



NHMRC Project Grants Strategy & Writing Guide for Grant Proposals

Please note that significant changes have been introduced this round.

This guide contains advice and suggestions for writing the Grant Proposal (i.e. PDF attachment) of your NHMRC Project Grant application. The Grant Proposal comprises:

- Research Proposal (formerly Detailed Background and Research Plan)
- References
- CI Time Commitment (formerly in RGMS)
- Team Quality & Capability statement and CI Track Records.

The guide also contains some strategic advice, including how to target your application to the most appropriate assessors and Peer Review Panel (PRP).

For further information about the Grant Proposal and all other aspects of your Project Grant application, please refer to the following documentation from the [NHMRC website](#):

- *NHMRC Project Grants: Advice and Instructions to Applicants for funding commencing in 2015 (pdf)*
- *NHMRC Funding Rules incorporating the Projects Grants scheme for funding commencing in 2015 (html)*

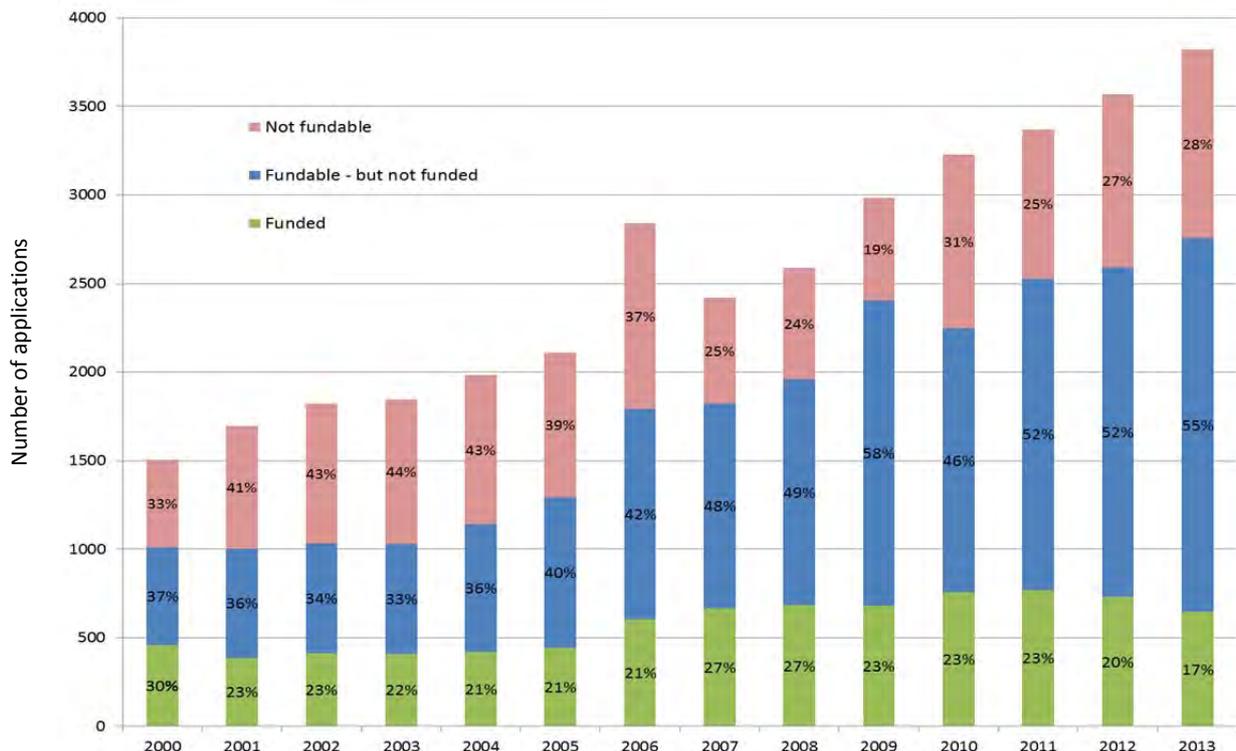
N.B. Since the NHMRC documentation is now in a combination of html (online) and pdf formats, the cross-references in our guide are to *sections* (not pages), which works consistently for both formats.

For submission information (e.g. internal deadlines) specific to the University, please refer to the [University of Sydney Administrative Guide for applicants – NHMRC Project Grants for funding commencing 2015](#).

Why you should read this guide

Obtaining Project Grant funding is becoming increasingly competitive, as you can see from the graph below. Around the cut-off mark, any objective difference between what gets funded and what doesn't is likely to be marginal, so how you write and present your proposal is becoming increasingly important. A well-argued, carefully-crafted proposal might just give you the edge.

Success rates for NHMRC Project Grant applications



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This is the second revision of the guide released in January. The first set of revisions is marked with a vertical red line, thus:

The second set of revisions is marked with a vertical green line, thus:

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1 Strategic advice

1.1 Objective of Project Grant scheme has been revised

For many years the stated objective of the Project Grants scheme was as follows:

The Project Grants scheme aims to fund research leading to improved health of all Australians. To achieve this aim, the scheme provides support for investigator-initiated research relevant to health across all fields of research, from basic research through to research in clinical and community settings.

This year it has been revised to:

The objective of the Project Grants scheme is to support the creation of new knowledge by funding the best investigator-initiated research project plan of five years, or less, in any area relevant to human health ... A Project Grant application must outline a research proposal that describes the investigation of a new research idea/s.

B1. Objective of the Project Grants Scheme (*Funding Rules 2015*)

Firstly, note the focus on 'new knowledge' and 'new research idea/s'. In your application therefore you may want to draw greater attention to what is new and unique about your proposal and its expected outcomes.

Secondly, note the phrase 'research project plan of five years, or less'. This does *not* mean you should dream up an extra 2 years of research to tack on to your 3-year project. It *does* mean that if you have an idea for a project that will genuinely take 4 or 5 years to complete, you should not feel constrained to cut it back to 3 years in the belief that only shorter projects get funded.

1.2 Target the most appropriate assessors and Peer Review Panel

Who will judge your proposal? It is assigned to external assessors and to a panel based *only* on the information you enter in RGMS for:

- peer review area
- fields of research
- fields of research subcategory (methods)
- research keywords/phrases
- a field called 'Additional information that best describes research interests'
- the synopsis.

Given that some assessors and some panels may be more interested in, knowledgeable about and receptive to your proposal than others – some panels may be less competitive than others too – it is critical to steer your proposal to where it is likely to get the best score, using the fields and other information listed above to your advantage. So choose carefully your peer review area, fields of research, and so on.

1.2.1 Writing the Synopsis (2000 characters)

The synopsis should accurately, and briefly, summarise the research proposal. This information may be used to assign applications to Peer Review Panels (PRP) and assessors. It may also be used by other organisations (if applicable) to determine whether the research proposal meets their priorities for funding. Applicants should therefore use laypersons terms, where possible. Please include a brief, plain English paragraph outlining your project.

4.1 A-PA: Part A Home (*Advice & Instructions 2015*)

*Note that the synopsis is **not** used in determining your proposal's score.*

We suggest *starting* the synopsis with the 'brief, plain English paragraph outlining your project' (500-700 characters might be appropriate). Provide a succinct description of the health/medical/scientific problem you'll be addressing as well as the gap in knowledge. Then say something about your project, but keep it at a high level; you can give a *detailed* account of aims, hypotheses, methods and techniques *after* this

overview paragraph. Conclude with a sentence about expected outcomes and the impact the project is likely to have. *If you intend obtaining funding from 'other organisations' (e.g. Cancer Council), try to include in this paragraph some phrasing about how your project will address their funding priorities.*

Since the synopsis is used to assign applications to assessors and panels, use the remaining space to provide the kind of information that will help steer your proposal to those with the necessary expertise to understand and be receptive to it. So, don't waste precious characters promoting significance, innovation or track record. Rather, focus on the science – hypothesis, aims, study design, methods and techniques – and include as much detail as you have space for. Although the guidelines recommend the use of 'laypersons terms, where possible', some technical language may be necessary to direct your application to the most appropriate assessors and panels. You will need to strike a reasonable balance.

