Proposal Preparation Stages

Step 1: Finding a Question

Step 2: Finding a Fellowship

- Read directions and pay close attention to requirements
- Compelling topic within means
- Contribute to field
- Consider the audience
- Can you do the research in the means of the fellowship?
- Tell reviewers a story- hold interest

NSF- 10% approval rate

Writing the Proposal

- Label paragraphs
- Justify everything
- Clear and easy
- Include Intellectual Merit & Broader Impact to be considered
- Build proposal around outline requirement then add information
- Include only necessary information and know when to stop
- Have a peer review outside of knowledge base
- Material then grammar
- Sell yourself
- Outline then paragraph
- Include personal narrative
- Who cares about this research?
- You are the tool – you are capable
    - The benefit and your aspirations
- Include Collaborators & Statements

Funding Resources

- Look at requirements
- Travel grants
- Are they funding you or the project?

Writing resources

- Successful writing
    - Selling yourself on paper (don't lie but sell yourself!)
    - Intellectual Merit & Broader Impact (NSF-GRFP)
        - Knowing what those mean is very important.
        - Why is your research relevant? (why should the taxpayers pay you? …. Think about this!)
        - What is the broader impact? - what are some ways that your research activities will affect other scientific communities. This an intentionally open-ended question.
        - Collaboration - is collaboration a significant component to your research and what will you, specifically, contribute to this collaboration.

    - Read the solicitation and announcement **carefully** to make sure you are doing what they are looking for in funding proposals.
    - Finding other Fellows and ask to look at their proposals. This well help you think about the structure of your own proposal.
- Reviewers – finding a reviewer besides your PI. It is ok to contact program officers, other fellows, look inside your institution and outside of the institution.
    - Graduate school may have resources.
- Writing the personal statement. (Do not give a chronological resume).
    - Why do you care about doing research? In terms of professional goals.
    - How did you get to your current position (research, employment, education)?
    - Previous research experience and how it has affected your goals.
    - Do not be afraid to sell yourself in this part of the application as well. Tie this to your research statement in some 'tiny' way.
- Organizations & Institutions
    - General writing process:
        - Impacts are a common theme in writing fellowships. How does your research impact broader communities (not just the scientific community)?
        - Answer the questions that are you asked. Use evidence to strengthen your response.
        - What is the problem? The organization wants to know what is the problem and how you propose to make a contribution in solving and/or understanding that problem.
    - Pay attention to due dates, page limits, formatting
        - If you do not strictly adhere to the requirements. **IT WILL BE RETURNED WITHOUT REVIEW!**
    - Nationwide Grants vs. State Grants
        - Consider your audience. You are speaking directly to them in your writing statement.
        - Consider the dollar amount of the award and align that with the feasibility of your research goals. (Will the agency's award allow you to do your work?)
    - Crucial to point out potential caveats in your work this will demonstrate to your reader that you have a clear understanding of the problem.
    - Point out primary and secondary goals and understand the difference between the two.
    - Are you developing something new? If so, why is your approach better or different?
- International Fellowships
    - Extremely difficult
        - You must make the case (argument) that your work cannot be done anywhere in the US and that there is a sense of urgency in your needing this funding and travel.
- Previous Research

    - Does your previous research have applicability to what you are applying for?
        - If not, what skills did you learn and how will your approach be different?
- Proposed Timelines:
    - Consider the obstacles and how will you address them as they arise.
    - Due Diligence in defining your research goals.
- Look at the statistics on the awards
    - What field? (how many proposals do they get)
    - How many awards are offered?
    - What areas are receiving the most funding?
- Dealing with rejection
    - Think about the comments from the reviewers. Especially if you are rejected.
    - What are the problems? How can you improve your work and resubmit for the next cycle?
    - Do you need to make significant changes?

