the modified Scheme. The net effect is that one individual can parley their track record over a series of domains to the extent that its purchasing power is vastly greater than its actual net worth.

The introduction of part time CIs would better reflect the variability of approaches in different areas of research.

Some expertise (e.g. clinical input, statistical advice) is necessary, but not required constantly for research projects, only in perhaps planning and analysis/interpretation stages of a project

The pro-rata calculation could be manipulated to increase the RORA, as investigators could underquote their % program time.

The calculation should reflect the % time they spent in the past, which yielded their track record (eg publications) not the % time they intend to spend in the future working on the program.

Not allowing part time CIs to apply for project grants would ensure that they were genuinely committed to the program not just tacked on.

The tendency for double dipping from program grant holders must be stopped. The holders of program grants are the leaders in the research enterprise in Australia; their position of power in policy making worries this investigator in terms of changes in conditions.

Opening up the project grant scheme to the same research as is already funded by program grants is illogical and totally unfair. I suspect it is already disadvantaging the great majority of scientists who are good independent scientists but not necessarily great entrepreneurs and will never be able to qualify as Program grant CIs. Of course it is important to support entrepreneurial big operators. Most scientists are independent creatures driven by intellectual curiosity and a competitive streak. If the alternative becomes just working for the boss we will see many of them leave science or work less hard. You have not given sufficient attention to the culture of science.

I see no reason why there should be a 50% minimum time commitment of a PI to a Program Grant. A PI with a particular expertise could provide an essential contribution to program with a time commitment of 20%. This can only support beneficial interactions between scientists. The argument that it would result in more CIs per Program grant is true but it is unclear why this is a problem if it is going to result in better science.

### **Respondents: Unsuccessfully applied for a Program Grant**

I am strongly against further relaxation of the rules regarding parallel applications for project grants. The concept of the program grants only makes sense for large projects requiring commitment of larger funds and manpower. Deciding to apply for a program should not be a decision to be made lightly. Otherwise, program grants could become simply a vehicle for getting extra funds and longer funding, without the expected commitment to high risk, high yield research.

If the primary assessment of program grants was science and peer-review based, many of these issues would cease to exist.

### **Respondents: Successfully applied for a Program Grant**

I am against part-time CIs given that the current system utilising full-time CIs have not had enough run-time to provide feedback on whether the scheme is successful.

Adding part-time CIs at present is likely to be a distraction to data collection in the future regarding the success or not of the Program Grant scheme.

These part time CIs should be specialist situations rather than the normal occurrence. Being a member of 2 NH&MRC Programs should not be encouraged and leave part time CI positions on Programs to those who seek project or no other NH&MRC support.

The inclusion of part-time PIs isn't consistent with the overall aims of the Program Grant scheme.

Yes, the NHMRC should recognise that parents may not be able to work full-time.

The present system actually discourages formal connections between Programs, and the establishment of new collaborations. CIs who contribute to more than one Program should be actively encouraged.

I think this would be an excellent idea for people who have several different research interests, and for those for other reasons cannot commit 100% to a program. I see no disadvantages to the applicants, or

increased costs to the NHMRC except for a minor one in review of slightly more project grants.

The exclusion of part time CIs, and certainly the discounting of awarded quanta for CIs working relatively small percentages of their time on a program grant eg. <50%, completely fails to take into account the ability of such people. If for example, these people are very senior, experienced researchers it would be expected that the vast majority of their hands on work would be done by junior, non-CI, researchers. The awarding of less than full quantas to such CIs effectively penalises them for their success. This policy is certainly in direct conflict with the aims of the fellowship scheme where Fellows are expected to apply for outside funding and hold positions of responsibility.

The reason for allowing part time CIs are the same for allowing part time Fellows, etc. This should not be viewed as a way of splitting research time between programs but of allowing individuals who work part time to be CIs on programs.

While I support the part time CI option, I do not think that it needs to be 50%, it may well be 70%. What I see as an important issue is for a CI on a Program Grant to be able to be CIA on 2-3 other Project Grants.

Again, I think the current system is OK. Part time CI's would easily allow "cheating".

I like the notion that Program Grants are meant to support the individual and not dictate what he or she is doing (ie they have maximum flexibility). They should therefore completely fund all the CIs research (which they do, don't they?). Project grants would have no purpose in terms of research direction by the CI, but could play a role in supporting other researchers who want access to the CIs expertise.

Provision to participate in two programs is attractive for CIs with wide interests.

The definition of CIs on Program grants are that they are established in the field of research and are likely to hold more than 2 Project grants. The Programs were supported by many scientists as this was seen to remove these larger groups from the Project grant scheme and possibly allow better access of younger researchers into this scheme. In addition, those in Programs had the advantage of longer funding cycles. To allow CIs from Programs to access the Project scheme is untenable as this directly removes any of the perceived benefits of either scheme.

If the idea of part time CIs is supported by NHMRC, then part time CIs should EITHER contribute to RORA and budget and be restricted to one Project grant OR not contribute to RORA and get no money from the Program budget and essentially function as associates to the team (much like the NIH scheme).

Either of these two options would retain the status quo. This category would be completely open to abuse if the benefit of Project grants was greater than one, as anyone can see that a part time Program position with access to 2-3 Project grants is a much better deal than a full-time CI on the Program.

The current system is about right on this. You should either commit to a program or opt out. Not try and have your cake and eat it!

I would consider it appropriate for a person to be CI on two program grants IF each was 50% and their quanta were limited to level 3 max on each.

I feel that the current minimum of 80% commitment to a Program is appropriate and do not support the notion of reducing it to 50%. However, I feel that under the current scheme the Program CI's capacity to obtain Project grants is far too limited. I believe that even with 80% commitment to a Program a CI should still be allowed up to 3 Project grants, and as CIA if it is appropriate. If one considers that the average Project grant size currently is about 130K then the maximum quantum on a Program is equivalent to 3 project grants. CIs outside of a Program are allowed up to 6 Projects, therefore it would be equitable to allow Program grant holders to vie for the roughly the same total pot of funds, especially given the notion that Program grant CIs are meant to be the best of the best researchers.

In general, program grants should represent commitment to the program and the number of part-time CIs on any application should be limited

If part-time CIs were able to hold more project grants than full-time CIs, all applicants would want to be part-time. Part-time should only be considered legitimate where CIs have non-research duties (eg. clinical / commercial etc.).

Are special cases such as bioinformatics, statistics, structural biology or chemistry where a good case can be made, but the applicants should have to make the case.

### **Respondents: Successfully applied for a Program Grant and unsuccessfully applied for a Program Grant**

It's full-time meaning all of your research time, not all of your employed time. Part-time is a contradiction in the terms of what the program grant system is meant to be about.

A Program should be a major research commitment ie. not less than 80% of time. Variation of this will detract from its purpose and make administration overly complex.

I think a part-time CI should be restricted to NHMRC/non-MHMRC allocations, not part project/part-program allocations. A number of academics might be interested in a part-time NHMRC PG appointment, if instigated

It is very important to be able to include part-time CI's - particularly those involved in clinical research where their research program may well contribute across different areas - or possibly where the CI has involvement in Basic science and then in a specific area of clinical research.

Part-time CIs should add into the RORA in a pro-rata way. That is, a 50% CI adds in half their RORA but also counts as a half when the RORA is averaged - and of course get a half quantum.

## Summary of Raw Comments

### Status of Principal Investigators

#### **Question 22: Do you have any other suggestions or issues you would like to raise?**

##### **Respondents: Have not successfully or unsuccessfully applied for a Program Grant**

PIs should definitely be able to apply for a New Investigator Grant as the sole investigator, or as the CIA with other new investigators.

I also support PIs being able to apply for one grant with no restriction on whether they are CIA, B, C etc, provided it is with people other than those on the Program, and is in a NEW area of research to the program.

The perceived low status of PIs on Program Grants derives from them not having control in the management of the direction of the Program and its budget. Changing the title of PIs or allowing them other rights will not change this perception. The only thing that will change it is a change in the operational standing of PIs within the running of a Program Grant.

The current status of PIs severely restricts their career development and ability to grow the program

It depends on whether the PIs are being funded from the Program or externally. PIs funded from a program (as for project grants) should be required to commit at least 80% time. I think it becomes problematic if program grant CIs are CIs on PI-initiated project grants, unless the grant is clearly in an area totally unrelated to the Program. There is too much scope for abuse of funding.

It depends on the role of the PI. If it is the person who actually does the research, the restrictions will prevent over-commitment of their time. Perhaps PIs should be able to be part time and then apply for project grants, eg 1 per each 10% of remaining research time.

There are a number of major issues affecting PI's in the current scheme. One relates to establishing a clear area of research for that PI and the restriction in applying for additional money from NHMRC hinders that. The second, and for me personally, is the issue of perceived independence. The fellowship scheme clearly states that you need to have established an independent research career. How is this to be achieved if you are working under a group of highly regarded CI's? In many cases the PI is conducting independent research. There is no recognition for this within the Program Grant and needs to be reflected in monetary terms (ie defined amount needs to go to PI within Program) and career development and progression terms. As a recent CDA - RDW recipient and past holder of an NHMRC New Investigator grant I declined an invitation to be a PI on a 2004 NHMRC Program Grant application for the reasons outlined above. The most pressing of these was the issue of independence.

I would prefer they could be CIs as mentioned earlier

PI's are usually young scientists with skills important to the Program. However, they must also be given the opportunity to develop their own careers and also be able to leave the Program. The CI's of the Program must justify how the Program can continue if the PI leaves.

We did not include any PIs on our application, as it seems like a death knell for someone good. If you wanted to develop your career this is not the way to do it. Therefore it is only suitable for the non-outstanding.

There are elements of the PI status that are a problem, however there is a sense, having observed the system in operation, that there is tendency for people to want to have it both ways i.e. the security of the 5 year Program funding with access to extra funds if and when they like. This might be fine if the NHMRC was blessed with an overabundance of money. In reality, the Project Grant Scheme is stretched to the point of almost being non-functional. With 20% success in funding, the band around which the decision is made is arguably a lottery. Increasing the pool of applicants will only serve to

make that worse. In addition, as alluded to above, there is a sense in which track records garnered through Program Grant funding are then used for leverage in the Project Grant Scheme. A real strength of the Program Grant Scheme is that investigators are sent away for 5 years to work hard on generating research, not to waste their time writing endless Project Grants. It may be paternalistic but people need to be protected against themselves. In addition, my observation would be that for young people, if this opportunity arises, the CI's on a Program will see it as a mechanism for alternatively funding that part of the program through the activities of that individual thereby further enhancing their purchasing power by cross-shifting on to the Project Grant Scheme. The time that they might invest in writing NHMRC Project Grants could be better spent on other funding agencies, particularly external and corporate funding.

I consider the category of PI is unnecessary. I consider CIs and Professional Personnel employed on a Grant the only necessary categories.

The program scheme has disadvantaged young researcher formally and informally associated with program teams, Any association with a team places a restriction on application for project grants, and the content of these grants...this forces young researchers to expand outside their area of expertise (which being young is probably smaller!), to totally unrelated research projects, without the ability to be chief investigator on these...a necessary requirement to demonstrate independence! Why not hobble both knees?

Young scientists must be offered the chance to strike out on their own. Otherwise the next generation of heads of groups may be more of a manager culture than a scientist culture- with too much emphasis on the politics of corporate life instead of creation of internationally competitive science. This would not be helpful to the long-term success of Australian science in my view, as things would tend to stagnate. Fellows returning from OS should be able to work within a program grant environment but should be encouraged to emerge from it and become independent.

There is no reason that PIs can't be part-time on a Program Grant and devote the remainder of their time to Project Grants. This would give CIs and PIs similar options.