1.2.2 *Nominating external assessors*

You are also given the opportunity to nominate up to two national *and* two international assessors whom you would like to review your research proposal (see 5.5 B–NPA: Nomination of Possible Assessors, *Advice & Instructions 2015*). We recommend taking this option, but make sure your nominees don't have a conflict of interest with you. The NHMRC is diligent about checking this. Potential conflict of interest is defined as:

- direct involvement in the application as Chief Investigator or Associate Investigator;
- direct or potential involvement due to a personal financial interest in the outcome of the granting process;
- potential involvement as a scientific^a or departmental/institutional colleague^b
- perceived involvement due to a family/personal relationship, either currently or during the past five years;
- if at any time there has been a verbal or written dispute between an applicant and the individual acting for the NHMRC; and/or
- any other perceived conflicts

^a a scientific colleague is defined as another scientist with whom the collaborator has published papers, held grants or acted in a Higher Degree by Research student/supervisor relationship with any of the applicants during the past five years.

^b a colleague within an identifiable organisational group from which joint benefit may follow award of the grant, ie. Members of the same Research Institute or affiliated University Department, Faculty or Hospital.

(source: <http://www.nhmrc.gov.au/files/nhmrc/file/grants/assessgde.pdf>)

1.2.3 *Excluding external assessors*

Finally, you can nominate *one* person whom you would *not* like to assess your proposal. This can be on the grounds that there is a conflict of interest or that you believe they 'would be incapable of giving a fair assessment due to unreasonable bias' (see 5.6 B–NA: Non Assessor, *Advice & Instructions 2015*).

1.3 Understand and stay focused on the Assessment Criteria and Category Descriptors

Please note that changes have been made to these in the 2014 round.

Make sure you have a thorough grasp of the three **Assessment Criteria**:

- Scientific Quality (50%)
- Significance of the expected outcomes and/or Innovation of the concept (25%)
- Team Quality and Capability relevant to the application and relative to opportunity (25%)

For a complete description of these criteria see *Appendix A. Assessment Criteria*.

Against each criterion your proposal will be given a score from 1 to 7, based on levels of achievement defined by **Category Descriptors**. To have any chance of being funded, your proposal will need to score a combined total of well above 5 – so aim for 6 – and PRPs are constantly reminded to use the Category

Descriptors to determine scores. You should therefore familiarize yourself with them thoroughly – see *Appendix B. Category Descriptors* for a complete description.

1.3.1 Significance and/or Innovation?

Applications need not be rated on both significance and innovation. Truly innovative ideas and research may not reveal their significance until sometime in the future (this is the case for many Nobel Prize winning discoveries). Similarly research of the highest significance such as important randomised clinical trials or public health intervention studies may use ‘tried and true’ methods only, yet be of immense significance to health.

Attachment C - Guidance for Applicants to Address the Project Grants Assessment Criteria (*Funding Rules 2015*)

Most proposals have elements of significance *and* innovation, although applicants can’t always see it. Sometimes it’s a case of stepping back and looking at your project with fresh eyes. Sometimes it comes down to the way you describe the project. We would encourage you, provided it’s within the bounds of credibility, to find ways to demonstrate that your project is *both* significant and innovative.

1.3.2 Significance

This year the NHMRC has clarified what it means by *significance*. The guidelines explicitly state that ‘the significance of the study is not a measure of the prevalence/incidence of the health issue (e.g. cancer versus sudden infant death syndrome)’. Rather, significance refers to whether the project’s outcomes will advance knowledge and/or have an impact on the health issue and/or generate interest from other researchers, conference organisers, journals, community groups, and policy makers (see Attachment C - Guidance for Applicants to Address the Project Grants Assessment Criteria, *Funding Rules 2015*).

1.3.3 Innovation

The NHMRC has also been more explicit about *innovation* this round, with discrete bullet points describing what constitutes innovation in both the Assessment Criteria and Category Descriptors. Most innovation is in the realm of *approaches* or *methods*, but note that introducing *advances in concept(s)* rates a score of 7.

Even if your project is not introducing advances in concept or using new approaches or methods, it *will* be producing or contributing to new outcomes (knowledge, applications, technologies, policies), so you can always appeal to this aspect of innovation.

Innovation doesn’t necessarily mean ‘complex’. Innovative solutions can be very simple and low cost.

For some readers, innovation will equate to ‘risk’. So you need to balance innovation with feasibility: the more innovative the project, the more persuasively you will need to argue that it is feasible.

1.4 Feedback and revision

After drafting your proposal, get feedback from non-experts as well as experts. Non-experts sometimes notice errors or omissions that experts have become ‘blind’ to through over-familiarity. Also, try to consider it from a reviewer’s perspective: in terms of the Assessment Criteria and Category Descriptors, and whether it represents value for money. If your proposal isn’t persuasive, revise it.

1.5 Make the most of the months between submission and rebuttal

Ideally you will include in the Grant Proposal (submitted in March) the publications as well as any unpublished, preliminary data that are necessary to providing the strongest possible rationale for your proposed project. Having said that, bear in mind that between March and June/July, when you’ll write your rebuttal, you have the opportunity to publish more papers and generate more preliminary data, which you may include in the rebuttal. So take full advantage of this time.

2 Formatting requirements and tips

2.1 Requirements

The NHMRC has strict requirements about fonts, margins, images etc. If you don't comply, your application may be ruled ineligible. For full details, see 1.4 Compliance Requirements, *Advice & Instructions 2015*.

2.1.1 Avoid web links

The NHMRC is strict on this point:

For all sections in the application, applicants must not include links to additional information on an external website, apart from references to published or peer reviewed journal articles that are only available online.

Any application that contains disallowed web links will be deemed ineligible and will be removed from the assessment process.

1.4 Compliance Requirements (*Advice & Instructions 2015*)

2.2 Tips

2.2.1 Should you use the template?

A Grant Proposal template is available for download from the NHMRC website. It is not obligatory to use it. Due to the size of the header, you will lose 1-2 lines of text per page. You may instead set up your own Word document as follows (these settings are consistent with the NHMRC Compliance Requirements):

- Set all **page margins** to 2cm.
- Set both the **header** and **footer** to 1cm from edge.
- **Text for the header:** On the left, type the name of the section (e.g. 'Grant Proposal: References'). On the right (using a right-hand tab), type your Application ID and the CIA's surname.
- **Text for the footer:** on the right (using a right-hand tab or right justification), insert the page number.
- Use **Times New Roman 12 point** for all text in header and footer.

2.2.2 Make diagrams and graphs legible and effective

The NHMRC warns that when your proposal is printed and photocopied for the assessors and panel, it may end up in black-and-white and there will probably be some loss of quality. Also, assessors often complain about images being unreadable, for various reasons. Therefore, if you include images, diagrams or graphs of any kind, make sure (1) they are not too small or fiddly, (2) they are clearly named and labelled, and (3) they will not be rendered ineffectual if translated from colour to black-and-white.

2.2.3 Differentiate between headings and sub-headings

Most proposals require several *levels* of heading, but it's not always easy to distinguish one level from another. For the reader this can be confusing. We therefore recommend one of these approaches:

<i>Visually distinct</i>	<i>Legal numbering system</i>
BACKGROUND [level 1]	1 Background [level 1]
Subheading [level 2]	1.1 Subheading [level 2]
<i>Sub-subheading</i> [level 3]	1.1.1 Sub-subheading [level 3]

2.2.4 Aim for clear, uncluttered presentation

If you fill up every available millimetre of space, cramming in as much information as possible, your proposal will be difficult to read and may give the impression of an inability to discern what's important from what's not, even of desperation or under-confidence. Try, then, to incorporate plenty of white space, and break up the text using subheadings, diagrams, graphs, flow charts, tables, and bullet points for lists. Above all, avoid pages of solid, unbroken text with no spaces between paragraphs – or no paragraphs at all!

3 General writing tips

3.1 Make your proposal reader-friendly

Communicating is work, and someone has to do it. If *you* don't put in the effort to make your research proposal easy to read, then you are in effect 'passing the buck' to your reviewers, who may have neither the time nor the energy to unravel what you are trying to say, and may also be irritated by the imposition. So here are a few tips to make your research proposal reader-friendly.

