Applying for Grants and Fellowships and How GradFund can Help

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Dan Browe, Peer Mentor
GradFund, Graduate School - New Brunswick
Presentation Outline

- About GradFund
- The world of external funding
- How can GradFund help you?
About GradFund

Our mission is to support graduate students with identifying and applying for extramural funding.

We have helped Rutgers graduate students win more than $40 Million in external grants and fellowships since our founding in 2000.

We work through an innovative peer-mentoring fellowship advising model.
THE GRADFUND TEAM
Who Funds Research?

There are a variety of public and private funding sources
Fellowships and Grants

**Fellowships** provide stipends to support living expenses

**Grants** support research-related costs
The National Science Foundation

Graduate Research Fellowship

3 years of support

Deadline: October 24-28
National Institute of Health
F31 Awards:
Individual Predoctoral Fellowships

The NIH has 27 Institutes and Centers such as:

- National Cancer Institute
- National Human Genome Research Institute
  *Advancing human health through genomics research*
- National Institute of Biomedical Imaging and Bioengineering

Your research must intersect with a participating institute or center.
Graduate Student Fellowships offered by New Jersey Commission on:

- Spinal Cord Research
  - 2 years of fellowship support
  - Deadline: Dec 12

- Cancer Research
  - 2 years of fellowship support
  - Deadline: Oct 21
Sigma XI: Grants in Aid of Research

- Funds research expenses up to $1000
- Travel expenses, laboratory equipment, etc.
- Membership in Sigma Xi not required
- Deadline: Mar 15, Oct 1
The Three Key Steps to Applying for Funding

Three steps:

1. Assess your funding needs
2. Find a funder who fits your goals
3. Write and submit an application
The Application Cycle

- Most fellowship and grant competitions for graduate students have deadlines from September through March.
- It can take 3-6 months for a funder to review your application, make a decision and notify you of the results.
- Once you are notified that you have won an award, it may take another 1-3 months before you can activate the award.
GRADFUND SERVICES
We offer a range of services to support Rutgers graduate students throughout the fellowship and grant application process, from planning to submission.

**Individual Meetings**
Peer fellowship advisors work to help students identify and apply for merit-based awards and provide feedback on their application materials.

**Mentoring Programs**
Pioneered by GradFund in 2006, our summer mentoring programs provide students with structure and guidance through the application development process.

**Workshops & Presentations**
GradFund offers targeted information and guidance through graduate program and award specific presentations and workshops.
Meeting with GradFund

Individual Consultations
The GradFund Fellowship Advising and Peer Mentoring Team is available to work with you to help you learn how to use GradFund tools and resources, develop an individual funding plan, receive feedback on application materials and workshop your application essays. Book your appointment by clicking on one of the services below, or by calling 848-932-6546.

- What Can I Apply For?
- Building a Funding Plan
- Help with a Funder
- Application Consultation
- Application Essay Conference
- Post Award Consultation
OUR AWARD SEARCH

FIND FUNDING.

Our database contains over 3800 awards from nearly 1900 funders. We go beyond listing awards to provide you with valuable intelligence and advice about these fellowships and grants. We are constantly working to update and expand our database, so check back frequently. New updates are uploaded every Friday.

How would you like to begin your search? You’ll be able to refine your results, and save awards to your Award List on the next page.

- Type of Funding?
- Research Interest?
- Funder or Award?

Select the activity for which you are looking for funding

Select Activity

Search

Click here to use our advanced search.

Our simple award search interface allows students to quickly find the results they are looking for.
GRADFUND ONLINE RESOURCES

Welcome to the Sakai site for the GradFund Graduate Funding Proposal Writing Tutorial!

We have developed for you a self-paced mentoring program to assist you in the development of a proposal for a funding application. This tutorial is designed to help you with the task of writing a competitive application and organizing all of its components.

By using this tutorial, you will learn the mechanics of proposal writing and best practices in grantsmanship while you develop an outline of your funding application, including the research proposal, supporting materials, and the application form(s). Although this tutorial is self-paced, we encourage you to set up a schedule to keep yourself on track. The program consists of 8 lessons, and you should schedule about a week to complete each one.

When you have completed the tutorial, you will have the first draft of your application materials and a good idea of how to assemble your funding application package. The more time you invest in crafting the essays detailed in this tutorial, the more advice and guidance we will be able to provide you. Providing ample time to work on your applications is one of the most important things you can do for yourself. Completing this tutorial will not accelerate the application development process but it will be a valuable time investment: competitive funding applications take time to write and rewrite.

We encourage you to complement the tutorial with individual meetings with a GradFund fellowship advisor. During an application review meeting, you will receive personalized feedback to help you target the goals of your particular funder, ensure that you are providing the appropriate tone and level of detail for your review audience, and improve clarity and organization of the application. You can schedule a meeting through our website.

