



NATIONAL SCIENCE FOUNDATION
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NSF 16-067

Dear Colleague Letter: Improving Graduate Student Preparedness for Entering the Workforce, Opportunities for Supplemental Support

April 15, 2016

Dear Colleague:

NSF has identified improvement in graduate student preparedness for entering the workforce (<http://www.performance.gov/node/40262?view=public#apg>) as one of its Agency Priority Goals. As part of this goal, supplemental funding is available in FY 2016 and FY 2017 to support science and engineering doctoral students so that they can acquire the knowledge, experience, and skills needed for highly productive careers, inside and outside of academe. NSF currently invests in a number of graduate student preparedness activities, and has historically encouraged investigators to include such activities in proposals. This Dear Colleague Letter (DCL) describes a variety of opportunities across the Foundation designed to explore approaches that will position NSF-funded graduate students for success in the 21st century Science, Technology, Engineering, and Mathematics (STEM) workforce.

NSF will consider support for supplements to existing research awards to enhance professional development opportunities for students in PhD programs as described by each Directorate/Office. These descriptions can be found below. Interested investigators should contact the cognizant program officers listed on the opportunities. *Enhanced experience* supplements will enable single/collaborative awardees to request appropriate levels of additional support for existing graduate students to acquire professional development experience that will broaden avenues for entering the workforce. These supplements would provide graduate students with the opportunity to augment their research assistantships, and in some cases fellowships and traineeships, with additional "mentoring" activities and short-term training opportunities. *Enhanced activities* supplements will be available to existing, larger institution-level, "center-like" activities to support cohorts of graduate students with the goal of developing new "best practice activities" for enhancing graduate student preparedness for entering the workforce.

REPORTING REQUIREMENTS

Although graduate student preparedness activities to be supported vary by Directorate/Office, a common set of metrics will be developed and provided to awardees at the time their award is made. These metrics will assist in verifying the impacts and benefits of approaches described in this Dear Colleague Letter. In addition, successful applicants are expected to report on graduate student professional development resulting from this supplemental support in the annual report of the award under which this support was received.

SUPPLEMENT-STUDENT VITA TEMPLATE (1 PAGE LIMIT)

Please submit this document as "Other Supplementary Documents"

Name:

- A. Professional Preparation
 - o Institution
 - o Major
 - o Year of study
- B. Academic/Professional Appointments
- C. Publications/Products (*most closely related*)
- D. Publications/Products (*other*)
- E. Synergistic Activities/Research Experience
- F. Collaborators

We encourage students supported by opportunities described in this Dear Colleague Letter to register for an ORCID ID and for this identifier to be provided to NSF in the investigators' annual report. 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 identifier is optional.

PARTICIPATING ORGANIZATIONS

Directorate for Biological Sciences (BIO)

Directorate for Computer and Information Science and Engineering (CISE)

Directorate for Education and Human Resources (EHR)

Directorate for Engineering (ENG)

Directorate for Geosciences (GEO)

Directorate for Mathematical and Physical Sciences (MPS)

Directorate for Social, Behavioral & Economic Sciences (SBE)

Office of Integrative Activities (OIA)

DIRECTORATE FOR BIOLOGICAL SCIENCES (BIO)

Summary of Opportunity

The Division of Molecular and Cellular Biosciences (MCB) invites its grantees to apply for supplemental funding to enhance the training experience of their doctoral students. Funding is available to support two types of activities. First, funding may be requested to support student participation in experiences that extend beyond their discipline and/or broaden their career options. For example, funds may be used to support the student for a brief internship period in the private, non-profit or academic arena, or to obtain specialized skills in a cross-disciplinary setting. Second, funds may be requested to compensate trainees to attend professional development courses (not formal degree programs) that enhance skills needed to be competitive in the job market. Courses with special emphasis on training in quantitative biology and/or acquiring skills that improve broader impacts (e.g., communicating science to the public) will be considered a priority.

