



Walter+Eliza Hall
Institute of Medical Research

DISCOVERIES FOR HUMANITY

Beginners Guide to Grant writing: lessons and pitfalls

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C A N C E R



I M M U N E

D I S O R D E R S



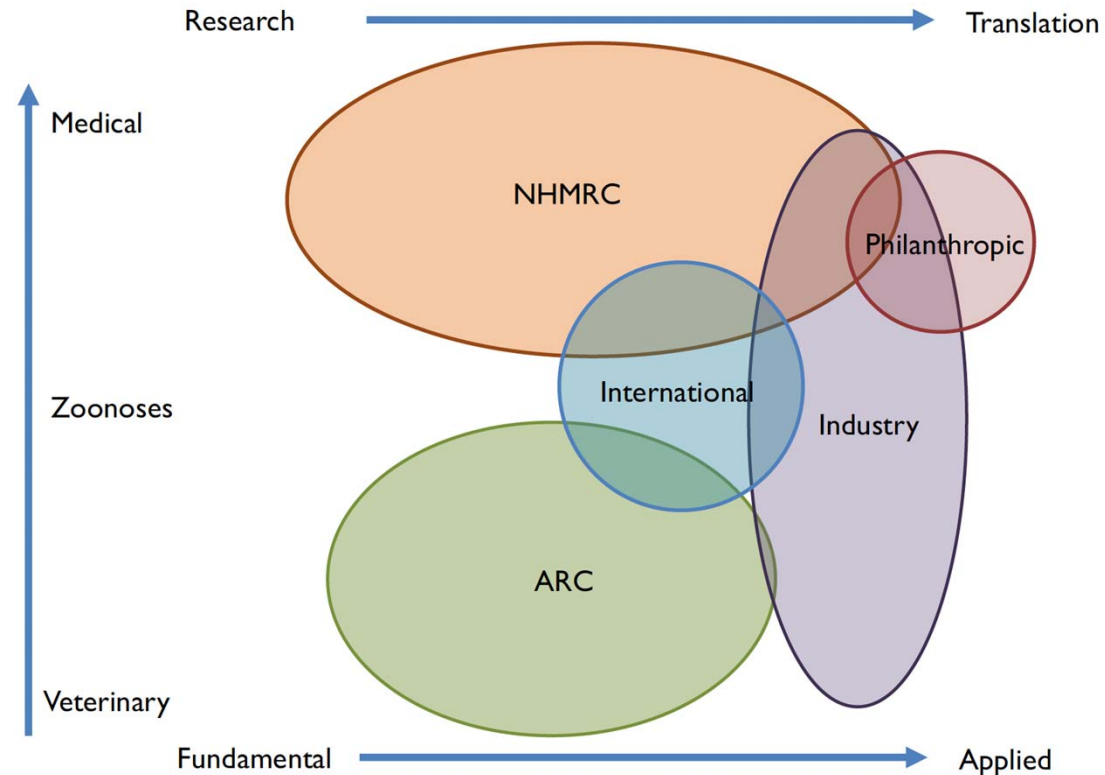
I N F E C T I O U S

D I S E A S E



Identifying funding agencies

- National funders – Medical vs primary research funders
- International funders – e.g.:
 - Wellcome Trust
 - US National Institute of Health
 - Bill and Melinda Gates Foundation
- Industry Partnerships
- Philanthropic donors





Funding scope and scoring system

- Funding rules – focus statement / special calls
- Who reviews the grant?
- How is the grant scored?
 - Proposal
 - Team / Investigator Track Record
 - Significance
 - Research environment

CATEGORY	Scientific Quality 50%	Significance and/or Innovation 50%
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 increase in knowledge in this field with great importance to human health. • will translate into fundamental science and/or practice of health or fundamental chemistry. • will very likely be the subject of presentations at national and international meetings. • will likely result in highly significant outcomes. • is highly innovative and i concept(s). • will use very advanced approaches to optimize outcomes.
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 increase in knowledge in this field which addresses importance to human health. • is likely to translate into fundamental science and/or practice of public health or provide fundamental health policy. • will likely be the subject of presentations at national and international meetings. • will likely result in influential outcomes. • is highly innovative in approach. • will use advanced approaches to optimize outcomes.



Give the funder what they ask for

- Be clear and specific:
 - Track record
 - Significance
 - Research environment
 - Team capability and collaboration
- Less time scoring = more time reading your science!
- Avoid last minute applications

Track record: Since 2015, I have published ... papers in ... journals, including high impact studies published in ...

