Prestigious Fellowship Introductory Workshop
August 22, 2019

https://gradschool.wsu.edu/pdi/event/graduate-student-prestigious-fellowship-workshop-3/

Presented by:
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Institute of Biological Chemistry
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Objectives

Get you thinking about applying for a fellowship soon.

Give you some idea about what a fellowship can do for you.

Present information about applying for a fellowship.

Give you ideas about how to improve your chances between now and when you apply. *Short term, longer term.*

1. What are Prestigious Fellowships?
   Competitive, National/International, Individual
2. Why would you want one?
   Cash, Prestige, Flexibility
3. How do you get one?
       These are awarded to applicants. **Apply.**
            An application is necessary but not sufficient.
4. How are Fellowship applications evaluated? Who is your audience?
   Typically faculty members in your discipline.
5. How to put together a competitive application.
   What do programs look for? Can you give them more? Or better?

Open floor for questions (pretty much whenever)

Benefits of Graduate Student Prestigious Fellowships

- Money
  - These typically pay a stipend ($$$) and tuition
  - Often include other forms of support (travel, operations)
  - Do I have to give up my current assistantship?
    - Usually but…
  - What about teaching?
- Prestige—definitely a "cv-able" event
- Can focus on your own research

NSF Graduate Research Fellowship Program

- "Since 1952, NSF has funded over 50,000 Graduate Research Fellowships out of more than 500,000 applicants. Currently, 42 Fellows have gone on to become Nobel laureates, and more than 450 have become members of the National Academy of Sciences. In addition, the Graduate Research Fellowship Program has a high rate of doctorate degree completion, with more than 70 percent of students completing their doctorates within 11 years."

(A detour)

- The process itself:
  - Who are you?
  - Why do you want a Ph.D.?
  - What might you do once you have a Ph.D.?

- My IDP (Independent Development Program)
  - https://myidp.sciencecareers.org/

myIDP Science**Careers**
INDIVIDUAL DEVELOPMENT PLAN

AAAS

Individual Development Plan Overview

Next Step

Overview
Overview Summary
Personal Information

Assessment
Skills Assessment
Interests Assessment
Values Assessment

Career Exploration
Consider Career Fit
Read About Careers
Attend Events
Talk to People
Choose a Career Path

Set Goals
Career Advancement Goals
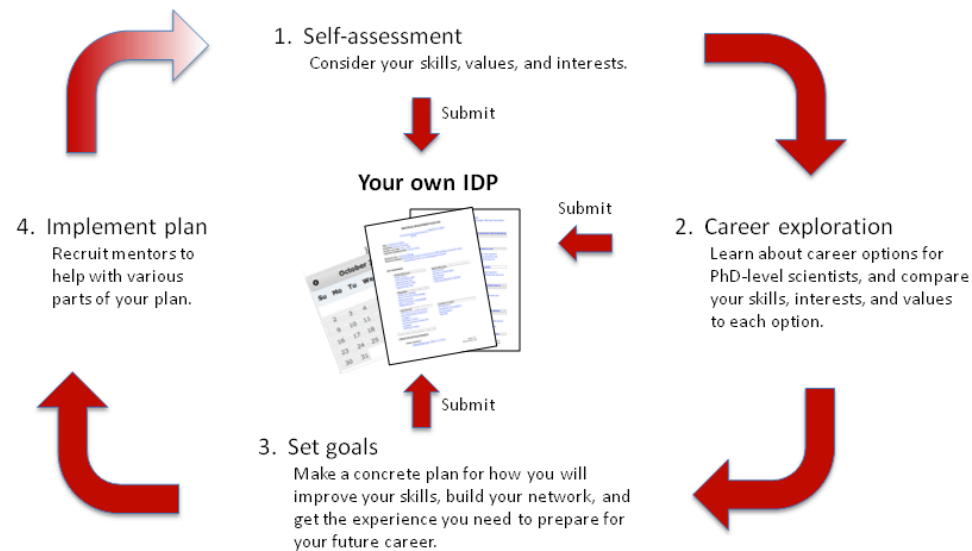Skill Goals
Project Goals

Implement Plan
Mentoring Team
myIDP Summary
Completion Certificate

An Individual Development Plan (IDP) is a structured planning tool designed to help you:

- identify **long-term career goals** that fit with your unique skills, interests, and values,
- make a plan for **improving your skills**,
- set goals for the coming year to **improve efficiency and productivity**, and
- structure productive **conversations with your mentor**(s) about your career plans and development.

