Research Strategy and Partnerships Office, Division of Research

NHMRC Project Grants – Strategic considerations

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Objective

The objective of this session is to get you to think *strategically* about *writing* your NHMRC Project Grant for PG19.

Outline of presentation:

- NHMRC Project Grants
- Writing your proposal
- Scoring of your application
- Research Strategy Office assistance
NHMRC Project Grant – current program

**Aim:** 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.

**Assessment criteria:**

1. **Scientific Quality** (**50%**);

2. **Significance of the Expected Outcomes AND/OR Innovation of the Concept** (**25%**)

3. **Team Quality and Capability relevant to the application** - relative to opportunity, taking into account career disruptions where applicable (**25%**).
NHMRC Project Grants – Success rates

Success rates %

<table>
<thead>
<tr>
<th>Year</th>
<th>NHMRC</th>
<th>UNSW</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>3238</td>
<td>254</td>
</tr>
<tr>
<td>2011</td>
<td>3369</td>
<td>292</td>
</tr>
<tr>
<td>2012</td>
<td>3570</td>
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<td>3550</td>
<td>262</td>
</tr>
<tr>
<td>2017</td>
<td>3345</td>
<td>260</td>
</tr>
</tbody>
</table>
Changes from last year

- **Last round of Project Grants** (new scheme: Ideas Grants)
- **Limit of 2 grants applications** (can hold a max of 6)
- **Applies to all CIs (CIA-CIJ)**
- **Will affect PG19**
  - Team of researchers
  - ↑ opportunity for EMCR’s
  - ↑ application numbers this round
Writing your project proposal
Plan your project proposal

Planning your project

- Your expertise
- Resources
- Team
- Evidence base
- Outcome and Impact
- Consultation
- Budget
- Evaluation and monitoring
- Identifying the need
- Translation
- Support for the project
- Methods

Is there a need for the research?
Structure of your proposal

Synopsis (1 pg)

Background

Pilot data

Aims

Research Plan

Methods & Techniques

Outcomes

Significance & impact
First page – synopsis of your grant

Brief background
- Introduces the health area of “relevant to human health”
- Provides an evidence-based foundation for your research question

Aims/objectives
- Clearly states the aims of the research and how you will work towards solving the problem introduced in the brief background

Expected outcomes/significance/innovation
- Describes your results/outcomes/impact and may describe briefly where this research could lead

Team
- A short summary of why the CI team is the team to undertake this research (if room)
Selling your project

• Brainstorm the **important factors of your project**. Prioritise the list and make sure you can describe each feature of the project succinctly and accurately.

• Look at your project from different view points – **identify why it is so important** that your project should be funded over others. Identify this and **clearly express it at the beginning**.

• **State your research objective clearly and early in the proposal**

• Attract attention in the **FIRST paragraph** of the application

• Get your message clearly across explaining the main points and **how it will fit with the objectives of the scheme**

• Demonstrate your expertise and support (environment)
Tips for writing

− Write so assessors ‘get it’ on the **FIRST** read. Not hard work to read.
− Clear, persuasive, interesting, engaging, compelling.
− **The first page is critical**, create a meaningful narrative from the outset
− Extend acronyms; don’t have too many
− Keep tense consistent within a section
− Have **white spaces** between paragraphs; don’t overcrowd the content
− Keep headings consistent; don’t overuse **bold** or **underline**
− UK/US English
− **Why this question? Why this team? Why now?**
− A hypothesis and a maximum 3-4 aims – must tie together, non-cont
− Include timeline, **figures and schematics**
− Consistency between CI’s role, track record, budget etc…
Scoring of your application

Your score determines your rank and whether you are funded or not
How is your grant scored?

Guide to NHMRC Peer Review:

“Reviewers are required to assess the application relative to the scheme-specific Assessment Criteria and where applicable, the Indigenous Research Excellence Criteria.”

- **Do** provide constructive feedback.
- **Do** ask questions, provide comment or seek clarification on concerns if the process allows for an applicant to respond (rebuttal). Note that applicants must be able to address these questions without modifying their research proposal.
- **Do refer to the category descriptors associated with the Assessment Criteria.**
- **Do** consider both the strengths and weaknesses of the application relative to the Assessment Criteria.
- **Do** consider any career disruptions and other “relative to opportunity” considerations to understand the longer term impact these have on scientific output.
- **Do** provide references for any body of work that you think the applicant has overlooked.
- **Do** prioritise major concerns over minor.
Category Descriptors