Eligibility

This opportunity is open only to PhD students of MCB grantees. The proposed activity should not negatively impact the student's dissertation research or inadvertently increase the time to degree.

Preparation Instructions and Allowable Costs

Supplement requests are limited to 2 pages and should include the student's CV following the template specified in this DCL as well as a statement of purpose written by the student. The average award is expected to range from \$6,000 - \$12,000 for a period of one year, and will depend on the availability of funds. Eligible costs can include travel and tuition fees. This is a pilot program that will run for two years.

Submission and Review

We anticipate making no more than 15 awards per year. Supplemental requests will be considered on a first-come, first-served basis. Investigators are encouraged to contact their cognizant program directors for more information.

Requests should be made no later than May 20, 2016 for FY 2016 consideration and no later than April 3, 2017 for FY 2017 consideration.

BIO Cognizant Program Directors:

- Cellular Dynamics and Function and Systems and synthetic Biology, Charles Cunningham, Program Director, chacunni@nsf.gov
- Genetic mechanisms, William Eggleston, Program Director, weggles@nsf.gov
- Molecular Biophysics, Wilson Francisco, Program Director, wfrancis@nsf.gov.

DIRECTORATE FOR COMPUTER AND INFORMATION SCIENCE AND ENGINEERING (CISE)

Summary of Opportunity

The Directorate of Computer and Information Sciences and Engineering (CISE) invites grantees of the following participating programs to apply for supplemental funding to enhance interdisciplinary research experience, collaborations, and professional skills of their doctoral students:

- Big Data Regional Innovation Hubs and Spokes ([BD Hubs and Spokes](#));
- [Advanced Cyberinfrastructure \(ACI\) CAREER Awardees](#);
- Cybersecurity Innovation for Cyberinfrastructure ([CICI](#));
- Software Infrastructure for Sustained Innovation ([SI2](#)); and
- High Performance Computing ([HPC Acquisitions](#), Blue Waters and XD).

Funding is available to support both categories of supplements described above: (i) "enhanced experience" for students of existing awards; and (ii) imparting "enhanced activities" by hosting multidisciplinary student cohorts. Under (i), funding must support student participation in experiences that extend beyond their disciplinary/current multidisciplinary activities and/or broaden their career options. For example, funds may be used to support a student for a brief internship in a private, non-profit, academic, or industry setting. Funds may also be requested to compensate trainees to attend professional development courses (not formal degree programs) or workshops that provide new skills needed to expand STEM career options. Under (ii), funds may be used to supplement student travel and support participation in new or existing multidisciplinary activities and/or training to expand career path options. For example, funds may be used to provide supplements to students for participation in structured training and mentoring activities associated with NSF-supported projects, such as the Blue

Waters Graduate Fellowship program and XSEDE Scholars program or their extensions, or cohort programs at BD Hubs and Spokes.

Eligibility

Proposed activities should not negatively impact students' dissertations or inadvertently increase the time to degrees. Successful applicants will be expected to report on training outcomes.

Preparation Instructions and Allowable Costs

This pilot effort will run for two years. Supplement requests for "enhanced experience" support are limited to 2 pages and should include the student's CV following the template specified in this DCL and a 1-page statement of purpose written by the student. Supplement requests for student cohort programs of 4-10 students engaging in "enhanced activities" are limited to 8 pages and should include plans for: (i) research/education/skill development and evaluation; (ii) student selection, in part to ensure participation of a diverse set of students, including those from traditionally underrepresented groups; and (iii) logistics such as housing (similar to Research Experiences for Undergraduates (REU) Sites). The average award is expected to be \$10,000 per student for a period of one year, but may range from \$6,000 - \$14,000; awards are subject to the availability of funds. Costs may include travel, lodging, stipend supplement, tuition and other fees. These should be budgeted as Participant Support to the extent allowable.

Submission and Review

It is anticipated that no more than 40 students per year will be supported across both categories. Supplemental requests will be considered on a first-come, first-serve basis. Investigators are encouraged to contact the cognizant program director below for more information.

