My advice for those applying is to have as many people as possible read your essays. I had numerous professors from both my undergraduate and graduate programs read them and they all provided unique and great feedback. My undergrad was at a different university in a completely different area, so it was great getting feedback from someone outside of my little niche of neurobiology to read the essays. They provided excellent feedback making the research proposal more universal and important sounding to people not in the field. I also read as many successful essays as I could get my hands on (although I was the first year with the new essay system, so that was difficult).

For the personal essay the best advice I got was to not be shy and to make yourself memorable (which seems obvious). When talking about my experiences, I would build up to the most important experience in each section, but someone pointed out they lost interest by that point. Start each paragraph with a home run. Instead of just building up to, tell them up front, build up to it, and then repeat it again. Use bold, underlining, italics to highlight important things, but don't overdo it.

Julie

I am not sure how much advice I have about the application process; most of my advice is for after you get the fellowship. I guess my one piece of advice for the application process is about genuine stories (for the biography) or motivation behind research. The narrative that the students use to tie together their two essays should be "relatively" easy to write about. If they have absolutely no creative thoughts about the essays, then maybe they should consider slightly changing their narrative or research topic to something that really makes them excited. Don't pick research based on what you think is a "hot topic" just because it is a hot topic.

My advice is more about how to take the NSF GRFP to the right institution and department. The students MUST ask about health insurance and tax policy of the university for Fellows and get it IN WRITING. Many universities do not deal with the fellowships the same way, and if nothing is in writing and the university staff change, then things can be very difficult. Also, really think about the offers that Universities give you for the remainder of your 1-2 years that you will have if you are completing a Ph.D. I am not saying chase the money! Many universities will want you to use all of your fellowship years right away, and will offer a TA position at the end of your Ph.D. This course of action may not be the smartest if you have a lot of research to complete near the end of your Ph.D.

Also, start off your NSF GRFP with all of the possible travel money in mind. Use it to make connections and conduct research in places that would otherwise be unavailable to other students!

Kathleen

Ok here’s what I got.

**Advice**

* Don’t neglect the broader impacts. That’s what the judges liked most about my proposal. I helped create a children’s activity book that partially coincided with my research.
* In your personal statement, give them the impression that you have goals you know you want to achieve in your career and you have plans to achieve those goals. Also connect your past experiences to why you chose your career path.
* Make a case that your research is important for multiple reasons

-Valerie

It's great you are doing an NSF workshop!  I'm sure it will be very helpful for applicants.  I wish I had known about it when I applied the first time.  My recommendations to students are:

- have a detailed plan of what research you want to do or would be willing to do

- write about yourself like the application is a reference letter in first person

Elissa

Advice/Recommendation

* Really emphasize your service to the scientific community and/or how you want to promote science in the future.
  + Most people who apply will have good grades and research.  This is the best opportunity to set yourself apart.
  + Dr. Lima is a great model of living this ideal.  Look to her for inspiration.
* When discussing research, internships, study abroad, etc. in your application, focus on what you learned, not what you did.  Try and determine what from your experience will best apply to your future.
  + For example:  When I discussed my research in Japan, I used a total of one sentence to describe my project (fairly generally leaving out *many* details) and the rest of the paragraph to discuss working across cultural and linguistic barriers.
* General writing tips:
  + “Writing is rewriting.” – Prof. James Hardy Jr., LSU History (and many others)
  + Hook your audience with the very first sentence.  You need to make a good impression and set the foundation for the entire essay.  Don’t make your audience wait. – Paraphrased advice from LSU Honors College.
  + Write something that your audience will *want* to read (in this case, university professors). – Advice that I have developed myself which gets me in the correct mindset for writing.  Others have probably said the same.
* Direct quote from one of my reviewers:
  + “Everything that I look for in an application is present, a sustained productive research history with the dissemination of results, developed ideas for the future, a strong academic history and strong outreach activities.”

If there is any topic you want specifically (finding a research project, etc.), then let me know and I can provide more advice.

Jacob

It's great to hear from you and I'm happy to share a few tips for applying to NSF. It took me three tries before receiving the fellowship, so I have several things to pass on based on what my reviewers said.

The biggest problem I see with applications is not enough focus on broader impacts (or only focusing on the BI of the project or the student, but not both). It's really important to include past, present, and future examples of service and mentoring, as well as how the results of the project will be disseminated to and affect the public. For example, I participate in an organization that promotes science to middle school girls so in my application I talked about designing a workshop based on ideas from my proposed project.