Naming PIs Program Fellows would be confusing with the current fellowship system

As PIs also have access to the Program funding they are in fact similar to CIs. As mentioned above there could be two or more levels of CI for calculating RORA, reflecting people at different stages of their career. As PIs are an important part of the Program team their CVs should be used to calculate the RORA of the whole Program. Perhaps keep the term PI but use it to distinguish between the 2 levels of investigator involved with the Program. The RORA could be split 50% to CI and 10% to PI, providing a total of 60% RORA for the whole Program

Additional information regarding question 18. This is not a major problem at our Institute, but a clearer definition of what type of researchers should be classified at this level would be helpful. There will be many important people on the Program Grant who participate but do not receive a quanta of funds directly. This includes major senior collaborators, and perhaps these people also need a special category to distinguish them from developing scientists who still need to develop their own independence within the program structure.

Additional information regarding question 19 Yes, as long as the rules were in place to prevent double dipping from the CIs on the related program grant. The difficulty with relaxing this too far is that as the "Project grants" are determined predominantly on the project rather than the track record of the applicant, this could create a system for a CI on a Program grant to feed any other good ideas through to the Project grant scheme an in some way double dip.

Additional information regarding question 20. One project grant only if they are already getting say a salary from the Program.

Additional information regarding question 21. Yes, this could have a positive effect on the moral of younger and developing PIs. Distinguishing these people from senior collaborators may also be a positive step in clarifying peoples roles in the Programs.

## **Respondents: Unsuccessfully applied for a Program Grant**

The title of "Program Fellow" should be reserved to very early career researchers. For these, participation in a program needs to be seen as an opportunity to become productive, and to make a mark in science within a secured environment. These researchers should be allowed for an Early investigator project grant only during the second half of the program's tenure. This could be important in paving the way for the next logical steps in career development (Fellowship of academic post).

A lot of the perceived problems with the PI status come from an unreasonable expectation from the part of the Universities and Institutes that early career researchers should contribute to funding of research. This increased pressure is a relatively new phenomenon, which perhaps reflects the reduced government funding overall. However, this is likely to be counter productive in the long term. Very early career researchers should be protected from administrative chores, and be encouraged to dedicate 100% to experiments, data analysis and manuscripts. Producing exceptionally good science is the only currency for sustainable career development, and the message must be brought across that the first post-doctoral years are an opportunity to shine, without the weight of administrative chores. In this context, being part of a 5 year program needs to be seen as a fantastic opportunity.

In an entirely different category are many PIs in current program grants who are already nearly (or more than) 10 years post-doctoral, without ever showing the RORA to become Research Fellows or obtaining academic posts. They should be allowed to make the option of applying for project grants, but only if they are prepared to relinquish their program-based salaries, and if the program funding is reduced by an amount equivalent to that person's salary. Simply resigning from a program as a way to circumventing the rules should not be allowed.

The current system of constraining PIs from applying for other grants is far too limiting, and has resulted in eligible PIs from declining to participate in Program applications.

Program fellow should be for the duration of the program only.

PIs (I assume short for Poisoned Investigators) is one of the most retrograde steps made by NHMRC in recent times.

The history of NHMRC funding at that time was such that the career development awards were scheduled to be wound up and it was stated that career development would occur within program grants. Accordingly, at the time of the very first program applications, more junior investigators were included as part of the Applicant Team. However, it was only after the first round applications were submitted that the RORA scoring matrix was developed and the decision that more junior investigators would not be eligible for quantum was made. So after "RORA averaging" destroyed these applications, the concept of PIs was introduced.

This is still flawed. There is no credit or cudos in being a PI. It does not feature on the NHMRC notice of award so clearly these individuals can't be important to the grant. Similarly, they do not earn quanta, so how can they establish the necessary track record that they need to develop their career, gain fellowships etc. Rebadging the title won't solve this.

These individuals may be employed on program funds, but this is then no different to an SRO who is supported by a project grant. I would suggest that PIs are dropped and the only restriction is that PIs that are salaried from a Program would need to seek Project grants as a sole CI or with non-Program CIs. Program CIs should only be permitted as non-CIA on one such grant as currently applies.

## **Respondents: Successfully applied for a Program Grant**

PI's at the moment have no particular benefits from a program grant apart from their salary sometimes. They cannot even use the program grant on their CV as they are not holders of the grant.

PIs may or may not receive their salary from a Program Grant. Therefore a fully supported individual from a source outside the NHMRC may receive a title of an "NHMRC Program Fellow". This title

may be generally confusing suggesting that the person may be equivalent to an NHMRC Fellow.

The name PI is confusing and suggests a Principle investigator. The PI's should be called AIs

See above question 9 - since the PIs are usually young investigators, they should be given every opportunity to apply for their own funding in order to advance in the system.

To my mind, being a PI is a dead end position

There is no clear definition of who should be a PI, how senior etc

Unclear what is meant by Program Fellow.

New titles provide little but token effort. The PIs should be encouraged to develop their own areas and links with other scientists. Removing such restrictions will be the most positive measure. The gap in the Fellowship scheme (between training fellows and research fellows) means support for people at the PI level is more important than ever. If PIs are not given the chance to apply for Projects then a second tier of appointment should be funded and recognised officially within a Program. Even top quanta only supports 3 staff and consumables (not 5 as the formula seems to indicate) - so how is a CI and a PI supposed to resource their work with 2 staff positions left? If quanta does not increase substantially, PIs must be given more freedom to find national funding.

I would allow PI's unrestricted access to Project Grants.

If the RORAs were added together, rather than averaged, the problem of CI vs PI would disappear.

I think a PI on a program should have similar status and rights as if they were a postdoctoral researcher/senior PRP on a project grant. They are free to apply for their own funding, and if they get it, they are then a project grant CI.

PI is simply an "empty category"

The current concept of PIs has failed. No assessment and no money will always be linked with no independence and no credit for obtaining the grant, despite guidelines to the contrary. Options are:

- fund them as CIs (with RORA weighting based on \$\$)
- assess and fund positions such as Program Fellow on top of quanta for CIs
- give freedom to start up their own research while effectively assisted by funding to the CI as patron

I think it would be far simpler to remove PIs (very misleading title for a start) altogether, and replace them with AIs who have the total freedom to apply for grants like anyone else. They may get some support from the Program until they have achieved independence but so what? If the program CI chooses to spend some of their \$283,000 pa (average) on supporting one of their AIs while they apply for CDAs etc, then why is this any different from a CDA applicant being supported on project grant or any other source of funding?

Apart from some security associated with being part of a Program team that has funding for 5 years, there appears little incentive for ambitious researchers to be named as PIs. The capping of PI access to the NHMRC project scheme seems to have little merit.

Define PIs as early career researchers and rank them differently to CIs. Let them access Project grants without restriction as long as time commitments can be met. DO NOT create a separate career category, rather set up the conditions within Programs that will allow them to develop and compete in the existing schemes. We should avoid a two-track system that existed when there were "institute" Fellows. The perception was that different standards applied to the different tracks. Creating a Program Fellow would generate the same perception.

While the PI status is very punitive at the moment, allowing them to apply for New Investigator grant at any time would really give those PI who are starting their careers the opportunity that they need to establish themselves. Also, there would be no stigma associated with their naming as a PI since there is a real career progression open to them. Remember they still have to win the grant and they can only get it once.

It might be sometimes hard to find good PIs (future CIs) to participate in Program Grant under current guidelines, which can be seen as 'restrictive' of their (PIs) career progression for the length of the Grant (4-5 years). It would be great to give them the opportunity to apply for their own grant and thus also recognise their status.

Scrap the need for listing PI's in a Program grant. None of the PI's I have spoken to view it of any advantage. The argument that one has to show who does the work is not tenable as you don't have to stipulate this in Project grants and also the track record of the CIs should indicate they can get the work done.

As a named PI on a successful program grant, and a CIA on a submitted project grant (with a number of CI's also named on the PG) I have personally been disadvantaged by this policy. Particularly in relation to building a track record as a young investigator. It places us at a very difficult cross roads. Pull out of (often your boss or mentors) PG and risk having no support for your work, or roll with the punches and lose a NHMRC project grant and the benefits that come with it. Given PI's low position in the scale of things of PG's, we are faced with a no win scenario. We are unlikely to attract the resources we require within a program grant, and similarly hamstrung in terms of project grants. In hindsight, I would seriously consider not being named on the PG in the first instance and going for a list of CI's not named on a Program grant, at the risk of losing their valuable input.

The idea that PIs on a Program Grant should be stringently evaluated and then awarded the title of Program Fellow if they reach the appropriate standard is a good one. Currently they are not receiving appropriate recognition. I think they should have access to a new Investigator Grant or a Project Grant but this should be the limit, because larger numbers of additional grants may distract from the aims of the Program and may also start to cause organisational problems within the Program.

The PI position should be seen as a career development position. This would be enhanced by the "program fellow" suggestion.

I think the status of PIs is the worst feature of the current scheme. They should be re-named AIs and have no restrictions placed on them in terms of grants they can apply for. PIs are frequently early career researchers who need to be given every opportunity to build their independent track record.

Changes should encourage the younger investigators to grow in stature

A change of title alone would not do much. The fact is that the PIs currently listed on a Program have a range of ability and seniority. Somehow the more talented ones would need to be identified, by the applicants or by the panel.

Programs should foster excellent young researchers who can then use them as a springboard to independence. Currently, they do the opposite, trapping PIs in a funding black hole. However, Discipline Panels will need to be made aware of this. If PI track records are taken into account on Programs, then this makes leaving the program more difficult, as Discipline Panels will then tend to regard project applications as "double dipping".

There is lack of equity in the first round of Program grants where PI status was n/a. why has this not been remedied?

As I have suggested above, the whole concept of PIs should be dropped. These positions are then effectively converted either to a bona fide CI or simply a post-doc. The Project grant restrictions on the former should be as I have indicated above for all Program grant CIs (i.e. up to 3 Projects), and the post-docs could be allowed up to 2 Projects. The latter will stand or fall on their own track record and they could be eligible for the New Investigator track if they have not previously been a named CI on a successful application.

Definitely do not introduce the term "Program Fellow"!

The issue here is to provide PIs an opportunity to develop an independent NHMRC profile without opening the system up to double dipping. EVERY postdoctoral fellow in a CIs lab should be listed as

a PI! The quanta is to support the CIs lab. Postdocs in the lab get a wonderful opportunity to position themselves to be successful in the NHMRC system because of the stable resources and collaborative environment created by a Program. The opportunity to apply for 1 project grant without restriction probably also creates the ability to provide outside bodies with evidence of independence.

Do not name PIs. Require any applicant for a Project grant to name their immediate superior, and whether that person is a CI on a program grant. This will prevent double - dipping, and not tie the hands of senior postdocs moving forward with their careers.

#### EVALUATION

CIs have a simple definition-established lab with long publication record and a history of gaining grants. PIs have not been defined in any sense but can be presumed to be younger researchers who act as team leaders and translate the ideas of the CIs into reality. To date it appears that many PIs are already NHMRC fellows who have been rolled into a Program. However, it is also important to note that the NHMRC Project Grant system also produces very prolific and experienced scientists, the Senior Research Officers. These people often belong to disciplines that have not been traditionally recognised by NHMRC fellowship schemes. For example, the field of Microbiology has only received four NHMRC fellowships over 20yrs, three of these since 2000 when the fellowship program was expanded. Traditionally in this field, the more experienced SROs write grants but are often relegated to CIB as reality shows that grants with SROs as CIAs routinely fail whereas those with CIs (as defined for programs) are often awarded (this has been imperially tested). In recognition of their experience, SROs in the Bacterial Pathogenesis Program were awarded PI status.

My point is this- if PIs are to be defined, the definition should be simple enough to include all younger scientists in both the Fellowship and Project schemes. The easiest basis for definition of a PI is one who has contributed to a Project Grant as a CIB at the very minimum. I certainly do not support any attempts to make this position into a defacto NHMRC fellowship as this once again, this penalises those SROs in the non-traditional research areas.