3.1.1 Structure information for several 'levels of reading'

Your proposal will be read by people with various levels of 'commitment' to it. Some, such as your primary and secondary spokespersons (SP1 and SP2) on the panel, will read your proposal in great detail. Other members of the panel may only have time to 'skim read' it.

You can structure information to suit all these readers, by organising it into subsections that follow a logical sequence and by using carefully chosen subheadings and topic sentences (the first sentence in a paragraph). A reader in a hurry will be able to grasp the main points of your proposal merely by looking at the subheadings. Topic sentences will then encapsulate the next level of detail.

Here's an example:

[subheading] **Hip fractures are a major problem for older people and the community**

[topic sentence] Improving strategies for hip fracture rehabilitation among older people is an urgent public health challenge due to the increasing proportion of older people in the population and the increasing incidence of falls and fractures. ... *[and so on]*

Many people don't fully recover after a hip fracture

"Some loss of function is expected" after hip fracture (2007 BMJ review article [5]). ...

Poor outcomes persist after rehabilitation programs

Unfortunately, poor physical outcomes can occur even for those who have undergone rehabilitation. ...

Previous trials have found effects of exercise on functioning but not falls or hospital re-admission after hip fracture

A Cochrane review on exercise after hip fracture, co-authored by CIA (DL17), included six randomised trials conducted after participants had returned home from hospital. ...

Self-management training can prevent falls in older people

Systematic reviews have found self-management programs to be beneficial in the management of a number of chronic diseases [17] and such programs are now recommended by governments world-wide (e.g., in Australia, United Kingdom and the United States). ...

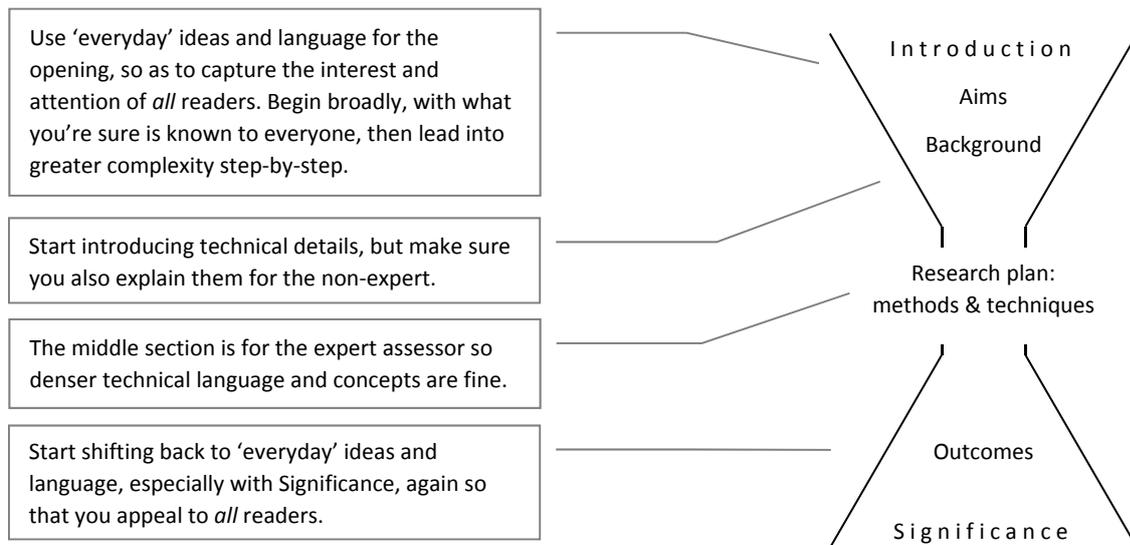
We propose an exercise self-management training program for people after hip fracture

We suggest that ongoing exercise is necessary to improve outcomes after hip fracture and that an optimal way to achieve this is with a self-management training program. ...

3.1.2 Use concepts and language appropriate to readers' levels of knowledge

As well as having different levels of 'commitment', the readers of your proposal will have different levels of knowledge about your research area. External assessors are likely to have very specialist knowledge. Members of the panel may have only a general knowledge. This is partly because panel members with specialist knowledge frequently find themselves in a 'conflict of interest' and are unable to review a proposal they know a great deal about. It is also partly because the composition of panels can be mixed, leading to quite considerable disparities in knowledge about any given topic.

In writing your proposal you should try to cater to *all* your prospective readers – the experts as well as the ‘lowest common denominator’ on the panel – both in terms of the concepts and the language you use. One way to do this is by adopting the ‘hourglass’ approach:



The 'hourglass' approach means that the Research Plan (methods and techniques), which is technical and detailed, is neatly situated within a broader framework that is intelligible to all and of general appeal. Even if non-expert readers have to rely on the advice of expert assessors regarding the methods and techniques, they are at least able to judge for themselves (at a non-technical level) the proposal's significance – both in terms of the importance of the problem/question being addressed and of the anticipated impact of the research – as well as its innovativeness.

3.2 Make it interesting

Applicants' enthusiasm and excitement for their research projects often get lost in the process of drafting and redrafting these proposals. So, once you've reached a point where the content is substantially correct, take a break for a few days, then read back over the proposal and reinvigorate your prose, especially on the first page. Make it lively and interesting – an enjoyable read. Find adjectives and verbs that are fresh and have an impact – get that thesaurus off the shelf! – rather than resorting to what is well-worn and clichéd. For example, 'This result exceeded all expectations' rather than 'This was a very positive outcome'. Or 'Our research may unlock the door to...' rather than 'Our research may provide appropriate and relevant information to...'

At times reading this application felt like a hard slog and it should feel like an interesting and engaging read.

Assessor comment

4 Writing the Research Proposal

This must be **no more than 9 pages** and must comprise these sections:

- Aims
- Background
- Research Plan (method and techniques to be used)
- Timeline/s **new this round**
- Outcomes and Significance.

We also suggest that you (a) begin with an Overview, and (b) include a section on Preliminary Data between the Background and the Research Plan.

4.1 Overview

Leaping straight into the project's Aims can be like throwing your readers in at the deep end. Without some prefatory context, not only may some readers not fully comprehend the Aims, they may not grasp what's *significant* or *innovative* about them. An Overview, though not officially required, offers a non-technical entry point for *all* readers, regardless of their levels of expertise. It can give them a sense of how your project fits into the 'big picture', and it can provide a succinct and compelling rationale for the project.

4.1.1 How long should it be?

This depends on how much or how little your readers are likely to know about the issue, which informs how much detail is needed to set the scene, as well as on the complexity of the argument required to (succinctly) justify the project. The overview could therefore be a paragraph or a page. We usually advise trying to fit the Overview and Aims (including hypotheses) onto the first page, only because reviewers tend to expect them here (by convention) and because having them together on the opening page provides a neat snapshot of the project, which is helpful to readers in a hurry. But perhaps the best guide to length is this: the purpose of the Overview is to give readers enough information so that when they get to the Aims, they can fully understand them and appreciate why they are important.

4.1.2 Logic and structure

However long your overview is, its logic and structure should be along these lines:

1. **Identify the health/medical/scientific problem.** Draw attention to such things as scale of health impact; impact on the individual (quality of life) and on families and carers; impact on the healthcare system; cost to the national economy; intractability of the scientific conundrum. Make the case, if you can do so convincingly, that the problem is pressing and demands urgent attention; if applicable, mention calls to action by international or national health/medical bodies (WHO, AMA, etc.). Also, if the project addresses one of the NHMRC's priority areas or special initiatives, you can mention that as well. In this step you can therefore emphasise the importance of the problem being addressed.
2. **Explain the gap in knowledge/practice/policy.** Give a brief snapshot of what has already been done to address the problem and why it hasn't worked or why the evidence is incomplete or why the problem continues to present a challenge to medical science or clinical practice or health policy, and what the consequent gap in knowledge/practice/policy is. People often skip this step, launching immediately into a description of their own project. But this step can work to your advantage, because it lets you demonstrate (a) that you're well aware of the various approaches taken to addressing the health/medical/scientific problem, (b) what their limitations or drawbacks are, and therefore (c) that a new approach (such as yours) is required. It can also implicitly convey a sense of the impact on the field/discipline that your project is likely to have – i.e. if you manage to resolve a problem that no one else has, how much will your project advance knowledge!
3. **Explain how and why *your* project will address that gap.** Very briefly summarise your project, emphasising *innovation* (novel concepts, approach, methods, data, etc.) and *feasibility* (strong

preliminary data, successful pilot study, the right team, etc.). Be explicit about how you expect the project's outcomes will advance the field of research, change practice, change policy, improve health, reduce healthcare costs, etc. – be sure to draw attention to the *significance* of these expected outcomes. If your project has overarching objectives (as well as the specific aims you will list under Aims), or if it represents one stage or element in your long-term program of research, you could mention these points here too.

