

Student Notebook: Writing an NIH F31

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The Ruth L. Kirschstein National Research Service Award (NRSA) provides predoctoral students mentored research training during their dissertation research. Commonly called the “F31,” the predoctoral NRSA gives awardees a monthly stipend (approximately \$25,000 per year, pretax), support for tuition and fees (60% coverage, up to \$16,000 per year), and funds for training-related costs (\$4,200 per year). In fiscal year 2018, the National Institutes of Health (NIH) received 2,673 F31 applications, and [699 received an award](https://report.nih.gov/success_rates/) (report.nih.gov/success_rates/). The proportion of funded F31s over the last 5 years hovers between 20% and 30% for most institutes at NIH.

Writing an F31 application — like writing any grant application — is a mental and emotional odyssey. You may feel overwhelmed and unsure where to begin. As someone who recently received an F31 16 months after I submitted my first application, I aim to provide tips from my experience in applying. In particular, the tips are geared toward students in psychological science; several excellent resources already exist about the general process of writing an F31 application, but psychology-specific F31 advice is sparse. The following recommendations could also reasonably be applied to applications for other grants and awards.

1. Learn about the research priorities of your funding institute at NIH

NIH institutes have certain high-priority research areas, sometimes referred to as “strategic directions.” For example, my F31 award is funded by the National Institute on Aging, which has an explicit priority to accelerate research on Alzheimer’s disease and its related disorders. Strategic directions make a larger pool of money available for grants related to those priorities. Your F31 does not necessarily need to align with the strategic directions of an institute, but special directions may align with gaps in the literature that could be the focus of your doctoral training, and writing an F31 application with special directions in mind may bolster your chances of receiving funding.

2. Identify the audience of your grant, and write your application with these people in mind

The F31, like other NIH grants, is reviewed in study sections composed of a few dozen scientists who are unified by a broad research area (e.g., behavioral neuroscience). A list of study sections for F awards and previous rosters for the study sections can be viewed online at public.csr.nih.gov/StudySections/Fellowship. Reviewers of your F31 application may be knowledgeable in your field, but they may not have a full understanding of the nuanced aspects of your proposal. Few if any reviewers in your study section may be trained in psychology; in my case, most reviewers in the study section had backgrounds in neuroscience, biology, or chemistry. Assembling a team of friends and other students to read drafts of your application can help ensure that your proposal is as clear as it can be before you send it in for review.

3. Set a reasonable research scope and timeline

The F31 is a great mechanism to support dissertation-stage research, but the scope of the proposal needs to be realistically achievable. Some research ideas, such as recruiting 100 people to undergo a neuroimaging protocol, might be great training opportunities but are unrealistic given the small amount of funding and timeline of the F31 (usually a maximum of 3 years). There is a caveat, however. If you want training in using cutting-edge or expensive tools, you can ask your mentors to propose the use of the tools under the umbrella of their research programs. Maybe your mentor has an ongoing study that collects data that is unrelated to the primary outcome of the study that you are interested in helping gather and analyze. That could be part of your F31 application. Conversely, your mentor may have no large grants at the moment, or current studies in your lab could be winding down. In this case, identifying a comentor with whom you can train (i.e., a collaborator of your mentor) may be advisable; working with a comentor can expand your training opportunities and networking circles.

4. Understand the F31 application timeline, and appreciate the exercise of grant writing

When thinking about writing an F31, the timeline of writing, submission, review, and (potential) revision is important to consider. From initial drafting of the research plan to receiving funding, the process of getting an F31 can easily take a year or 2. After writing my F31 application the first time, I learned that my proposal was not scored (i.e., in the bottom 50% of all applications) and not discussed at the study section. I wanted to give up on the ideas I had generated all together and forgo resubmission. I am glad my comentors encouraged me to look at the comments, revise my grant application to address all the concerns the reviewers raised, and resubmit 6 months later. At the time of resubmission, I was entering a stressful second year of my clinical psychology doctoral program, so my dissertation research was the furthest thing from my mind. Now, however, I am grateful that I have a plan for my dissertation solidified and have the bonus of funding to support me in the development of various technical skills that would have otherwise been outside the scope of my doctoral program curriculum (e.g., neuroimaging, advanced statistical analysis). Even if I had not received funding after resubmission, I still would have had my dissertation idea formed and I could have reused parts of the F31 application to draft other grant and fellowship applications. The exercise is good regardless of the outcome.

During the early years of doctoral training, you may feel that writing an F31 application is too large or overwhelming an endeavor. However, it is never too early to start learning how to write grants. Grant writing is a critical and abstract skill that is crucial for success in academia, but it's typically not well-covered in doctoral training. I encourage you, just as I would now encourage myself nearly 2 years ago, to take the first step to developing grant writing skills by talking to your mentors about writing an application for an F31 or other grant. æ

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