

# Writing a Successful Proposal for the Murdock College Research Program for the Natural Sciences – Life Sciences Division

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# The Nature of the Review

- Ad hoc external reviewers working in your area of research (2-5)
- A review panel
  - 3-4 biologists with fairly broad training and experience with the PUI environment
- The proposal must be written for a broadly trained biologist
- Avoid excessive jargon and define terms

# Title

- 250 word max
- Nontechnical
- Descriptive and inviting

# Abstract

- Write for the non-specialist
- Your chance to get reviewer's interest
  - Why should she read on?
- Write last

# Narrative of Proposed Research

- Specific aims
- Hypotheses & predictions
  - Proposals not hypothesis-driven generally rated lower
  - Need to be clear and clearly testable

## Narrative, continued

- Background

- Review literature, highlight gaps, set your proposed work within this background. Don't overlook pertinent literature – reviewers will catch this! Use number citation format.
- Important section – you are making an argument – is it convincing?
- Need to highlight significance of the proposed area of research
- Keep to less than 25% of narrative, some applicants write too much here and leave too little space for subsequent sections

## Narrative, continued

- Preliminary results
  - Proposal much stronger if you have preliminary results, but not required
  - Do not need to be published, but if not, you need to show them in the proposal!
  - Even more important if applicant is proposing a study in a field new to her/him

## Narrative, continued

- **Methods**

- Need sufficient details so reviewer can follow what you will do
- Sometimes these are too sketchy
- May need to convince reviewers you can perform the proposed procedures in your environment
- Shipping out analyses is ok, but many panelist like to see students involved in as much of the work as possible



## Methods continued

- Need to include description of statistical analyses
  - A common omission!
- Be careful not to pose questions in the introduction that your methods will not answer

# General Comments

- Common mistake is to propose a 6-8 year project for this 3 year program. Make sure your proposal is not overly ambitious
- Be careful not to propose a “fishing expedition” that is little more than shot in the dark, hoping to find something with little evidence to expect you will
- Avoid project areas that very competitive at R-I institutions
  - Do you have a new approach?
  - A new perspective?

- Think big
  - The award should fit within a big and interesting area of research
  - It should be a project that could lead to federal funding