Pre Submission Review Resources

Main Topics Discussed:
-Scholarships and Fellowships
-Grants
-Mentors/Advisors
-Types of Proposal Reviewers
-MSU Specific Resources
-Networking

Scholarships and Fellowships:
-Many smaller scholarships can be found almost everywhere from scholastic organizations to small businesses around your town.
-Checking with the local Chamber of Commerce can be a great starting block for locating scholarships and fellowships to apply for
-These look fantastic on resumes or CV's
-Sometimes simply asking if a department or organization offers a fellowship/scholarship/funding is a method for discovering possible resources
-Don't forget to research the big fellowships as well
    -NSF and NIH

Grants:
-Having an established degree can help or be one of the deciding factors in obtaining a grant only sometimes, usually when the grant is an academic oriented grant is a higher educational degree needed to be competitive
-Non-profit oriented grants are not as adamant about the specific degree as the proposal content and other factors

-Who you know is an important factor and can help raise your chances in not just earning the grant, but also in every aspect of an academic endeavor.
-Becoming established with the professional organization that is pertinent to your field of study is important and a phenomenal way to network.
Example) Exercise Science Degrees and the ACSM (American College of Sports Medicine)

Mentors and Advisors:
-A mentor or PI has a professional responsibility to look over and review their student's proposals
-If the unfortunate situation occurs where the advisors or PI is unable to review their students proposals in a full manner then outside sources should be sought out.
-Having one's mentor or Advisor review their proposal in its full context not just sections can be beneficial to a quality and successful proposal
-Give reviewer ample time to review the proposal
-2 to 3 weeks

Types of Proposal Reviewers:
-Main faculty mentor or advisor
-PI of research
-Mentors outside of one's department or school should be considered in order to give a broad and new look on the paper's content and how it is presented
-It is important to have your reviewers be brutally but constructively honest with you about your proposal since the admissions or acceptance board many be harsh in their review of it.

Proposal Specific Writing Details:
-If the committee reviewing your proposal are all experts in the field than your reviewers should most likely be well versed in the topic as well
-If the committee reviewing the proposal is broader in disciplines than having a more broad range of disciplines in your reviewers might be beneficial.
-It is crucial that the main reason and significance of your research or proposal be put into everyday terms so that it can be seen as applicable to the everyday person and marketable to them if significant results are discovered.
-Asking students who have applied and received the same fellowship you are applying to can be a very productive resources, especially if one is unsure about whether or not their proposal is a strong contender.

MSU Specific Resources:
-There is not an establish reviewer board that's main goal is to edit and review graduate students proposals; however, in the future this is a goal for MSU

Other Topic Main Points of Discussion:

-When creating a timeline for the proposal submission, one should make the “PERFECT” timeline as we all know disasters, mishaps, and setbacks happen. Instead make a “DISASTER” timeline that allows for broad time to fix mistakes if they occur.
-Propose a getaway for the graduate students and advisor to have a review weekend where each student will return with two to three solid reviews of their proposal
-Can establish bonding or even be a means to network with various departments if made into a larger event

Asking for, getting and obtaining LETTERS OR RECOMENTDATION.

1. Found tricky for letters because I was not close with many faculty. Who else would be good for LoR for an NIH grant.
    a. Usually 2 or 3 for NIH. Use your advisor, people in your lab who you are doing research with. If your using their technique, anything your doing and they can see your active in both labs and that your diverse. Become close with the people from your panel. Will help if you are taking classes with.
    b. Learned lots of stuff from your class and when you did well in it. Go in and talk to them after the class is done. They would appreciate it and would probably be more then willing to write you a letter if you talk to them about what your doing.
    c. Ask people to come view your poster at the poster presentation. Network network network!
    d. Self promotion is hard but it very important. Hard for women
    e. When writing letters for its not always just the letter but very specific rubrics. If you can cater to those things on the rubric it will make it easier for the writer to write it or fill out that rubric for you. About being a great person is just as important as being a great scientist/student.
    f. Think about specific examples about the certain parts of the “Rubric” this example of my life fits this part of the rubric. Makes it easy to represent yourself.
2. How do you tell them about your extracurricular things? Do I come out and say right away this is where I am spending my extra time and it has to do with my children.
    a. This is what the rest of my life looks like other then just my school and GPA. They can pull specific examples from what you have given to them. Makes the letter writing process easier.
    b. Include a CV. But also give them a list of what the grant is, when the total application is due but ALSO when the specific date of the letter is due. Also put in who do I email this letter to.
3. How much time to give someone?
    a. Usually at least a couple of weeks. The more time the better.
    b. The sooner the better. But if I get a good one written if I’m doing more then one for you it is easier to just tweek it.
    c. I know it feels like your being irritating when you have to remind people to write your letters. But really its not, I love getting those reminders. It makes me think the student is really on top of it.
    d. Use your committee because you have a great committee in immunology and micro.
4. who would be the best to write me a letter.

