INTRODUCTION TO NSF CAREER AWARDS

University of Idaho

Please keep your microphone muted unless you would like to ask a question

RESEARCH AND FACULTY DEVELOPMENT FACULTY SUCCESS SEMINAR SERIES

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Please note that this session is being recorded

OFFICE OF RESEARCH AND FACULTY DEVELOPMENT

- We provide proposal development assistance across the spectrum

- Meet goals in the UI strategic plan – grow research and creative efforts across <u>all</u> disciplines

- Reach out to request service – uidaho.edu/orfd

All services are <u>optional</u> and are granted on a <u>first-come, first-served</u> basis

TODAY'S GOALS

- Overview of the NSF CAREER Award program

- Outline planning steps

- Q&A with past NSF CAREER recipients

- Take-home resources

National Science Foundation
Faculty Early Career Development Award

also known as

NSF CAREER

"…a _Foundation-wide_ activity that offers the National Science Foundation's most prestigious awards in support of _early-career faculty_ who have the potential to serve as academic _role models in research and education_ and to lead advances in the mission of their department or organization. Activities pursued by early-career faculty should build a firm foundation for _a lifetime of leadership in integrating education and research_."

NSF CAREER BASICS

- [NSF Program Page](#)

- NSF CAREER solicitation (RFP)

- FAQs

- NSF contacts

- [2019 Webinar presentation slides](#)

NSF CAREER BASICS: ELIGIBILITY

- Untenured (until Oct. 1 after due date)
- Tenure track or equivalent
- Assistant Professor or equivalent
- Have not applied for a NSF CAREER more than twice before
- Propose to conduct research in an area that NSF funds

NSF CAREER BASICS: OTHER DETAILS

- 5 years of funding

- *Minimum* $400K total – includes F&A

    ($500K for BIO, ENG and Polar Programs)

- Must apply to a particular program within a directorate

- Note: different NSF divisions and directorates use the CAREER program differently

NSF'S GOALS/AGENDA FOR CAREER PROGRAM

- Nurture the next generation of leading researchers/educators
- Change academic culture
- Integrate education and research
- Support diversity
- Reach out to the larger community
- Innovate in education

The CAREER proposal is not a typical research proposal

- It's a proposal detailing how you will spend $$$$ to enhance your *career development*

- Your career involves a research path, not a research project

- Determine your research path—your lifelong research goals—and then identify milestones toward your goals

AN NSF CAREER AWARD...

funds the academic career development of new faculty (it is not a research award)

TO OBTAIN A NSF CAREER AWARD...

...you must convince an audience (the review panel) that your entire career will advance and have a substantial positive impact on your field and society.

This audience will also want to understand how what you propose for the next five years will set up your professional career for the next 10 to 15 years.

Research Plan

+

Education Plan

+

Description of how these are integrated

ARE YOU READY TO APPLY?

- Do you have publications in or related to your research topic?

- If applicable, do you have your lab set up and do you have grad students?

- If you need preliminary data, do you have it?

- Do you have demonstrated experience with educational activities, beyond your expected teaching responsibilities?

BEFORE YOU EVEN BEGIN PLANNING TO APPLY FOR A CAREER AWARD:

Develop your vision for an education plan, then begin to work towards implementation

WHEN TO START WRITING?

The earlier, the better – 6 months to a year before the July deadline

PLAN TO RE-APPLY

- Odds are you won't get funded with your first application
- Your proposal should get stronger with each application
- Planning and intelligent persistence are key

PLANNING STEPS

PLANNING STEP 1.1

Start with your research topic

- What do you <u>want</u> to do?

- Does it address important questions in your field?

- Is it novel and cutting-edge?

- Will it lead to a fertile line of research in the future?

- Do you have the background and resources to accomplish your goals?

- Will it contribute to your career goals? To your department's and institution's goals?

PLANNING STEP 1.2

Translate your research topic into a CAREER idea

- Define your project goals and how they will contribute to your long-term research goals

- Can you do this as a single PI?

- Is the scope appropriate for a CAREER?

- Is the significance sufficient for a CAREER?

- Do you have the background and resources to accomplish your goals?

PLANNING STEP 1.3

Translate your CAREER research idea into a project

- What is your project goal(s)?

- What are your specific objectives, research questions and outcomes?

- What is your general approach?

- Is it scoped correctly for a CAREER?

PLANNING STEP 2

I Identify your research project goals

- How will the world be different after your project is successfully completed?

- What will we know or be able to do that we don't know now?

- What gaps in knowledge will you fill?