This tutorial is designed for graduate students who have selected an award to apply for. If you would like to search for awards to support your graduate work, you can use our website to search for awards and schedule a pre-application meeting to discuss your options with a fellowship advisor. For more information about grants and fellowships, please visit our website, our blog GradFund Conversations, and the GradFund Knowledgebase for more information and insights into the proposal writing process.

If you have any questions or concerns as you work through the tutorial, please let us know. We look forward to working with you!

The GradFund Fellowship Advising Team

GRADFUND ONLINE TUTORIALS
Our structured, self-paced programs guide graduate students through the process of getting to know a funder, writing their application materials, and revising and working with feedback to create high-quality proposals.
A guide to the review of the F31

Cheryl F. Dreyfus
Nancy Walworth
NIH Program Announcement
(PA-14-147)
NIH Program Announcement (PA-14-147) includes Application Review Information

A research project integrated with a training plan will be evaluated for scientific and technical merit through NIH peer review system

“The review will emphasize the applicant’s potential for an independent, scientific research career, the applicant’s need for the proposed training, and the degree to which the research project and training plan, the sponsor(s), and the environment will satisfy those needs.”
Grant Review Process

before the Review Panel meets

• Each application is assigned to three reviewers
• All three reviewers provide a preliminary overall impact score and preliminary scores for individual criteria
• All three reviewers write an overall impact summary as well as a list of strengths and weaknesses associated with individual criteria
• We critique 1) applicant, 2) sponsors, collaborators and consultants, 3) research plan, 4) training potential and 5) environment and commitment to training.
Grant review Process

at the time of review

1. Scoring consistency
   Great grant
   Poor grant
   Middle of the road, or a grant with wide range of scores

2. Grants are triaged (can be rescued during discussion)
3. Primary reviewer presents, then secondary and tertiary reviewers present
4. Discussion with full panel takes place
5. Call for final scores from reviewers
6. The full committee votes
7. Additional review criteria are discussed (animals, resource sharing plan (data and model organism), responsible conduct of research (format, topics, faculty participation, number contact hours, frequency (every 4 years))
8. Grants not discussed receive written critiques
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Minor Weakness: An easily addressable weakness that does not substantially lessen impact  
Moderate Weakness: A weakness that lessens impact  
Major Weakness: A weakness that severely limits impact
• Application #:
• Applicant:
• OVERALL IMPACT
• Reviewers will provide an overall impact score to reflect their assessment of the likelihood that the fellowship will enhance the candidate’s potential for, and commitment to, a productive independent scientific research career in a health-related field, in consideration of the following scored and additional review criteria. An application does not need to be strong in all categories to be judged likely to have a major impact.

  • **Overall Impact/Merit** Write a paragraph summarizing the factors that informed your Overall Impact score. (1-9)

  “Assessment of the likelihood that the fellowship will enhance the applicant’s potential for and commitment to and independent, productive scientific research career in a health-related field…. ” Is not necessarily an average of the other scores, but an overall assessment of the training opportunity—this will include the educational plan, the research involved, the mentor, the environment.
Reviewers will consider each of the five review criteria below in the determination of scientific and technical merit, and give a separate score for each.

1. **Fellowship Applicant** (references, biosketch, coursework, doctoral dissertation and research training, goals for training and career—how do these mesh with strengths of the mentor?)

   - **Does the applicant have the potential to develop into an independent and productive scientist?**
   - **Strengths**
   - **Weaknesses**

2. **Sponsors, Collaborators, and Consultants** (Biosketches, presentation of respective contributions, selection of sponsor and institution, time the mentor(s) meet(s) with the applicant, funding for the lab, seniority and appropriate experience of the mentor, does the mentor understand the training needs of the applicant, how do the co-mentors interact with applicant, how many other trainees will there be in the lab)

   - **Strengths**
   - **Weaknesses**
3. **Research Training Plan** (High scientific quality, clear and reasoned presentation that includes discussion of outcomes and possible problems, adequate figures, appropriate for PhD candidate—not overly ambitious)

**Strengths**

**Weaknesses**

4. **Training Potential** (how will strengths of applicant be supported and how will weaknesses be reversed, what courses will be taken, what seminars are available, what presentations will applicant be making—information comes from “Goals for fellowship training and career” and includes overall goal of applicant, and activities planned under the award, as well as previous training and statements from applicant and mentor(s). **It is helpful to outline the overall goals based on the student’s needs and then indicate the detailed plans to meet those needs. These can be met by training in experimental design, specialized coursework, the strengths of the lab and scientific community.**

**Strengths**

**Weaknesses**
5. **Institutional Environment & Commitment to Training**  
(facilities and resources, equipment, description of the graduate program, environment—**not only the lab resources, but also the scientific environment of the program and the core facilities that support the research**)