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>Scientific Quality 50% (Feasibility can include contribution of Associate Investigators)</th>
<th>Significance and/or Innovation 25% (Significance of the expected outcomes AND/OR Innovation of the concept)</th>
<th>Team Quality &amp; Capability relevant to this application 25% (Does NOT include Associate Investigators) - Relative to opportunity</th>
</tr>
</thead>
</table>
| **7 Outstanding by International Standards** | The proposed has a research plan that:  
• is well-defined, cohesive and fully developed.  
• has a clear study aim.  
• is highly feasible with all of the required expertise, research tools and techniques established.  
• would be highly competitive with the best, similar research proposals internationally. | The planned research:  
• will result in a highly significant advance in knowledge in this field which addresses an issue of great importance to human health.  
• will result in fundamental outcomes in the science underlying human health issues.  
• will translate rapidly into fundamental or commercializable outcomes that will translate the practice of clinical medicine, public health or health policy.  
• will almost certainly be the subject of invited keynote presentations at national and international meetings.  
• will almost certainly result in highly influential publications.  
• is highly innovative and introduces advances in concept(s)  
• will use very advanced approaches which will optimize outcomes. | Relevant to opportunity, the applicant team:  
• has expertise that specifically targets the proposed research both in terms of depth and breadth.  
• has over the last 5 years, a combined record of research achievement that is outstanding by international standards: commensurate with their field of research.  
• research achievement may include contributions to translational outcomes such as patents, commercial outputs, and public policy or implementation of change in practice.  
• research quality is exemplified in the top 5 publications of each CI  
• research productivity as measured by total outputs for the team.  
• has senior members with outstanding national and international reputations in the field of research relevant to the application.  
• may involve junior members who are early career contributors to the overall team quality & capability or will have the capacity to be so due to the availability of very strong mentoring by other members of the team. |
| **6 Excellent** | The proposed has a research plan that:  
• is clearly defined, cohesive and well developed.  
• is feasible with all required tools, techniques and expertise established.  
• is likely to be competitive with strong, similar research proposals internationally. | The planned research:  
• will result in a significant advance in knowledge in this field which addresses an issue of importance to human health.  
• is likely to result in fundamental outcomes in the science underlying human health issues.  
• is likely to translate into fundamental or commercializable outcomes that will translate the practice of clinical medicine, public health or health policy.  
• will likely be the subject of invited keynote presentations at national and international meetings.  
• will likely result in influential publications.  
• is highly innovative in concept  
• will use advanced approaches to enhance outcomes. | Relevant to opportunity, the applicant team:  
• has expertise that is highly relevant and targeted to the proposed research both in terms of depth and breadth.  
• has over the last 5 years, a combined record of research achievement that is excellence by international standards: commensurate with their field of research.  
• research achievement may include contributions to translational outcomes such as patents, commercial outputs, and public policy or implementation of change in practice.  
• research quality is exemplified in the top 5 publications of each CI  
• research productivity as measured by total outputs for the team.  
• has senior members with outstanding national and 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 or will have the capacity to be so due to the availability of strong mentorship. |
| **5 Very Good** | The proposed has a research plan that:  
• is generally clear in its scientific plan and is logical  
• has very few major concerns with respect to the study design. | The planned research:  
• will advance knowledge in this field which addresses an issue of importance to human health.  
• may result in fundamental outcomes in the science underlying human health issues.  
• very few concerns remain feasibility may translate into fundamental or commercializable outcomes that will translate | Relevant to opportunity, the applicant team:  
• has expertise that is highly relevant and targeted to the proposed research both in terms of depth and breadth.  
• has over the last 5 years, a combined record of research achievement that is excellence by international standards: commensurate with their field of research.  
• research achievement may include contributions to translational outcomes such as patents, commercial outputs, and public policy or implementation of change in practice.  
• research quality is exemplified in the top 5 publications of each CI  
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• has senior members with outstanding national and 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 or will have the capacity to be so due to the availability of strong mentorship. |

Do your research:  
- Peer review process  
- Guidelines  
- Scoring criteria  
- Objectives
Scoring Criteria

1. **Scientific Quality (50%)**

2. Significance **AND/OR** Innovation (25%)

3. Team Quality and Capability (25%)
Scientific Quality – 50%

Scheme-specific instructions

✓ All scientific information relating to your proposal must be contained in the proposal.

✓ The research proposal will be assessed by experts in the field and should include any pilot or feasibility study data supporting the research planned.

✓ You should also keep in mind the assessment criteria that reviewers will use to evaluate applications and the detailed Category Descriptors in relation to each of the assessment criteria.

✓ Applicants should refer to the Guidance on the assessment of applications against the Project Grant assessment criteria…..
Scientific Quality

This section should address the following assessment criteria:

**Scientific Quality (50% of overall score)** – this includes the clarity of the hypotheses or research objectives, the strengths and weaknesses of the research plan and the experimental design, and the feasibility of the proposed research (which may include the contribution of AIs). To score a 7 in this criterion:

The proposal has a research plan that:
- is **well-defined**, highly coherent and strongly developed
- has a **near flawless** study design
- is **highly feasible** with all of the required expertise, research tools and techniques established
- would be highly competitive with the best, similar research proposals internationally.
Significance AND/OR innovation – 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.