- Remember that NSF is all about **basic research**, **new knowledge**, and **advancing the field**

- NSF funds research, not development

PLANNING STEP 3

Identify the appropriate NSF program(s)

- Biological Sciences (BIO)

- Computer and Information Science and Eng (CISE)

- Education and Human Resources (EHR)

- Engineering (ENG)

- Geosciences (GEO)

- Mathematical and Physical Sciences (MPS)

- Social, Behavioral and Economic Sciences (SBE)

- Office of Polar Programs (OPP)

PLANNING STEP 3, CONTINUED

- Submitting to the wrong program can doom a good proposal!

- [NSF web site](nsf.gov) (nsf.gov)

  - Check program goals

  - Search awarded CAREER projects

- Talk to senior researchers in your area

PLANNING STEP 4

Identify your program officer NSF CAREER contact

https://www.nsf.gov/crssprgm/career/contacts.jsp

PLANNING STEP 4, CONTINUED
Talk to your program officer about your project

At least 6 - 12 months ahead of proposal deadline:

- Identify your program officer

- Develop a one-page project overview or quad chart

- Send a brief email requesting a phone conversation about the attached overview

- Follow up phone conversation – be sure to listen!

Why talk to your NSF program officer?

- Make sure you've selected the right program

- Get feedback on your planned project

- Understand who your audience will be

- Gives the PO a heads-up to expect your CAREER proposal

- Develops a relationship with your PO

Questions to ask your program officer(s) about your project:

- Does it fit the program?

- Is it suitable for CAREER?

- How are CAREERs in that division reviewed?

- What will the backgrounds of your reviewers be?

- Does the PO have any recommendations?

Listen carefully to PO's advice and comments

Common Mistake:

Not contacting the Program Officer

PLANNING STEP 5

Develop your education plan

- What are your interests?

- What fits your institution, department, students and discipline?

- Find existing programs with which to partner, e.g:

  - Programs with/for teachers, K-12 students

  - Programs with undergraduate research

  - Science camps for youth

  - Connections with community organizations

- Must address broadening participation

PLANNING STEP 6

Recruit any needed collaborators (not Co-PIs)

PLANNING STEP 7

Talk to:

- **Your department chair/head**

...because NSF CAREER requires a Departmental Letter

- **Office of Sponsored Program (OSP) Pre-Award Office**

https://www.uidaho.edu/research/about/osp/pre-award-administration

PLANNING STEP 8

Line up colleagues and others to read your drafts

PLANNING STEP 9

Schedule your proposal writing

- Schedule regular writing time on your calendar

- Find what works for you and STICK with this

- Limit distractions

DUE DATES 2020

Directorate	Expected 2020 due dates
BIO, CISE, EHR	July 15, 2020
ENG	July 16, 2020
GEO, MPS, SBE	July 17, 2020

SUMMARY OF PLANNING STEPS

1. Choose your a research idea and develop it into a CAREER research project

2. Identify your NSF program (study it)

3. Talk to your program officer

4. Develop your education plan

5. Recruit collaborators (not co-PIs)

6. Talk to your department chair and OSP

7. Schedule your proposal writing time

THE CAREER PROPOSAL

PROJECT SUMMARY - 1 PAGE

- Project Summary – 1 page
    - Summarizes plans for integration of research and education activities
    - Separately addresses Overview, Intellectual Merit Statement and Broader Impacts
    - The Summary is the most important piece of the proposal but **write it last**

PROJECT DESCRIPTION - 15 PAGES

Well argued, specific proposal activities that will lay a foundation for a lifetime of contributions to research and education in an organizational context.

PROJECT DESCRIPTION

- Proposed research project

- Proposed educational activities, including plans to evaluate their impact on students/others

- Description of integration of research and education

- Intellectual Merit Statement

- Broader Impacts Statement

- Results of prior NSF support, if applicable

BIOGRAPHICAL SKETCH – 2 PAGES

- Should include BOTH research and educational activities and accomplishments

- Only provide the required information; additional information may place proposal at risk of rejection

OTHER DOCUMENTS

- Budget (*this tops the list for a reason...*)

- Budget Justification

- Departmental Letter

- Current and Pending Support

- Collaborators and Other Affiliations

- Facilities, Equipment and Other Resources

- Data Management Plan

- Letters of Collaboration

- List of Suggested Reviewers

HOW WE CAN HELP

Proposal Development Resources

- Biosketch Forms, Current & Pending Support Form, Proposal Checklists, Collaborators & Other Affiliations Form

For example: NSF CAREER Proposal Checklist

NSF CAREER Proposal Checklist v1.0 (for use with NSF PAPPG 18-1)
PI:
Title:
Deadline: __/__/____ 5:00 p.m. local time for submitting organization

University of Idaho
Office of Research and
Faculty Development

Blue hyperlinks lead to specific sections within NSF's Proposal and Award Policies and Procedures Guide and/or to UI Research and Faculty Development resource page.

