



NATIONAL SCIENCE FOUNDATION
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NSF 21-013

Dear Colleague Letter: Non-Academic Research Internships for Graduate Students (INTERN) Supplemental Funding Opportunity

October 8, 2020

Dear Colleagues:

Fostering the growth of a globally competitive and diverse research workforce and advancing the scientific and innovation skills of the U.S. is a [strategic objective of the National Science Foundation](#) (NSF). U.S. global competitiveness depends critically on the readiness of the Nation's Science, Technology, Engineering and Mathematics (STEM) workforce and NSF seeks to continue to invest in programs that directly advance this workforce. As part of this effort, a supplemental funding opportunity is available in fiscal years FY 2021 and beyond to provide graduate students with experiential learning opportunities through research internships to acquire core professional competencies and skills to support careers in any sector of the U.S. economy. NSF currently invests in a number of graduate student preparedness activities and has historically encouraged principal investigators (PIs) to include such activities in research proposals to NSF. This Dear Colleague Letter (DCL) describes funding opportunities at NSF to ensure graduate students are well prepared for the 21st-century STEM workforce.

BACKGROUND

With rapidly accelerating changes in technology-driven global and national economies, today's graduate students will have a wide choice of career paths to pursue over their professional lives. NSF's [2020 Science and Engineering Indicators](#) report reveals 81 percent of master's level STEM graduates and 57 percent of doctoral degree holders in STEM, work in industry or government. Graduate students have the potential to make important contributions in careers outside academia, in organizations that include: startup businesses, small and large corporations, government agencies, and non-profit organizations. In addition, the National Academies [Graduate STEM Education for the 21st Century \(2018\)](#) report further highlights the need for graduate students to acquire core professional competencies and transferable skills through experiential learning opportunities such as internships. It is

therefore important that graduate students supported by NSF grants be provided training opportunities to develop skills that prepare them to be successful for a broad range of academic and non-academic career paths. In addition to deep and broad preparation in their technical areas of expertise, experience working in collaborative teams and with diverse individuals, skills and knowledge in communication, innovation and entrepreneurship, leadership and management, policy and outreach are becoming increasingly valuable for all sectors of the workforce.

SUPPLEMENTAL FUNDING OPPORTUNITY

NSF will consider supplemental funding requests for up to an additional six months of graduate student support on active NSF grants with the following goals:

1. To provide graduate students with the opportunity to augment their research assistantships or NSF Graduate Research Fellowship Program (GRFP) fellowships with non-academic research internship activities and training opportunities that will complement their academic research training;
2. To allow graduate students to pursue new activities aimed at acquiring professional development experience that will enhance their preparation for multiple career pathways after graduation; and
3. To encourage the participation of graduate students from underrepresented groups such as women, persons with disabilities, underrepresented minorities in science, technology, engineering, and mathematics (STEM), veterans, and persons from economically disadvantaged backgrounds.

DESCRIPTION OF THE ACTIVITIES SUPPORTED

The PI/co-PI of an active NSF award may request supplemental funding for one or more graduate students to gain knowledge, skills and experiences that will augment their preparation for a successful long-term career through an internship in a non-academic setting, including the following:

- For-profit industry laboratories or industry research and development groups;
- Start-up businesses, such as (but not limited to) those funded through the NSF's Small Business Innovation Research (SBIR) program and Small Business Technology Transfer (STTR) program;
- Government agencies (all levels) and National Laboratories;
- Museums, science centers, and other informal learning settings;
- Policy think-tanks; and
- Non-profit organizations.

PIs are encouraged to discuss with the cognizant NSF program director activities that are

synergistic with the NSF project scope. It is expected that the graduate student and the PI on the NSF grant will work together to identify innovative experiences that add the most educational value for the graduate student through activities that are not already available at the student's academic institution. Further, it is expected that the internship will be research-focused in a STEM field or in STEM education research and will be on-site at the host organization unless a specific exception to this is granted due to extenuating circumstances by the cognizant program officer.

