NSF Proposals: Grantsmanship and Resources

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Sponsored by the Office of the Senior Vice President for Research and Innovation,
Michigan State University
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Who am I?

SARA STEENROD, PHD

- Joined MSU in November 2018
- Ph.D. in Neuroscience from Columbia University
- Completed a postdoctoral fellowship at Rockefeller University, studying the neural mechanisms underlying visual attention.
- Previously worked as a Scientific Editor for the Institute of Clinical and Translational Sciences at Washington University in St. Louis

For additional questions or to schedule a consultation, please email RGS.vprgsemail@campusad.msu.edu.

About

Overview

Research and creative activity are part of the daily life of professors and students alike at Michigan State University. What scientists learn in their laboratories, becomes what they teach and transfer into the marketplace. The goal of such curiosity, creativity, and learning, is a deeper understanding of individuals, society, and the world.

In the land-grant, problem-solving tradition, Michigan State University’s research breakthroughs have improved life for people around the world, from the cross-fertilization of corn in the 1870s to successful anticancer drugs in the 1960s, and then to novel approaches for treating and stopping the spread of malaria in the 21st century.
NSF funding rates hover at approximately 23-24% overall, but this varies greatly by directorate.

How can you gain a competitive edge?
How do you gain a competitive edge?

Avoid the "NO-NO’S"

https://nsfgrantsconferences.com/2017/02/22/merit-review-process/
The ethos of a proposal is most critical. This is a vague and intangible point, but it reflects the vague and intangible nature of this phenomenon. Some proposals are just very well written and have a nice sound to them, and make a more compelling case. Yes, badly written proposals might get ranked high despite the writing, and amazingly written proposals will tank if fundamental problems with the science are detected. But a well-composed and compelling read has a huge leg up. Even on a panel of specialists, there are people coming to the table from different academic specializations. A great proposal can simultaneously convince a specialist and a person in a different subfield that the work is interesting and cool. As a novice grant writer many moons ago, I thought that appealing to the generalist or the specialist was a tradeoff, and that by convincing one group, you would lose the other — and that managing this tradeoff was the key to a good grant. As soon as I realized no such tradeoff exists, I started to get funded.

https://smallpondscience.com/2017/01/02/lessons-from-serving-on-nsf-panels/
10 Common mistakes in NSF proposals

1. Specific Aims lack clarity and specificity
2. Ignoring page limits and font size restriction
3. Figures that are difficult to read/interpret
4. Spelling and grammatical errors
10 Common mistakes in NSF proposals

6. Not addressing solicitation-specific review criteria
7. Under-developed Broader Impacts section
8. Assuming a website is sufficient for dissemination
9. Assuming your past accomplishments are well known
10. Providing “support” rather than “commitment” letters
Granstmanship tip:

Remember that the reviewer is a human.

- Incorporate white space in your page layout (between paragraphs, after headings, around figures)
- Create a narrative
- Use concrete examples whenever you can
- Have someone else read your proposal (preferably, a specialist and a non-specialist)
- Use consistent terminology
- Make sure your figures are clear and easy to interpret/read
- Use active verbs (avoid passive voice)
- Don’t wait until the last minute
General resources: Is your project a good fit?

- Read the entire solicitation... then read it again... and again.
- Talk to peers who are just ahead of you – find out what they applied for, if they were successful, and if they will let you see their proposal
- Use the Federal Reporter to get a sense of which agency is the right fit
- Search through the NSF website to find out what has been funded recently
- The NSF website will indicate which Program Officer(s) are cognizant
  - Reach out via e-mail to PO (include summary and biosketch)
  - Arrange a phone call to discuss the fit of your project
  - NSF recommends “Ask early, ask often”
Questions? Email me at steenro6@msu.edu
National Alliance for Broader Impacts (NABI) has guidelines specifically for developing Broader Impact activities for NSF proposals.
MSU’s office of Outreach and Engagement can connect faculty to Broader Impact resources across campus and throughout community.
MSU Resources:
Support for investigators through OSVPRI

Responsibilities

In concert with the Provost, the Office of the Senior Vice President for Research and Innovation, under the leadership of Stephen Hsu, is responsible for recruiting outstanding faculty through MSU’s Global Impact Initiative, and maintaining synergy between research and creative scholarship and the education of graduate students through The Graduate School. The Office also:

1. promotes the increase in the excellence of Michigan State University research by providing many types of support, such as:
   a. seed funding for promising research and creative activity
   b. coordination and support of the research grant proposal process
   c. the latest research training, facilities and infrastructure
   d. proactive opportunities for sponsored research
   e. protection and licensing of intellectual property
   f. support for scale-up and commercialization of ideas, and
   g. recognition of research excellence in faculty recruitment, retention, and career development
2. oversees the ethical conduct of research, including conflict of interest issues
3. implements university policies relevant to research and creative activities
4. enhances the safety of researchers and research subjects
5. assures compliance with state and federal regulations regarding research
6. seeks ways to contribute to the state’s economic development by leveraging the university’s intellectual capital.

The Office of the Senior Vice President for Research and Innovation offers a variety of services to support investigators.
Proposal Services

Special Consulting Services

Overview

Special consulting services have been developed to assist MSU researchers with proposal preparation support. These services complement those offered by Research Facilitation & Dissemination and focus on specialized areas by funding entity such as NIH and NSF. (see our Grant Submission Assistance Initiative). Our grant consultants have worked with institutions across the country and have developed a set of best practices which they follow and share with MSU researchers.

Current Offerings

- Grant Submission Assistance Initiative
  - Peer-review coordination
  - Grant editing
- Proposal consulting
- First draft review (with comments)
- Structure of your proposal
- Exploring funding
- Seminars and webinars
- Grant hot seat sessions (one-day critique sessions with fellow MSU researchers applying to the same agency)
Full-day grant “hot seat”

Opportunity to discuss your proposal and get in-depth feedback from grant consultants and colleagues applying to a similar funding mechanism.
NSF CAREER Award Panel Discussion

3 – 5 p.m.
Main Library Green Room

Jeffrey Nanzer  Yadu Pokhrel  Ashley Shade  Angela Wilson  Susan Wyche
Thank you for your attention!

Questions? Email me at: steenro6@msu.edu
Engineering Research Seminar Series
Presents
NSF Grant Consultant Seminar
Brought to you by DER

This seminar is tailored to faculty, postdocs, and graduate students to gain resources and tips from Sara Steenrod our NSF Grant Consultant. This will be a very helpful and resourceful to learn about what Sara can do assist you with proposal preparation. She is focused on specialized areas by funding entity such as NIH and NSF. Come with any questions!

Tuesday, February 12th from 12-1PM I Lunch will be provided!
Location: Engineering Building Deans Conference Room, 3405

For more info please contact: Monique Vian @ viaumoni@egr.msu.edu
Meet the Division of Engineering Research

Kelli

Jacque

Junhui

Robert

David

Monique

Andy

Ziba

Jeremy
Division of Engineering Research (DER)

DER is located in the Engineering Building Room 2527

https://www.egr.msu.edu/der/ Proposals@egr.msu.edu

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