Requests should be made no later than May 31, 2016 for consideration in FY 2016 and no later than April 15, 2017 for consideration in FY 2017.

CISE Cognizant Program Director:

- Sushil Prasad, Program Director, sprasad@nsf.gov.

DIRECTORATE FOR EDUCATION AND HUMAN RESOURCES (EHR)

Summary of Opportunity

The Directorate for Education and Human Resources (EHR) invites its grantees, as well as those from other NSF Directorates, to apply for supplemental funding to enhance the preparation, experience, and professional development of their doctoral students. Funding is available to support student participation in education-related training experiences that broaden their skill sets and their career options, preparing them for a variety of STEM-related careers.

Support is available for the following types of activities:

- Participation in internships, training experiences, or collaborative research with private, non-profit, government, or academic organizations that promote informal STEM learning (e.g., museums; film, broadcast media, and science journalism; digital media and gaming; citizen science; school and community programs). Opportunities can include, but are not limited to, communication and media training programs that prepare students to be effective communicators to public audiences, internships focused on informal STEM learning research and evaluation, and training in exhibit and program design and delivery.

Participation in internships, training experiences, or research and development activities in collaboration with education researchers and/or social science learning scholars to acquire new teaching skills and competencies, to gain exposure to new STEM educational research areas, or to test novel approaches for improving the engagement of K-12 or undergraduate students in authentic, career-relevant experiences. For example, doctoral students might spend a visiting term with a discipline-based education research group to learn about its research foci and relevant methodologies.

- Development and piloting of new and innovative programs for groups of graduate students focusing on (a) specific transferable professional skills or (b) career development and preparation for a variety of STEM career pathways. For this activity, projects must include active NSF Graduate Research Fellowship awardees and Honorable Mentions from a single campus or from several institutions within a region, including minority-serving institutions. Programs should include a plan to ensure participation by Fellows and Honorable Mention recipients who are women, members of underrepresented minority groups, persons with disabilities, and veterans.

Eligibility

Supplement requests for Activities 1 and 2 may come from any active NSF award and should be for individual students. Supplement requests for Activity 3 must be submitted by lead investigators of Graduate Research Fellowship Program (GRFP) institutional awards.

Preparation Instructions and Allowable Costs

Requests for Activities 1 and 2 are limited to four pages and include (1) a two-page project description, (2) a one-page biographical sketch for the student following the template specified in this DCL, and (3) a one-page Professional Development Plan describing the mentoring that students will receive while participating in the activity and how the project will contribute to their skill development, professional network, and future career goals. Request can be for up to \$35,000 for up to one year, with the size of the budget adjusted appropriately depending on the duration of the proposed activity. Eligible costs include stipend/salary, tuition and fees, travel, and temporary relocation cost. It is anticipated that 10-15 individual student awards (Activities 1 and 2) will be made each year. Supplement requests for Activity 3 are limited to a four page project description. Requests can be for up to \$75,000. Eligible costs include salary for senior personnel, travel, materials and supplies, and participant support, with the majority of budget going toward program development, implementation, and student training. It is anticipated that 2-3 Activity 3 awards will be made each year. Equipment, student salaries/stipends, and tuition are not permitted under Activity 3. This is a pilot program that will run for two years. Awards are subject to the availability of funds.

Submission and Review

Supplemental requests will be considered on a first-come, first-served basis. Investigators are encouraged to contact their cognizant program directors for more information.

Requests should be made no later than May 31, 2016, for FY 2016 consideration and no later than April 1, 2017, for FY 2017 consideration.

EHR Cognizant Program Director:

- Richard Tankersley, Program Director, rtankers@nsf.gov.

DIRECTORATE FOR ENGINEERING (ENG)

Summary of Opportunity

The Directorate for Engineering (ENG) invites Principal Investigators of active ENG research grants to request supplemental funding for PhD students currently supported by the grant. The purpose of this supplemental funding opportunity is to provide necessary support for engineering doctoral students to acquire the knowledge, experience, and skills that complement their research project and help better prepare them for future careers, inside and outside of academe.