This three-step argument is likely also to form the logical basis of your Background section.

4.2 Aims

Describe the specific aims of the project, including a clear statement of hypotheses to be tested.

5.3 B-PR: Grant Proposal (*Advice & Instructions 2015*)

Having set the scene in the Overview, your project's Aims should now appear self-evidently important and interesting – a worthwhile, innovative, even long overdue, response to an important problem. The Aims should *not* come as a complete surprise to the reader. Sometimes there is a large leap in complexity, or level of specificity, between the Overview and the Aims, which makes it very difficult for the reader to follow the line of argument. For example, if the Overview describes the health burden and broad risk factors of type 2 diabetes, the reader may get a little lost if Aim 1 is to characterise genetic mutations in protein X. So try to ensure there is an easy-to-follow, logical flow between the Overview and Aims.

Write the Aims clearly and with definite outcomes in mind. Beware Aims which promise merely to 'explore' (and similar) – reviewers tend to view these as 'fishing expeditions'. Interesting and/or novel Aims are obviously a big plus. It also helps if the Aims anticipate and mirror the subsequent Research Plan. If there are three Aims, for example, the reader will expect three parts to the Research Plan.

4.2.1 *Is a hypothesis necessary?*

The range of projects submitted for these grants is enormous, from basic science to health services research to medical ethics. Whether or not every project should be proposing and testing a hypothesis (or hypotheses) is therefore a moot point. While a hypothesis is no doubt desirable, the best advice we can give is that you should try to be consistent with whatever is the norm for your field.

4.2.2 *Do the aims address the hypothesis?*

Surprisingly, a common criticism in assessor reports is that the aims don't actually address the hypothesis (or hypotheses) – i.e. they will not generate the information required to answer the question(s) being asked. We recommend you seek feedback from other researchers about whether the aims will in fact address the hypothesis *and* about whether the hypothesis is asking the 'right' (most interesting and important) question in the first place.

4.2.3 *Avoid dependent aims*

If Aim 2 relies on successful outcomes from Aim 1, and if Aim 1 is *not* successful, the project will come to a premature end. In this situation, Aim 2 is known as a 'dependent' aim. (Equally Aim 3 could be dependent on Aim 2; Aim 4 on Aim 3; etc.) It is highly unlikely that a project with dependent aims will be funded; the risk that the *whole* project will flounder if *one* Aim doesn't achieve its desired outcome, is too great.

4.2.4 *Summary so far: importance of the opening page*

A number of researchers who have been very successful with NHMRC Project Grants tell us that they spend hours, if not days, drafting and redrafting the first page in order to achieve maximum impact. People who've been on panels also confirm the importance of the first page.

4.3 Background

Provide a rationale for the project.

5.3 B-PR: Grant Proposal (*Advice & Instructions 2015*)

Think of the Background both as an *argument* that provides a strong rationale for the Research Plan that follows and as a *story* that brings readers up to speed on the key issues and maintains their interest. Conceptually it should discuss in detail the three key points covered briefly in your Overview:

1. Identify the health/medical/scientific problem.
2. Explain the gap in knowledge/practice/policy.
3. Explain how and why *your* project will address that gap.

4.3.1 Subheadings

Carefully chosen subheadings are especially useful in the Background. By ‘carefully chosen’ we mean subheadings that succinctly convey important information in their own right and are therefore easy to skim-read. Each subheading might conform to a step in your argument. See the example in 3.1.1 above.

4.3.2 What to leave in, what to leave out

If the Background digresses or includes superfluous details, the purpose of your proposed research project can get ‘lost’ amidst the excess of information. The Background should be neither textbook nor comprehensive literature review. Instead, everything in it should serve a single cause: to make a persuasive case for your Aims and Research Plan. To avoid irrelevant detail, ask of every paragraph, every sentence, ‘Is it advancing the case for my proposal?’

4.4 Preliminary data / pilot studies

Reviewers can think of many reasons why this or that aspect of your proposed project may not work. But show them you have already done it, and such objections vanish. In other words, concerns about feasibility are best assuaged by preliminary data and/or a pilot study.

Rather than bury this critical information somewhere in the Background or Research Plan, we recommend that you create a separate section, with a major heading, *after* the Background and *before* the Research Plan. This way it cannot be overlooked by a reader in a hurry.

If you can’t present preliminary/pilot data now, remember you will have an opportunity to present it a few months later in your rebuttal. This is not ideal of course, but it is better than no preliminary/pilot data at all.

4.4.1 Too much preliminary work?

If you have done a lot of preliminary work, and especially if some of it has been published, you have to be careful not to invite the criticism that you have more or less achieved your research aims already. Projects that offer only incremental advances on existing research are unlikely to be funded. You may need to think carefully about just how much preliminary work you present in your Grant Proposal.

4.4.2 Summary so far: a strong rationale

With the exception of the Aims, all the information leading up to the Research Plan should serve the single purpose of providing a persuasive *rationale* for that Research Plan. By the time your readers get to the Research Plan, they should be well primed for it, expecting it to offer a logical, necessary and desirable response to the problem, question or state of affairs you’ve described.

4.5 Research Plan – methods and techniques to be used

Outline the research plan in detail, including the following where appropriate:

- Detailed description of the experiment design
- Techniques to be used
- Methods of statistical analysis, including power calculations
- Ethical implications the research may have
- Community involvement and/or plans to transfer knowledge to stakeholders or into practice
- Expected outcomes of the research project; and
- The timeline for the project.

5.3 B-PR: Grant Proposal (*Advice & Instructions 2015*)

4.5.1 Alignment: Aims → Methods → Outcomes

A well-written Research Plan will make it easy for the reader to see how the experimental design, methods and techniques will serve the Aims and deliver the Outcomes. The Research Plan should therefore clearly map onto the Aims. For example, if there are three Aims, the reader will probably expect three parts to the Research Plan. Begin each part by restating the Aim; it doesn't matter that this repeats the Aims given on the first page; it helps readers understand exactly how the methods align with, and serve, the Aims.

4.5.2 Sound and thorough experimental design

Many assessors' criticisms could be averted if more information, or more precise information, were provided in the Research Plan. This is particularly common with things like recruitment, retention, statistical methods and power calculations. It may be that you know exactly what you're doing but have forgotten to mention it. But assessors won't know that; they'll just see a gap or flaw in your plan.

Providing sufficient, precise information will also reduce the number of questions you have to answer at rebuttal time. Since you are allowed only two pages for your rebuttal, a spate of questions can mean (a) you don't have room to respond to them all, or (b) you do manage to respond to them all but in a very cursory and unsatisfactory manner.

To ensure your Research Plan is rigorous and comprehensive, avail yourself of publicly available guidelines and checklists for project design, e.g. the CONSORT Statement for randomised clinical trials. We also recommend that you seek feedback from other researchers on the experimental design.

4.5.3 Most appropriate experimental design

Many assessors' comments challenge the approach researchers take to address their Aims and Hypothesis – e.g. Are the research questions being answered in the right way? Is it the most appropriate model? Will the experiments actually provide the required information? If alternative approaches are possible, consider whether or not you have adequately justified the approach you are taking and the methods you are using. It's your job to convince all your reviewers that you are going about the project in the best possible way.

4.5.4 Outcomes as you go

To address 'expected outcomes of the research project', you might consider concluding each Aim (or each part of your work plan) with a subheading like 'Expected outcomes' in which you briefly summarise the anticipated results or outcomes for that piece of work. This explicitly links methods to outcomes, and neatly encapsulates for the reader what the Aim is intended to achieve. (For Outcomes & Significance at the end, you can discuss the expected outcomes of the *project as a whole*.)

