


## How to get someone to pay you to answer difficult and interesting questions

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Improving health worldwide  
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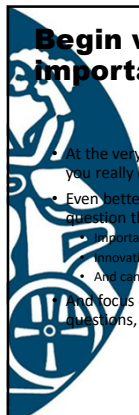

## Why do I want to write a grant?

- To get money to answer a question that you believe is important
  - Hopefully, to make the world a better place
- To get support to learn new methods and develop skills
- To get the resources needed to make an impact on policy or practice
- To allow you to work with great people elsewhere
- To pay your salary and keep you employed
- To protect your time and give you freedom to do research to help you progress through the academic hierarchy





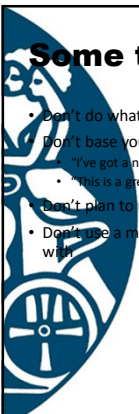

## What skills do you need?

- Confidence
  - More confidence – you must believe in yourself
- But not arrogance!
- Ability to sell yourself to people who may not be convinced
- Good research skills (but a fellowship grant may be used to enhance these)
- An ability to communicate to different audiences
- Flexibility
- Administrative and managerial skills
- Punctuality (don't miss deadlines)
- Ability to work with other people ... and above all...
- Persistence


## Begin with an interesting and important question

- At the very least, make sure you really have a question!
- Even better, have a question that is:
  - Important
  - Innovative
  - And can be answered
- And focus on one or two questions, not dozens

## Some things not to do

- Don't do what everyone else is doing
- Don't base your proposal on a solution in search of a problem
  - "I've got a new app. I wonder what I can use it for?"
  - "This is a great new measuring device – now what can we measure?"
- Don't plan to use something that hasn't been invented/ tested yet
- Don't use a method that you have absolutely no previous experience with




## Build a team

- For the past century, few important questions have been answerable by individuals
  - Possible exceptions are theoretical physics or philosophy, but can we really know if they have come up with the right answers?
- Generally good to have collaborators
  - Experts who bring something to the project
    - Disciplines, methods, data
  - But only people who know how to collaborate
    - Who will contribute and be nice to work with (really rare in much of academia)
  - Can be co-investigators or advisors





### Make sure you are applying for the right grant

- Will the funder give money to someone in your country?  
For work on the topic and in the country where you want to work?
- Is there a reasonable prospect of success (or are you wasting time applying to a body that funds 1% of applications)?
- Do you meet the criteria for being an applicant?
- Will the grant provide enough money to do the project?
- Will it give you enough time to do the project?




### Take advice

- Where possible, speak to the project officer
- Their task is to spend money (on projects that work) so they should be helpful
- But come with a well formed idea – they are busy people




### First thing is first

- Choose a title
- This is often what will be used to assign the grant to reviewers
- So make sure it captures the essence of what you want to do
- Remember that reviewers may have a different first language, or be from a different country, so avoid risk of confusion





### Writing the grant: aims and objectives

- Establish your aims and objectives
  - Exploratory
  - Hypothesis driven
- If you have hypotheses, then state them clearly, and link to aims and methods
- Make absolutely sure that the aims and objectives allow you to answer the research question
- Make absolutely sure that the methods are feasible and follow from the objectives




### Writing the grant: Problem statement

- Why is my question important?
- Why do we want an answer now?
- Who wants the answer (audience)?
- What will they do with it? Why will knowing the answer make a difference?
- How do I know this (who have I spoken to about it)?
- Why am I interested in this question (previous research)?
- Am I sure no-one has answered it already (systematic review)?
- Am I confident it can be answered?


### Structuring your problem statement

- State the problem clearly in the first sentence
- Then elaborate on it, using data as appropriate
- Show why it is necessary to address this issue now
- Show that you know what has already been done, and why it hasn't worked
- Show why your ideas are likely to work where others have failed





## Writing the grant: methods

- Begin with a clear and concise statement of the method you will use
  - RCT, cohort study, secondary data analysis....
- Show that you have some experience using it
- Show that your sample size is appropriate
- Convince the panel that you can actually do it
  - This should be the longest part of the application
  - Take the reviewers through it step by step
  - The detail should be enough for someone else to do the project



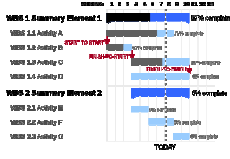
## Assume nothing

- Things happen...
  - At each stage, develop a contingency plan for what you will do if things go wrong





## Timeline

- Prepare a Gantt chart
- Make sure that the timeline is logical
  - If activity A must be completed before activity B, make sure that this is shown
- Make sure that the timeline matches the flow of funds
  - Leave enough time for approvals, ethics recruitment etc.