This module will guide you through the process of creating an IDP:

1. Self-assessment
Consider your skills, values, and interests.

Submit

Your own IDP

4. Implement plan
Recruit mentors to help with various parts of your plan.

Submit

2. Career exploration
Learn about career options for PhD-level scientists, and compare your skills, interests, and values to each option.

Submit

3. Set goals
Make a concrete plan for how you will improve your skills, build your network, and get the experience you need to prepare for your future career.

(Back on the road)

Timing of Submission for the Fellowships

- Depends on the Fellowship. Some are designed to start when you start, some when you have reached a milestone, like passing Prelim Exam
- Deadlines vary with Program (NSF–Fall; USDA–Spring)
- Submit more than once if you can in order to obtain feedback.

  For NSF
  - Only once as grad student (in Year 1 OR Year 2)*
    - *But if you started this summer, you may need to apply now!!*
  - NSF has additional categories (interrupted, after B.S.)
  - 2-3 years of study left
  - Week of October 21 (depends on subject)

Which fellowships to apply for?

- Your fit. Are the programs trying to find you?
  - Get feedback.

- Follow the money. NSF gave 2000 awards this year. 2000 awards/12,000 applications (17%)

- Applications for different awards are similar but not identical.

What are graduate student prestigious fellowships?

- **National Science Foundation Graduate Research Fellowship Program**
  https://www.nsfgrfp.org/
- **NSF Non-Academic Research Internships for Graduate Students (INTERN) Supplemental Funding Opportunity**
  - https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf18102

- NSF is interested in individuals who are currently, or who will be enrolled in STEM disciplines, including social sciences, STEM education.
- 3 years of support during a 5 year fellowship period
- $34,000 to the fellow ($2,833/month), $12,000 to the institution for cost of attendance
- Access to international travel funding and internship opportunities.

- 2018: 2000 awards/12,000 applications

What are graduate student prestigious fellowships?

- **National Science Foundation Graduate Research Fellowship Program** https://www.nsfgrfp.org/

- **Eligible:** Applicants must be United States citizens, nationals, or permanent residents of the United States by the application deadline.

- **Not eligible:** Extensive definition, read carefully but
  - Practice-oriented professional degree programs…
  - Clinical, counseling, business administration or management, social work, education (except in science and engineering education), or history (except in history of science) areas of graduate study are not supported.
  - Research with disease-related goals… However, research in bioengineering… that applies engineering principles to problems in biology and medicine while advancing engineering knowledge is eligible for support. Bioengineering research to aid persons with disabilities also is eligible.

Should you even apply?

As an undergraduate?
Yes. But make it clear what is real and what is fantasy.

As a first year graduate student?
Yes. But have a clear idea what you will be doing.

As a second year graduate student?
If not now, when?

NSF Graduate Research Fellowship Program

◆ Personal Information (cv)

  ◆ Education, Work and Other Experience; electronic transcripts; Proposed Field(s) of Study; Proposed Graduate Study and Graduate School Information;

◆ At least three reference letters (professional). By November 1

◆ Personal, Relevant Background and Future Goals Statement

◆ Graduate Research Plan Statement

2019 NSF GRFP Deadlines

All applications are due at 5:00 p.m. local time, as determined by your mailing address.

October 21, 2019   Geosciences, Life Sciences

October 22, 2019   Computer and Information Science and Engineering, Engineering, Materials Research

October 24, 2019   Psychology, Social Sciences, STEM Education and Learning

October 25, 2019   Chemistry, Mathematical Sciences, Physics and Astronomy

November 1, 2019 (Friday)   Reference Letters must be submitted by 5:00 PM EST

Important Dates
→ Late July/Early August - Program Solicitation Released
→ Early August - FastLane Application Opened
→ Late October (you)/Early November (refs) - Application Deadlines (by discipline)
→ Early April - Awards Announced
→ Early May - Fellows Acceptance Deadline

Getting started: Do your research

- myIDP https://myidp.sciencecareers.org/

- FAQs https://www.nsf.gov/pubs/2019/nsf19081/nsf19081.jsp#q74

- http://www.alexhunterlang.com/nsf-fellowship
  - Site is especially valuable because it has links to lots of essays from Fellows (successful!)