- Strengths
- Weaknesses

- **In writing the application it is critical that the applicant and mentor collaborate and show consistency in what is said.**
Before you begin: applicant ask yourself

• Why do I need this training experience?
• What gaps in my training exist?
• Why did I pick this lab at Rutgers University to carry out my training?
• How will my PI help me achieve my training goals?
• How will I take advantage of the resources at Rutgers to become a research scientist?
Mentor ask yourself

• Why does my student **need** this training experience?
• What **gaps** exist in my student’s training?
• Why is my lab ideal to provide the needed training and fill those gaps?
• How can I help my student achieve his/her training goals?
• What resources at Rutgers will help my student become a research scientist?
• In writing the application it is critical that the applicant and mentor collaborate and show consistency in what is said.
• A lack of consistency suggests that the mentor and applicant are not speaking to each other—so valued training is not there
• A poorly presented research plan suggests that training was not provided when the application was developed
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Predoctoral Fellowship Workshop

Janet Alder, PhD
Associate Professor Neuroscience and Cell Biology
Assistant Dean of Academic and Student Affairs
Rutgers Graduate School of Biomedical Sciences – New Brunswick/Piscataway

September 12, 2016
Graduate School of Biomedical Sciences

Enhancing Reproducibility through Rigor and Transparency

Four areas that NIH is now requiring in applications and reviewing:

• **SIGNIFICANCE:**
  1) Describe Scientific premise: consider strengths and weaknesses of published research or preliminary data crucial to the support of the application (rigor of previous experiments; methodology, analysis and interpretation, relevant biological variables, authentication of key resources)

• **RESEARCH STRATEGY:**
  2) Describe rigorous experimental design and methods and how will achieve robust and unbiased results: sample size calculation for significance (# mice per group), randomize subjects, blinded, inclusion/exclusion criteria etc.
  3) Consider relevant biological variables for vertebrate animals or human subjects: e.g. Sex, weight, age, genetic strain etc.
  4) Authentication of key biological and/or chemical resources; how plan to authenticate; methods to ensure identity and validity e.g. Cell lines (not mis-identified or contaminated), speciality chemicals, antibodies, other biologicals

• **REVISED REVIEW CRITERIA:** Useful Training Module:
  https://grants.nih.gov/reproducibility/module_1/presentation.html
NJ Commission sections

- Internal paperwork from university
- Applicant background and scholastic performance
- Abstract
- Lay abstract
- Narrative
  - specific aims
  - research plan (background and significance, preliminary data, methods and experimental design – include expected results, caveats and alternative approaches)
- Bibliography
- Biosketches (type it in)
- Facilities/Resources
- Major equipment
- Budget
- Budget justification
NJ Commission sections continued

- Applicant goals: research career and training goals – what do you want to learn during the grant and how that will help you achieve what you want to do long term.
- 3 letters of reference other than the sponsor.
- Research experience - your history in labs
- Research training experience of sponsor – who has your PI trained and what is their current position
- Comments of sponsor – PI should describe your lab, what areas of research you have, who is in your lab now and your mentoring experience, what the student will learn, the extras that are offered at your university (iJOBS, RCR training, rigor and reproducibility, IDPs, communications class), how you will monitor her progress, opportunities for the student to mentor others and give presentations.
- Comment of sponsor on applicant’s qualifications (like a letter of reference but student can see this).
F30/31 sections

- Internal paperwork
- Cover letter
- Aims
- Narrative – lay abstract
- Research Experience
- Specific Aims
- Research Strategy (significance, aims, approach, expected results and troubleshooting)
- Bibliography
- Vertebrate animals
- Letters of recommendation – PI plus 2
- Resource sharing
- Biosketches
- Budget
- Budget justification
- Equipment
- Facilities
F30/31 sections continued

• Respective contributions: who did what for the proposal. Who will mentor you and how often will you meet with them.
• Selection of Sponsor/Institution: why did you pick this school and this lab.
• Research support available: what grants does your PI have that can supplement the fellowship.
• Sponsor’s Previous Trainees: predoc and postdoc in the lab as well as undergrads, MS and thesis committees. Their current positions.
• Commitment to Training and Additional Educational Information: program structure, milestones, program outcomes, time to degree, facilities, opportunities for interactions at Rutgers, how the PI will mentor, research environment, facilities
• Applicant’s qualifications and potential for research career
• Activities planned under this award: lab techniques, courses, presentations, career development, professional skills (presentations, grant and paper writing, mentoring),
• Goals for fellowship training – what do you want to do short term and how will it help long term.
GSBS is here to help. We can provide:

- Description of Institutional Environment and Commitment to Training WITH Additional Educational Information combined
- Description of Individual Development Plans (IDP)
- Description of iJOBS – career development resources
- Description of Responsible Conduct of Research Training
- Description of Rigor and Reproducibility Training

Ask janet.alder@rutgers.edu for boiler plate sections of above