#### ACCESS TO PROJECT GRANTS

PIs should be given access to Project grants as this is a primary tenant for career progression either as a Fellow or as an SRO looking for an academic position.

#### RESTRICTIONS

The current relaxation on CIs to collaborate with CIAs from another institution on one Project grant on a similar scientific topic to that covered by the Program grant is very useful. I think the same opportunity should be given to PIs- they can be CIAs on ONE grant with collaborators outside the program- not within the program. This would prevent "double dipping" by CIs on Program grants.

However, many things are not clearly delineated in your current document.

1. Who owns the budget from the PIs project grant? Is it to be rolled into the Program, thereby losing the perception of independence?
2. If the budgets are to be kept separate, must the PI move out of the Program (thereby shortening his/her salary by 2 years)? Therefore, if the PIs grant is rolled into the Program will it be extended for 5 years?
3. There are many people in science who may not meet the definition of CI, but many more who could be PIs. To benefit from the increased access into the Project grant scheme you may find Programs with inflated numbers of PIs. Therefore there should be a limit to the number of PIs on a grant (a rule of thumb would be one representative from each laboratory contributing to the Program).

The status of PI's has to be valued more highly by fellowships committee and this has to be made clear to applicants. Although a PI should hold only one project grant, maybe he/she should be allowed to apply for at least one more on the understanding that if successful he/she would have to leave the program. And there would have to be an undertaking that he/she is clearly pursuing independent research, not simply extending the reach of the program grant by capturing more project grants for the group.

The PI position should be seen as a career development position. This would be enhanced by the

"program fellow" suggestion.

Strongly disagree with the notion of "program fellows".

There should be some assessment of worth of the PIs + this should be worded to reframe

### **Respondents: Successfully applied for a Program Grant and unsuccessfully applied for a Program Grant**

Here we want to support careers of early career researchers, and the rules are currently a bit restrictive. On the other hand you want to maintain productivity and focus of those individuals for the program, so up to one other project is a reasonable compromise.

The rule should be that if a person is funded from a program grant (regardless of title) then they're eligible to apply for up to 2 project grants, one including their salary as an exit strategy from the program. If they are offered and accept the grants, then they leave the program. This policy is biased strongly in favour of the program funded person - after all, the aim is to enhance career opportunities and encourage bright investigators.

PIs are typically SROs & RDWs. They need to have the ability to also apply for project support, otherwise what is the point of having the PI stream?

Many senior Postdocs. may not make it into the NHMRC Fellowship scheme and yet require some acknowledgment of their higher status. Becoming a Program Fellow would provide that status and five year security. It would also relieve some pressure on the Research Fellowship scheme which is currently seen as the only viable career option for many postdocs who want to continue in research. If we do not create something like Program Fellows we are in danger of losing a whole cohort of senior Postdocs. who are dispirited by their chances of entering the highly competitive research Fellowship scheme.

The term Program Fellow and the position would be an unwise addition to the NHMRC lexicon. It would degrade the merit of the current NHMRC Fellowship scheme. It would not subject the PI to the rigorous review that is part of the Fellowship scheme. It is an unfortunate aspect of the Program scheme that the number of folk at Senior Research Fellow and Senior Lecturer who are major players on Programs is relatively small.

- a) it is implied that all PIs would be able to apply for new investigator grants - this is not so - there is an enormous ground between being eligible for this and being considered sufficiently illustrious to be a CI - what about people in the middle? Why suggest PI can have only 2 grants? What about 3? What about no restriction?
- b) I was assured that I would be able to drop off the Program grant if we were successful and I later decided that this was the best route for me - but I was misinformed - now I am shackled for 5 years with a ball and chain.
- c) CIs who get the \$ are allowed to drop off - so if they think they can get more \$ elsewhere they can go that route. PI are given nothing and are prevented from getting anything - are you deliberately trying to kill research in this country? Surely the CI who generate the \$ are the ones who should be prevented from leaving a Program Grant and the PI should be allowed to leave if they want to and get their own money and progress with their own work if they want to. Sounds like the rules are set up to reduce competition against the Old Boys Club.
- d) What if some great new job comes up in the next few years at some other university? Depending on where it is, I wouldn't necessarily be able to continue high involvement in the Program Grant. But this rule effectively prevents me from applying for others, and thereby effectively prevents me from leaving my current employer. CI have no such job restrictions.
- e) Quite convenient for the Old Boys to have the mid-senior level workers and supervisors of junior staff chained to their grant and prevented from leaving. Is a fancy title sufficient compensation for this limitation on employment opportunities?
- f) Program Fellow - could you be called this if your salary didn't come from the Program Grant but you were a PI? Is it a foregone conclusion that PI will be paid from the Program Grant?
- g) I applied for an ARC grant as well - I got a rave review about the quality and extent of my track

record - the opposite of the NHMRC reviewers last year when we were unsuccessful - makes me wonder.

As they receive no direct funding, I see that naming of younger investigators as PIs on Program grants is merely a token gesture and potentially career-damaging. The long-term issues of independence are being curbed through this process and likely to lead to premature ending of quality researchers

I don't think that successful PI's should be locked out of project grant funding, as they are the next wave of potential Research Fellows.

As the PIs on a Program grant are apparently not considered in the award of the grant, it is difficult to see why they should be restricted at all in their NHMRC applications. Currently, there is very little incentive to be a PI. A researcher could be paid from a Program and participate in the work without having any other restrictions. The title of Program Fellow would only improve perceptions if it meant something. Would PIs be denied a place on a Program if they didn't reach a set level (RORA)? This seems quite unlikely and would not be helpful to research.

The system as it is at present presents considerable restrictions on the career development of PIs and this needs to be addressed.

## Summary of Raw Comments

### Averaging of Chief Investigator's Record of Research Achievement

Two open-ended questions were asked relating to the averaging of chief investigator's record of research achievement.

#### **Question 8bi: On what criteria should this be based?**

##### **Respondents: Have not successfully or unsuccessfully applied for a Program Grant**

Their CVs

Track records that are clearly not competitive should be identified as not used in the RORA score. Often it is very hard for some investigators to be realistic as to the strength of the track records and it would be useful to other team members to have this pointed out by an external party.

By their lack of value to the team

Only one with lowest RORA score and must have been nominated by applicants

If they felt that their track record was going to lower the average RORA so as to make the application uncompetitive

Make sure that the total workload for the averaged CIs is 75% or more of the project and that the average produces the most favourable outcome for the applicants.

##### **Respondents: Unsuccessfully applied for a Program Grant**

Not able to meeting criteria for quanta, CIs should be uncounted. This overcomes problems of averaging and doesn't provide funds to uncounted individuals.

Drop the lowest score

##### **Respondents: Successfully applied for a Program Grant**

Age, experience, available time for program grant research.

Exclude those who fall below the cut-off for a quantum.

Investigators should be able to nominate whether they would be prepared for the grant to be considered minus the one or two lowest ranked CIs

Based on reviewers comments

Lowest score

Lowest score or lowest % involvement

I would suggest that track record should be considered as a reason for the non-inclusion in the RORA score. The track record should primarily be focussed on the research publications and other achievements such as clinical trials, international grants (e.g. NIH).

On their interpretation of standard track record assessment criteria.

Several CIs may bring skills to the application and enhance it. If the CI is funded by a mechanism outside the Program Grant, why should they be ineligible from holding CI status on the grant. If the CI does not qualify for quanta, why should an application be disadvantaged in funding. This principle is not applied to Project Grants, so why are Programs potentially disadvantaged by this rule.

When the criteria for meeting necessary threshold for CI quantum award have not been fully disclosed by the NHMRC (eg. as system currently stands) and team have not already filled allocated number of 'uncounted' CIs allowed.

**Respondents: Successfully applied for a Program Grant and unsuccessfully applied for a Program Grant**

Future Research potential. Commitment. What they add to the multidisciplinary of the grant

All applicants should be scored and the one or two lowest not counted for the purposes of averaging.

## **Question 9: Do you have any further suggestions about this issue?**

### **Respondents: Have not successfully or unsuccessfully applied for a Program Grant**

If this scheme is to fund researchers with well-established track records of high impact, RORA averaging is a must. If this scheme is to DEVELOP teams, then this strategy will be disadvantageous. Perhaps a separate category of limited funds for team DEVELOPMENT should be considered.

The whole use of the RORA is fraught with problems - it is pseudoquantification that promotes only one model of successful multi-investigator research.

Should be greater appreciation of "value adding" eg value of a clinician scientist or a clinician as part of a team who may be critical to program success but have fewer objective measures of RORA eg publications, grants so falsely lower RORA assigned. Also need greater appreciation of limitations of impact factor and citations as a measure of value.

The RORA should be adjusted to account for the expertise and experience that service providers may bring to a research team. This is especially important in health services research and public health research, and is different to 'discounting' the RORA for a relatively junior researcher.

The system is broken with regards to young CIs. RORA should be evaluated relative to opportunity so that younger CIs will be weighted up. Younger scientists just don't have the same opportunities to have won a big international prize or given invited plenaries or had many commercial opportunities.

The criteria for determining RORA score must be explicit so that the investigators can calculate their score and decide if a CI should be 'uncounted'. This would enable more junior researchers to develop track record and reduce the likelihood that a researcher's contribution to the program is not recognised.

CIs should be evaluated individually and funded nominally according to this evaluation as part of the program

The suggestion of less senior CIs has merit. The Program Grant system can adversely impact on the careers on very good people who are not elite performers, since they are unlikely to be listed as CIs on such grants because of the RORA scoring system. As a result, they often appear to have little or no funding in their own name and this can have adverse effects on their being competitive for research fellowships and career development awards.

It is not entirely clear to me - would these "uncounted" CIs been allocated quantal funding and if yes, based on what criteria?

Yes. Rather than having "uncounted CIs", why not rate each CI relative to where they should be for their career level, eg an SPRF would be expected to have more publications in higher impact journals and more Nobel prize etc honours than an SRF or CDA

I think the RORA is overvalued and should be a smaller component of the evaluation. It should include evaluation relative to opportunity so that younger researchers can gain the kudos of being a CI on a Program.

Certain areas of research might be disadvantaged from averaging CIs RORA. Certain CIs may clearly have an international reputation in a field but not regularly publish in Cell, Nature etc.

Uncounted CIs - I don't know how the committee would deal with these. How would they contribute to the assessment of the track records of the team?

In general, averaging should be used, except in exceptional cases, such as indigenous health. Perhaps some kind of weighting could be used, eg in proportion to the quantum awarded for each CI

The uncounted CIs should have more flexibility to apply for funding outside the program scheme, since by definition they will be earlier career, and should not be stifled by incorporation in the program scheme.

A weighting system could be a good compromise - with reducing weights from CIA - CID etc. This would allow meaningful working groups to be funded, not force marriages of convenience and allow CIs to get appropriate recognition (i.e. better than the PI system which I think is a flawed solution).

There should be a section of the application where any contributions from collaborators ineligible or unavailable to serve as CIs can be described. Similarly, strengths and weaknesses of the RORA scores of individual CIs in the light of their contributions should be discussed in the application and taken into account by the selection committee in addition to a simple score. It seems to me an "uncounted CI" is very similar in some ways to a "PI"; I do not support either category.