4.5.5 'Timeline for the project'

The guidelines ask for a timeline both in the Research Plan and in a subsequent, dedicated 'Timeline' section. The timeline in the Research Plan appears optional ('where appropriate'), whereas that in the

dedicated ‘Timeline’ section is compulsory. If you choose to include both timelines, you will need to distinguish between them to avoid duplication:

- the timeline in the Research Plan should illustrate time spent on methods and techniques
- the timeline in the dedicated ‘Timeline’ section should illustrate the time span for each of the project’s expected outcomes; it should also align with the budget (see 4.6 *Timeline/s* below).

Note that time spent on *several* methods and techniques (first timeline) may amount to the time span for *one* expected outcome (second timeline).

4.5.6 *Dealing with weaknesses*

Don’t try to hide weaknesses or avoid difficult questions (unless you’re absolutely sure that not a single assessor would notice them!). It’s better to raise the issue yourself, to show that you’re perfectly aware of it, and then to neutralise potential criticisms by explaining how you will deal with the issue should it arise, for example by demonstrating you have a contingency plan. In effect, this is a kind of ‘pre-emptive strike’.

4.5.7 *Feasibility*

Feasibility is a facet of ‘scientific quality’ and has become an increasingly critical point of differentiation between successful and unsuccessful applications. To establish the feasibility of your Research Plan you must demonstrate that what you are proposing to do is achievable – by your team, using the proposed methodology, and within the timeframe. There are several ways to do this:

- demonstrate feasibility by reference to any preliminary work you have done (see 4.4 *Preliminary data / pilot studies* above)
- whenever you mention a method or technique you plan to use (unless it’s absolutely standard practice), be explicit about your team’s ability to do it; ideally cite one of the CIs’ publications in which the method or technique has already been used successfully
- you might also summarise key aspects of feasibility in a dedicated ‘Feasibility’ subsection; this is probably best placed at the end of the Research Plan.

4.6 *Timeline/s*

Provide a detailed timeline for the expected outcomes of the research proposal along with justification of the duration requested.

5.3 B-PR: Grant Proposal (*Advice & Instructions 2015*)

This timeline for expected outcomes of the project is compulsory. (Note that ‘expected outcomes’ does *not* mean ‘expected impact’, i.e. post-completion of the project.)

If you include a second timeline in the Research Plan, you will need to distinguish the content of the two timelines to avoid duplication (see 4.5.5 *‘Timeline for the project’* above).

If you include only this timeline, try to offer as much detail as space allows. For example, rather than simply indicate that Aim 1 will be completed by the end of year 2, indicate when each component of Aim 1 will be completed.

This timeline should align with the proposal’s budget as well as its Aims. For example, if in the budget you request a PSP3 for years 1 and 2 of the project to complete Aim 1, then the timeline needs to show that Aim 1 will be complete by the end of year 2.

Don’t forget to include a justification for the number of years you are requesting funding.

4.7 Outcomes & Significance

Describe the importance of the problem to be researched, the planned outcome of the research plan, and the potential significance of the research.

5.3 B-PR: Grant Proposal (Advice & Instructions 2015)

The Outcomes & Significance section typically suffers from either of two problems:

1. it's poorly written, because the author has run out of energy
2. it's well written and contains the proposal's strongest selling points, but because these points don't appear until the last page they are lost on reviewers whose interest or attention has already waned.

Let's deal with the second issue first. We recommend that any key 'selling' points should be highlighted earlier in the Research Plan, preferably on the first page. They need only be mentioned briefly there – summarised, paraphrased. You can then use the Outcomes & Significance section to recapitulate and flesh out these points, as well as to add any other relevant but less crucial points.

Now let's deal with the first issue – how to conclude your proposal with a bang, not a whimper! For a start, use a tight, focused structure to deliver each point clearly and with maximum impact. We suggest that you:

- discuss outcomes and significance in two discrete subsections (e.g. outcomes first, significance second) *or* discuss one outcome and its significance, then the next outcome and its significance, and so on
- use bullet points or paragraphs to clearly distinguish between each key idea or aspect.

4.7.1 What's the difference between outcomes and significance?

It's helpful to have in your mind a clear conceptual distinction between outcomes and significance. You might think of *outcomes* as the specific and immediate consequences of your project, and *significance* as the broader and perhaps longer-term implications of those outcomes. Most outcomes can be stated as simple matters of fact. Points of significance, on the other hand, may require some discussion or argument.

4.7.2 Outcomes

The NHMRC is very keen on seeing research *applied*. If your project will yield outcomes that have *no* near-term application (e.g. it's a basic science project), it might help to briefly explain what the eventual application will be and what the pathway to it will look like. If you're planning on subsequently doing the next step or two of that translational work yourself (e.g. in a follow-up project), it's a good idea to say so.

What *doesn't* seem to rate well with reviewers is generic statements such as 'This could be a potential drug target'. Such things are easy to say, but very difficult to actualize. A proposal that can demonstrate further evidence about the 'potential drug target' is more likely to be funded – e.g. evidence that target-specificity is likely to be achievable, that side-effects are unlikely, or that the drug is already in use (for another application) and has therefore received TGA or FDA approval.

4.7.3 Significance

Significance, as noted earlier (1.3.2 *Significance*), is 'not a measure of the prevalence/incidence of the health issue'. It is instead a measure of the extent to which your project is likely to:

- *advance knowledge* – i.e. make an important academic/intellectual contribution to knowledge in the field(s) of research (and beyond)
- *have an impact on the health issue in question* – i.e. make an important 'real world' difference to a health issue by improving clinical practice and/or public health and/or health policy.

'Important' is a key word for both points. Projects promising merely incremental advances or minimal impact are unlikely to be funded. Note also that a stipulated measure of importance is 'the likely interest from other researchers, conference organisers, journals, community groups, and policy makers in the outcomes of the research'.

It can help to think about impact by asking yourself *who* or *what* will benefit from your project's outcomes – e.g. researchers in your field (and beyond); a specific group of health professionals; a specific sector of health care; the health system as a whole; NHMRC health priorities; the National Health Priorities; Australia's Strategic Research Priorities; health in the Asia-Pacific region; global health; patients, their families and/or carers; the health of a subpopulation or of the population as a whole; industry (e.g. medical technology); a sector of the economy or the economy as a whole.

Finally, think about how you might persuade the reviewers that your project needs to be funded *now*. If two research proposals are neck-and-neck in every other respect, the one that appears more urgent is surely going to win the race. Is the health problem worsening dramatically? Has the WHO issued a call to action? Has a golden opportunity presented itself to your research team? Is there only a short time period in which to conduct the research? And so on. But be careful not to *fabricate* the urgency of the matter.

4.7.4 Innovation

Anything innovative about the project should also get a plug somewhere in the Outcomes & Significance section (see 1.3.3 *Innovation*).

5 Writing the References (and in-text citations)

The NHMRC has changed its instructions about this twice since issuing the original Advice & Instructions document in December 2013. The final instructions are as follows:

References must:

- not exceed 2 pages,
- provide a list of all references cited in the application in an appropriate standard journal format, (NHMRC prefers the Author-date [also known as the Harvard System], Documentary-note and the Vancouver System),
- list authors in the order in which they appear in PubMed,
- not include web links,
- only include references to cited work.

RAO Alert (email), 31 January 2014

It is probably best to disregard all previous instructions from the NHMRC on this matter.

5.1 Using RGMS ID numbers in the References list

In the References list you are allowed to use the RGMS ID number for any publication authored by a CI. The advantage of doing so is brevity; it uses only one line. The disadvantage is that the RGMS ID on its own is not informative, and reviewers will have to refer to *another* document (the Assessor Snapshot report) to find out the publication's details, which can be onerous. It is better, if you can, to provide the reference itself. You can append the RGMS ID number if you wish.

5.2 In-text citations

The drawback of the Harvard style for in-text citations (i.e. Author Date) is that, compared to a simple numbering system, it lengthens your proposal considerably. The most concise way to cite references in the text is to number them (i.e. 1, 2, 3 etc.). Superscript numbering uses even less space (i.e. ^{1,2,3} etc.).