- http://www.malloryladd.com/nsf-grfp-advice.html
  - **Advice to Applicants of the NSF's Graduate Research Fellowship Program (GRFP)**
  - Mallory is a graduate student in analytical Chemistry at Tennessee and has written a very useful guide.
  - "I enjoy learning new languages, experiencing new cultures, rock climbing, reading, hiking, yoga, film, anything that has caffeine in it, and all things pink."

- http://www.clairemckaybowen.com/fellowships.html
  - **Applying for the NSF GRFP**
  - "I am a NSF GRFP fellow from 2015 and worked for Notre Dame's Office of Grants and Fellowships for application cycles (2014-2015, 2015-2016), helping other graduate students apply for the NSF GRFP."

- https://fellowships.missouri.edu/fellowship/nsf-grfp/
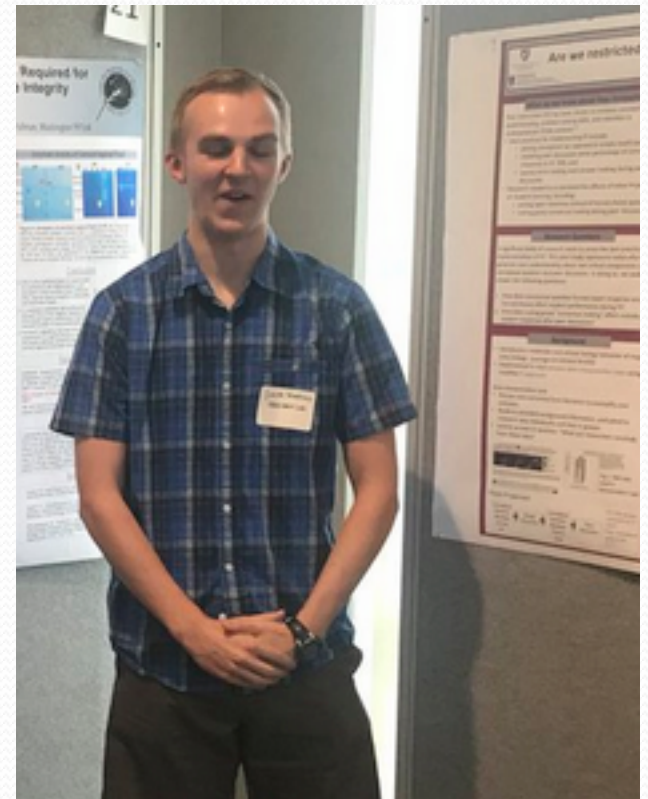
Been there, Doing that…

Jacob Woodbury

Was: mild-mannered WSU undergraduate, Genetics and Cell Biology
Now: ambitious WSU graduate student, Molecular Biosciences

NSFGRF 2019-

Research area:
STEM Education

NSF Graduate Research Fellowship Program

Who is your audience?
"Steve Saunders"

There are many other faculty at WSU who have reviewed for NSF and other agencies.

- ◆ There will be three reviewers. Proposals separated by discipline and stage.
- ◆ They want to read a good story.
- ◆ It should be well organized, have details, and be readable.
- ◆ They will triage quickly then think more about their top group.
- ◆ If funding is 17% and they get 40 proposals to review, they are likely to have ~7-8 awardees
  - ◆ They might have gotten a good subset, be in a good area, etc. → will zero in on ~15 proposals

- **Start writing ASAP.**

- **This is an exercise in writing but mostly in rewriting.**

  - **For best results, have several professors and students in your field review your proposal. Provide them with the program announcement. Nice people may not be good; Different people see different things.**

- **Feedback: Interpret feedback as constructive!!**

  - **Listen carefully to the commonalities that you hear from everyone. Is your essay hard to follow because of its organization? Have you explained it well to a naïve but sophisticated reviewer?**

- *Optional:* **Send drafts of the essays to kahn@wsu.edu as Word documents before September 15, 2019. We will try to provide feedback. September 30 is a good target for a fairly finished product.**

The application

http://www.alexhunterlang.com/nsf-fellowship

- Contents
  - **1** What is it?
  - **2** Basic Outline of Application Process
  - **3** Tips for Getting Started
  - **4** General Advice
  - **5** Review Criteria Details
    - **6** Review Criteria: My Two Cents
  - **7** Personal Statement, Relevant Background, and Future Goals: Essay Prompt from NSF
    - **8** Personal Statement, Relevant Background, and Future Goals Essay: My Two Cents
  - **9** Graduate Research Statement: Essay Prompt from NSF
    - **10** Graduate Research Statement: My Two Cents

