How to write a (more) competitive funding application

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Outline

1. Thinking
2. Drafting
3. Refining
Start much sooner than you think you need to...
Thinking
Understand what drives the funding body
- health and medical priorities
- policy/political agenda
- board members’ enthusiasms
- community needs
- shareholders’ interests
Understand the purpose of the funding scheme
- discovery research
- translation (implementation) of evidence into practice and/or policy
- capacity-building
- integration, cohesion, collaboration
- partnerships with the health system
- partnerships with industry
- several of the above
Priority actions in NHMRC Strategic Plan 2013–2015 include

- Create new knowledge through support of discovery research
- Accelerate research translation
Warwick Anderson, ‘With the right kind of research, we can reduce health-care costs’, *The Conversation*, 29 July 2014

‘Medical research can give us breakthrough treatments, but *it can also play a role in creating a more sustainable health system by culling treatments that don’t work.*’

‘…medical research can also cut health-care costs by hunting out existing treatments that work no better than placebos, identifying the treatments that work better than others, those treatments that have been superseded and those that cause more harm than good. This research can often be just as transformative for both health outcomes and costs as new breakthroughs.’

‘Of course, identifying problems is only part of the solution. We also need policies that implement what research like this has found and change the way health care is practiced – and funded.’
Understand the selection criteria and/or questions

- What are they asking?
  - read them carefully and accurately

- What are they *really* asking?
  - seek input from people with insight or inside knowledge

- How are reviewers likely to interpret them?
  - funding guidelines are rarely written by reviewers
Understand the assessors / reviewers

- There are usually two or more different audiences
- Different levels of subject-matter expertise?
  - ‘The Research Plan is clearly presented and logical, but this assessor does not have the technical expertise to probe the detail.’
  - ‘The grant is not particularly well written... It is a mistake to assume that everyone reading the grant is intimately familiar with all of the methods involved.’
- Different priorities?
- Mix of subject-matter experts and lay readers?
  - SMEs: scientific review
  - Lay readers: significance, value, benefit to society and/or to funding body
- Read guidelines for assessors, if available
- Read assessors’ comments on other people’s applications, if available
Decide whether or not it’s worth applying

- Is it the right scheme for you? Is it a good ‘fit’?
- Is it the right scheme for you now?
- Are you likely to succeed?
- Can you justify the opportunity cost?
Make a plan

- long term
  - preliminary data
  - ‘on-topic’ publications
  - necessary collaborations

- short term
  - timeline for team’s input and review
  - templates, examples, models – to capture team’s input (e.g. track record)
Long-term strategy
- seed funding
- discovery research (also hypothesis generating)
- translational research (also hypothesis generating)
- commercialisation

Work towards one very strong proposal rather than several weaker proposals

Diverse portfolio
- Not only Project Grants! Not only NHMRC!
- Consider ARC, philanthropic organisations, state and federal government departments, international funding bodies
- Use funding information services such as ‘Research Professional’

Combine forces rather than compete against each other?
...it will take much longer than you expect
Drafting
Develop the strongest possible rationale (vs selection criteria)

- Why does it matter?
  - why it matters more
  - why it matters now
  - why it is new, different, interesting, innovative

- What difference will it make? *before vs after*
  - major advance in knowledge
  - significant changes to practice and/or policy
  - important benefits for patients
  - major saving to health care system

- Why will it succeed? *feasibility*
  - strong preliminary data
  - excellent team
  - requisite resources (project-specific)
  - essential infrastructure (institution/s)
  - supportive intellectual environment (institution/s)

- Is it value for money? *return on investment*
‘The value of this project in adding to our body of knowledge is not demonstrated.’

‘If this cutting edge project is successful, it is highly likely to be adapted worldwide.’

‘The contribution of the project toward knowledge will be minor rather than significant.’

‘I view this as a project with a very high probability of making a significant impact on the field.’

‘CIA and CIB have already two NHMRC grants, which are very similar to this proposal. So this proposal can be seen as an incremental development on the CIs’ current achievements in this field.’