The notion of excluding the RORA of certain CI's is interesting and creative. Clearly one can give in principle support but "the devil may be in the detail" and one would really need to see the specifics before giving carte blanche support. I can see several situations where it might be appropriate. Firstly, it might be a mechanism by which younger investigators with clear research potential might be given the status of a CI without compromising the viability of the application. This could address some of the concerns around the roles of PI's. Secondly, there are certain situations in which special expertise may be needed but that person doesn't stack up on the very crude scoring used to establish the RORA. A specific example of this, which I believe I can legitimately use since the application was successful in the current round, is the Sinclair/Harley/Koopman Program. They had originally intended to include Gary Warne and John Hutson as CI's. Gary is the pre-eminent clinical endocrinologist in the area of sex determination with many clinical but not primary research publications in the area and John is the leading surgical expert in this area with a sound research track record. The applicants were advised not to include them because it would pull down the average RORA; this is really in many ways clinically and scientifically indefensible. There are other excellent examples. I would not leave the decision up to the applicants. I would suggest that the applicants nominate named CI's who they believe should not be included in the RORA but that the Committee make the ultimate decision. To remove the element of "risk" the applicants could be asked to nominate that if the Committee rejects the nomination, then the applicant should stay as a CI or should become a PI. Obviously, there should be some clear limitation on the number or it becomes open to ambit claims. I would suggest that it be limited to 1/3rd or a 1/4 perhaps of CI's.

As CI you can not hold other related grants and yet as someone without a quota you merely dilute out funding of the counted CIs. What advantage is it for some one to be on the program and be restricted in their grant funding? There is NO reason to include junior/lower quota members as CIs in a program.

Defining more clearly the criteria for PIs on the Program Grant would be helpful.

Perhaps to reflect CI's and PI's at different stages of their career, the RORA could be assessed at 2 or more different levels. If Program grants are to truly fund large multidisciplinary teams and foster career development this may be a mechanism whereby less senior members of the team are recognised and assessed for the program. It would also encourage early-career researchers to become involved with Programs. Perhaps it may be possible to split the 60% assessment of RORA between 'senior' (50%) and 'junior' (10%) CIs? This way the PI category would only refer to collaborators who are not directly involved in the Program - overseas PI/CI could be included in this category if not funded directly by the Program.

There is no purpose in having uncounted CI Except for overseas Collaborators. Averaging the no of CI leads to stacking of the PIs with senior people who often contribute little. It would be better to increase the \$/RORA score so that PGs receive equivalent support with fewer CIs. The basis of funding Program Grants largely (60%) on CI's RORA is a disaster for Australian research. It means that it is impossible for young researchers who may have an essential part in the program to be listed as CIs.

It has encouraged many marriages of convenience of researchers with the required CVs who have submitted grants together without any real aim of collaborating to any great extent.

The award of grants should depend on peer review of the science. This after all is the process used by NIH, which has an extremely effective review process. I realise that it is Government policy to progressively shift greater funding towards program grants rather than project grants. However, the

ever increasing emphasis upon the extraordinary achievements of an ever smaller number of extremely successful scientists has the inevitable effect of making the whole culture of science more hierarchical. The problem with this is that people get older and the entry point is too high. Thus, increasingly senior group head research 'managers' will come to dominate science, discouraging young scientists who will see no path to independent research. I know you will ignore such comments as this but I think it is our responsibility to let you know that the Program Grant scheme, while it sounds good and goal-directed will inevitably stunt the future of Australian science because it offers no long term hope to the great majority of independently- minded scientists. Many talented people will instead choose to go into other career paths. Just thought I'd mention that.

### **Respondents: Unsuccessfully applied for a Program Grant**

The only criterion has to be an excellent level of achievement RELATIVE TO OPPORTUNITY. A person with few post-doctoral years may be as crucial for the success of the program as the more well established investigators, and in this case CI status is deserved. Scores should reflect the person's record of achievement RELATIVE TO OPPORTUNITY (i.e. in comparison with other people with a similar level of experience or with a similar level of clinical/ administrative commitments). If this is done, the averaging becomes perfectly fair and reasonable.

The box-ticking scheme for CIs on program grants encourages marriages of scientific convenience. It prevents young investigators from having any ownership role in program grants. The review process should be entirely transparent and based 85% on scientific peer review. Not the "old-boy" brigade.

The heavy weight given to RORA in the scoring system discriminates strongly against basic science. This is an intellectually indefensible position given the number of studies that show that basic science research returns more value to the community (which can be measured in both dollar and health terms) than applied research. Even if this is the result of political pressure, the Council should make it plain that taxpayers dollars should be spent not only on commercially applicable research, but on basic research that is statistically more likely to benefit their health.

The RORA matrix provides a method of comparing different performance measures and for determining quantum of funding.

Averaging is a very crude method and does not achieve the goals of the Program scheme. How can two excellent investigators for example bring a third investigator on board who has unique or complementary skills although overall a lesser record and then see their own record discounted? Clearly averaging was used to stop simple addition, as in this case the bigger the team the more successful.

Surely the Program Panels can be given better directions and be more discerning in calculation of 'additional' contributions, even if it does not provide quantum as suggested via the use of 'uncounted' CIs. At the moment these teams are not successful due to their discounted scores arising from averaging.

Using the concept of uncounted CIs would overcome this issue. I would let this decision be made by the committee but ONLY if the information of uncounted CI is passed back to applicants.

Junior, but highly talented, staff should be able to be included in Program Grant teams, without compromising the average RORA. Maybe one approach is to require senior CIs to all reach the appropriate RORA level, and then their RORA are averaged, as is currently the case. The RORA of junior CIs should not be included in the average, but another formula developed for their RORA. This would allow determination of a "junior quantum": to have no funding for junior CIs would be counterproductive.

### **Respondents: Successfully applied for a Program Grant**

I don't think the RORAs are quite right, there's an element of spin that can be brought into this and publication track record in the relevant field is the key here

The criteria are so prescriptive that any applicant should be able to define if they make quanta levels before applying. There should be no reason to apply as a CI if you do not make the level required. If you do, then your score should count as part of the RORA. Why should the NH&MRC leave the applicants in any doubt as to whether they qualify as CI? This is why some Program applications have been poorly constructed. If the applicants are given good accurate information at the time that they prepare their application, nobody should waste their time.

I do not believe that the RORA's should be averaged. This action does disadvantage younger investigators for access to Program support. If only some CIs qualify for quanta, provide this for the grant, but do not jeopardise funding for a grant based upon the decisions made by CIs for who would or would not be eligible for quanta.

Why should the RORAs be averaged? The RORAs should be added together and the funding should be proportional to the total.

The biggest problem is where a CI fails to qualify for a quantum but is still included in the CI average.

This would work better if the RORA for an individual CI is translated to a simple final "peer rank" score that reflects performance (relative to opportunity) against peers of similar discipline and career stage. e.g. 7 – top 10%; 6-top 20%; 5-top 30%; 4-top 40%; 3-top 50%; 2 - top 60%; 1-bottom 40%. The "peer rank" scores would be used to derive the team average. A benchmarking database could be built up from past and future raw RORA data.

What's in it for the "uncounted CIs"? I cannot see an individual agreeing to be an uncounted CI knowing that s/he cannot contribute to budget. S/he would be in a very weak position wrt to Program scientific and budget management, yet would still have restrictions on project grant applications. Independent nomination of an individual as an uncounted CI by the Program Committee would be very damaging.

Averaging the RORA is acceptable PROVIDED the RORA is a valid measure of research achievement. Currently, RORA appears biased towards older researchers by emphasising cumulative achievements, which can be summed over time. Also, the weighting of various components of RORA should be reviewed.

The need to be included as a CI is very strong for a young investigator and yet they are often unable to meet the criteria for RORA, but essential for projects design/direction - how can they be recognised, other than as a PI? Being a PI still implies they are hired hands working under supervision of a CI

Some sort of weighting mechanism would be appropriate for RORA scores so younger researchers with excellent/outstanding track record (in regard to their career stage) could be nominated as CIs without compromising the overall team score. Perhaps something along the lines of New Investigator Project Grants. A cap on the number of 'young' or 'early career' CIs can be put in place (2-3?).

Allowing applicants to "exclude" CIs give them the flexibility to include junior or less competitive members who they consider valuable. It would permit "career" fostering without the current negative aspect of the PI system and would cost the NHMRC nothing extra.

I think that clinical researchers are disadvantaged by the current RORA determinations. Firstly, the publications standards they are judged by (e.g. papers in Nature or Science) are too high for clinical research. Secondly, while their contributions to research are often critical, they often divide their time equally into clinical practice and research. They should be permitted to make a lesser contribution to the overall RORA. In fact, the RORA rating of an individual should take into account the time devoted to research and specifically to the Program. This would encourage serious but part-time researchers to be included at CIs on the Program.

If uncounted CI are allowed, a fixed budget for these positions needs to be provided separate from the CI budget.

Program grant committee should clearly identify which CI were funded based on the RORA score. Those CI which failed to receive any funding should be given option to move out of the program grant and apply for individual grants. This will reduce the impact of loss of funding on more

productive CIs.

The criteria for awarding quanta are extremely hard and this may be rightfully so but the level of funding linked to the RORA is not consistent. It is unclear why any researcher would agree to be a named CI on a Program grant if he/she would then not count for quanta. He/She would then only be able to apply for one NHMRC project grant over the next 5 years thereby capping their progress. This is assuming that the rules and regulations regarding NHMRC program grants don't change at some point during the 5 year period which unfortunately appears to be a common occurrence at present.

This issue could also be addressed by scoring the RORA 'relative to opportunity' which would help young researchers. However, I think it best for successful programmes to be composed of reasonably senior leaders, with strong records of achievements, and for others to be listed as AIs only (with no budget but to emphasise the strengths of the full team) and to be free to get their own project grants

Link RORA to funding level, ie weight RORA by the quantum to calculate overall RORA. Thus junior CIs would not necessarily lower the average. Also if a CI gets no quantum the RORA is not affected, though the total Program funding is reduced.

Not including the junior CI in the score would be a method to allow these people to get to the CI level

I do not believe that the RORA's should be averaged. This action does disadvantage younger investigators for access to Program support. If only some CIs qualify for quanta, provide this for the grant, but do not jeopardise funding for a grant based upon the decisions made by CIs for who would or would not be eligible for quanta.

There may be many valid reasons why a person is critical to a program but would not score well on a RORA assessment, eg Indigenous liaison officer, biostatistician, etc. The current PI system is not adequate to recognise this.

The quality of investigators who are an important part of the team but who do not have the calibre of track record to be put forward as CIs can be taken into account in a separate scoring section which evaluates both the quality of non-CI members of the team and collaborative effort. This could cover PIs and overseas CIs. This is important as it is clear that a team could have 2-3 senior postdocs, for example, that make an important contribution to the achievements of the team but do not have the CVs to stand alone as CIs.

'Uncounted CI's' must obviously contribute in a huge amount to the success of the proposed and past research of the team. For example, if an 'uncounted CI', who may well be part of another Program Grant, has co-published great papers with one or several of the genuine CI's on an application, then listing them to provide evidence for the strength of an application is a great idea.

The current system strongly biases against the development of the next generation of program grant leaders. Currently there is a penalty for listing up and coming, young researchers as CIs. Clearly however, these people would not want to be PIs. This policy does not engender team building or career development.

The current very prescribed levels for RORA calculation remove any influence of the expertise and experience of the reviewers and committee. They could just as easily be assigned by a computer. This is not a sensible use of the depth of knowledge of the distinguished scientists who give up their time to try to make the review and interview process fair.

The RORA counting system should be varied to cater different but limited number of categories of research collaboration at CI level eg social research, economists, may have different yardsticks of research achievement

I recommend that all CIs be assessed individually and allocated a quantum as done previously. However, three additional considerations should be implemented. Firstly, all CIs should be made aware of their individual quantum post-award. Secondly, two lower quantum levels should be introduced, e.g. 100K and 175K -these would be appropriate for more junior members of teams or those with low RORAs. Thirdly, should a CI's track record be considered not sufficient to score the bottom level of quantum this should be stated explicitly and the CI's name removed from the Program

team so they are not disadvantaged (as is the case currently) by not receiving any NHMRC Program dollars but being restricted to only a single Project grant application on which they are not even allowed to be CIA (a ludicrous situation that currently exists!).