  - **11 Examples of Successful Essays**

- **11 Examples of Successful Essays**

NSF GRFP Examples :

Name	Year	Area	Age of Applicant	Success	Proposal	Personal	Previous	Ratings
Elissa M. Redmiles	2017	Interdisciplinary: CS and sociology	Second Year Grad	Winner! and l	Yes	Yes	NA	No
Brittany Jack	2017	Cell Biology	Senior Undergrad	Winner!	Yes	Yes	NA	Yes
Sarah Blunt	2017	Astrophysics	Senior Undergrad	Winner!	Yes	Yes	NA	No
Anonymous	2017	Sustainable Chemistry	Senior Undergrad	Winner!	Yes	Yes	NA	No
Krystal Vasquez	2017	Geoscience - Atmospheric Chemistry	Second Year Grad	Winner!	Yes	Yes	NA	Yes
Luis Nieves	2017	Chemical Engineering	Senior Undergrad	Winner!	Yes	Yes	NA	No
Alex Matlock	2017	Electrical Engineering	First Year Grad	Winner!	Yes	Yes	NA	No
Gualberto Guzman	2017	Computer Science	Senior Undergrad	Winner!	Yes	Yes	NA	Yes
Steven Sartor	2017	Chemistry - Chemical Structure, Dynamics, and Mechanism	Second Year Grad	Winner!	Yes	Yes	NA	Yes
Carlos Sandoval	2017	STEM Education and Learning	First Year Grad	Winner!	Yes	Yes	NA	Yes
Anonymous	2017	Chemistry - Environmental/Atmospheric Sciences	Senior Undergrad	Winner!	Yes	Yes	NA	Yes
Anonymous	2017	Life Sciences - Biochemistry	Senior Undergrad	Winner!	Yes	Yes	NA	Yes
Lillian Horin	2017	Life Sciences - Physiology	Senior Undergrad	Winner!	Yes	Yes	NA	No
Jonathan Gerhard	2017	Mathematical Sciences - Algebra, Number Theory, and Combinatorics	Senior Undergrad	Winner!	Yes	Yes	NA	Yes
Julian Wolf	2017	Physics - Atomic, Molecular, and Optical Physics	Senior Undergrad	HM	Yes	Yes	NA	No
Stephanie Cardenas	2016	Psychology		Winner!	Yes	Yes	NA	Yes
Tommy Schuster	2016	Physics & Astronomy - Condensed Matter Physics	Senior Undergrad	Winner!	Yes	Yes	NA	No
Alexandra Brumberg	2016	Chemistry - Chemical Structure, Dynamics, and Mechanism	Senior Undergrad	Winner!	Yes	Yes	NA	No
Carl Fields	2016	Astrophysics	Senior Undergrad	Winner!	Yes	Yes	NA	Yes
Christian Cazares	2016	Life Sciences - Neuroscience	Senior Undergrad	Winner!	Yes	Yes	NA	Yes

Make sure you have current RFP. RFPs can change.
Application date, Stipend level and budget conditions, Eligibility criteria, Format, Supporting documents, etc.

Print out RFP and underline all of information on formatting and content.
- Follow EXACTLY all of the information on formatting.
  - Wrong format can be disqualifying.
- Use all of the information on content in your essays even using snippets of exact wording for some of it.
- There is no such thing as a "suggestion."
- Respond to criteria. Don't get zeroes.
- Arrange letters and documents ahead of time. Start NOW!

Two components—"stuff" and "the vision thing"

GRFP supports individuals proposing a comprehensive holistic plan for graduate education that takes into account individual interests and competencies. A holistic plan describes the experiences, attributes, and academic achievements that, when considered in combination, show how the applicant has **demonstrated potential** for significant research achievements in STEM or in STEM education. Thus, an applicant must provide a detailed profile of her or his relevant educational and research experiences and plans for graduate education in such a way as to demonstrate this potential for significant achievements.

Make it real. Connect the dots!