Source: Wikipedia




## Budget

- Make sure you have enough money to do the project
- Include a contingency
  - Don't forget about exchange rate fluctuations
- Make sure you follow instructions from funding body
  - What is included/ excluded
  - Allowance for inflation/ promotions
  - Travel
  - Costs of open access publications




## Justify the budget

- Budget justification is increasingly important
- Show you have included everything you need
- Show that only what you need is included
- Make sure you allow enough time for the investigators



## Ethics

- Informed consent
- Vulnerable subjects
- Risks and benefits
- Confidentiality/ scope for identification through data linkage
- Data protection/ security




## All the other bits....

- Applications include lots of other bits beyond methods


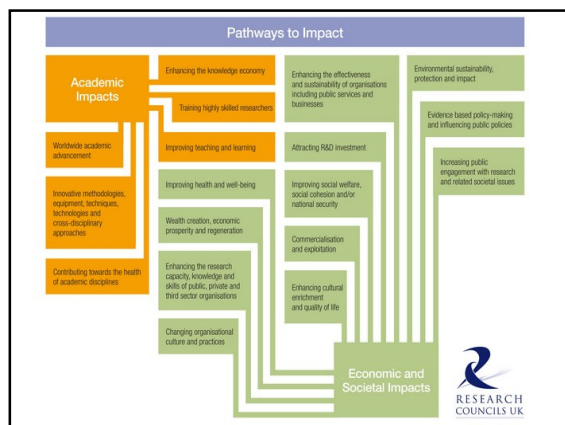
Funding panels look at:

- The project
  - The investigators
  - The institutions/ infrastructure support
- Management and co-ordination arrangements
- Letters of support
- Data management and sharing
- Intellectual property issues
- Dissemination plan
- (Pathways to impact)



## Dissemination/ public engagement


- increasingly, panels are looking beyond traditional academic publishing
  - Web sites
  - Blogs
  - Articles in professional journals
  - Op-eds in newspapers
  - Video clips
  - Twitter/ Facebook

## Last thing


- Write:
  - abstract
  - Lay summary
  - Technical summary
- Assume that it is the only thing most panel members will read
- So make sure it can stand alone, covering all key elements

And get someone totally unconnected with the project to read it, digest it, and tell you what they think you will do



## Know your reviewers (and help them as much as you can)


- If possible, find out the composition of the grant awarding panel (and cite, appropriately, their work)
- Consistently refer back to the research question, aims and objectives
- Don't make them take leaps of faith
- Use bullet points (but not too many)
- Use figures/ flow diagrams where possible (a picture is worth a thousand words)
- Get others who don't know the field to read it before submission



## Scoring criteria


- Find out if there is a template for scoring the applications

**Follow it!**



## Write clearly

- Use a large font
- Use terminology consistently
- Use short sentences
- Avoid abbreviations and acronyms
  - Is MS mitral stenosis, multiple sclerosis, or member state (or something else)?
- Show you are action oriented – avoid the passive voice
- Remove redundant phrases and statements of the blindingly obvious



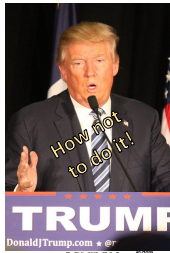

## Avoid the word “appropriate”

- The researcher will take *appropriate* advice to address emerging problems, drawing on *appropriate* support from the institution, and will put in place *appropriate* measures”
- OR
- “If things go wrong I haven’t a clue what I will do but will hope someone else has”




## Sell yourself (but in a subtle way)

- You need to convince the reviewers and the panel that you can actually do the project
- Remember that, especially when you start your career, they are unlikely to know you
  - Although take every opportunity to present at conferences so they get to know you – network +++ without annoying people
- List what you have achieved, but don’t exaggerate
- Make sure you include all publications and awards
- Describe the work you have done to prepare yourself
  - Previous experience with methods, in this context etc.
- Don’t tell them straight out that you are wonderful. Let the letters of support do that


There is no grantsmanship that will turn a bad idea into a good one, but there are many ways to disguise a good idea”

*Attributed to various sources in NIH*



## Ways not to get a grant

- Don’t write the application
  - Easy to be paralysed by indecision, lack of confidence
- Don’t submit it on time
  - And don’t leave it until the last minute – computers and networks fail
- Don’t follow instructions
- Fail to convince the panel you can do it
- Leave out a key section
- Ignore key literature (especially by panel and reviewers)
  - Assume that your reviewers share your enthusiasm for this fantastic idea
  - Assume your reviewers understand what is in your head but you never got round to writing



## When your brilliant idea is rejected...

- Don’t give up – if it really is good someone else will fund it
- Read the reviews carefully
  - Many reviewers are trying to be helpful (but not all)
  - See if there is something you missed
  - If they misunderstood something, how do you make it clearer next time?
    - But don’t take everything in them too seriously – reviewers are not always right (and some are motivated by jealousy, spite, egotism etc.)
- Resubmit quickly to somewhere else