As a related issue, and assuming the suggestions above were adopted, the notion of PIs on a Program should be dropped. Apart from the totally confusing terminology (PIs are considered by many to be the CIA, and this is definitely the usage of the term for NIH grants) these individuals should either be promoted to junior level CIs (with small quanta) or considered to be still at the post-doc/senior-post-doc level and simply be funded through the Program as such.

The current RORA criteria have an absolute cut-off with respect to an award of research quantum that seriously disadvantages non-professorial level members of teams. Senior figures in the program who are unable to obtain a RORA sufficient for the lowest level quantum can be entirely reliant on the good-will and caprices of the those who do get RORAs for their support within the program. Inevitably, the members of the Program that are awarded quanta will see these as an award to themselves personally, rather than to the program team. This may also lead to strategies where groups of professors band together to obtain the most quanta they can while relegating their senior staff, who are unable to get over the 'magic' line with regard to RORAs, to the NHMRC wilderness. The RORA system, if it is to continue, needs to be linked to a broader and more flexible quantum system (ie. modify the range of quanta to include awards down to \$100K) that recognises and rewards the contributions of all performing members of the team, not just the professors

The issue has arisen because applicants have nominated as CIs investigators that are too junior or do not have a strong enough track record to rank highly when RORA is assessed. This has two effects; one to reduce the score awarded to the grant and two to reduce the total amount of funds allocated to the grant if successful.

The first issue is no different in principle to the situation that arises in project grants with multiple CIs. Poorly performed CIs in that system also "drag-down" grants. The reason that it has not become an obvious issue in projects is that there are not specific instructions on how to score the track record of multi-investigator grants and track record represents a smaller portion of the overall assessment in Projects vs Programs.

The solution to the problem is not to alter the scoring system but to make the criteria for scoring more transparent to applicants prior to them submitting an application.

I do not think it is the NHMRC's job to baby sit

Investigators (usually junior) who aren't confident they will score a quota should elect not to be CIs. If they are not named as PIs, and PIs don't require to be named, then they will benefit from the program, and their ability to apply for other funding including project grants etc will not be compromised.

I would only support uncounted CIs if these were overseas investigators (see below). I think that there is a real problem. In my current, recently successful program, four excellent young CIs were deemed not to get a quantum. Three of these are senior NHMRC fellows and one an RD Wright. It is my opinion that the RORA needs to be assessed against opportunity. Alternatively, there needs to be a quantum that can reflect this "junior" but nevertheless valuable input into the program.

I am not convinced that having uncounted CIs is fair to the applicants where all are counted. For example, presumably everyone will start to ask their "weakest" CI not to be counted. The relative assessment of different applications would be distorted.

Despite availability of RORA grid, the research community does not have sufficient information for potential CIs to calculate whether a given CI would reach the threshold for allocation of a quantum. To be fair and equitable, there must be greater transparency in this scoring process. Furthermore since as the system currently stands, the threshold for allocation of the lowest quantum is too high. Mid-career researchers judged as having 'excellent' or 'outstanding' track records sufficient, for example, for award of a SRFII in the fellowship scheme, do not usually meet the minimum criteria for allocation of a quantum in the program scoring system. The research community does not understand this and program applicants persist in nominating CIs with insufficient track record for allocation of

quanta. The current thresholds do not encourage early- and mid-career researchers to participate in program applications because they are viewed as not worthy of attracting research funds. This is unfair and does not reflect the fact that it is often these people who are at the most productive stage of their careers, and that their contribution might be essential to the team. This seems at odds with the NHMRC's stated objectives of building research capacity in Australia.

### **Respondents: Successfully applied for a Program Grant and unsuccessfully applied for a Program Grant**

The matter will be made moot if individual investigator program grants are introduced I suspect.

Better for applicants to nominate to make distribution of funds more transparent if the grant is successful

The issue of RORA scores needs to be more carefully defined relative to opportunity. At least in the 2004 round, the performance needed to reach a particular RORA allocation seemed to be almost unachievable compared with allocations awarded to PG CIs in the past few years.

Probably averaging the RORA is better than alternatives. A major problem with the current system is the difficulty of dealing with more junior investigators, e.g. Wright fellows. This is not solved by allowing 'uncounted' CIs as groups will swamp with CI list with very senior silent partners.

There are concerns that the current scheme disadvantages younger investigators either being included as a CI (potentially limiting the possible success of getting the program) or being excluded, and if so, their research program by default gets subsumed into the program without recognition. I.e. the Dammed if you do/ dammed if you don't scenario. Given the extreme competitiveness of the fellowships scheme, more junior investigators risk losing identifiable independence and also as such will struggle to demonstrate their important contribution.

Normalise individual CI RORA for seniority before averaging, eg. years post PhD, so older (usually more senior) and younger investigators can contribute equally to the score.

For more junior CIs it is very important for career development and advancement to be able to list that they hold a Program Grant, even though they might not score a research quantum. However, teams of investigators should not be punished by averaging RORAs because they wish to include the expertise and encourage the career development of more junior investigators.

If CIs are uncounted in the RORA then presumably they don't get a quantum but probably would still have the restrictions about other NHMRC funding. It is difficult to see what the incentive would be

## Summary of Raw Comments Overseas Chief Investigator's

Two open-ended questions were asked relating to the role of overseas investigators.

**Question 11a: What criteria should be applied to ensure an overseas CI without a quantum is a real contributor to the Program and not merely being used to bolster the team RORA average?**

**Respondents: Have not successfully or unsuccessfully applied for a Program Grant**

As suggested, the overseas CI should be interviewed.

The CI must have a proven collaboration with the program members,

A history of collaboration

Evidence of successful high impact collaboration

Must be evidence of successful collaborations already eg papers

Written submission/interview

None, correspondence and intellectual input is hard to audit

Past collaborations

Clear need in the program proposed and evidence of serious commitment.

Assessment of their contribution should show that it is essential for

The person has a long and established collaboration with the CI

Demonstrated collaboration and ongoing joint work

Evidence of established collaboration through publication.

Review the science, not the CI's CVs.

An overseas CI could be included (and 'counted' in RORA) in the program

Include as an uncounted CI

Planned time devoted to program

**Respondents: Unsuccessfully applied for a Program Grant**

This could easily be ascertained by having the overseas CI present at interview

**Respondents: Successfully applied for a Program Grant**

Must contribute \$ value as in ARC projects.

The overseas investigator should clearly show a long-term history of collaboration

Demonstrated a strong track record of collaboration with one or more of

Evidence of time commitment to the Program should be provided.

Co-publication record

The overseas CI would need to make a substantial real and physical contribution

Evidence of collaborative work with the PG team

Established track record of collaboration with one or more of the CIs

Overseas CI must have shown strong collaboration with the local group

This decision should be made by the expert members of the committee

Must demonstrate previous relationship

**Respondents: Successfully applied for a Program Grant and unsuccessfully applied for a Program Grant**

Same criteria as currently used to decide if the team members really are

There must be a clear & tangible sign of genuine collaboration and the

Track record of existing collaboration

### **Question 13: Do you have any other comments relating to this issue?**

#### **Respondents: Have not successfully or unsuccessfully applied for a Program Grant**

There are situations where an International CI can provide valuable expertise and should be included as an "uncounted" CI.

Essential that a clear history and commitment to collaboration exists.

Why not more than 2 uncounted overseas CIs which would improve my competitiveness in the application?

It allows people with productive international collaborations to build on them

Leave out OS CIs

Allowing foreign CIs will in most instances probably be used to simply inflate the chances of a team's success.

It may be appropriate to be able to assess the track record of the collaborators with respect to the capacity for a research team to achieve goals, particularly when they may be developing new expertise.

I am not familiar with the fine details of the program grant scheme, but surely overseas investigators can be listed other than as CIs and their contributions can be assessed in that role.

The RORA should be revised/abandoned and an alternative system that allows for contributions of international investigators, as international investigators be developed.

Uncounted overseas CI's would be an alternative to counting them, I suppose.

Uncounted overseas CIs seem to be listed by some Teams to boost team prestige with difficulty in real contribution. International researchers can be collaborators without need to be named CIs

International collaboration should be encouraged if the research will benefit from it. But NHMRC should not be tied to paying exorbitant on-costs required for research in overseas institutions.

I think the collaboration with an excellent overseas team should be part of the evaluation of the team

Measures must be implemented to ensure that overseas CI are not included in grants to increase RORA scores, whilst not contributing to the research. However, overseas collaborations should be encouraged by recognising these collaborations as it adds international credibility to Australia research and boosts quality of research.

As stated above, I suggest such collaborators are discussed in a specific section of the application.

This highlights a weakness in the current system. Overseas CI's should not be allowed or counted. It leaves too much room for manipulation and game playing. It does however highlight a weakness of the whole process. A Program with strong appropriate overseas collaborations where unique expertise is brought in to the proposal, or things are being done that could not otherwise have been done, should clearly achieve recognition and credit for that. The extraordinarily blunt scoring system currently used does not permit this. In contrast, the Project Grant Scheme actually allows greater flexibility and recognition of this. In addition, the whole PI, AI thing is somewhat of a mess. There should be provision for documented signed off on clearly articulated Associate Investigators be they overseas or local who do not derive their salary off the Grant (this does not preclude them obtaining resources and/or technical support). Their commitment and involvement should be a component of the weighting of the application. The whole process has become so minimalist that some key qualitative issues have been lost.

If they can't get any money from the grant, why would they want to be a CI?

The problem of an overseas CI being added simply because their RORA would enhance the chances of funding would be removed if the award of Program Grants was based on peer review of the

science.

Having them as uncounted would discourage stacking & window dressing.

If they can't get any money from the grant, why would they want to be a CI?

Of course the involvement of overseas scientists is problematic. It highlights the difficulty with basing funding solely upon individual track records of a small number of extremely successful people. Including overseas CIs would tend to mean that substantial funds would flow out of Australia because we represent only 2% of the world's science. It would be difficult to be sure that OS CIs were not "double dipping" their own national schemes. At the same time we want to encourage overseas collaboration.

If uncounted then this reflects there is a collaboration but one that is likely to be one that requires the local CIs to carry out the bulk of the work and the OS investigator providing limited resources and/or intellectual input. If the OS CI provides a stronger commitment then they could be counted. A limit of one OS CI per program would help ensure 'local content' of the Program.

Significant overseas investigators can be addressed within the body of the application, and their contribution to the overall success of the project can be evaluated like any other non-CI. They should not influence the overall RORA score, as this will lead to a race to have high profile international people on the grants. In addition the policy of not letting NHMRC money go to overseas groups makes this a somewhat redundant exercise.

Having overseas CI will distort the scheme and will send money overseas. Of course collaborations with overseas investigators should be encouraged and considered a plus in the program evaluation

### **Respondents: Unsuccessfully applied for a Program Grant**

I regret that the temptation to influence scores by including overseas CIs who are not necessarily strongly engaged in the research is too enticing, and should therefore be abolished. If an Australian group is not sufficiently competitive without overseas collaborators, it should not be funded with Australian tax dollars. If an Australian group is awarded a Program grant, the funds are likely to be sufficient to facilitate interaction with overseas colleagues anyway.

There must be extremely sound reasons for including overseas investigators as CIs. There is some suspicion in the research community that past applicants have fattened up their applications by including overseas CIs who are very prominent, but play a negligible role in the activities of the Program for which funds are being sought.

There is little point in having overseas CIs if they are "uncounted", they would be different from current overseas PIs. Their CVs and RORAs should be included and counted so long as their genuine contribution to the CI team can be ascertained by criteria such as those suggested in Q.11.

The overseas CI should not be counted on the RORA, but still included in the context of the research effort and efficacy

### **Respondents: Successfully applied for a Program Grant**

There is a real concern that overseas CIs without a major commitment to the grant will be used to artificially inflate the RORA score. The track records of overseas CIs can be taken into account in a separate score for the quality of non-CI members of the team and collaborative effort/gain.