With rapidly accelerating changes in technology driven global and national economies, it is expected that today's PhD graduates will have varied career paths over their professional lives. Engineering PhDs have the potential to make important contributions in careers outside academia: in companies ranging from startups to large corporations, government agencies, and non-profit organizations. The 2013 Survey of Doctorate Recipients has shown that 73% of PhD holders in engineering are in non-academic employment while only 27% pursue academic jobs (see <http://www.nsf.gov/statistics/srvydoctoratework/>). Among new PhD graduates, the percentage going into academic careers is estimated to be even lower. It is therefore important that research assistants working on NSF grants be provided opportunities to develop skills that prepare them to be successful for a broad range of career paths. In addition to deep and broad preparation in their technical areas of expertise, skills and knowledge regarding communication, innovation & entrepreneurship, leadership & management, policy and outreach are becoming increasingly valuable to enter the workforce. Such skills and knowledge also benefit doctoral students entering academia due to an increased need to communicate the value of the research and its broader impact, to collaborate with other researchers, and to mentor students.

Supplement Categories

The lead investigator of an active ENG award may request supplemental funding for a doctoral student supported on the award to gain knowledge, skills and experiences that will augment their preparation for a successful long-term career. It is expected that the experience facilitated with this supplement will allow students to gain additional skills in one of the following:

- Science and Engineering Communication (to both discipline-specific and broader audiences)
- Engineering Innovation and Technology Commercialization
- Business and Entrepreneurship

Examples of experiences include but are not limited to the following: summer workshops and courses; internships in start-ups, such as those funded through the NSF's Small Business Innovation Research (SBIR) Program and the Small Business Technology Transfer (STTR) program, accelerators, industry; internships in government, policy think-tank, regulatory agencies; and internships in non-profit Foundations.

Eligibility

This supplemental funding opportunity is open to principal investigators supporting doctoral students with an active NSF award from the Directorate for Engineering. This opportunity is not available to doctoral students supported by Engineering Research Center (ERC) awards, since ERCs already provide critical skills beyond those essential for the research component of academic and industry careers. Graduate students must have completed at least one year as a full time student, passed their qualifying exam (or equivalent requirement towards candidacy), and be making satisfactory progress towards the completion of their degree. These requirements must be certified by the graduate program lead for the institution.

Preparation Instructions and Allowable Costs

It is expected that the student and supervisor will work together to identify innovative experiences (see supplement categories) that add the most value. Supplemental requests must satisfy the following

requirements:

- Two-page proposal identifying the category (see supplement categories) where skills are sought and the mechanism that will be used to acquire the skills, such as course work, workshop or internship, etc. The proposal must include a concise statement from the student describing how the activity will better prepare him/her to enter the workforce.
- One-page resume of the student following the template specified in this DCL.
- Letter from the graduate program lead certifying that the student meets eligibility requirements.

Investigators are encouraged to discuss with their cognizant NSF program manager activities that are synergistic with the project scope. The maximum supplement request is \$10,000. ENG plans to fund 15-20 supplements in FY 2016, depending on availability of funds. Funds may be used to support travel, tuition and fees, stipend and temporary relocation costs for the graduation student. Spouse and dependent travel are not allowed.

Submission and Review

Proposals will be reviewed internally at NSF.

The deadline for applications to this opportunity is May 20, 2016.

ENG Cognizant Program Directors:

- Engineering Education and Centers (EEC), Elliot Douglas, Program Director, edouglas@nsf.gov
- Chemical, Bioengineering, Environmental, and Transport Systems (CBET), Alexander Leonessa, Program Director, aleoness@nsf.gov
- Civil, Mechanical, and Manufacturing Innovation (CMMI), Richard J. Fragaszy, Program Director, rfragasz@nsf.gov
- Electrical, Communications, and Cyber Systems (ECCS), Program Director, Lawrence S. Goldberg, lgoldber@nsf.gov
- Industrial Innovation and Partnerships (IIP), Prakash Balan, Program Director, pbalan@nsf.gov.