5.3 Citing publications by your own team

Applicants usually like to draw attention to publications authored by members of their own team, typically by putting the names of CIs in **bold**. If you use a numbering system for in-text citations, this isn't possible. To work around this, some people cite their own work like this: (CIA 3) or ^{CIA 3}. Alternatively, you can rephrase the sentence in which the citation occurs. For example:

CIB Cros co-authored a groundbreaking report³ which demonstrated that...

The latter workaround may also be useful for Harvard-style citations of publications with more than 3 authors. These have the format (first Author et al. Date), which means the name of a CI who co-authored the publication but was not *first* author does not appear. So, you could write:

CIB Cros co-authored a groundbreaking report (Chen et al. 2008) which demonstrated that...

You may also want to **bold** the names of your CIs in the References list. Here's an example (where D Cros is the CI):

Chen, R, **Cros, D**, Jones, R, Curra, A, 2008, 'The clinical diagnostic utility of transcranial magnetic stimulation: report of an IFCN committee', *Clinical Neurophysiology*, vol. 119, pp. 504-532.

5.4 Web links

You are instructed *not* to include web links 'apart from references to published or peer reviewed journal articles that are only available online' (see also 2.1.1 Avoid web links).

6 Writing the CI Time Commitment to this proposal

Applicants are required to provide an overview of each CI's time commitment to this research proposal, along with other research commitments. Applicants need to provide detailed information for assessors to assure them that each CI will and is able to provide a sufficient level of commitment to successfully undertake and complete the research proposed.

For each CI, applicants should detail the following in ½ page or less:

- the NHMRC research time that will be dedicated to this application if it were to be funded (this application %);
- the amount of research time each CI spends on other NHMRC grants (other grants %) in an average working week; and
- a brief description outlining their role on this proposal.

5.3 B-PR: Grant Proposal (*Advice & Instructions 2015*)

The time commitment of all CIs is explicitly taken into account by reviewers when assessing the proposal's Team Quality & Capability score. That of the CIA is scrutinized particularly closely. However, the instructions here are proving extremely confusing to applicants. Essentially this is because the percentages you are required to provide for the first two points are *proportions* relating to *time spent on NHMRC-funded research* and bear no relation to actual hours spent on research nor to research commitments overall; therefore they do *not* satisfy the requirement to assure assessors that the CI can commit sufficient time to the proposed project.

Consequently, writing this section actually involves *four* steps:

1. calculate *this application %*
2. calculate *other grants %*
3. assure assessors that you can commit sufficient time to the proposed project
4. briefly describe your role on the project.

We discuss each of these points below.

6.1 How to calculate *This application %* and *Other grants %*

A simple formula governs these calculations:

$$100\% - \text{This application \%} = \text{Other grants \%}$$

The only thing you need to do is decide what *This application %* will be. The *Other grants %* is merely a function of it.

Since *This application %* refers to the proportion of your *NHMRC-funded research time* you intend allocating to this project, it's essentially an arbitrary figure. The only thing that really matters is that it should sound consistent with your role on the project. The position of CIA, for example, will usually demand a higher proportion of time than will other CI positions. Also, bear in mind that a minimum *credible* allocation of time is about 5-10%.

Note too that NHMRC fellowships *do not count* towards *NHMRC-funded research time*. It is considered that fellowships provide salary support, not project support.

There are a few other peculiarities to these calculations, probably best addressed by some examples. These examples proceed from simplest to most difficult.

6.1.1 Scenario 1

You have *no* NHMRC grants currently. You are applying for *one* Project Grant in this round. You would write:

- This application % = 100%
- Other grants % = 0%

6.1.2 Scenario 2

You have *no* NHMRC grants currently. You are applying for *two* Project Grants in this round. You intend, if successful in both, to split your NHMRC research time 40/60. Nevertheless, since you cannot predict success, you would write (in *both* applications):

- This application % = 100%
- Other grants % = 0%

6.1.3 Scenario 3

You have 1 NHMRC grant currently, and it will continue into 2015. You are applying for *one* Project Grant in this round. You intend, if successful, to devote 30% of your NHMRC research time to it. You would write:

- This application % = 30%
- Other grants % = 70%

6.1.4 Scenario 4

You have 4 NHMRC grants currently, but only three will continue into 2015. You are applying for *one* Project Grant in this round. You intend, if successful, to devote 20% of your NHMRC research time to it. You would write:

- This application % = 20%
- Other grants % = 80%

6.1.5 Scenario 5

You have 3 NHMRC grants currently, and two will continue into 2015. You are applying for *two* Project Grants in this round. You intend, if successful, to devote 20% of your NHMRC research time to one new project and 10% to the other. In one application you would write:

- This application % = 20%
- Other grants % = 80%

And in the other:

- This application % = 10%
- Other grants % = 90%

6.2 Assuring the assessors that you can commit sufficient time to the proposed project

Having calculated *This application %* and *Other grants %*, you now need to write something that matters to reviewers. That is, you need to explain how much actual time you can devote to the proposed project. It makes sense to present a definite 'x hours per week' number; this is reassuring. You can also elaborate briefly in words, as much or as little as you think necessary. Two things to bear in mind are:

- the time you nominate should be commensurate with your role on the project
- if it will be apparent to reviewers (from any part of the application, not just your CI Track Record) that you are heavily committed, you must address this matter here, explaining exactly how you will manage to find the time in a busy life to devote to this project.

6.3 Your role on the project

Make sure the brief description you give outlining your role on the project is commensurate with your nominated time commitment.

7 Writing the Team Quality & Capability statement and CI Track Records

There have been several important changes to these sections for the 2014 round.

7.1 General points

7.1.1 It's the team that counts

The fact that the assessment criterion formerly known as 'Track Record' is now called 'Team Quality & Capability' tells you that the emphasis falls squarely on the team as a unit, not on the individual team members. In a sense, the whole must be greater than the sum of its parts.

For this reason it is highly desirable to demonstrate as much as possible that the CIs (and AIs) can *already* work together successfully as a team. Draw attention to previous collaborations, co-authored publications, co-supervised students, and so on.

How you *present* the Team Quality & Capability section may also create an impression about the extent to which the CIs form a coherent, professional team, or a grab-bag of individuals thrown together at the last minute. So, aim for *consistency* in content, formatting and writing style. It may help for the CIA to write their 2-page Track Record first, then send it to the other CIs as a model to emulate.

7.1.2 Role of the CIA

The CIA must demonstrate their ability to lead the project and the team:

The contribution of a CIA, both in time and intellectual input as outlined in the application, will be reviewed by the PRP to determine whether it is adequate for the research proposed.

B4. Research Team (*Funding Rules 2015*)

The assessment of Team Quality & Capability should recognise that CIA is the project leader who is responsible for the successful completion of the research proposal.

Peer Review Guidelines, June 2013, p. 32

New Investigators, by definition, have not led a major grant before. Nevertheless, New Investigator CIAs should still try to persuade reviewers of their *ability* or *potential* to lead a project, even if they can't demonstrate actual experience in doing so.

7.1.3 Relative to opportunity

The assessment criterion for Team Quality & Capability includes the phrase 'relative to opportunity'. This concept means your track record of research achievement is to be judged in the light of the opportunities (or lack of) you have had:

relative to opportunity may take into account the amount of time spent as an active researcher; career disruption [see below]; available resources; clinical, administrative or teaching workload; relocation of an applicant and his/her research laboratory or clinical practice setting; restrictions on publication associated with time spent working in other sectors (e.g. industry, policy and government) and the typical performance of researchers in the research field in question.

A3.7 Relative to opportunity (*Funding Rules 2015*)

7.1.4 Career disruption

The assessment criterion for Team Quality & Capability includes the phrase 'taking into account career disruptions where applicable'. Career disruption is a special subcategory of 'relative to opportunity'. It constitutes pregnancy, major illness, and carer responsibilities including parental leave (see A3.7.1 Career Disruption, *Funding Rules 2015*), which have resulted in periods of 'reduced or no productivity'.

If you have experienced career disruption in the last 5 years, you should bring it to the reviewers' attention. How to do this is illustrated in the CI Track Records template, available from the [Research Portfolio website](#). (See also 5.3 B-PR: Grant Proposal, *Advice & Instructions 2015*.)

