



NATIONAL SCIENCE FOUNDATION
2415 EISENHOWER AVENUE
ALEXANDRIA, VIRGINIA 22314

NSF 23-024

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

November 15, 2022

Dear Colleague:

Fostering the growth of a globally competitive and diverse research workforce and advancing the scientific and innovation skills of U.S. students are strategic objectives of the National Science Foundation (NSF). Supporting the development of a skilled workforce in energy efficiency and renewable energy is a strategic objective of the U.S. Department of Energy (DOE). The NSF and DOE's Office of Energy Efficiency and Renewable Energy (EERE) have established a partnership to support internship and training opportunities to meet these strategic objectives with a focus on geothermal energy, technology, and application areas.

This Dear Colleague Letter (DCL) describes this unique partnership with DOE EERE for submissions to the NSF INTERN Program, described in DCL [NSF 21-013](#). DCL [NSF 21-013](#) is often referred to as the "INTERN DCL". This DCL is referred to as the "Geothermal INTERN DCL". For more information on EERE's priorities for geothermal energy research, please see the [GeoVision Report](#) and the [2022-2026 multi-Year Program Plan](#).

SUPPLEMENTAL FUNDING OPPORTUNITY

NSF will consider supplemental funding requests in the area of geothermal energy that enable PIs (or Co-PIs) to request supplemental support of up to \$55,000 and six months for graduate students supported 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 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.

3. To encourage the participation of graduate students from groups underrepresented in science, technology, engineering, and mathematics (STEM), such as women, persons with disabilities, minorities, 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, training, and experiences in geothermal energy, technology, and its application areas.

Internship hosts include, but are not limited to:

- Private sector companies, 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) programs.
- Department of Energy Laboratories, other government agencies (all levels), and National Laboratories.
- Museums, science centers, and other informal learning settings that educate the public.
- Policy think-tanks.
- Non-profit organizations.

Prior to submission, PIs are encouraged to discuss possible INTERN supplements with the cognizant NSF Program Director Points of Contact listed in this DCL to ensure the proposed internship and its topic are a good fit for this DCL. It is expected that the graduate student and the PI on the NSF grant will work together to identify 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 and will be on-site at the host organization unless a specific exception to this is granted by the cognizant Program Director due to extenuating circumstances.

ELIGIBILITY

To be eligible for this opportunity, graduate students must have completed at least one academic year in their graduate program (master's or doctoral) prior to commencement of the proposed INTERN activity and be making satisfactory progress toward completion of their degree.

This opportunity is open to PIs (or Co-PIs) and the graduate students supported through any active NSF award. It also includes students participating in institutional Graduate Research Fellowship Program (GRFP) awards. The PI for the active GRFP fellowship (not the GRFP

fellow) should contact GRFP (GRFPINTERN@nsf.gov) regarding specific GFRP requirements before developing and submitting a supplemental funding request on behalf of a GRFP fellow.

SUPPLEMENTAL FUNDING REQUEST PREPARATION INSTRUCTIONS

Each supplemental funding request must include the character string GEOTHERMAL INTERN DCL and the DCL announcement number in the first sentence of the project summary section of the supplement request. In accordance with the INTERN DCL, [NSF 21-013](#), the supplemental funding request must include:

1. A two-page summary that describes the internship. This part of the request must include a concise statement from the graduate student describing how the activity will impact their educational goals and prepare them to enter the workforce.
2. A resume of the graduate student (up to 2 pages) that contains, but is not limited to, the following information:
 - a. Educational preparation
 - i. Institution
 - ii. Major
 - iii. Year of study (e.g., 1st year, 2nd year, etc.)
 - b. Summary of graduate coursework completed
 - c. Professional employment history
 - d. Publications and conference proceedings
 - 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. ORCID® (<https://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 host organization that describes the internship opportunity and mentoring the student will experience during the internship. The 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 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 internship activities of the student 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 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 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 10 to 20 or more supplements in each fiscal year starting with FY 2023, depending on 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 of 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 15 for each Fiscal Year.

SUBMISSION & REVIEW

Requests for supplemental funding must be submitted electronically via Research.gov. A PI/ Co-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.

For further information, please contact Program Directors:

- Dr. Prakash Balan, pbalan@nsf.gov - Directorate for Engineering
- Dr. Barbara Ransom, bransom@nsf.gov - Directorate for Geosciences

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/oecr/harassment.jsp> and the "Promising Practices" at https://www.nsf.gov/od/oecr/promising_practices/index.jsp.

Sincerely,

Simon Malcomber
Acting Assistant Director
Directorate for Biological Sciences (BIO)

Margaret Martonosi
Assistant Director
Directorate for Computer and Information Science and Engineering (CISE)

James L. Moore, III
Assistant Director
Directorate for STEM Education (EDU)

Susan Margulies
Assistant Director
Directorate for Engineering (ENG)

Alexandra R. Isern
Assistant Director
Directorate for Geosciences (GEO)

Sean Jones
Assistant Director
Directorate for Mathematical and Physical Sciences (MPS)

Alicia Knoedler
Office Head
Office of Integrative Activities (OIA)

Kendra Sharp
Office Head
Office of International Science and Engineering (OISE)

Kellina M. Craig-Henderson
Assistant Director
Directorate for Social, Behavioral, and Economic Sciences (SBE)

Erwin Gianchandani
Assistant Director
Directorate for Technology, Innovation and Partnerships (TIP)