Pre-doctoral Fellowship Toolbox

- Peer Review
- Experimental design
- Pilot data
- Letters of recommendation
- Where to look For fellowships

Research Plan
- Goal setting
- Compelling story
- Peer advice
- Training Potential

Alison K. Hall, Ph.D
Associate Dean, Research Workforce Development
January 30, 2018
Why do you want a fellowship?
Why do you want a fellowship?

- Important research career goal
- Makes the relationship with the PI explicit
- Benefits associated with grant
- Looks good on your resume
- Great learning experience
- Builds from qualifier
At the end of today’s discussion, you will be able to:

1. Describe where to find fellowship opportunities
2. Create a strategy for your application
3. Address what reviewers are looking for
4. Identify essentials of the peer review process
5. Describe key elements of predoctoral fellowships
   - NIH NRSA F31 pre-doctoral fellowship
   - AHA pre-doctoral fellowship
Federal and foundation sources differ

- Research mission
- Career level
- Citizenship
- Application deadlines

Plan to apply to several…

[IBS website]

FUNDING OPPORTUNITIES

- PhD Fellowships
- Postdoctoral Fellowships

sample applications, tips
Communicate:
• GW-Cayuse submission
• Dept administrator
• eRA Commons
• Your research advisor(s)
• Committee/collaborators
• Recommenders
• Peers with fellowships

Applications and Awards go through the Institution

GW
Office of the Vice President for Research

eRA Commons User Registration

User ID:
First Name:
Middle Name (Optional):
Last Name:
GWE-Mail:
Role Requested:

**If you choose the PI role, your eRA Commons user ID will follow you throughout your career, regardless of a future change in institutional affiliation.**

eRA Commons User Roles: [Link]

Forgot Password/Unlock Account:
[Link]
Start early and plan ahead--several months

Do you have
• time to focus
• pilot data
• appointment status
• a deadline in mind
• updated goals and IDP

Be sure to give others a chance to help with their parts
The NIH invests in support for research training and education at institutions around the nation. These grants include:

- Training and fellowship (T32; F30, F31, F32)
- Career Development (K08, K23 and others)
- Research Education (R25, R38 and others)
Sample discussion topics:
• Is this fellowship right for me?
• Are the research aims a good fit for your Institute?
• How much preliminary data is important for this application?
• How will the application be reviewed?
• What should I consider in describing my training goals?
• Do you have advice about preparing a strong application?

Email first: “I plan to submit an F31 fellowship, and I have a few questions. My draft aims/idea/mentor name are below. Could we schedule a phone call to discuss my application? Would you be available Tuesday at 1PM?”
NIH F31 standard due dates April 8, August 8, December 8

All applications managed by GW Sponsored Projects
• Submitted through GW Cayuse
• Requires 5-7 days in advance of the NIH deadline for checks
• Once submitted, follow application in eRA Commons
NIH F31 standard due dates: April 8, August 8, December 8

Review is done by a “study section”
- 20-30 scientists from around the nation
- Each group has a research focus
- See member rosters of NIH Center for Scientific Review
- You get impact/priority score, summary in eRA Commons

Review and Award Cycles

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<td>September or December *</td>
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Applicant’s Background and Goals (6 page)
  research experience, training goals and objectives,
  activities planned under this award
Biographical Sketch (fellowship, 5 page limit)
Specific Aims (1 page)
Research Strategy (6 page limit)
Sponsor and Co-Sponsor Statement (6 page limit)
Letters of Support/ email contacts
Institutional Environment and Commitment to Training
  (2 page limit)
Training and Responsible Conduct of Research
F31 follows standard **NRSA guidelines**

**Stipend**
Predoctoral trainee for FY2017 is $23,844

**Tuition and Fees**
(60% of level requested up to $16,000)

**Institutional Allowance for Fellows**
($4,200 including health insurance)
Applicant’s Background and Goals

Doctoral Dissertation and Research Experience
Training Goals and Objectives
Activities Planned Under this Award

- Interest in research, research career & how this application will assist in your goals
- IDP and goal setting
- Address any personal factors that affected advancement
- NRSAs are not designed to make better teachers
- Include a training timeline
- Sponsor describes training and career development plan in detail; your “training goals” and “activities” should be similar.
Applications require a biosketch that describes education, professional appointments, honors, publications and previous funding.

This is *different* from your CV:

**NIH Biosketch**
Tips for Specific Aims

- Provide 2 or at most 3 aims
- Define the question you will answer
- Address a hypothesis that is logical, testable, focused, informative, simple

Sample structure:
- First paragraph: Capture attention, what’s known, the gap you will address, why it’s important
- Second Paragraph: Introduce your solution to fill the gap
- Each Aim: Devote a short paragraph to each aim
- Summary Paragraph: What new things we will know, why the application should be supported
- Consider: Models/Charts/Diagrams
A strong research idea should pass the “so what” test.
What is the benefit of answering your question?
What is the purpose of your research?
Why you chose the approach?
Anticipated results, alternative approaches
How the proposed studies will move the field forward?
Some fellowships welcome pilot data

The goal of this section is to demonstrate *feasibility* of your proposed study *experience* & *competence* to perform the project

Can include work of others in lab and collaborators might be a year of work or figure from paper

Remember, the application is a venue for you to learn how to do new things, describe mentorship
How will you test hypothesis?

What is experimental approach?

