NSF CAREER

Introductory Information Session

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Research Acceleration Office | CSU *Writes*

RESEARCH
COLORADO STATE UNIVERSITY

NSF CAREER Overview

- NSF's most prestigious award - early career faculty
- Junior faculty who exemplify **teacher-scholars**
- Program Goals:
  - Provide support for five years around an individual PI's career
  - Aims to lay a foundation for integrated contributions to **research and education**
  - Increase participation of those underrepresented in science/engineering

NSF CAREER Program Details

- Budget:
  - $400k minimum (BIO, ENG, OPP: $500k minimum) over 5 years *(including indirect costs)*
  - Discuss funding levels with your PO
  - Other allowable NSF costs: student/postdocs; PI salary; education/outreach activities; evaluators; travel; consultants; etc.
- **No Co-PIs**
  - Senior Personnel/Collaborators/Subawards are allowed in a limited role
- Award Decisions: Late 2020/Early 2021
- May only submit 3 times

Eligibility – *Revised this year*

Proposers must meet all of the following eligibility requirements **at the time of submission**:

- Hold a doctoral degree in a field supported by NSF;
- Be engaged in research in an area of science, engineering, or education supported by NSF;
- Hold at least a 50% tenure-track (or tenure-track-equivalent) position as an assistant professor (or equivalent title);
- Be untenured; and
- Have not previously received a CAREER award. *(Prior or concurrent Federal support for other types of awards for non-duplicative research does not preclude eligibility.)*

Eligibility – *Revised this year*

Tenure-Track Equivalency - For a position to be considered a tenure-track-equivalent position, it must meet all of the following requirements:

- (1) the employee has a continuing appointment that is expected to last the five years of a CAREER grant;
- (2) the appointment has substantial research *and* educational responsibilities; and
- (3) the proposed project relates to the employee's career goals and job responsibilities as well as to the mission of the department or organization.

As stated in the Proposal Preparation Instructions, for non-tenure-track faculty, the Departmental Letter must affirm that the investigator's appointment is at an early-career level equivalent to pre-tenure status, and the Departmental Letter must clearly and convincingly demonstrate how the faculty member's appointment satisfies all the above requirements of tenure-track equivalency.

Faculty members who are Associate Professors or in equivalent appointments, with or without tenure, are <u>not</u> eligible for the CAREER program. Faculty members who hold Adjunct Faculty or equivalent appointments are <u>not</u> eligible for the CAREER program.

NSF CAREER Assessing Directorate Fit

- Contact your PO:
  - https://www.nsf.gov/crssprgm/career/contacts.jsp
- Review past awards in your division/program:
  - Program Page: https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503214
  - Click on “What has been funded” – then can select state/directorate/division/etc.
- For Interdisciplinary proposals, contact POs for all possible Directorates

NSF CAREER Deadline – *Revised this year*

- Biological Sciences
- Computer & Information Sci & Eng.
- Education & Human Resources
- Engineering
- Geosciences
- Mathematical & Physical Sci
- Social, Behavioral & Economic Sci
- Office of Integrative Activities
- Office of International Science & Engineering

ALL APPLICATIONS Due July 27, 2020 by 5pm submitter local time

NSF CAREER -- Research Plan

- Strike balance between traditional and risky research
- *Remember:* These 5 years will build the foundation for your entire career
- From NSF:
  - What do you intend to do that others want/need to know?
  - Why is the work important, innovative and exciting?
  - What has already been done and how will your work build on it?
  - How are you going to do the work to answer the question uniquely?
  - What makes you the best person to do this work?

NSF CAREER -- Education Plan

- Include proposed educational activities and evaluation of their impact
  - Directed at K-12, UG, G, and/or the general public
  - Should address the **needs and interests of CSU and your discipline**
  - Leveraging existing programs/resources is encouraged
- Go beyond standard activities
- Read and cite relevant educational literature
- Include funding for education and evaluation in budget

BROADER IMPACTS PANEL -- MARCH 26 LSC Rm 312 @ 2-4PM

NSF CAREER -- Proposal Components

- ❑ Project Summary (1 page)
- ❑ Project Description (15 pages)
  - ❑ Research Plan
  - ❑ Education Plan
  - ❑ Integration Plan (plus evaluation)
  - ❑ Results from prior NSF awards
  - ❑ References
- ❑ Biosketch for PI (cover BOTH research and education activities)**
- ❑ Department Head Letter (2 pages)
- ❑ Letters of Collaboration
  - ❑ Single sentence format
- ❑ Budget
- ❑ Budget Justification (5 pages max.)
- ❑ Current and Pending**
- ❑ Facilities and Equipment
- ❑ Post Doc Mentoring Plan
- ❑ Data Management Plan
- ❑ Collaborators/Other Affiliations list

new NSF requirements on formatting
New PAPPG guidelines effective June 1, 2020

Review Process

Mix of Ad Hoc and Panel reviews, by directorate

- Ask your PO for details
- ***Ad hoc***: Proposals sent out for review to SMEs; asked to review one (or a very few) proposals; does not attend panel. Ad hoc reviewer ratings are provided to the panel, if applicable
- ***Panel***: panel members have broader set of expertise; ~2-4 panelists will review your proposal before the session; face-to-face session involves discussion of proposals' merits and ranking

Review Elements

Make these EASY for reviewers to find in your narrative!

1. What is the potential to:
   a. advance knowledge and understanding within its own field or across different fields (**Intellectual Merit**)
   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 institution to conduct the proposed activities?
5. Are there adequate resources available to the PI (either at the home institution or through collaborations) to carry out the proposed activities?