ELIGIBILITY

To be eligible, graduate students must have completed at least one academic year in their graduate programs (master's or doctoral) and be making satisfactory progress towards the completion of their degrees.

This opportunity is open to PIs (and co-PIs) who are supporting graduate students through an active NSF award. A PI for an active GRFP fellowship (not the GRFP fellow) should contact GRFP regarding specific GRFP requirements before submitting a supplemental funding request on behalf of a GRFP fellow. PIs with grants from the Directorate for Computer and Information Science and Engineering (CISE), the Directorate for Mathematical and Physical Sciences (MPS), and the Office of Integrative Activities (OIA) must follow the special conditions listed in the table below. The Directorate for Engineering (ENG), Directorate for Biological Sciences (BIO), Directorate for Geosciences (GEO) and Directorate for Social, Behavioral and Economic Sciences (SBE) do not have limitations or special conditions.

Participating Directorates or Offices	Participating Divisions or Programs	Special Conditions
Directorate for Computer and Information Science and Engineering (CISE)	This opportunity is open only to active awards within the Office of Advanced Cyberinfrastructure (OAC); projects funded by other CISE divisions are not eligible.	Only doctoral candidates may apply. Internships will involve multi-disciplinary activities that pursue development of innovative cyberinfrastructure approaches specific to advancing science and engineering research.
Directorate for Mathematical and Physical Sciences	All Divisions	In the Divisions of Astronomical Sciences and Mathematical Sciences only doctoral candidates may apply.

(MPS)		
Office of Integrative Activities (OIA)	Established Program to Stimulate Competitive Research (EPSCoR)	<p>PIs of EPSCoR Research Infrastructure Improvement (RII) awards are not eligible to apply.</p> <p>Supplement requests are encouraged from any NSF-funded PIs located in EPSCoR-eligible jurisdictions. Eligible requests submitted to the original funding directorate will be considered for EPSCoR co-funding support.</p>

SUPPLEMENTAL FUNDING REQUEST PREPARATION INSTRUCTIONS

Each supplemental funding request must include the INTERN DCL title and DCL number in the summary section of the proposal and include the following components:

1. A two-page summary that describes the internship. The request must include a concise statement from the graduate student describing how the activity will better prepare the graduate student to enter the workforce.
2. A resume of the graduate student (up to 2 pages) that contains (but not limited to) the following information:
 - a. Educational Preparation
 - i. Institution
 - ii. Major
 - iii. Year of study (1st year, 2nd year, etc.)
 - b. Summary of graduate coursework completed
 - c. Professional employment history
 - d. Publications
 - e. Other information relevant to the proposed internship

Students requesting support by funding described in this DCL are encouraged to register for an ORCID ID and for this identifier to be provided to NSF in the student's resume. The resume must be included in the PI's annual and final project reports under Special Requirements. ORCID® (<http://orcid.org>) is an open, non-profit, community-driven effort to create and maintain a registry of unique researcher identifiers and a transparent method of linking research activities and outputs to these identifiers. An ORCID identifier provides a unique and persistent digital identifier to distinguish

individual researchers. While NSF encourages the use of an ORCID ID, submission of the ORCID ID is optional.

3. A letter of collaboration from an authorized official at the organization which will host the student that describes the internship opportunity and the mentoring that will be provided to the student during the internship. This letter should include a statement confirming that neither the graduate student nor the PI has a financial interest in the organization hosting the internship.
4. A letter from the PI that confirms that the student meets the eligibility requirements specified in this DCL. The letter must describe how the proposed internship activity will contribute to the student's graduate education experience and how it may impact time to degree. The PI must describe activities that are synergistic with the scope of the PI's NSF Grant to be supplemented.
5. The NSF awardee and the organization hosting the graduate student must agree in advance as to how intellectual property (IP) rights will be handled. A signed agreement on IP (including publication and patent rights) must be submitted prior to the award of the supplemental funding. NSF is responsible neither for the agreement reached nor the IP information exchanged between the NSF awardee and the host organization.
6. A budget and a clear justification for all requested budget costs.