Criteria for Selection

The following will be considered as positive factors in choosing successful candidates:

- Evidence of superior academic achievement
- Degree of promise of continuing achievement as scholars and teachers
- Capacity to respond in pedagogically productive ways to the learning needs of students from diverse backgrounds
- Sustained personal engagement with communities that are underrepresented in the academy and an ability to bring this asset to learning, teaching, and scholarship at the college and university level
- Likelihood of using the diversity of human experience as an educational resource in teaching and scholarship
- Membership in one or more of the following groups whose underrepresentation in the American professoriate has been severe and longstanding:
    - Alaska Natives (Aleut, Eskimo, or other Indigenous People of Alaska)
    - Black/African Americans
    - Mexican Americans/Chicanas/Chicanos
    - Native American Indians
    - Native Pacific Islanders (Hawaiian/Polynesian/Micronesian)
    - Puerto Ricans

Applications will be evaluated by panels of distinguished scholars selected by the Academies. The panels will use academic records, essays, letters of recommendation, the application itself, and other appropriate materials as the basis for determining the extent to which candidates meet the eligibility requirements and the selection criteria. Review panels may also look at additional factors such as the suitability of the proposed institution for the applicant's plan of graduate study and the likelihood that they will require a minimum of three years to complete their Ph.D./Sc.D. study as of the **2017 fall** semester.

- Intellectual Merit: The Intellectual Merit criterion encompasses the potential to advance knowledge; and
- Broader Impacts: The Broader Impacts criterion encompasses the potential to benefit society and contribute to the achievement of specific, desired societal outcomes.

The following elements should be considered in the review for both criteria:

1. What is the potential for the proposed activity to:

   a. Advance knowledge and understanding within its own field or across different fields (Intellectual Merit); and
   b. Benefit society or advance desired societal outcomes (Broader Impacts)?
2. To what extent do the proposed activities suggest and explore creative, original, or potentially transformative concepts?
3. Is the plan for carrying out the proposed activities well-reasoned, well-organized, and based on a sound rationale? Does the plan incorporate a mechanism to assess success?
4. How well qualified is the individual, team, or organization to conduct the proposed activities?
5. Are there adequate resources available to the PI (either at the home organization or through collaborations) to carry out the proposed activities?

Additionally, Chapter II of the NSF Proposal and Award Policies and Procedures Guide states:

Broader impacts may be accomplished through the research itself, through the activities that are directly related to specific research projects, or through activities that are supported by, but are complementary to, the project. NSF values the advancement of scientific knowledge and activities that contribute to achievement of societally relevant outcomes. Such outcomes include, but are not limited to: full participation of women, persons with disabilities, and underrepresented minorities in science, technology, engineering, and mathematics (STEM); improved STEM education and educator development at any level; increased public scientific literacy and public engagement with science and technology; improved well-being of individuals in society; development of a diverse, globally competitive STEM workforce; increased partnerships between academia, industry, and others; improved national security; increased economic competitiveness of the US; and enhanced infrastructure for research and education.

What does it take to get an award?

NSF winners typically had some of following items on their CVs:

- Research experiences
- A good GPA
- Name on a publication, Poster presentations
- Tutoring experience, Volunteering experiences
- Internship or career related work experience

- Evidence of professional development
    that required initiative and
        was evidence of willingness of others to mentor

A plan—What do you want/need; How will you get it?

Letters of Recommendation

- Consult the program announcement/solicitation.

- Is it appropriate to ask your advisor for a letter when you have only known them for a few months? YES
- Use three academics (and then some others?)
- Give them time. (A month or more?)
- Document your history (From different times in your life or different aspects of your record.)
- Advise your recommenders if there are specific issues you would like them to cover. Sometimes they are more credible or add to your credibility.
  - Initiative, Flexibility, Effort, Working in groups, Broader Impacts, etc.

- Make your essays easy to follow:

- Tell the whole story and make it coherent.
- Chronological order (maybe?)
- Headings (or at least paragraphs)
- Exact wording of "suggestions" in the personal statement
- If they ask for it, give it to them
- Get personal (i.e. use details and good verbs) but don't be saccharine

The Overall Format of a Research Proposal

1. Attention-grabbing statement of need
2. Briefly summarize the state of the literature on the matter, ending with a
3. Statement of the problem, need, and/or gap in the literature that your proposal will address
4. Hypothesis with regard to the need
5. How you will resolve this hypothesis via your methods
6. How the resolution of this hypothesis and the completion and dissemination of your research will influence the world
7. Intellectual Merit and Broader Impacts.
8. **Whose proposal is it anyway?**

(Another detour)

The Science of Scientific Writing
George D. Gopen and Judith A. Swan
https://cseweb.ucsd.edu/~swanson/papers/science-of-writing.pdf

Writing with the Reader in Mind: Expectation and Context

- Information is interpreted more easily if it is where most readers expect to find it.
- We cannot make even a single sentence mean one and only one thing; we can only increase the odds that a majority of readers will interpret what we have written according to our intentions.
- (*Read for ambiguity—**try** to misunderstand.*)
- The information that begins a sentence establishes a perspective for viewing the sentence as a unit.
- It is obvious that a scientific document is incomplete without the interpretation of the writer; it may not be so obvious that the document cannot "exist" without the interpretation of the reader.