‘The research will result in strong publications that will be of interest to a wide audience including public health providers and could result in invitations for plenary conference presentations at international meetings.’
Think carefully about the *Hypotheses* and *Aims*

- Are the hypotheses testable?
- Are the hypotheses interesting?
  - will they add important knowledge to the field?
- Do the aims cohere?
  - one project?
  - several pieces (or projects!) tacked together?
- Are the aims dependent?
  - e.g. if Aim 1 is unsuccessful, can’t proceed with Aim 2
- Are the aims achievable within the timeframe?
- Write the *Background* to serve the interests of your proposal
  - It is *not* an information dump
  - It is an argument
  - Keep it relevant
  - Weave in (relevant) achievements and contributions by your team
  - Indicate where and how your project will fill the gaps
Make sure the *Research Plan* is watertight

- Think of everything! *reviewers can’t read your mind*
  - be as comprehensive as possible
  - explain unusual or controversial approaches and techniques
  - use guidelines where applicable (e.g. CONSORT statement)
  - you can pare it back to fit page/character limits later

- Ensure it ‘maps’ clearly to the aims
- POAYG – provide outcomes as you go
- Keep a sensible balance between parts
- Use diagrams, tables, flowcharts, illustrations to aid clarity
Try not to run out of steam on the *Outcomes* section!

- Should not read like an afterthought

Two kinds of outcome

- advancing knowledge *necessary, but is it sufficient?*
- changing the world *translation into practice, policy, commercialisation etc.*
  - knowledge translation, implementation research, knowledge transfer, knowledge exchange, innovation diffusion, quality improvement, research utilisation, evidence-informed policy, evidence-informed health systems...

Who and/or what stands to benefit? *organising principle*

How will you make the project’s outcomes known?

- passive diffusion (e.g. journal articles) vs active dissemination

Next steps?

- piece of the puzzle – part of the program – in the translational pipeline
‘The significance of the study is somewhat unclear on a translational scale.’

‘This health problem suffers more from a lack of translation of research to practice than it does from a dearth of evidence informing practice.’

‘I wish the investigator team well in securing the funding, collecting the data and translating the research into policy and practice. This is the main tenet of NHMRC.’

‘This application would have been more competitive if it were to demonstrate a greater likelihood of outcomes with clinical impact.’

‘Some early involvement from decision makers could benefit translation.’

‘How will the results be translated? For example, will the team develop guidelines and recommendations for specific groups, and how will be they be disseminated? A clear plan would appear appropriate.’
Explain your plan for translation of outcomes – even if it means ‘handing over’ to others to do it

Consider pitching your proposal in terms of your broader research program – prequels and sequels and in-parallels

Bring together CIs and AIs with translational experience (track record), influence (networks, committees etc.), capabilities

Can you include an economic evaluation and a health economist?
Comprehensively and clearly justify the *budget*

- Not a selection criterion, but can influence
Refining
Much of what we review has not got past the drafting stage
‘Sell’ your proposal on the first page (or section)

- The first page should simultaneously excite and reassure assessors
  - balance risk of novelty with evidence of feasibility
- Pitch to the funding scheme, the funding body, the reviewers
- Present the strongest possible rationale
- Include all the stand out elements
  - significance to knowledge
  - likely impact on the world
  - innovation – ideas and methods
  - compelling preliminary data
  - unique resources – datasets, animal models, access to patients, etc.
  - outstanding team, collaboration, partnership

paraphrase on first page, details in body of proposal
Continue to highlight the proposal’s strengths throughout

- Be explicit, but not tedious
- Echo the scheme’s wording
  - selection criteria
  - questions
  - scoring descriptors
  - funding rules and policies
Keep the proposal on target

- Are you answering the question?
- Are you addressing the selection criterion?
Tell a coherent story

- Put it all together in a clear, logical way
  - lead the reader step by step
- Find an ‘outsider’ to check for gaps and inconsistencies
  - authors and colleagues will subconsciously fill in the gaps
Putting it all together

Aims
Background
Research Plan methods & techniques
Outcomes & Significance

Introduction

Background

Impact on problem

Solution

Problem

General

Technical
The End.
Don’t put off until tomorrow a proposal that you can start today