Think about and describe sample size, blinding, statistics, controls, replication

Cite papers, but do not expect reviewer to read

Include a section, “Anticipated outcome and Alternative approaches” for each aim
Sponsor Statement

- Research support available
- Sponsor/Co-Sponsor’s Previous Fellows/Trainees
- Training plan, environment, research facilities
- Number of fellows to be supervised during fellowship
- Applicant’s qualifications and potential for a research career
Sponsor identifies a *unique plan* for career goals!

- individual development plan, plan to address gaps
- Remaining coursework in PhD program
- Specific skills needed for your career
  - short course or workshop (CSHL, MBL)
  - advanced statistics, imaging, clinical populations
- New research skills, perhaps with a collaborator or core
- Skill-building in manuscript and grant-writing, speaking
- Presentations at national meetings, name target societies
- Goals for publications, name target journals
- Describe lab meetings, research in progress explicitly--meeting content and frequency
You want to earn support
Your mentor wants you to earn support
Your study section wants you to earn support

Respond to summary statement—you may need to resubmit

NIH Data Book F31

Success rate is percentage of reviewed applications that receive funding
Who else might fund my research?

Other federal (NSF, Dept of Defense…) Broad research mission, often 3 submission dates, may have citizenship requirements

Foundations Support from a family or corporation

Public Charitable Organizations MDA, AHA, ACS support from the public

focused mission area, often 1 date per year, often open to US citizens as well as visa-holders

See PhD Fellowships on IBS website
American Heart Association Predoctoral Fellowship
(Mid Atlantic)
Cardiovascular and stroke research
Do not have to be a citizen or PR
Application Nov 1, award activation July 1

**Applicant**
- Research Plan (5 pages)
- Biographical Sketch/Bibliography (5 pages)
- Academic Record (no page limit)
- Literature Cited (no page limit)
- Publications or Abstracts (3 count)
- Vertebrate Animal Subjects (no page limit)

**Third Party Personnel**
- Sponsor's Biosketch/Bibliography (5 pages)
- Sponsor's Past/Current Trainees (3 pages)
- Sponsor's Training Plan (3 pages)
- Sponsor's Research Project Environment (no page limit)
- Collaborating Investigator's Biosketch/Bibliography (5 pages)
- Collaborating Investigator's Letter (5 pages)
- Consultant's Letter (5 pages)
- Reference Report (3 count, 4 pages each)
Foundation Center

“…discover the funders most likely to support you, learn about their interests and perspectives, and gain the knowledge you need to win funding from them.”

Again, talk to funder
Often responsive to public perception

AHA Mission and Research Facts
Annual Stipend – matches the NIH scale for predoctoral fellows
2017: $23,844, plus $1,000 per year for health insurance

Project Support
$2,000 per year, in addition to the stipend; travel, computer, equipment, etc. International travel is permitted

Award Duration
One or two years

Total Award Amount:
$26,844 - $53,688

AHA does not pay indirect costs on fellowships.
Reviewers are:

- Smart
- Accomplished
- Dedicated
- Fair
- Busy
- Overworked
- Skeptical
- May not be as knowledgeable about the details

Phyllis McBride, Ph.D.
p-mcbride@tamu.edu
• Get 5-10 grants weeks in advance and submit initial scores before meeting
• NIH 1 (great) to 9 (not great); don’t discuss higher than 5
• Primary and secondary reviewers
• Your application gets about 15 minutes
• Whole group scores
• Scientific Review Officer (NIH staff) takes notes
Make it easy-Think like a reviewer

Funding announcements describe review criteria. Answer each item!

(EXAMPLES—see announcement for full details)

Fellowship Applicant
- Are the applicant’s academic record and research experience of high quality?
- Does the applicant have the potential to develop into an independent and productive researcher?
- Does the applicant demonstrate commitment to a research career in the future?

Sponsors, Collaborators, and Consultants
- Are the sponsor(s’) research qualifications (including recent publications) and track record of mentoring individuals at a similar stage appropriate for the needs of the applicant?
- Is there evidence of a match between the research and clinical interests (if applicable) of the applicant and the sponsor(s)? Do(es) the sponsor(s) demonstrate an understanding of the applicant’s training needs as well as the ability and commitment to assist in meeting these needs?
- Is there evidence of adequate research funds to support the applicant’s proposed research project and training for the duration of the research component of the fellowship?

Research Training Plan
- Is the proposed research project of high scientific quality, and is it well integrated with the proposed research training plan?
- Based on the sponsor’s description of his/her active research program, is the applicant’s proposed research project sufficiently distinct from the sponsor’s funded research for the applicant’s career stage?
- Is the research project consistent with the applicant’s stage of research development?
- Is the proposed time frame feasible to accomplish the proposed training?

Training Potential
- Are the proposed research project and training plan likely to provide the applicant with the requisite individualized and mentored experiences in order to obtain appropriate skills for a research career?
- Does the training plan take advantage of the applicant’s strengths and address gaps in needed skills? Does the training plan document a clear need for, and value of, the proposed training?
Search “preparing an NIH fellowship application” for institutional guides, sample applications, sample review summary statements and useful videos.

- NIH Research Career Development Individual Fellowships
- NIAID Fellowship Grants
- NIH Peer Review Revealed (video)
- NIH Grant Review Tips Sheets
- Quick Start guide F31 (Yale)

GW Institute for Biomedical Sciences/ Funding Opportunities

Contact: Alison Hall, PhD
Associate Dean Research Workforce Development
akhall@gwu.edu and Ross 709G