The Science of Scientific Writing
George D. Gopen and Judith A. Swan

Writing with the Reader in Mind: Expectation and Context

We now have three rhetorical principles based on reader expectations:

First, grammatical subjects should be followed as soon as possible by their verbs;

Second, every unit of discourse, no matter the size, should serve a single function or make a single point;

Third, information intended to be emphasized should appear at points of syntactic closure.

- The Personal Statement:

- Who you are
  - How you got there (obstacles overcome, unique experiences, self discovery, grit)
  - What is important to you and why

- Connect "who you are" to
  "¿Why should I give you money?"

- **The Research Statement:**
- What do you want to do?
- Why is it worth doing?
- Why should **you** be doing it?
- Are you doing it in the right place?
  - This is about training. What do you need?
- How will you help it have impact?

A summary

- Prestigious Fellowships are good for you.
  - Money, flexibility, prestige (duh!)

- You get them by applying for them (sometimes)
  - You don't apply, you don't get.

- Agencies and foundations award Prestigious Fellowships.
  - They have their reasons. Know your audience.
  - Different eligibility criteria might fit different stages of your career.
  - Money can be used for different things.
  - The Golden Rule: Those who have the gold make the rules.

- To get one, you need to fit their criteria as well or better than the competition.
  - Position yourself.
  - Personal statement.
  - Research plan.
  - Record of accomplishment.
  - People who vouch for you.

- You need to follow instructions.
  - Plan ahead.
  - Deadlines and deadlines before deadlines.

Who is your team?

You.

Your advisor, committee, colleagues.
Other students. (You are not competing with them. Trust me.)

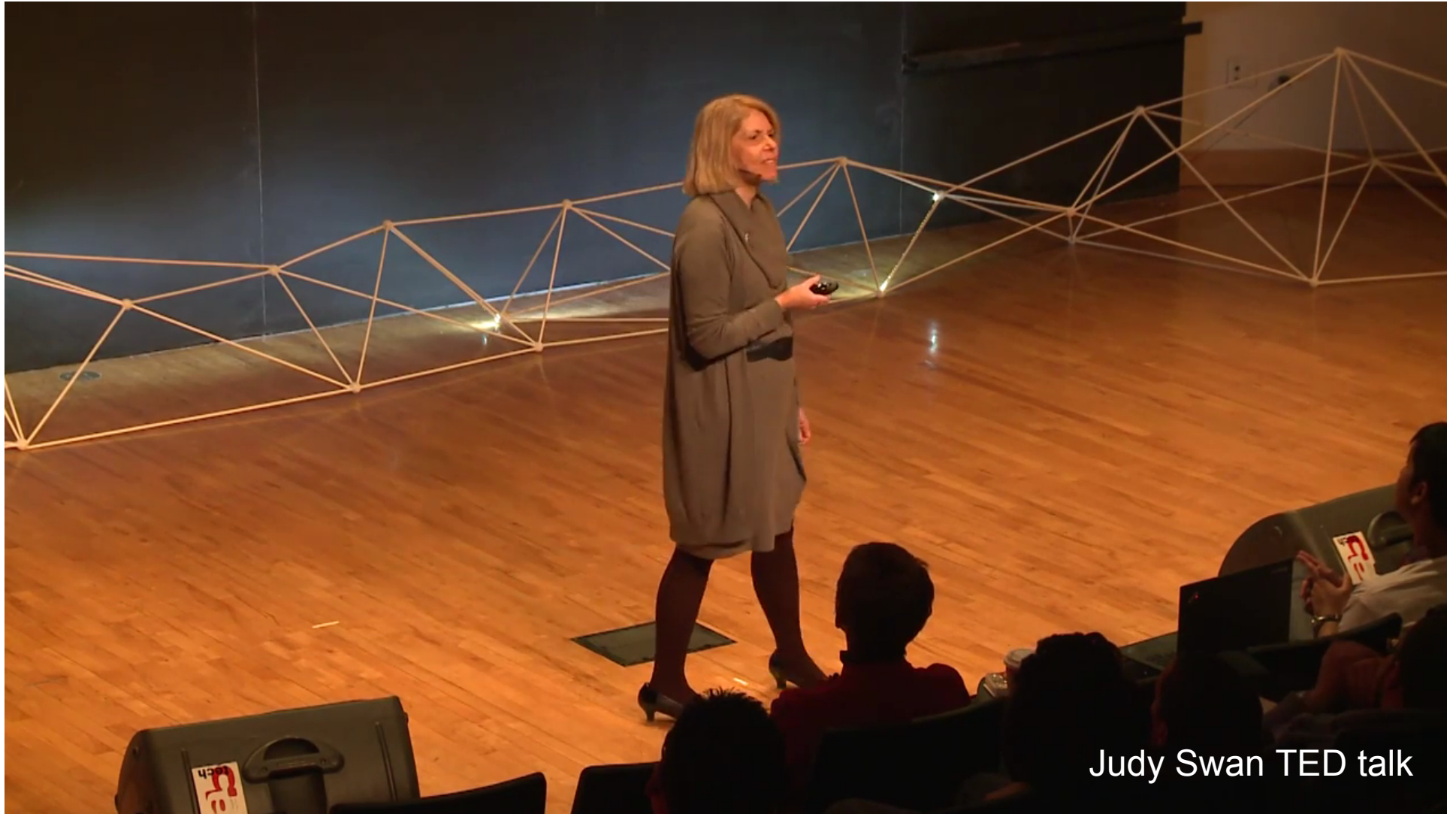WSU Mentors. Faculty volunteers who are willing to read and comment on your application.