During my tenure as a DP chair we gave a grant to an overseas investigator who worked 0.5 p.a in Australia the remainder in the UK - this was deemed allowable

The criteria for assessing RORA among Australian researchers are in general fair, given the availability of resources and funding opportunities are uniform for NHMRC grantees. By allowing overseas CIs to be involved, there is the potential to distort the perceived quality of the overall application as overseas CIs have access to different levels of resources. For example, a CI from Harvard with a large laboratory (with greater access to technology and clinical material) is more likely

to improve the standing of the overall application than one containing only Australian CIs. The funding decision may then not reflect the quality of the application or the RORA, but on the capacity to work with a big name.

Any collaboration with worlds best laboratories should be a positive for the Program. Perhaps there is a need to score for this aspect in the CI track record or as part of the team score out of 20.

If overseas CIs really contribute to a program they will increase the RORAs of the Australian researchers, and that will attract increased funding

Inclusion of overseas CIs introduces too many variables and would make it impossible to properly compare applications.

Two-way travel funds should be provided per overseas CI on a per country basis to ensure they play an active role in the project.

Unless obligations by overseas CI can be enforced, it is difficult to know how their inclusion can work.

These would be similar conceptually to associate investigators (AIs) on project grants who contribute particular expertise to a research program. AIs do not contribute to budget or track record but their nomination bolsters assessment of feasibility of SPECIFIC aspects of the application. With the emphasis on research achievement and research themes, and LACK of specific detail on the proposed research in Program applications, I see no need to nominate uncounted CIs. I also think that inclusion of uncounted CIs would lead to applications stacked with stellar names.

Introduction of Single Investigator programs will really remove this as an issue. A top Australian researcher whose main collaborator is o/s can apply for a program alone but list the collaborator as an AI. And if you have them PLEASE DON'T impose still more rules e.g. having 'one' o/s collaborator - why only one? NHMRC needs fewer rules, not more.

I think overseas CIs should be treated similarly to Australia-based CIs. So it should be up to the CI team to decide whether they are 'counted' or not.

The money available should be spent entirely in Australia but listing strong overseas collaborators with a history of co-publication as 'uncounted CI's' should be allowed to demonstrate the strength of a program.

It is difficult to assess the 'real' contributions of overseas CIs - many groups indulge in 'name-dropping'. Overseas CIs could be "uncounted" CIs so that they will have an impact on the scores of the 'Research methods' and 'Collaborative gain' sections but not on the RORA scores. However, they should be present at the interview or by telelink, and their contributions should be more than nominal.

No money given means that the RORA should not be greatly affected by overseas CIs. Perhaps give overseas CIs 10-50% RORA weighting

The DIRECT role the overseas CI has in the program needs to be justified and corroborated

I do not believe that the inability to nominate overseas colleague as a CI impedes significantly the quality of the research (if for anything else, they are many other, international funding agencies who can support such collaborations). However, I acknowledge that in some instances it may matter. Perhaps 5-year Project Grant or Single Investigator Program Grant can address this concern.

The overseas CI system is too availing for "cheating".

Prime o/seas collaborators and their achievements can be covered in the text for research plan

Uncounted CIs should rather be listed as associate/PI

Overseas CIs should not be considered part of an NHMRC Program and therefore not contribute in any way to allocation of quanta. Such individuals should be considered appropriately as AIs, for which there are no funding implications.

The linkage of quanta to the RORA system has serious flaws. A strong overseas CI should be able to

enhance the overall score of the program, but should only be eligible for a quantum if this is supporting the overall program.

We are providing \$ to an Australian team to perform research at the highest level over the next 5 years. they can do this by collaborating with whomever they please and we will judge them on this output.

The problem of including O/S CIs is one of validation of commitment. The O/S CIs have no disincentive to putting their names forward as CIs, e.g. they are not required to give up access to projects as are Australian CIs. Why wouldn't someone O/S act as a CI to help get a friend's grant up? The other problem of including O/S CIs is one of management - will they be bound by Australian ethical standards regarding clinical trials, animal ethics, scientific conduct. What happens if our standards are not met?

Are we supporting Australian research, or overseas research?

I would recommend uncounted CIs only if they are overseas. There is no benefit for an uncounted CI if they are already in Australia as they will get no financial benefit.

I think that often this will lead to "honorary CIs" added to make a weak program look stronger. If it were allowed, there would need to be stringent rules to exclude artificial listings, such as requiring a strong history of co-publication.

### **Respondents: Successfully applied for a Program Grant and unsuccessfully applied for a Program Grant**

Having overseas CI's might lead to 'stacking' of the team to try and maximise funding opportunities. What happens if an overseas CI does not actually get awarded a RORA of equivalence to the domestic CI's and means that the average actually decreases?

If overseas CIs are allowed (whether or not counted) there will be spurious senior CIs added. There is not a solid way to ensure that overseas CIs contribute much more than their CV. If an overseas CI is essential, then the Australian CIs will find a non-program grant method to ensure that the work is done with the overseas CI.

As research funds can't go overseas, the only reason to have an OS based person, is if they are planning to come to Australia and be part of the wider program team - It is too hard to establish the contribution of an OS collaborator, and likely be perceived as merely adding to the track record achievements - however, I can see merit in them being included as an Associate Investigator, where substantial collaborative publications can be used to demonstrate the importance of the OS-based person.

For overseas CIs there are other schemes available internationally.

Would people living overseas, realistically, contribute more to the Program than an Associate Investigator would on a Project grant? I don't think so. I don't think they should be allowed to be CI on a Project grant either. The only exceptions here might be NZ.

Research carried out under a Program Grant can involve overseas CIs whether or not they are named on the application. I personally don't see this as a major issue with the scheme.

## Summary of Raw Comments

### Other Issues

#### **Question 41: Do you have any other observations or suggestions about any aspect of the Program Grants Scheme not covered above?**

##### **Respondents: Have not successfully or unsuccessfully applied for a Program Grant**

There seems to be an extreme gradient in the quality of program grants. While some - notably WEHI-based - regularly produce Nature, Cell or Science papers, others barely achieve consistent JBC type output. I think the total number of Program Grants needs to be drastically cut down to only fund the outstanding groups, and the freed-up funds should be returned to the more open competition in Project Grant funding or to the fellowships scheme.

I would certainly be happy to apply for a program grant but as I have indicated, because my major senior collaborators are based overseas, this has until now disbarred my applying. I think the fact we were able to obtain an ICRG program indicates our competitiveness.

An aspect of the Program Grants Scheme is that it can drive artificial behaviours by the nature of its funding requirements. For example, CIs may be inclined to perform "collaborative" research to demonstrate cooperation even though their resources may better be utilised on other research. Another aspect is that CIs within a Program Grant will be more inclined to put other CI's within that Program on their manuscript as co-authors for minor contributions which would not normally be justified. The reason for this is obviously to artificially increase the publication rate (productivity) of the team and hence increase the chances of receiving Program Grant funding in the next round.

I believe the scoring component (currently 20%) applied to "collaboration" be removed. I think this is an impediment to formation of the best teams and the efficient productivity of the teams but creating a potentially artificial requirement for styles of collaboration.

We have been told that programs are the way of the future, yet the current rules are hopelessly restrictive. There is no denying the quality of currently funded programs; that is not an issue. However, if there is to be genuine shift from projects to programs, let's really make the effort to have programs as inclusive and flexible as possible. No matter what the rules are, only the best ones will be funded in any case.

Rules for funding should not be changed midway through a 5 year implementation cycle as seems to have occurred within the current scheme. Quanta allocations seem to have been "meaner" for year 4 and 5 awardees than for first few years of scheme as the philosophy has changed. Unless appropriate and generous funding is allocated the Program Scheme turns into a grant-in-aid scheme much as the project grant scheme has become and the researchers are hampered in their productivity yet again by lack of funds. Even the allowance to submit more project grants removes the opportunity to focus on the research which was one of the scheme's key original objectives.

My major concerns relate to the program grant budget growing and the project grant budget staying stationary even though the number of project applications has risen considerably. Again as an early career scientist getting funding to establish a strong research team is extremely difficult and discouraging.

Current program rules are too restrictive; the model of the NIH programs is much better - CIs can be on more than one program, a 30% commitment to each one is usual and there is the expectation that CIs will also have projects outside these; this encourages collaboration without mandating it.

I think in general that the Program Grants scheme is working very well, and is a huge improvement on the old program system. All that is required is a little bit more flexibility so that program CIs can have one additional grant without the restrictions currently imposed. These are seen as too limiting, and despite the best intentions of the Program Grants committee, people can still rort the system.

Better to make the rule one additional project only, on topic new or additional to the original program.

I consider the major issues with Program grants are only peripherally covered here. I consider one major issue involves the requirement of the evidence of past collaboration of a team applying. New scientific questions will require new approaches with new collaborative teams. The requirement for past collaboration should be eliminated, and teams assessed according to the appropriateness with regards to the scientific question tackled. The evidence of successful past collaboration should only be considered as an advantage if relevant. The second major issue involves the distribution of funding in different schemes. The amount of funding in the Project grant scheme is clearly too small. The Single Investigator Program-Style Grants are unnecessary if there is sufficient funding and duration of Project grants.

#### Publicise RORA

There is clear evidence that in many Programs as much as 50% of the component Project Grants would not have been competitive in the Project Grants Scheme. A lot of people are being either precious and/or greedy in the Program Grant Scheme. All, if they are unhappy, have the option to move back to the Project Grant Scheme. It is many years since anybody took that course of action. This is a very explicit statement about where the comfort zone is at present in the system. Programs do not need any more feather-bedding or comfort!

The efforts and independence of young researchers have not been recognised in the current scheme.

A system designed to foster interaction and collaboration is maybe not achieving what it set out to do. The effect of this shift towards selectively funding high profile individuals will come with a high cost to the future prospects of Australian science by undermining the scientific culture. I am disappointed by the short sightedness of these policies.

The focus of NHMRC on funding large 5 year Program Grants with the funding available for Project Grants being relatively small and for 3 years has been set up by senior scientists in a few large groups to ensure that funding flows in their direction.

A similar doctrine followed by MRC in the UK that support should be focussed on big teams and big collaborations is being abandoned because it has proved unsuccessful. It is also important to be aware that the main method of funding in the USA is individual investigator grants (RO1 grants). It is essential, therefore, that over the next few years the outcomes of funding Programs vs Projects are carefully analysed to determine whether this bias towards funding large groups is effective.

The idea of providing long term funding on larger scale than projects is good. The question is, how should it best be done? While the Australian system has not been running for long, due note should be taken of experience in the U.K. There, MRC program grants have been abandoned as a disaster. The key issues were 'marriages of convenience', notional collaborations and the discouragement of individual creativity. What steps is NHMRC taking to avoid those identified pitfalls?

The RORA is culturally biased and manipulable. It has been set up to suit those who work in fashionable areas and are associated with large teams (as, e.g. in WEHI). What value should be put on a one twentieth share of a Nature paper? If it is decided to keep supporting program grants, they should be assessed by proper peer review, not by that cunningly devised, labour saving device, the RORA. Scientific plans should occupy a substantial part of the assessment, rather than their current minimal place.

It would be helpful to have specific advice for two person program grants. We imagine that anybody applying for a SIPG must have considered carefully this option. Therefore establishing the criteria for these is important. Our Institute has a successful two person program grant. Various advice was given to these CIs via the NHMRC prior to application. Some encouraged us to go ahead with the application whereas some of the advice suggested that a two-person program would not be considered a real program, and that it would only be considered under special circumstances. Clarity on the size of the group and whether this affects the success of the program should be spelled out clearly to both the applicants and to the panels which ultimately judged the applications.

