Selling your Science: The Art of Effective Proposal Writing



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- Consult the funder's website and read clearly the call for research proposals as well as the criteria against which your proposal will be judged.
- Know your funder. Be aware of the priorities and interests of the funder you approach.
- Know that funders are unlikely to support the same idea twice.

















read instructions carefully

Read (and reread) the grant instructions (RFP) very carefully...

HIGHLIGHT ALL THE POINTS THAT MIGHT BE RELEVENT!



- Plan your proposal in terms of the aims and objectives of the funder and not just your own.
- Make it clear how you will be helping them to fund their priorities.



- Use key words in the grant guidelines in your proposal
- Make certain that you meet all requirements
- Contact the program officer if you have ANY questions



Consider the questions the funder will be asking:

Why fund you?

Why fund this?

Why now?



... and make sure that the proposal answers them!

Proposal Assessment:

What you need to find out:

- Criteria for evaluation
- Who is conducting the review Panel? Individuals?

Significance

- Does this study address an important problem?
- If aims are met, will scientific knowledge be advanced?
- What will be the effect of these studies on concepts or methods that drive the field?

Approach

- Are the conceptual framework, design, methods and analyses adequately developed, well integrated and appropriate to the project goals?
- Does the applicant acknowledge potential problems and consider alternative tactics?



Innovation

- Are novel concepts, approaches and methods employed?
- Are the goals original and innovative?
- Does the project challenge existing paradigms or develop new methodologies or techniques?



Investigator(s)

Is the investigator appropriately trained and well suited to carry out this work?

Is the work proposed appropriate to the experience level of

the researcher(s)?



Investigator(s)

- Skills training and relevant experience
- Relevant publications and other outputs
- (Those with limited publications should give reason)
- Demonstrated productivity within opportunities available

Program Assessment: Help the reviewer

Good presentation is often crucial to making your proposal accessible to reviewers and keeping their interest.

- Use diagrams and tables to add clarity
- ✓ Bullet points and sections can break up text
- ✓ Keep to page, word and font size restrictions
- Activate the spell checker while writing

Program Assessment: Help the reviewer

- Use section headings
- Clear page layout
- No grammatical or spelling errors
- Don't use small fonts and tight spacing

Program Assessment: Help the reviewer

Position your important points strategically



• ...and make it easy for a busy reviewer to pick them out of the surrounding text

Warning!

Write for a broad and busy audience of reviewers

- Don't assume that reviewers will be experts in your field
- Don't assume that reviewers will have hours to study your proposal
- Assume that some reviewers will only read the abstract, possibly the first few pages and glance over your CV before evaluating your proposal



Structuring the Proposal

Use a clear and concise outline

Abstract/Project Summary

Table of contents

- Introduction
- Project Goals and Objectives
- Background (includes references)
- Research Plan (can include preliminary results)
- v. Description of Personnel and Project Management (CV usually appended)
- VI. Research Infrastructure/Facilities
- VII. Budget and Budget Explanation
- Suggested Reviewers (can be in the appendix)

TITLE and ABSTRACT



-- descriptive, concise, and memorable!

Elements of a Good Title

- Should be short and clear
- Should allow the reviewer to understand the intentions of the research
- A catchy title posing a question or including a apparent contradiction may be more interesting and easily remembered

Elements of a Good Abstract/Summary

It should be a concise summary of the WHOLE project.

- Use the abstract to identify the <u>need for this research</u>, state <u>what you intend to do and how you intend to do it.</u>
- Do not include unnecessary detail
- Make each phrase count.
- Remember: it's the first impression a reviewer gets of an applicants worth!



Elements of a Good Abstract

TIPS

1. Ask a colleague to read your abstract.

If it is well written, they should be able to understand the essence of the project from the abstract alone

2. WRITE THIS LAST

- Provides an overview of the proposed project.
- Motivates the reviewer to want to continue reading the proposal.
- Convinces the reviewer that you know what you are talking about.
- Expands the abstract but without all the details that are to be presented in oncoming sections.

Answers the "So What" question

- ✓ Intellectual: why is it being done?
- Benefits: Social, economic, environmental (with an emphasis on the interests of the funder.

Answers the "Why you" question

- What unique talents and expertise you and your team bring to the problem
- How your laboratory/institution is uniquely equipped to aid in the success of the project

Answers the "Why now" question

- Why is the problem that you seek to solve important now?
- What unique opportunities can you bring together at this time to solve the problem?