NSF CAREER General Advice

- Proposal Summary: A stand alone, compelling document
- Department Head letter is critical – talk to department head early
- Science AND education must be innovative and well-integrated
- Compatible with your institution’s priorities/goals
- Research Objective(s): Demonstrate alignment with NSF mission of supporting fundamental scientific research
  - Avoid: “develop”, “optimize”, “design of”
  - Use hypothesis-driven wording

NSF CAREER General Advice

- Directorate/Division CAREER priorities differ – **Talk to your anticipated program director. Have a 1 page summary of your ideas ready**
- Consider **timing** of your application (you may not submit in more than 3 competitions)
- Plan to reapply; **use reviews** to improve your application each time
- **Start early**, take advantage of resources

REMEMBER: Proposal must be submitted to OSP 5 business days prior to NSF Deadline

NSF CAREER CSU Support

- Website with posted informational resources and contacts: https://www.research.colostate.edu/rao/early-career/nsf-career-support-program/
- FAQ posted on website
- Resubmission? Review debriefs are available – contact RAO
- **Panel session with past NSF POs and past CAREER recipients – Mar 5**
- **Education Plan/Broader Impacts Panel and "Speed Dating" – Mar 26**
- ***CSU Writes* Writing Groups, Editing Groups, and Writing Retreats**
- Review of proposal drafts **(Drafts Due June 3)**

February

NSF CAREER Introductory Information Session (LSC Rm 300) Tuesday, February 18th 12-1pm

1-hour session including an introduction to the NSF CAREER opportunity, CSU's CAREER programming, and CSU *Writes*. Opportunity for open Q&A at the end. (Lunch not provided)

1 or 2-Day Writing Retreat, February 14-15 or February 28-29

Register at https://csuwrites.colostate.edu

Breakout sessions specific to **NSF CAREER Feb 28 & 29

1 on 1 Review Debriefs

Arranged individually; available for past applicants who are considering resubmission

March

NSF CAREER Strategy Session (LSC Rm 372-374) Thursday, March 5th 12:30-1:30pm

1-hour panel session with past NSF CAREER Recipients and NSF Program Officers about tips, advice, experiences; followed by open Q&A. (Lunch not provided)

Register using the Strategy Session Form

NSF CAREER Educational Plan and Broader Impacts Panel and "Speed Dating" Thursday, March 26th 2-4pm (LSC Rm 312)

2-hour session; Panel consisting of: 1) past CAREER recipient to provide an example of funded education plans; 2) short intros/info from resources across campus; Panel followed by 1 hour breakout session with resources, allowing proposers to follow up directly with resources of interest

Register using the Broader Impacts Session Form

1 or 2-Day Writing Retreat, March 13-14

Register at https://csuwrites.colostate.edu

April	**1 or 2-Day Writing Retreat, April 10-11** Register at https://csuwrites.colostate.edu
May	**CSU *Writes* All- Faculty Four-day Summer Retreat: May 26-29** Register at https://csuwrites.colostate.edu
June	**CSU *Writes* Women Faculty Week-long Retreat June 22-26** Register at https://csuwrites.colostate.edu **CAREER Draft Review** Proposal drafts received by June 3, 2020 Reviews completed by June 17, 2020
July	**CAREER Deadline (July 27, 2020)**

CSU WRITES

COLORADO STATE UNIVERSITY

3 streams: Faculty, Postdoc, Grad Student

Research writing focus

Writing practices for academics and researchers

Funded by Graduate School & OVPR

CSU Writes addresses the *4* primary areas researchers and scholarly writers struggle most:

- SPACE
- TIME
- ENERGY/MOMENTUM
- STYLE

Supports career-building and career-sustaining writing practices among academic professionals who write for publication, submission and/or degree completion.

Boice's research on faculty writing productivity

In the late 1980s, **Robert Boice divided faculty into three groups to study writing productivity:**

The **first group** did not change their writing habits and continued to write occasionally in big blocks of time; in one year, they wrote an average of **17 pages.**

The **second group** wrote daily and kept a record of their writing; they averaged **64 pages.**

The **third group** wrote daily, kept a daily record, and held themselves accountable to someone weekly; this group wrote an average of **157 pages**

("Procrastination, Busyness, and Binging" *Behaviour Research Theory*, 1989, 609).

CSU Writes' Career-Building, Career-Sustaining Approach

3 keys to writing productivity:

Schedule

Log

Accountability

Resources for NSF--CAREER

- show up & write.
- writing/editing groups
- writing retreat(s)
- faculty
- productivity/accountability packages

show up & write.

drop-in writing sessions for CSU's research writers

More about show up & write.

Workshops

CSU *Writes* workshops address the 4 areas academic writers encounter their greatest challenges: **Space, Time, Energy / Momentum, and Academic Style**. Topics change each semester and explore the most current studies and trends in scholarly writing productivity and publishing.

Graduate Student Workshops

Faculty Workshops

Retreats

Academic writing can feel isolating and be all too easy to "put off until tomorrow." Writers who attend retreats access a writing community here at CSU and tend to produce much more writing than they would on their own. Writing retreats are generally held on CSU's main campus.

Graduate Student Retreats

Faculty Retreats

show up & write.

FEB 3 - MAY 7

M/W

8-10am	101 Walnut
1-3pm	119 Walnut
3-5pm	101 Walnut

T/R

8:30-10am	256 Nat Resources
10-noon	110 Eddy

CSU WRITES
COLORADO STATE UNIVERSITY

Upcoming Faculty Retreats

Writing Retreats

- All-Faculty Intensive – Feb 14/15
- Grant Writers Intensive – Feb 28/29 **with special NSF CAREER breakout sessions
- All-Faculty Intensive – Mar 13/14
- All-Faculty Intensive – Apr 10/11
- May 4-Day Retreat – May 26-29
- Women Writers Retreat – June TBA

CSU WRITES
COLORADO STATE UNIVERSITY

Thank you

Colorado State University