The nature of the continual changes to Program Grants suggest they are not working in the manner planned. I agree with this. We have discussed this whole issue at a Departmental Staff Meeting level recently. My own view is that the project grants and program grants be merged into a single grant scheme that:

1. Allowed any number of investigators (up to the current maximum)
2. Any reasonable amount.
3. Any number of years: 3, 4 or 5.
4. etc

There appears to me to be no basis for the nitpicking rules that distinguish each grant scheme at present. As it is, now we are moving towards single investigator programs. This is all nonsense when what should happen is total flexibility. If an application is good and the budget is justified by the project description who cares about these other issues. This would suit young and established investigators. Let's just call it a NHMRC research grant and let's simplify the bureaucratic nonsense to make it more straight forward for everyone.

### **Respondents: Unsuccessfully applied for a Program Grant**

The single biggest problem by a long way is the appalling low level of funding

The current system for assessing and scoring Program Grants is manifestly unsatisfactory and unfair. As I understand it, the applications are first considered by a committee of senior scientists drawn from a variety of fields. However, it is not essential or even expected that members of this group are expert or even moderately well informed about the areas of the applications. In fact, there is strong circumstantial evidence suggesting that they are not well informed on all applications. Despite this, and in the absence of any expert assistance (such as they might get from expert reviewers) they cull applications at the first stage, giving only the most cursory reasons. This process is clearly subject to all manner of biases, whether intentional or not, and must therefore be reformed as a matter of urgency. This can be amended by either (or both) of the following means:

- (a) appoint a new first-stage committee each year that has demonstrated expertise in all of the areas of research from which applications come. I accept that this will often not be feasible, or would result in an unmanageable committee.
- (b) send all applications out for review in the same manner that is done for Program Grants. The system for doing this is already in place. I cannot imagine why it has not been used for all Program applications.

Finally, the scoring system that includes a heavy weighting for Record of Research Achievement discriminates almost totally against most basic science research. If Program Grants are intended to be primarily for applied research or research leading to commercialisation as this item suggests, then this point should be made very clear at the outset.

I am an unsuccessful applicant for a Program who has discussed the issue of how Programs are awarded with several other unsuccessful applicants from other Programs. We are all highly successful scientists with very strong records of funding from the Project scheme, who were culled from the Program application scheme before the interview; i.e. we were obviously ranked low on the list of applicants by the first stage Committee. This is quite inexplicable when the reputations of these unsuccessful applicants internationally are very high indeed. A perception is growing, therefore, that issues other than merit are creeping into the decision-making process. In particular, we have concerns that the expertise available on the first-stage Committee is insufficient to make a balanced judgment on applications from different areas of medical research. This perception would be reduced if first-stage process were expanded to give it the breadth of expertise necessary to make informed judgments across disciplines and regions. My other criticism of the Program system is that applicants must not only prepare their Program application, but also (usually multiple) Project applications at the same time. This is an extraordinary burden on busy researchers. The application could be reworked so that the Program contains in effect a series of Project applications together with the other information required for the Program. Success of these Project applications would be strong pointer to the

strength of the Project. On the other hand, if the Program failed, the Project applications could remain in play.

My co-chief investigator and I decided to apply for funding under the program grants scheme earlier last year and as a result, almost our entire efforts during the last two months of last year and January of this year were directed at preparing a strong application. Indeed, I still believe that from most points of view, ours was a competitive application. The application was duly submitted in early February and on the 25th March we received a standard letter telling us that our application had not made it to the interview stage. We were promised more detailed comments to reach us sometime this month, to provide us with information about how the decision had been reached. We have not yet received those comments.

We were, of course, devastated by this outcome. My co-chief investigator can be considered, on numerous criteria, as "the best in the world". He and I were rated in the top 1% internationally in a recent project grant assessment, based on our track records. In the event, the two of us reluctantly accepted this unfortunate outcome, convinced that there was perhaps some hidden flaw in our application.

Our program application was the first, for a number of years, in the area of integrative neuroscience. In the past, Australian biomedical scientists have established a distinguished reputation in this area. Current ongoing research in the field is flourishing despite fashion trends promoting molecular and genetic approaches. Perhaps one of the reasons for the current vigour in our field is that in a number of areas we are on the cusp of major breakthroughs, which promise new fundamental insight and which have important clinical implications.

My co-chief investigator and I were surprised when we learned that a second program grant application had been submitted this year in the same general area of research, by the only other Australian team with eminence in the field. So, while the subject of our research had not been well represented in program applications in the past, here were two applications in the same year! We were then astonished to discover that this second application had also been dismissed before reaching the interview stage. So in one fell swoop, the NH & MRC had excluded from program grant support almost the entire research effort in Australia in the area of integrative neuroscience. Of course, we asked why?

The answer had to be the selection process of grants for interview. That inevitably, led to our consideration of the composition of the Program Grants Committee. Not surprisingly, only one of the 12 member committee is a card-carrying neuroscientist and he has frequently expressed his enthusiasm for cellular:molecular approaches. We therefore shouldn't be surprised if he didn't support our cause!

So the simple message I would like to submit to the Program Grant Review process is that careful consideration be given, in the future, to composition of the Program Grants Committee and that, if necessary, membership of the committee be adjusted from year to year, according to the demands of the research areas covered by that year's round of applications.

The calendar for Project grant applications should be totally separated from Programs, to avoid duplication of effort on the part of applicants, reviewers and committee members!!!!

The model seems to work best for groups that ONLY collaborate with one another, that are located in the same facility or institution (or at least city), and whose main expenses are salaries for junior researchers (i.e. a typical laboratory research setting).

This does not describe my experience! I am a population health researcher and am currently a CI on 4 major funded projects (CIA on 2, CIB on 1 and CID on 1). A total of 16 other individuals are involved as CIs on these projects (a few of the 16 are collaborators on more than one project), and they live and work across Australia, in 4 different capital cities (so far!). There are also a number of AIs and other collaborators, not to mention several smaller projects. I can not envision encompassing my work in a single program under the current system. Which of my collaborators would I include? Our interests overlap, but only in part, so any one of them would need to leave aside some of their

work in order to join with me. Our complementary skills and interests make for exciting collaborations, but make it nearly impossible to put a boundary around us that could fit into a program.

It is far too skewed to Institutes. The 60% Track record component is too high. Program Grants should be more than just crunching of numbers to see who gets the highest score - it should be strategic and take many other factors into consideration, including subject matter, national research priorities and geography/location. There is a real perception that there is too much politics in deciding who gets a Program - mateship has no place at this level. Feedback is a MUST - failed Program applications essentially get no help in improving an application for another round. There is no useful feedback on how to improve the submission, after 2-3 months work by senior researchers. NIH feedback on grants is constructive and designed to help with the quality of the re-submission.

Programs were a response to the desire to de-Block and the Wills review. In short the goal was for larger scale, scope and duration of funding. However, this application to Programs only was a selective interpretation of Wills, as the same principles were also to apply to Projects.

An alternate – perhaps akin to the SIPG proposal is to simply fund a significant number of Projects for 5 years. Since most CIs who score 6 or 7 repeatedly receive project grants, this would not actually cost more on an annual basis, but would make a major reduction in grant review activity.

Programs work well with a collaborating group, but many new groups have also come together and been funded which is good. I assume that when renewed, demonstrated evidence of more output than the original application will need to be demonstrated.

Many individuals find Programs difficult to apply for because their research spans multiple relatively separate areas. Consider this real example which has precluded program applications: CI A works on areas D and E and has several other CIs on these various funded projects (some of whom would not be Program CI calibre), CI B works on X and Y also with several other CIs while CI C works on area D and F while CI D works on area X and Z again both with several other CIs on these various funded projects (some of whom would not be Program CI calibre). To come together in a Program would result in CIs on other projects being forced to lose their projects, yet areas D, E & F are related but essentially unrelated to areas X, Y and Z. If all four CIs applied for a program, apart from the inability to potentially do so because of the other CIs on each of their grants, then they would be criticised for having too broad and unrelated an application which ‘lacks focus’. Catch 22.

In summary, larger and longer project grants or SIPGs would overcome many of these problems for those that do not fit within the forced rules of the current program grant system.

### **Respondents: Successfully applied for a Program Grant**

We should stop kidding ourselves that deciding how best to divide up the pie can improve Australian research by any real measure. Get real and invest most time in making sure the NH&MRC is supported properly and that Program, Project and Fellowship scheme funding increases considerably. I feel many structural alterations in the NH&MRC schemes over the past 10 years have been a waste of time and money compared to an effort like the Wills report that actually made a difference to everyone in medical research. Indeed, doing things like not indexing Programs from the start was just plainly a stupid decision. The Program structure has been a very positive step and the major framework is very sound. The greatest problems from here on relate to the inadequate level of support being offered. The criteria to achieve quantum 4 are just completely unrealistic. Many full professors (even by NH&MRC Fellowship standards) will not achieve quanta 4. How do we convince the public and government that NH&MRC science is worth more support when we do not even rate our own scientists (that the rest of the world acknowledges are outstanding)? This lack of funding is triggering many of the issues raised above. Why not exert pressure by funding the Programs fully and properly and so when other good people miss out, hard questions are asked.

In my opinion central to any changes that should or could be made to the current system will be data showing how the implementation of this system has changed the course of medical research in Australia. For example how many programs are planning to renew? Has the productivity of investigators currently in programs increased or decreased? How many truly collaborative projects have emerged that can be clearly quantified as a result of this system.

The rules of the Program Grant scheme have changed considerably since the scheme was first implemented. This means that successive cohorts of PG holders are operating under very different regimes, which has had dire consequences for some careers and projects.

Further changes to the scheme will cause further disruptions, and must be considered with a great deal of care.

One final point - is there any possibility of calibrating the SRF/PRF/SPRF scheme with the PG scheme, since both funding mechanisms use very similar (identical?) RORA. If a Program grant applicant holds an NHMRC fellowship, shouldn't that automatically translate into a given quantum?

I think that more work needs to go into the scoring criteria- there needs to be greater recognition of the differences between disciplines in how publications are ranked. ie in some field, top journals have lower impact factors. At present it would be very difficult for some allied health areas to obtain program grant funding.

There also needs to be an acknowledgment of authorship practices - ie in some fields the first author has contributed most to the work and this holds a much higher status than being a co-author. In other fields, it is better to be last author. This type of thing may affect how CVs are rated.

The current system has the potential to lead to multiple counting of work as each CV is scored separately and then averaged.

There also needs to be recognition of the stage that a field is up to. In some fields that have been researched for a relatively long period of time, there are clear products to trial or interventions to conduct. In others, the basic research is still being conducted ie the R&D. This difference is not reflected in the scoring.

In the current system there is less incentive to go into new areas and develop new technologies because the public health or economic benefits are less tangible and too far off to be seen and put on the investigator's CV.

The current system does not take into account parenting or carer responsibilities ie particularly in the case of senior women researchers who have taken time off to have children or other researchers who have taken time off to care for relatives but are still maintaining their career at a very high level.

The science is of necessity underwritten in the current format for applications that only allows a few pages for 5 years work of 5+ CIs with a budget of 1-2 million per annum. Contrast this with projects: 9 pages for 100,000 pa. I know the rationale but don't agree with the severe limitation on science in the program application. In some interviews the panel spent most of their time on the science, that they did not seem to understand well themselves....

I feel very strongly that the means by which an individual CI's quantum is determined should not be rigidly divided into a maximum of 60% based on research productivity with an obligatory commitment to commercialisation and clinical application. This puts unfair additional pressures on program grant CIs to commit much of their time to becoming a "jack of all trades", probably at the expense of high quality in their preferred/strongest area. If this is truly enforced as a rigid means of assessing program CIs for quanta, it will be the biggest factor in driving me out of the program grant system. My research quality and productivity will definitely be compromised if I am forced to try and fulfil these other criteria.

I believe the option to take up part-time positions should be made available especially to women. Research is not able to be turned on and off like a tap and for women to stay in the system, a part time position on a program supported by more senior CIs, would allow them the opportunity to keep the tap dripping without the expectation that they have to perform as a full time researcher. The budget

allocation should reflect this and made transparent in the calculations.