Significance: Despite recent control efforts, drug resistance rates in ... continue to increase and represent a clear risk to control efforts. Our study will address this by ...

Research environment: The Faculty of ... is one of the most well equipped for this research in ... with a clearly established track record in this field.



Defining your research team

- What skills / facilities or material do you need?
- What is your expertise?
- What are the gaps? Who can fill them?
- How will the team work together?
- Have you worked together in the past?
- Were you successful?





Developing your proposal

- Define your question and aims
- Explain why your research matters
- State how your results serve your aims and question

We propose that drug resistance is transmitted through ... Understanding this will improve control through ...

Aim 1: Set up field cohort studies in 3 sites in the mountains near the border of ...

Aim 2: Test for ...

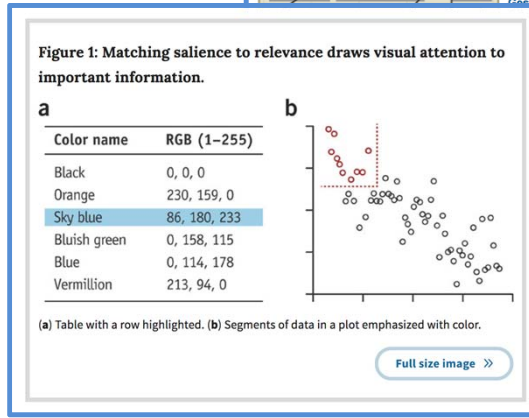
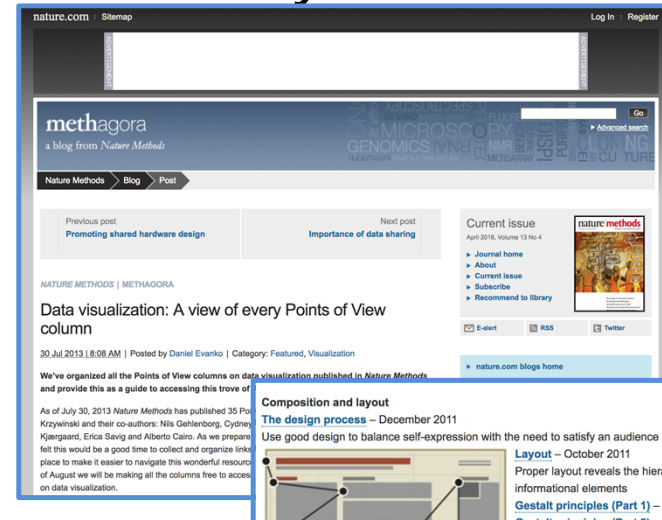
Aim 3: Model ...

Research outcomes: Modeling in aim 3 will demonstrate ... which will show drug resistance is transmitted through ...

Make your grant 'scannable'

- Clearly present your preliminary data
- Simplify your research plan
- **Emphasize key text to make it stand out**
- Make your grant 'scannable'
 - Aims clear and numbered
 - Figures well designed
 - Significance clear and prominent
 - Aims, results and overall question clearly linked

Style +



Nature Methods: Points of View

Composition and layout
 The design process – December 2011
 Use good design to balance self-expression with the need to satisfy an audience in a logical manner
Layout – October 2011
 Proper layout reveals the hierarchical relationship of informational elements
Gestalt principles (Part 1) – November 2010
Gestalt principles (Part 2) – December 2010
 Perceptual phenomena to meaningfully arrange elements on the page
White space – January 2011
 White space is a powerful way of improving visual appeal by emphasizing content
 Relevant information most noticeable
 Principles of figure design
 The old custom of telling a story



Reviews, rebuttal, revision and rejection

- Carefully read your reviews
- Group comments by topic / question
- Consider the comments objectively
 - Take time to digest and respond
 - Support responses with data
 - Be clear and concise
- Refine your study or stand your ground?
- Persist, persist, persist and then persist some more!

R1-Q1: Cohort size for Aim 1 – We require a minimum detection prevalence of ... based on studies by ... Our study can define prevalence below this level to ...% precision at 95% confidence.

Or

Cohort size – Aim 1 (R1 and R2): ...



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Thank you

National:

FUNDED BY



Australian Government
Australian Research Council

RESEARCH in the national interest - enabling the future



Australian Government
National Health and
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N H M R C

International:



National Institutes
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MICROBIAL SCREENING TECHNOLOGIES

AN AUSTRALIAN BIODISCOVERY COMPANY



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