Deadline	
	General Formatting
	☐ Page numbers: Each section individually paginated
	☐ Font: Recommend Times New Roman or Computer Modern family (11 pt +)
	☐ Margins: 1"+
	☐ Title must begin with "CAREER:___" and follow with an informative title
	Single-Copy Documents *For NSF programmatic use only, not sent to reviewers*
	☐ Collaborators & Other Affiliations document for each senior personnel (Download template here)
	☐ List of Suggested Reviewers, optional but highly recommended
	-In FastLane, list the names, email addresses, and institutional affiliation of possible reviewers
	-May also list names of persons who should not be asked to review your proposal
	☐ Cover Sheet: input information directly into FastLane
	If international travel is included, indicate the name(s) of the country(ies) or "Worldwide" if not known
	Project Summary:limit 1 page
	-Written in third person; summarizes plans for integration of research and education activities
	☐ Project Overview
	☐ Intellectual Merit
	☐ Broader Impacts
	☐ Project Description: limit 15 pages, *no URLs allowed*
	-Proposed research project; proposed educational activities; description of integration of research and education
	☐ Intellectual Merit section, with heading "Intellectual Merit"
	☐ Broader Impacts section, with heading: "Broader Impacts of the Proposed Work"
	☐ Results from prior NSF support if applicable
	☐ References Cited: no page limit; full reference required (use of "*et al.*" is not allowed)
	-Provide references in support of both the research and education aspects proposal
	-Each reference should include the names of all authors, in the sequence in which they appear in the publication
	☐ Biographical Sketch: limit 2 pages (Download template here)
	A. Professional Preparation (Institution, Location, Major, Degree & Year)
	B. Appointments (reverse chronological order)
	C. Products or Publications – choose 1 heading (up to 5 most closely related and up to 5 other significant)
	D. Synergistic Activities (up to 5 examples of broader impact of professional/scholarly activities)
	- *Should include BOTH research and educational activities and accomplishments*

HOW WE CAN HELP

[Request Proposal Development Assistance](#)

THANK YOU FOR COMING!

QUESTIONS?

WHAT'S NEXT?

NSF CAREER: ALL YEAR SCHEDULE

Wednesdays, 12:30-1:30 in IRIC 305

Session 2 (10/23): Getting Started on Your Proposal

- Strategies for identifying and contacting NSF program officers; thinking ahead about your education plan; considering your project's broader impacts

Session 3 (11/20): Integrating Research and Education Plans

- Discuss ideas for education plans, and how to integrate with the research

Session 4 (2/5): Broader Impacts Really Do Matter

- Learn how to achieve BI through research and related activities, and how to address these in your proposal.

Session 5 (3/11) : Understanding the NSF Review Process

- Understanding the NSF review process and the differences in review structure across NSF programs aids development of a strong proposal.

FALL 2019

Sept. 4   HERC IGEM Info Session

Sept. 11   Find Funding Opportunities: Intro to Pivot

Sept. 25   NSF CAREER All Year: An Introduction

Oct. 2   W.M. Keck Foundation Info Session

Oct. 16   Tips for Successful Proposal Writing

Oct. 23   NSF CAREER All Year: Getting Started

Oct. 30   Exploring Humanities Funding Opportunities

Nov. 13   MW CTR-IN Funding Opportunities

Nov. 20   NSF CAREER All Year: Integrating the Research and Education Plans

Dec. 11   M.J. Murdock Trust Commercialization Initiation Program Info Session

SPRING 2020

Jan. 22   Developing Successful Project Management Plans for Large Proposals

Feb. 5   NSF: Broader Impacts Really Do Matter!

Feb. 12   NIH: Funding Mechanisms Overview (R03, R21, R01)

Feb. 19   NIH: Developing Your First RO1 Proposal

Mar. 4   NIH: Understanding Proposal Review

Mar. 11   NSF: Understanding Proposal Review

Mar. 25   Fulbright Faculty Scholar Program Info Session

Apr. 1   Find Funding Opportunities: Intro to Pivot

Apr. 8   NSF MRI: Creating Competitive Proposals
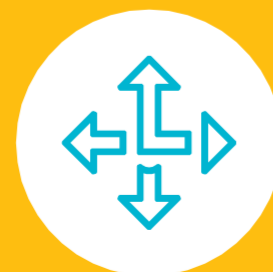
WE GUIDE THE DEVELOPMENT OF COMPETITIVE EXTERNAL GRANT PROPOSALS

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HOW DID WE DO?

Take a brief 3-question Slido poll

Join at www.slido.com

Use code #FSS