A program grant needs to have a business plan probably as well as an intent to work together on joint projects

I don't have any answers but there is a perception that inter-Program and intra-Program activities are relatively easy but that those outside Programs feel left out.

As stated, there is a disparity between the difficulty in being awarded quanta due to the rigorous RORA assessment and the amount of funding associated with each quanta. As the RORA is to be awarded according to the most strict international standards (as it should be) then the quanta should reflect this. If a CI is good enough to be awarded the minimum quanta then he/she should rightly expect to receive significantly more than 2x the average NHMRC project grant, especially given the rules associated with the rights of Program grant CIs to apply for Project grants and the requirement to nominate 80% of his/her time to the project. To further demonstrate the inequity, it is not impossible for a researcher with a reasonable track record to have 2-3 NHMRC Project grants yet assign only 20% of his/her time to each grant. It seems a nonsense for the Program grant CIs to be capped as they are currently unless the quanta are such that further funding is not necessary through the NHMRC scheme.

I am concerned that the current restrictions on eligibility for Project grants from people supported by a Program grant greatly restricts the opportunity for younger investigators to progress through the system.

I view the current Program Grants positively in getting the biggest bang from the national research dollar. Saying that, I have to admit I might be prejudiced since I am a winner in this current arrangement. In Australia we have researchers who are rightly considered world-class. The Program Grants provide them with the funding and flexibility necessary to maintain that competitiveness. More importantly, it is a means to transfer this success to others within the group so they will also achieve greater levels of productivity. It is a win-win situation for all. My only complaint concerns the current RORA score standards, which do not seem to reward what could be considered success by reasonable international standards. It would be a pity if this superb scheme were threatened by unattainable goals and expectations.

Program grants have not kept pace with the growing size of project grants top researchers can now attract.

In the situation of a current Program team applying for a new Program - if they were unsuccessful, it would be ideal if they were given one further year of bridging funding to reapply (then out - rather like the fellowship scheme). This would (1) obviate the need to apply a year earlier, which in effect, reduces the value of five years of funding; and (2) obviate the need (at the first re-application) of also writing project grants in the event of not succeeding with the Program. Saves applicant time and also NHMRC/GRP time. At the second attempt, however, the applicants would need to consider writing project grants as well.

1. The RORA grid is unrealistic. Anecdotally, very few are awarded top quanta, and excellent researchers are being funded below what they could obtain in the Projects scheme. As this becomes more widely appreciated, it will act as a disincentive.
2. Program budgets MUST at least be maintained in real terms over the five year cycle. A mechanism that INCREASES funding to allow for increasing momentum and building on success would be better. Perhaps a mid-cycle application for increased funds could be considered. If this is below a set percentage of budget it could be justified and considered without requiring a full new application. Program teams requiring more than this could renew early by submitting a full application.
3. With the exception of preventing double-dipping, I view the restrictions on Program Grant holders accessing Project grants as counterproductive. We should be fostering the highest quality research without prejudice.

In addition, if the Program Committee does not fully fund a particular Program application, it is implicit that the Program CIs will then have uncommitted time available for unrelated research. Thus

they should be allowed to access the Project Grants scheme.

I am concerned that the recently introduced restriction on CI's having their salary funded from the program is a backward step. Our program team has three CI's who receive part of their salary funding from the program. The balance is funded from University funds. This restriction will impact heavily on our team (and many others) when we apply for renewal. This will trigger a surge in Fellowship applications to a scheme that is already over subscribed. The inference that CI's generally receive their salary support from "elsewhere" is not appropriate. The restriction on CI's supporting their own salaries from the program should be removed.

Appropriate weight should be given to the pillars of RORA, these being Contributions to knowledge, health and wealth. The problem is "How do you encourage activity in all three areas, but not punish individuals (or groups) who are virtually world's best in one area, but are not stars in the other two?" I do not favour instituting a "log scale" of achievement, as I think this can magnify Committee error/misperception as well as extraordinary achievement. Rather, I suggest the following:

- (i) assess the CI in each of the three areas and assign three scores (eg each out of 60)
- (ii) apply a weighting to each of the three scores such that the highest(derived from any category) score is multiplied by 0.6, the second highest by 0.3 and the lowest by 0.1. The final score out of 60 then becomes the sum of all three numbers.

Example 1: Dr X who has a Nobel prize in Basic Immunology in tadpoles, but more modest contributions to clinical medicine and little commercialisation. The score might be  $(0.6 \times 60)$  for knowledge +  $(0.3 \times 40)$  for clinical application and  $(0.1 \times 30)$  for commercial activity. The final score would be  $36+12+3 = 51/60$

Example 2: Clinician/scientist with solid basic science achievement, world leader in clinical trials but no commercial activity at all might score  $(0.3 \times 30)$  for knowledge,  $(0.6 \times 55)$  for health and  $(0.1 \times 0)$  for wealth. The final score would be  $9+33+0 = 42/60$

Example 3: Epidemiologist/social worker who discovers that narcotic drug addiction can be successfully treated with raspberry jam sandwiches (and is proven correct); patents and successfully commercialises the discovery, but never publishes other than for a few papers in low IF journals. Score:  $(0.1 \times 10)$  for publications +  $(0.6 \times 60)$  for health outcomes +  $(0.3 \times 50)$  for commercial outcome. Total  $1+36+15 = 52$ .

Apart from possible distortions mentioned above, the other advantage of the 60/30/10 method is that it can be implemented quite easily using the current grid, which I agree needs some fine tuning, but is basically very sound for most disciplines.

I support the philosophy behind the program grant scheme, ie rewarding track record and removing the "big fish" from the project pool. The main problems are:

- a) the fixed budget
- b) the restrictions placed on career development of mid-level scientists
- c) the secrecy surrounding the budget calculations

I believe that the program grant scheme has been a huge success and should be continued and expanded with only minor amelioration's necessary (e.g. make available extra money to outstanding CIs)

Current review process for the Program Grant system is excellent. However, the administration process needs a careful look. There is an impression in the scientific community that NHMRC intends to use Program Grant system to cap highly successful investigators. If this is correct, then it is disturbing. If not, there should be an effort to remove this impression and make the program grant system flexible enough so that investigators within the program grants don't feel constraint. I would also suggest NHMRC to consider increasing the terms of the program grants from 5 years to 7-8 years (with a formal non-competitive scientific reviews during the years 4 and 6). If the progress is not satisfactory in year 4, the program should be asked to go back to full review system for any further funding beyond year 5. Year 6 review should give an indication, whether the program grant has achieved its major aims and has significantly contributed the basic aims of NHMRC. If yes, the program grant should be allowed to go for further renewal through normal competitive process.

I can't emphasise enough what a disaster the last minute decisions were last year. They not only

affected the ability for groups who had made strategic plans to apply for a project grant (within the previous rules) and so might have severely curtailed very important research, but they were seen as a very bad indication of the performance of the new RC. I hope these surveys will help redress this issue, and some more sensible decisions will be made WITH A MINIMUM NUMBER OF RULES

Exit from programs of all investigators at the end of a term is currently very difficult, because project committees are very reluctant to award such a high proportion of their budget in a single round to one investigator. When exit is considered, perhaps a "wind-down" period could be envisaged, in which CIs agree to give up equivalent program funding as they become successful with projects. This overlap period could last a couple of years, and would gradually shift funding from program to projects. This way, there would not be a funding hiatus at the end of the program.

The overall budget allocation in round 1 of the current program scheme for some was cut severely because of the lack of contribution by quanta for CIs who later might have been PIs, and the lack of transparency has meant emasculation of the program - yet inability of the non-counted CIs to gather other funds.

Program grants are meant to be flexible and allow good research, but if a strong team is hamstrung by lack of funds, there is no ability to meet original goals let alone flexibility. Also outside funding bodies perceive double dipping if asking for the supplementary funds not provided by the "flexible" but limiting NHMRC program. If big picture programs are given a tick then to not count lynch-pin junior CIs and stifle research capability, means the program caps instead of nurturing. Transparent funding up-front is essential - and if inadequate teams need to know at time of submission (a bit like your tax assessment can be worked out on submission if it is an acceptable tax return = fundable program)

I believe Programs should be somewhat less based on track record and more on the research planned. This is important when the need arises to compare the aims of the Program with those of Project grant submissions. For the latter I suggest the explicit aims page of the Program be submitted with each new Project grant application so that reviewers can see or query the degree of overlap.

I think the scheme is working well. A few minor changes are needed, but nothing more.

At some point it will be necessary to address the dilemma of requiring a collaborative approach to be awarded a Program and demonstrable independence to be awarded a Fellowship - one of the few viable salary support options since a CI cannot be paid from a Program Grant. The increasing emphasis on a multidisciplinary team approach (both by NHMRC and science in general) means the traditional focus on first and last authorship's is becoming less and less appropriate

### **Respondents: Successfully applied for a Program Grant and unsuccessfully applied for a Program Grant**

I have tried to comment on some key issues above. I have not answered some questions because I could not select either yes or no without some explanation. Some elements of the new program system are excellent but there are some deficiencies. The latter include the failure of the current system to foster support for relatively focused programs by excellent researchers, and the difficulty of assisting more junior scientists. The growth of 'rules' associated with the system is alarming.

Re Project and Programs - the deadlines are getting closer and closer to the school holidays - this is ridiculous - go back to March deadlines.

It is increasingly difficult to operate within a Program when the rules change each year and the new rules imposed upon current holders of program grants. Whilst we might have chosen to be part of a program based on the rules applied at the time of application, these are now vastly different to what we now have to adhere to.

The allocation of top quanta is weighted by publications in top general journals eg. Nature, NEJM and although other factors count, they don't weigh as heavily for the score. This is seen by many as unfair and unattainable, especially very productive clinical researchers. I think the publication weighting and those journals included for each quantum of the score should be reviewed.

In general the level of funding to successful Programs in the 2004 round is devastating. It would have been more useful if funding overall could not be increased to award less programs but with a larger quanta for each CI. I am perplexed that NHMRC appears to have awarded a number of programs where they have allocated only about 50% of the CI's a quanta, yet they have still got over the line. Surely if one or more of the team is not deemed fundable (no quanta will be given), then the whole application should be thrown out. This should be clarified and hopefully amended for the 2005 funding round.

The research quantum scheme for RORA calculation is severely career limiting for younger investigators. The NHMRC should consider a lower level below the current Quantum 1, eg at a funding level of \$180,000. This would allow more junior CIs, eg CDA holders or SRF to share in the success of the Program and conduct their research.

On a personal note, as a recent member of a successful Program grant team, I am staggered that in 2003 I was considered worthy enough to win initial appointment to the NHMRC Fellowship Scheme as a Senior Research Fellow, however, my Program Grant RORA was not considered good enough to be awarded even the lowest level research quantum. Where is the sense in this decision? To be given the opportunity to have a career in Australian biomedical research, but to be given no funds to have a career! When will sanity prevail?! Clearly there is a very big problem with the calculation of the RORA scores for individuals, let alone averaging these scores across the entire team. Please change these RORA guidelines to recognise the career stage of the Program grant applicants.

The major problems with the current project grants scheme are:

- (a) Lack of flexibility in the ability of CIs to expand their research. Relaxing some of the restrictions on applying for Project Grant funding would help to address this.
- (b) Restrictions on career development for younger investigators. Being locked into a Program for 5 years with a defined budget is a severe impediment to career progression.
- (c) The amount of funds provided for the Programs. For most of the Programs I am aware of the investigators received less money than they expected and this has put some severe constraints on their research. Adding an additional quantum level (less than the current lower limit of \$243,000) would help to address some of the shortfall in Programs where more junior investigators were involved as they may not otherwise receive quantum.

Some elements of the new program system are excellent but there are some deficiencies. The latter include the failure of the current system to foster support for relatively focused programs by excellent researchers, and the difficulty of assisting more junior scientists. The growth of 'rules' associated with the system is alarming.