Since the reviewers go through so many applications, I've found that it's really helpful to divide the personal statement up into sections such as "research experience", "service", "mentoring", etc. Essentially spoon feed the reviewer. In fact, one thing that I did last year that I think helped a lot is I went online and read reviews of successful applications. It's clear that the reviewers just take parts of the application and regurgitate it for their scoring rationale. Thus, give them really powerful summary statements that will stand out to them. I included such a statement in each section and sure enough those same sentences ended up in my reviews.

Especially in the first few drafts, include all of your experiences and then narrow them down as you edit. In my last application I included how I participated in the honors college service days by helping to paint elementary schools. I did not include this in previous applications because it didn't seem like a big deal to me, but my reviewers actually commented on it as a positive broader impact.

Finally, make sure that the proposed project fits within the goals of the NSF. A fellow classmate of mine had his application rejected this year due to his project not falling within the scope of the NSF.

Melissa

In general:

**Save every iteration of the document!**I have 20 versions of each essay, saved with the date I worked on the document in the title. This kept my words safe from days when Word decided to crash and days then I erroneously thought I should delete paragraphs 2-5 and start over.

On the experiences/personal statement:

Ultimately, the NSF funds YOU. **At the end of the essay, you want the reader to be your advocate.**

**Don't be afraid to change the organization structure of your document.** Sometimes, the way that we brainstorm and draft our document puts our experiences in an order that may not be the most effective for a reader.

**For every experience you discuss, be sure to use specific verbs and descriptive nouns, being quantitative wherever you can.**

"I worked on 3D tissue culture techniques for regenerative therapy applications. The scaffolds we produced were tested for mechanical properties and overall quality by a partner institution."

vs.

"Over that summer, I managed a budget of $1200 to develop 3D scaffolds for differentiating bone marrow stem cells into three distinct types of connective tissue for regenerative therapy applications.

Working in a five-person team, I collaborated with two separate laboratories at a neighboring institution to measure the elasticity and characterize the surface morphology of these tissue culture scaffolds."

It is extremely important to **spend a considerable amount of time really reflecting on how your experiences have informed your ambitions and fostered your growth**, both personally and professionally. It is this aspect of the personal statement that helps to integrate your experiences into your story and will win over your reader.

**Get other people to read your document early and often!** Don't spend a week picking the sentence structure for a paragraph that could be totally gutted tomorrow.

The research proposal:

So many battles can be lost before they begin with a bad title. Help your reader! **Make an active and informative title!**

**The hardest part of this document is keeping it under 2 pages without sacrificing content**. By this, I do NOT mean that you will have to keep things down to Aims 1-3 instead of walking through Aims 1-7.

I mean that you must show you understand this proposed work at the nano and macro scale--from how to fix the part of the procedure that will most likely fail to the ultimate value this kind of work could have for society far beyond your lab bench--and everything in between in just two pages.

**When you "make your pitch" at the end of the introduction section, be sure to use active voice with specific nouns and powerful verbs!**

"This proposal will describe the development of a microfluidic device to test anticoagulants using patient blood, which will improve greatly upon previous generations of these types of devices."

vs.

"I propose here a multi-layer microfluidic device to allow for hands free monitoring of thrombi development parameters for four drug concentrations at high (13000 s-1) and low (7000 s-1) shear rates that will merge seamlessly with first generation device design and instrumentation. The intellectual merit of this research is that it will provide a pathologically relevant means to study platelet accumulation as a function of anti-platelet therapy doses in a high-throughput format, which is not currently possible."

Shelby

I know the application is now two essays instead of three, but the concepts are the same. As everyone who has been awarded a fellowship will tell you, a student cannot highlight the broader impacts enough. In my research proposal, I put it as a separate section. While this isn't necessary, I felt it helped with the flow and conclusion to have it at the end. I finished my application a month early to give busy professors and graduate students time to edit it. I also took it to a law student friend for conciseness editing (law students are well trained for that!).

I do offer 1st year graduate students here editing so if someone is in need of an editor I'll help as long as it's in a google doc (I've given up on Microsoft completely). I'm happy to assist LSU students especially because there isn't a large number of winners at LSU, and mentoring can change that.

Another suggestion I have for you is to collect winning essays. If you are already doing that, I can send mine along even though reading them now makes me cringe with embarrassment!

In summary, my bullet point list would be

* tell a story
* live and breath broader impacts
* allow A LOT of time for editing, get a varied editing audience (in and out of STEM/your specific discipline)
* read previous winning essays

-Arrielle