DIRECTORATE FOR GEOSCIENCES (GEO)

Summary of Opportunity

The Directorate for Geosciences (GEO) invites advisors of PhD students currently supported on active research grants to apply for supplemental funding to enhance the professional development of their students. This is a pilot program that will run for two years. Funding is available to support professional development experiences through research internships developed in partnership with the U.S. Geological Survey (USGS) (<https://powellcenter.usgs.gov/national-science-foundation-graduate-research-internship-program-grip>) and the National Oceanic and Atmospheric Administration (NOAA) (http://www.education.noaa.gov/Special_Topics/NSF_GRIP_NOAA_Opportunities.php) as described in the Graduate Research Internship Program (GRIP, NSF 16-015, <http://www.nsf.gov/GRIP>) with the following differences:

Eligibility

The opportunity described in this Dear Colleague Letter is limited to PhD students supported on current awards within the Divisions of Earth Sciences (EAR), Ocean Sciences (OCE), Polar Programs (PLR), and Atmospheric and Geospace Sciences (AGS). Internships are limited to U.S. citizens. PhD students from underrepresented groups and those attending Minority Serving Institutions are particularly encouraged to apply to this opportunity.

Preparation Instructions and Allowable Costs

It is expected that the graduate researcher will initiate contact with investigators identified in the proposed internship opportunities listed on the USGS and NOAA GRIP websites noted above. It is also expected that the graduate researcher will play a lead role in the preparation of the supplemental request. Supplemental requests must include the elements outlined in part 2.b-g. of the GRIP Dear Colleague Letter ([NSF 16-015](#)). The supplemental request must also include a letter of invitation from the agency investigator. This may be in the form of an e-mail acknowledging that the student is a suitable candidate for the internship opportunity. Supplemental requests must be submitted to the relevant program as listed on the original award supporting the student. The budget justification should include all essential support required for the period of the fellowship. Eligible costs can include those outlined in [NSF 16-015](#) as well as stipend support and tuition fees. Questions related to eligible costs should be directed to the cognizant program directors listed below. It is anticipated that approximately 20 supplements will be made each year. Awards are subject to the availability of funds.

Submission and Review

Requests will be considered on a first-come, first-served basis. Investigators are encouraged to contact the program directors listed below for more information. Supplemental requests will be reviewed by NSF using the criteria outlined in the GRIP Dear Colleague Letter ([NSF 16-015](#)).

In addition to the reporting requirements noted below, graduate students who receive support under this Dear Colleague Letter are expected to submit a report to the cognizant program director listed on the supplemental award within 90 days of the completion of their internship. This report should detail the experience and accomplishments of their internship activities and should highlight publications, presentations, and other products or achievements completed as part of their internship. The report should also highlight any professional development achievements such as gaining proficiency in professional skills (e.g., communication, technical writing, project management, etc.) and expanding professional networks. All reporting must be approved for "Public Release" by the partner agency.

Requests should be submitted no later than June 1, 2016 for FY 2016 support and May 1, 2017 for FY 2017 support.

GEO Cognizant Program Directors:

- Earth Sciences (EAR), Lina Patino, Program Director, lpatino@nsf.gov
- Atmospheric and Geospace Sciences (AGS), Manda Adams, Program Director, amadams@nsf.gov
- Polar Programs (PLR) and Ocean Sciences (OCE), Lisa Rom, Program Director, elrom@nsf.gov.

DIRECTORATE FOR MATHEMATICAL AND PHYSICAL SCIENCES (MPS)

Division of Materials Research (DMR)

Summary of Opportunity

DMR will consider *Enhanced Experience* supplemental requests to existing grants in the following programs: Biomaterials, Ceramics, Condensed Matter and Materials Theory, Condensed Matter Physics, Electronic and Photonic Materials, Metals and Metallic Nanostructures, Polymers, and Solid State and Materials Chemistry. Please contact the cognizant Program Director managing your grant prior to submitting a supplement request.