WSU Internal eREX   https://myresearch.wsu.edu/Grants/ERex.aspx#/list
Proposals can be submitted by institution.
There is a protocol. Give them time to get it together.
Need to clear an approval process, check budget, etc.
adam.williams@wsu.edu in the Graduate School will help you

Judy Swan TED talk

Program Announcements and Contact Information

https://www.nsfgrfp.org/

http://sites.nationalacademies.org/PGA/FordFellowships/PGA_047958

https://ndseg.asee.org/

https://www.krellinst.org/csgf/about-doe-csgf

https://www.nasa.gov/stem/fellowships-scholarships/index.html

http://hertzfoundation.org/dx/fellowships/fellowshipaward.aspx

https://nifa.usda.gov/funding-opportunity/agriculture-and-food-research-initiative-food-agriculture-natural-resources-and

https://researchtraining.nih.gov/programs/fellowships/F31

https://smartscholarshipprod.service-now.com/smart

http://www.hhmi.org/developing-scientists/gilliam-fellowships-advanced-study

https://ffarfellows.org/

https://molecularbiosciences.ku.edu/predoctoral-fellowship-list

https://landrylab.com/fellowships/

FULBRIGHT Fulbright U.S. Student Program

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Getting Started

Application Components ▾

Application Tips ▾

Application Checklists ▾

Application Timeline

Information Sessions

Embark Online Application ☑

[+] *View Background*

Getting Started

2018-2019 Competition Deadline: **October 6, 2017 5:00 p.m. Eastern Time**

Step 1: Determine Applicant Type

You will apply either through a U.S. institution or At-Large. If you are currently enrolled in an undergraduate or graduate program at a U.S. college or university, you are required to apply through that institution, even if you are not currently a resident there. If you are not currently enrolled, you may apply through your alma mater, provided that the institution is willing and able to accommodate alumni applications.

All other candidates will apply as At-Large applicants.

○ Application procedure for candidates applying through U.S. institutions

April Seehafer, seehafer@wsu.edu

○ Application procedure for At-Large candidates

https://distinguishedscholarships.wsu.edu/category/awards/fulbright/

Step 2: Select Award Type

Study/Research Awards: Offered for projects in all Academic and Creative & Performing Arts fields. Applicants can propose their own independent study/research projects or, in some countries, can propose to enroll in a graduate program. Arts applicants, please proceed to the Creative & Performing Arts Fields of Study section for

Thank you!

Outline your proposals this week,
Draft them next week.

kahn@wsu.edu