SUPPLEMENTAL FUNDING AMOUNT

The total amount of funding requested must not exceed \$55,000 per student per six-month period. NSF plans to fund up to approximately 260 supplements in each fiscal year starting with FY 2021, depending on the availability of funds.

ALLOWABLE COSTS UNDER THIS DCL

Funds may be used to support travel, tuition and fees, health insurance, additional stipend and temporary relocation costs for the graduate student. Additional stipends are not allowed for GRFP fellows on tenure but a stipend will be considered for fellows on reserve equal to the monthly rate of the GRFP stipend. Up to \$2,500 may be used for the PI or the graduate research fellow's advisor to travel to work with the host organization in co-mentoring the student during the internship. Up to \$2,500 may be used for materials and supplies to support the student during the internship. The grantee is permitted to request indirect costs in accordance with their approved/negotiated indirect cost rate. The total requested budget cannot exceed the limits listed under the "Supplement funding amount" section above. Note: Spousal and dependent travel are not supported.

PERIOD OF SUPPORT

The supplement funding will provide up to six months of support for an internship. Up to two

supplemental funding requests may be submitted on a grant per student. This would allow the student up to two internship periods up to six months each (i.e., a maximum of 12 months per student).

DUE DATES

Supplemental funding requests may be submitted at any time with a target date of April 15th for each Fiscal Year.

SUBMISSION & REVIEW

Requests for supplemental funding must be submitted electronically via FastLane. A PI on an NSF grant should contact his/her cognizant program director prior to submission. GRFP INTERN supplement requests are submitted by the GRFP PI, not by the GRFP fellow or the fellow's research advisor. Requests for supplemental funding submitted in response to this DCL will be reviewed internally by NSF Program Officers. All supplements are subject to (a) the availability of funds, and (b) merit review of the supplemental funding request.

SPECIAL AWARD CONDITION

Intellectual Property Rights: Internships under this DCL are considered equivalent to traineeships. The National Science Foundation claims no rights to any inventions or writings that might result from its traineeship awards. However, trainees should be aware that NSF, another Federal agency, or some private party may acquire such rights through other support for particular research. Also, trainees should note their obligation to include an Acknowledgment and Disclaimer in any publication.

POLICY OR CODE ADDRESSING HARASSMENT

Awardees are required to have a policy or code of conduct that addresses sexual harassment, other forms of harassment, and sexual assault. The awardee should work with the Host Organization to ensure that the Host Organization also has a policy or code of conduct that addresses sexual harassment, other forms of harassment, and sexual assault, including reporting and complaint procedures, and to confirm that such policy both covers and protects INTERN students interacting with the Host Organization. The awardee should also coordinate with the Host Organization to provide orientation to graduate students to cover expectations of behavior to ensure a safe and respectful environment, and to review the awardee and host organization's policy or code of conduct addressing sexual harassment, other forms of harassment, and sexual assault, including reporting and complaint procedures. For additional information, see the NSF policies at <https://www.nsf.gov/od/odi/harassment.jsp> and the "Promising Practices" at https://www.nsf.gov/od/odi/promising_practices/index.jsp.

For further information on this DCL, please contact:

- BIO: Dr. Elizabeth Blood (eblood@nsf.gov) or Dr. John Barthell (jbarthel@nsf.gov)
- CISE/OAC: Dr. Alan Sussman (alassusm@nsf.gov)
- EHR: Dr. Earnestine Easter (eeaster@nsf.gov) or Dr. Christopher Hill (chill@nsf.gov)
- ENG: Dr. Prakash Balan (pbalan@nsf.gov)
- GEO: Dr. M. Brandon Jones (mbjones@nsf.gov)
- MPS: The cognizant program officer on the NSF grant.
- SBE: Dr. Josie Welkom (jwelkom@nsf.gov)
- OIA/EPSCoR: Dr. Timothy VanReken (tvanreke@nsf.gov)

Sincerely,

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