To score a 7 in this criterion:

The planned research:

- will result in a highly significant advance in knowledge in this field which addresses an issue of great importance to human health
- will result in fundamental outcomes in the science underpinning human health issues
- will translate rapidly into fundamental or commercialisable outcomes that will transform the practice of clinical medicine, public health or in health policy
- will almost certainly be the subject of invited plenary presentations at national and international meetings
- will almost certainly result in highly influential publications.
- is highly innovative and introduces advances in concept(s)
- will use very advanced approaches which will optimise outcomes
Team Quality and Capability – 25%

Team Quality & Capability *relevant to this application* (does NOT include AI’s, RO)

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 team quality and capability.

*Ties in with Scientific Quality – 50%*
Team Quality and Capability

- Loss of CIs on a re-submission
- Including EMCR’s on grants
- Industry partners (CIs w/o traditional TR)

Team Quality and Capability assessed the same as previously
Incorporating EMCR’s on your grant

➢ Project Grants – scheme specific funding rules

1.1 Description

A Project Grant application must outline a research proposal that describes the investigation of a new research idea. The proposal must support a particular set of aims …… All Project Grant … must be between one and five years. Single investigators or teams of up to ten …..are supported as well as New Investigators (NI)…… Research teams are encouraged to include early career researchers as part of the Chief Investigator (CI) team.

Describe in your application how EMCR’s will be mentored
Industry-relevant Expertise

2018 NHMRC Funding Rules:

NHMRC is committed to ensuring that knowledge from health and medical research is translated from the research sector to industry, including through commercialisation (e.g. pharmaceutical or medical devices companies) and improvements to health service delivery (e.g. the Australian, State and Territory governments, and providers of health care).

In order to appropriately recognise the value of industry-relevant expertise, industry skills, experience and achievements are considered in assessing applicants’ track records.

Guide to NHMRC Peer Review:

Peer reviewers should appropriately recognise an applicant’s industry-relevant experience and outputs. To assist peer reviewers with their assessment, a Guide to Evaluating Industry-Relevant Experience is available on the NHMRC website.
Addressing the scoring criteria

- **Synopsis** (1 pg)
  - ✓ Significance/innovation
  - ✓ Scientific quality
  - ✓ Track record

- **Background**
  - ✓ Scientific quality

- **Pilot data**
  - ✓ Significance/innovation
  - ✓ Track record

- **Aims**
  - ✓ Scientific quality

- **Research Plan**
  - ✓ Significance/innovation
  - ✓ Track record

- **Methods & Techniques**
  - ✓ Scientific quality
  - ✓ Significance/innovation

- **Outcomes**
  - ✓ Scientific quality
  - ✓ Significance/innovation

- **Significance & impact**
Components of a successful application

*Bottom line!*

- ✔ Strong Idea
- ✔ Strong Science
- ✔ Expertise
- ✔ Know the scheme
Writing a good application – key points

- Understand your audiences – there are always several: assessors, panels, and sometimes others
- Review successful proposals - via the GMO Successful Grants Library to view digital applications from a wide range of schemes. Email mygrants.gmo@unsw.edu.au
- Ask colleagues to critically review your proposal (key elements)
- Get help – mentor
- **What is the scheme looking to fund – give them what they want!**
- Different schemes within one funding body place different importance on selection criteria
- Always review guidelines to provide clarity around the importance of the different selection criteria
RSO – what we do

✓ Work with researchers at the pre-award stage

✓ Aim is to enhance the University’s research performance and profile by working with faculties, research teams and researchers

✓ Identify opportunities for research funding including awards and fellowships

✓ Aim to maximise the opportunity for success by advising/or assisting with the development of high quality, competitive research grant applications – reviews (iterative if enough time)

✓ Strategically review the outcomes of major grants schemes and apply that intelligence to current and future grant rounds

✓ Send you drafts to nhmrc@unsw.edu.au as early as possible
Reviews of your draft

Reviewers

1. RSO
2. The GrantedGroup
3. Medical Editor

- Send early for full iterative strategic review
- The closer to the deadline, the busier we become, the less time we have to spend on your review
- ~10 days from due date – editorial review only, minimal structural advice, minimal strategy advice
Resources and keeping connected

- Grants Management Office
  - Compliance and eligibility issues
  - Successful Grant Library of ARC/NHMRC funded applications (mygrants.gmo@unsw.edu.au)
  - Post award management
- Grant-News subscribe to receive notification of fortnightly e-newsletter on grant funding opportunities. Send an email to grantsnews@unsw.edu.au with ‘subscribe grant-news’ in the body of the message. Current edition can be found: http://research.unsw.edu.au/grant-news
- Strategy and Partnerships nhmrc@unsw.edu.au
  - Strategic advice, application review, feedback,
  - Right scheme advice etc.
- Researcher Training & Development Bulletin subscribe to receive fortnightly e-newsletter for updates and details of all training and development opportunities for researchers https://research.unsw.edu.au/researcher-training-development-bulletin
- Research Gateway: For a list of all upcoming workshops across the division https://research.unsw.edu.au/events
- Stats Central: UNSW Statistical Consulting Unit provides university-wide support for study design and analysis https://www.maths.unsw.edu.au/research/stats-central