    a. Do a lot of research into the people who do the most applicable to what you are doing.
    b. Pretty soon you'll know who the "grant getters" of your department is good. And also they are funding women in science which is a great opportunity for you. So definitely apply.
5. Are their grants specific for women?
    a. Use this website: UC boulder website (Colorado.edu) all on fellowship for minority and women students. AT&T women in science. Fellowships in STEM, performing arts, social sciences.
6. What's the scope of who I can ask for a letter? Obviously advisor? What about a boss at work? What do they like or what turns people off?
    a. Who can give the best info about what your going to be doing? Anyone who can say this is what this person is doing and why this grant fits them.
    b. Not employer unless you're a business major and it's a super important boss. Always research faculty, people on your committee, people in your lab. Not only research skills and talents but also you as a person. Its so much more then just you as a student but you as an overall person. Are you willing to work diligently, contribution to diversity, knowledge creativity, teamwork, accepts feedback, works well under stress. So much more for the letter to reflect everything about you, not just your brain.
    c. Its okay to fill your letter writers in as to what the rest of your life looks like. They like to know everything so give them a CV.
    d. Make your proposal to the people you want to write you a letter is very organized.

7. Can I ask someone to write you a letter twice? Can I ask them to write another one for another grant?
    a. Yes, because if they have written you one letter they mostly like to just tweak it.
8. How do I say thank you?
    a. Always want to know. I have never expected someone to say something but something like an email or phone call, or thank you card is sufficient. We don't expect a bottle of wine but we really do love to know about it.
    b. People who I have written for who have gone on, is very important. Just keep them in the loop.
9. Do they give more weight to an advisor letter?
    a. I think they weight them all the same. Want your advisors letter to be very strong because it's their personal advisor who should be the best because you should be the closest. That's why its so important to inform the letter writers of what to speak to in the letter. Make sure your letters show a full picture of you. One can see you in the lab, one can see you're extracurricular, what can you do outside of academics. Are they one of the most honest people I know? You wouldn't think you would be getting ranked on these, but you are so make sure you are having your letters paint a full picture of you.

10. Can any student from any department apply to NSF?
    a. Yes but there is a limited amount of each in each field. Make sure that you know what fellowships are here because sometimes we don't have the finances that we

had a little while ago because someone else wrote a grant and that money moved to a different place.

11. University of Washington. Have a good calendar for available fellowships.

a. Can see what's due per month. Makes it a little easier and not so overwhelming as some other websites.

- What if you feel like you are bragging when promoting your academic and life accomplishments? (I have a great link to research done by MSU's Dr. Jessi Smith that points to how it is frequently more difficult for women to "toot their own horn". I would like to share this with students if they want.) http://pwq.sagepub.com/content/early/2013/12/20/0361684313515840.full

- The Unspoken Benefits of Grant Writing: https://www.insidehighered.com/blogs/gradhacker/unspoken-benefits-grant-writing

Identifying Fellowship/Scholarship/Internship/Assistantships/Loans/Funding agencies/foundations

National Graduate Fellowships:

http://www.ncsu.edu/grad/financial-support/fellowships.html
http://www.colorado.edu/graduateschool/funding/national.html
http://www.grad.washington.edu/students/fa/calendar.shtml
http://www.gradschools.com/financial-aid/graduate-fellowships-scholarships

a. Prestigious Scholarships and Fellowships http://www.fastweb.com/college-scholarships/articles/prestigious-scholarships-and-fellowships
b. MSU Office of Sponsored Programs
   http://www.montana.edu/research/funding-opportunities/
c. Grants
   i. http://grants.gov/
d. College departments or graduate school
   i. http://www.montana.edu/gradschool/fellowships.html
e. National McNair website
   i. http://mcnairscholars.com/funding/
f. http://sciencecareers.sciencemag.org/funding
g. http://www.nelnetsolutions.com/terc/

2. More Research Opportunities: Programs and Centers at MSU: INBRE, NSF Epscor, REU, BRIDGES, USP, TRIO, MSGC, PIRE (all on McNair website), USDA, FDA, CDC, NIH, NASA, DoE, DoD, DoT, DoC, etc.

a. http://www.dm.usda.gov/employ/intern.htm
b. http://www.dm.usda.gov/employ/college-students.htm