

Tips from Dr. Grace Spatafora, an NIH Reviewer and Faculty Member at Middlebury College

Dr. Spatafora is generously providing these tips she learned while serving on a Study Section in 2017. It is worthwhile to note that she spent a full day for an entire academic year writing her R01 proposal, which was funded. While these comments are specific to the NIH, they are applicable to NSF proposals.

Consider becoming a reviewer! Allow the funding organizations ample opportunity to know you...so that when your grant comes up for review, they can attach a face with the name.

NIH's Early Career Reviewer Program:

<https://public.csr.nih.gov/reviewerresources/becomeareviewer/ecr/pages/default.aspx>

NSF Reviewer Information:

https://www.nsf.gov/bfa/dias/policy/merit_review/reviewer.jsp#3

Set aside ample time to research and articulate your ideas in writing. Good grantsmanship cannot derive from a rushed job.

Significance

- Use the phrase “scientific premise”, possibly as a subheading as well as in the text. Be explicit.
- Address the weaknesses or shortcomings of your field and how your research will fill that gap.
- Address the feasibility of your research.
- Include explicit language like "this work is significant because...."

Investigator(s)

- This is not the time to be modest!
- Define a strong team of collaborators; outstanding science cannot be done in isolation...methods in the life sciences have become too interdisciplinary.

Innovation

- Address how the work you propose to do is innovative and not just "me too" science.
- Think outside of the box; cite ways in which the proposed research sets you apart from what is already known or being pursued in the field.

Approach

- Use the phrase “scientific rigor” to address this requirement...again, be explicit.

- Explain the statistics you will apply to data analysis and any power analyses that justify the experimental design.
- Clearly explain the use of controls.
- Explain how you will interpret, report on and make data available to the public.
- Use the term “biological variables”.
 - That is, address all 5 points in the vertebrate animals section to describe the animal subjects you will use and how many.
 - Explain why you are proposing to use animals of a certain age and/or sex.
- Incorporate the phrase “this work will have a major scientific impact because...”
 - Reviewers have to distinguish between research that will only make incremental changes in the field from research that may very well prove paradigm-shifting.
 - “Me too” science is not rising to the top anymore.

Environment

- Be sure that your description of the environment is one that can support the work proposed. Be specific about what is available most immediately, but also about resources to which you have ready access.
- Provide proof (i.e. a letter) of institutional support, including letters from Core Facilities that you plan to use to promote your work.