7.1.5 *Relevance to the project*

An addition to the assessment criterion for Team Quality & Capability this year is the phrase ‘relevant to the application’. In effect, a track record that relates directly to the project in question may score better than an ostensibly stronger track record that doesn’t. So, all CIs should *tailor* their 2-page Track Records as much as possible to the proposed project. You will find that some CIs are reluctant to do this.

7.1.6 *Feasibility*

Relevance to the project is an indicator of feasibility. And feasibility is primarily what this section is about:

Team quality and capability is considered in terms of whether an applicant’s previous research demonstrates that the investigator(s) is capable of achieving the proposed project and/or ability to deliver the proposed project in terms of having the appropriate mix of research skills and experience.

Attachment C - Guidance for Applicants to Address the Project Grants Assessment Criteria (*Funding Rules 2015*)

So, in combination the 1-page TQC statement and the 2-page CI Track Records should clearly demonstrate that *all* the skills and experience necessary to the project’s success are available in the team. (If you want to discuss the contribution of AIs, you can do so in the TQC statement.)

A useful exercise is to draw up a matrix which lists, on one axis, all the methods and techniques to be used in the project, and, on the other, all your CIs and AIs. You should be able to tick off every method and technique against at least one of the CIs and AIs; if you can’t, find a CI or AI to fill the gap. (You could even include such a matrix in the TQC statement itself.)

7.1.7 *What period of time to focus on?*

Although for some time there has been an *emphasis* on ‘the last 5 years’, this emphasis is now *mandated* in the wording of the category descriptors (see *Appendix B*) and in the instructions for writing the individual CI Track Records (see 7.3 *CI Track Records* below). Including information that predates the last 5 years is a tactical decision for you to make. Whatever you decide, such information should be kept to a minimum and limited to highly significant achievements. The last 5 years should be the priority.

7.1.8 *Senior and junior members of the team*

The Team Quality & Capability statement requires information about how ‘junior’ members contribute to the team, and the category descriptors for scores of 5 and above distinguish between ‘senior’ and ‘junior’ team members. For example, the category descriptor for a score of 6 now includes this:

Relative to opportunity, the applicant team ... has senior members with excellent national and/or international reputations in the field of research relevant to the application ... [and] may involve junior members who are strong contributors to the overall team quality & capability.

The NHMRC does not, however, define ‘senior’ and ‘junior’. It appears to be left to your discretion. Meanwhile, it is probably worth quoting the following points:

The Project Grants Scheme ... encourages the inclusion of early career researchers as named CIs on applications.

B4. Research Team (*Funding Rules 2015*)

Where an application involves a CI team, the track record of all CIs is considered and will be assessed relative to opportunity (including career stage)...

Attachment C - Guidance for Applicants to Address the Project Grants Assessment Criteria (*Funding Rules 2015*)

7.1.9 *Impact factors and h-index*

Assessment of Team Quality & Capability should take into account the productivity of the team, including the number of senior authorships and the team’s influence in the field (relevant to the project application) without reference to h-index or journal impact factors. Citations of published papers can be used.

Peer Review Guidelines, June 2013, p. 32

The NHMRC ‘abolished’ the use of journal impact factors for peer review purposes in 2010 (see ‘Statement on the removal of impact factors from peer review’ available at <http://www.nhmrc.gov.au/grants/policy>). The workaround is to describe a journal as being, for example, ‘one of the top 5 journals in the field of x’.

Many applicants continue to include their h-index. Whether or not reviewers take it into consideration informally is difficult to determine, and probably a matter of the reviewer’s personal preference.

As far as we’re aware, no applications have been declared ineligible due to the inclusion of impact factors or h-indices.

7.2 Writing the Team Quality & Capability statement (1 page)

A template for the Team Quality & Capability statement is available from the [Research Portfolio website](#).

In the last round this statement was known as ‘Team Quality and Capability’; it is now ‘Team Quality and Capability relevant to this proposal’. The NHMRC instructions say:

A summary of the research team’s quality and capability must be contained in this section. Applicants should detail the following:

- the expertise and productivity of team members relevant to the proposed project;
- their influence in this specific field of research;
- how the team will work together to achieve the project aims; and
- how junior members are contributing to the overall track record of the team.

5.3 B-PR: Grant Proposal (*Advice & Instructions 2015*)

To keep things simple, make these bullet points the subheadings in your one-page statement, and address each point in turn. (Obviously the point about junior members depends on whether the team has any.)

The team, for the purposes of this statement, means CIs and AIs.

If you’re a sole CI, you still need to write a TQC statement. Chances are you will have AIs on the team anyway. But don’t feel obliged to fill up the entire page.

Write the statement so that it *complements* the individual CI Track Records rather than *repeats* them.

As mentioned in 7.1.6 *Feasibility*, you may wish to include a matrix of the team’s skills and experience.

7.3 Writing CI Track Records (2 pages each)

A template for the CI Track Record is available from the [Research Portfolio website](#).

As well as an autobiographical sketch of research career and profile, the Track Record is an opportunity to:

- impress upon the reviewer the **quality** of your research; that is, draw attention to highly ranked journals you have published in, high citation rates, evidence of status and peer recognition
- provide evidence of your **productivity** – ideally you will be able to demonstrate an upward trajectory in the last 5 years
- provide evidence for the **feasibility** of the accompanying research proposal; that is, demonstrate how your skills and experience align with and will contribute to the proposed research.

This section now has two components:

- the top 5 publications in the last 5 years
- overall Track Record in the last 5 years.

7.3.1 Top 5 publications in the last 5 years

This component is new. There used to be sections in RGMS where CIs discussed their most significant publications, but these have been removed. Instead, in the 2-page Track Record applicants must now:

...list their top 5 publications in the last 5 years and reasons why these publications have been selected.

Note that it is not enough to list 5 publications and leave it at that. Some discussion is required. You need to explain *why* the publications are important; if possible, also provide some evidence of their impact.

The guidelines say that reviewers will use this ‘top 5 publications’ information to assess the **quality** of the research team’s track record.

Where a publication has been authored by more than one CI, you will need to be strategic. If all CIs who authored the publication include it in their top 5, the consequent duplication will reduce the overall number of your team’s top 5 publications.

7.3.2 Overall Track Record in the last 5 years

Applicants are asked to use this component (a) ‘to identify aspects of their track record that are in addition to their publication record’, because reviewers will already have access to the last 5 years of publications through the CV/Profile section in RGMS; and (b) to include any ‘relative to opportunity considerations’ they want reviewers to take into account.

It’s important to bear in mind that several CV/Profile sections have been removed from RGMS this year (see 1.2 Key Changes to the application form, *Advice & Instructions 2015*). Consequently there is a considerable amount of biographical information which, if you want reviewers to know about it, you must now include in your 2-page Track Record. The guidelines suggest you consider including any or all of the following:

- Career summary - including qualifications, employment and appointment history;
- Research support - including grants and fellowships;
- Contribution to field of research – this may include the impact of previous research including translation of research into health outcomes;
- Patents – this information should include if the patent has been licensed, when they have been licensed, to whom they have been licensed and if that license is current or not;
- Collaborations;
- Community engagement and participation;
- Professional involvement - including committees, conference organisation, conference participation;
- International standing - including invitations to speak, international committees;
- Supervision and mentoring;
- Peer review involvement (including NHMRC, other granting organizations, manuscripts, editorial responsibilities)
- Other contributions to NHMRC; and
- any other information you think is vital to your application

The guidelines say that reviewers will use each CI’s ‘overall track record’, along with their publication record from the CV/Profile section in RGMS, to assess the **productivity** of the research team.

7.3.3 Career disruption

If you wish to claim career disruption in the last 5 years, you may do so using an additional page. That is, you will now have a 3-page Track Record. There are very specific instructions as to what information to include in this page and how to set it out, so see 5.3 B-PR: Grant Proposal (*Advice & Instructions 2015*).

8 Need help? Ask for our grant review service

If you would like assistance with the logic, argument, language, presentation and overall clarity of your research proposal, a **grant review service** is available from the Research Portfolio's Research Development team. Andrew Black, Tim Haydon or Rosanna Cazzolli will review your draft application and then meet with you (or phone or Skype) to discuss its strengths and weaknesses and to suggest ways to make it more competitive.