Project Goals and Objectives Section

- What you intend to achieve by this piece of work.
- Small steps you need to reach to achieve your goal.
- Needs to be specific and clearly stated
- Should be realistic, consistent and link to the methods, timetable and outcomes.

Elements of a Good Background Section

Put the work into context:

- What has been done before?
- How will the proposed work add to it?
- What is the innovative aspect in the research project?

Build your case by demonstrating your capability and familiarity in the area

Elements of a Good Methodology Section

Provide a clear research plan:

- Demonstrate how the specific goals are to be investigated
- Be specific and demonstrate your knowledge of where barriers may arise and how you would move around or over them.
- Make it clear that appropriate facilities and personnel are available for the research.
- If your own experience is limited, consider adding collaborators.
- Describe any preliminary work.

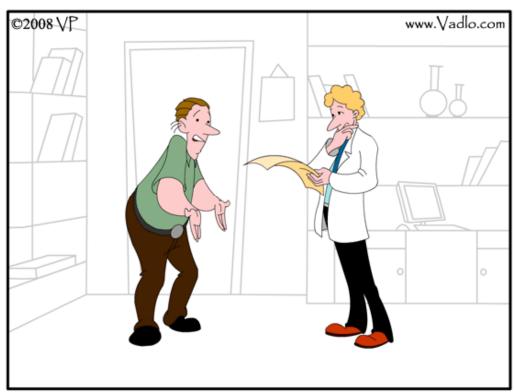
Outcomes Section

In this section one should:

- Describe the contribution to the knowledge and importance for future research
- The benefits to users, and the broader relevance to beneficiaries
- Highlight how results will be disseminated (publications, conferences, commercial exploitation, websites,).

Budget and Budget Explanation

The budget request should be in proportion to the volume and complexity of the work activities



With this much grant money, only experiment we can do is "flip a coin"!

Budget and Budget Explanation

- Be aware that funders vary as to what they are prepared to pay in terms of direct project costs, such as staff and equipment, and indirect costs, such as overheads
- The funder might request to approve beforehand inputs from other institutions participating in the project

Vitae and Biography

Pay attention to details and appearance!!

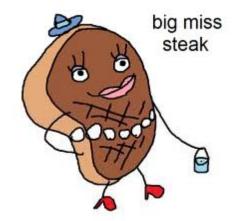
Common format:

- Name at the top with contact information
- Education (including thesis)
- Professional Appointments
- Awards and Honors
- Publications
- Patents and other accomplishments

Use reverse chronological order

Warning!

- Avoid abbreviations and acronyms
- Never use pronouns such as: "I", "me", "my", "our"
- Don't use fancy fonts
- Avoid lists of boring sentences
- Don't add photographs
- Don't add personal, family or health information
- Proof, Proof and Proof again





Make sure you have a positive web presence

- Your online presence will eventually replace a resume
- Use your website presence to communicate your competence and aspirations
- A positive website presence is particularly important if you are from a relatively unknown institution, country or university.



The Review Process

The review process can take several forms depending upon the organization:

- ✓ A set of individual reviewers (2-6) that review and score the proposal independently.
- ✓ A panel of reviewers that convene to discuss the proposal and develop a consensus view of the quality of the proposal
- ✓ The proposal is ranked relative to other proposals in determining the final funding decision.

The Review Process

Position in the ranking is important – it could mean the difference between success and failure.

Proposals are often ranked into the following categories:

- ✓ Fund
- ✓ Fundable



- ✓Invite resubmission (used by some funders)
- ✓ Reject



Most proposals do not fail because of bad science — but because of

- Failure to follow directions
- Poor logical organization
- Lack of detail
- Failure to consider the funder's objectives
- Failure to anticipate reviewers' objections



The Review Process

- ✓ If the project is retained for funding Celebrate
- ✓ If the project is found fundable???
- ✓ If invited for resubmission.
 - revise proposal based on feedback from review
- ✓ If rejected DO NOT GIVE UP,
 - try to get feedback and remember
 - it is a learning process







✓ Allow plenty of time to revise

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QUICK

✓ Avoid jargon – say what you mean in clear, simple language



- ✓ Don't be afraid to state the obvious
- ✓ Anticipate questions that may arise, before they arise
- ✓ Ask a colleague to review your proposal
- ✓ Present your proposal in terms of the aims and objectives of the funder



Be enthusiastic about your idea – if you don't sound interested, why should anyone else be?