You will need to provide us with a 'reasonable draft' of your Grant Proposal. By this we mean:

- there may still be some data and references missing and/or issues and comments to be resolved, but overall the rationale and plan should be well developed
- a draft Team Quality & Capability statement
- at least one draft CI Track Record, preferably the CIA's.

To obtain assistance, please contact any one of us:

- andrew.black@sydney.edu.au
- t.haydon@sydney.edu.au
- r.cazzolli@sydney.edu.au

Appendix A. Assessment Criteria

Scientific Quality (50%)

This includes the clarity of the hypotheses or research objectives, the strengths and weaknesses of the study design and feasibility. Applications may be assessed in terms of, but not limited to the following questions.

- a. Clarity of the hypothesis or research objectives:
 - i. Has the method/framework/approach been partially tested?
 - ii. What outcome is sought in the proposed study? What exactly is the outcome measure?
 - iii. Is it well integrated and adequately developed?
- b. Is there a clear and appropriate research plan?
 - i. What are the strengths and weaknesses of the study and its design?
 - ii. Have any major pitfalls or problems been overlooked? Have alternative approaches been considered?
 - iii. Is the plan well informed by knowledge of the literature?
 - iv. Is the design appropriate for the aims of the research?
- c. Feasibility
 - i. Will the research plan successfully address the stated hypothesis or research objectives?
 - ii. Are the goals concrete and achievable?
 - iii. Is the investigating team appropriate – is it capable of achieving the goals? Does it have the right skills and expertise?

Significance of the expected outcomes and/or Innovation of the concept (25%)

This includes the potential to increase knowledge about human health, disease diagnoses, or biology of agents that affect human health, or the application of new ideas, procedures, technologies, programs or health policy settings to important topics that will impact on human health.

Applications need not be rated on both significance and innovation.

8.1.1 Significance

- Will there be advancement in knowledge from the outcomes of this study?
- If successful, will the study have a significant impact on the health issue at question?
- Impact could be measured by advancement in general scientific knowledge, clinical and/or public health applications, policy development or change
- NB: The significance of the study is not a measure of the prevalence/incidence of the health issue (e.g. cancer versus sudden infant death syndrome)
- What is the likely interest from other researchers, conference organisers, journals, community groups, and policy makers in the outcomes of the research?

8.1.2 Innovation

- Is the proposed research new/novel or creative (has imagination been used)?
- Are the aims transformative?
- Are the techniques cutting edge?
- If successful, could the research result in a paradigm shift?
- Will the research affect current practices or approaches and other researchers within this field of research?
- Is the research proposal a strong candidate for the Marshall and Warren Award?
- Is the proposed study innovative enough that it will be the subject of invited plenary presentations at international meetings?

- Is it likely that the results from the study will yield highly influential publications?
- How well does the proposal describe the new ideas, procedures, technologies, programs or health policy settings?

Team Quality and Capability relevant to the application – relative to opportunity, taking into account career disruptions where applicable (25%)

Team quality and capability is considered in terms of whether an applicant's previous research demonstrates that the investigator(s) is capable of achieving the proposed project and/or ability to deliver the proposed project in terms of having the appropriate mix of research skills and experience.

Where an application involves a CI team, the track record of all CIs is considered and will be assessed relative to opportunity (including career stage), based on relevance to the research being proposed and taking into account time commitment.

Team Quality and Capability may encompass the national and international standing of the applicant(s) based upon their research achievements, including but not limited to:

- *research outputs relevant to the proposed field of research* – most recent significant publications; publications that illustrate innovation and significance to past accomplishments; impact or outcome of previous research achievements, including effects on health care practices or policy; awards or honours in recognition of achievements;
- *contribution to discipline or area* – invitations to speak at international meetings, editorial appointments, specialist and high level health policy committee appointments; and
- *other research-related achievements* – influence on clinical/health policy or practice, or provision of influential advice to health authorities and government; impacts on health via the broad dissemination of research outcomes, e.g. via mainstream media, the community or industry involvement.

Team Quality and Capability is considered in relation to opportunity – with regard to factors such as career disruption, administrative and clinical/teaching load, and typical performance (including publications) for the field in question. For Project Grants, Team Quality and Capability will be judged on the most recent five years, except where there is a career disruption (see Advice and Instructions to Applicants for further details). Applicants should note that journal impact factors or person-centric citation metrics such as the H-index should not be used.

Appendix B. Category Descriptors

We include only the Category Descriptors for scores of 5 and above (i.e. fundable).

CATEGORY	Scientific Quality 50%	Significance and/or Innovation 25% <i>AND/OR Innovation of the concept</i>	Team Quality & Capability relevant to the application 25% <i>Relative to opportunity</i>
7 Outstanding by International Standards	<p>The proposal has a research plan that:</p> <ul style="list-style-type: none"> has objectives that are well-defined, highly coherent and strongly developed. has a near flawless design. is without question, highly feasible given that all of the required expertise and research tools and techniques are present in the relevant research environment(s). 	<p>The planned research:</p> <ul style="list-style-type: none"> will result in a highly significant advance in knowledge in this field which addresses an issue of great importance to human health. will translate into fundamental outcomes in the science and/or practice of clinical medicine or public health or fundamental changes in health policy. will likely be the subject of invited plenary presentations at national and international meetings. will likely result in highly influential publications. is highly innovative and introduces advances in concept(s). will use very advanced approaches which will optimize outcomes. 	<p>Relative to opportunity, the applicant team:</p> <ul style="list-style-type: none"> has expertise that specifically targets the proposed research both in terms of its depth and breadth. has over the last 5 years, a combined record of research achievement quality (as exemplified by the top 5 publications of each CI) and productivity (totality of outputs) and/or translation into practice that is outstanding by international standards commensurate with their field of research. has senior members with outstanding national and international reputations in the field of research relevant to the application. may involve junior members who are very strong contributors to the overall team quality & capability.
6 Excellent	<p>The proposal has a research plan that:</p> <ul style="list-style-type: none"> has objectives that are well-defined, highly coherent and strongly developed. is well designed. is highly feasible given the experience, skills and readiness of the team in the relevant research environment(s). 	<p>The planned research:</p> <ul style="list-style-type: none"> will result in a significant advance in knowledge in this field which addresses an issue of significant importance to human health. is likely to translate into fundamental outcomes in the science and/or practice of clinical medicine, public health or provide fundamental changes in health policy. will likely be the subject of invited plenary presentations at national and international meetings. will likely result in influential publications. is highly innovative in approach. will use advanced approaches to enhance outcomes. 	<p>Relative to opportunity, the applicant team:</p> <ul style="list-style-type: none"> has expertise that is highly relevant to the proposed research both in terms of its depth and breadth. has over the last 5 years, a combined record of research achievement quality (as exemplified by the top 5 publications of each CI) and productivity (totality of outputs) and/or translation into practice that is excellent by international standards commensurate with their field of research. has senior members with excellent national and/or international reputations in the field of research relevant to the application. may involve junior members who are strong contributors to the overall team quality & capability.
5 Very Good	<p>The proposal has a research plan that:</p> <ul style="list-style-type: none"> is very clear in its scientific approach and is logical. raises a few minor concerns with respect to the study design. is feasible, with all required techniques and tools either established or nearly established in the relevant research environment(s). 	<p>The planned research:</p> <ul style="list-style-type: none"> will advance knowledge in this field which addresses an issue of importance to human health. may translate into fundamental outcomes in the science and/or practice of clinical medicine, public health. could be the subject of invited plenary presentations at international and national meetings. is likely to result in some very strong publications. is innovative in approach. will use strong approaches to good effect. 	<p>Relative to opportunity, the applicant team:</p> <ul style="list-style-type: none"> raises only minor concerns regarding the depth and breadth of expertise relevant to the proposed research. has over the last 5 years, a combined record of research achievement quality (as exemplified by the top 5 publications or each CI) and productivity (totality of outputs) and/or translation into practice which places it well above average for their peers or cohort. members have very good and growing national and/or international reputations in the field of research relevant to the application. may involve junior members who are valuable contributors to the team quality & capability.