Preparation Instructions

It is expected that the student and supervisor will work together to identify a preparedness activity. The supplement request must describe the purpose and plan for the activity. The request should include a brief (at most one-page) curriculum vitae for the student following the template specified in this DCL.

Division of Mathematical Sciences (DMS)

Summary of Opportunity

The Division of Mathematical Sciences (DMS) invites its grantees to apply for *Enhanced Experience* supplemental requests to support student activities that broaden awareness of potential non-academic career options. Funds may be requested to support a student for an internship period in a business, industry, or government organization.

Eligibility

This opportunity is open to PhD students of investigators with currently-active awards from DMS. Students must have completed at least one year as a full time graduate student, passed the qualifying exam (or equivalent requirement towards candidacy), and be making satisfactory progress towards the completion of the doctoral degree at the time the supplement is submitted.

Preparation Instructions and Allowable Costs

It is expected that the student and supervisor will work together to identify an internship opportunity and to secure acceptance by the internship host. The supplement request must identify the non-academic host organization, specify the location of the work, and describe the purpose and plan for the internship. The request should include a brief (at most one-page) curriculum vitae for the student following the template specified in this DCL and a letter of invitation from the non-academic sponsor.

The requested supplemental funds, which should be budgeted as Participant Support Costs, may be used to support travel, subsistence, and temporary relocation costs for the graduate student, as well as stipend funds if appropriate. The maximum supplement request is \$12,000.

Division of Chemistry (CHE)

Summary of Opportunity

Examples of experiences targeted by this opportunity include, but are not limited to, limited duration (one to three month) internships or similar experiences in industry (including start-up companies), state or federal government laboratories, policy organizations, and non-profit foundations. Consideration would also be given to professional development courses on, for example, innovation and technology commercialization, business and entrepreneurship training, and communicating science to the public. Such courses should not be undertaken in order to directly benefit the student's research project. *Activities that include an international component are also encouraged.* It is expected that student participation in these experiences will enhance their skills for attaining a competitive position in the job market. Note: Funding requests for conference attendance will not be considered for this supplemental funding opportunity.

Eligibility

This opportunity is open to PhD students currently supported on NSF CHE individual investigator or small group research grants. Graduate students must have completed at least one academic year as a full time student and be in good academic standing within their Department. These eligibility requirements must be certified by the Chair of the graduate program for the institution at which the application originates.

Preparation Instructions and Allowable Costs

It is expected that the student, graduate research advisor, and internship host/course coordinator will work together to identify innovative experiences that add value to the student's graduate school training. Supplemental requests must satisfy all of the following requirements:

- The proposal must include a one-page (maximum) statement from the student describing how the activity will better prepare him/her to enter the workforce. The statement should identify the skills and experiences that are sought and highlight how the activity will enhance the student's graduate school training in relation to their career goals.
- A one-page (maximum) statement from the graduate research advisor indicating concurrence with the student's plans and including a summary statement that this activity is not expected to adversely affect the student's progress in dissertation research.
- A two-page (maximum) curriculum vitae for the student following the template specified in this DCL. Additionally, the student should provide the number of years completed in their graduate program.
- A letter from the chair of the graduate program certifying that the student meets eligibility requirements.
- If an industrial or other laboratory partner is involved, the academic and industry partners must agree in advance as to how intellectual property rights will be handled. A statement to this effect should be included in both the graduate research advisor's and the sponsor's letters.
- In the case of a laboratory internship, a letter of commitment from the host company or organization or other relevant sponsor, briefly outlining the student's role in the project and indicating how the student will be mentored.
- There is a limit of one Graduate Education Supplement per PI per award.

Principal Investigators (PIs) are encouraged to discuss, with their cognizant CHE program director, the proposed activities that would be part of a supplement request. The supplement request limit is \$12,000 for a maximum for three months. Eligible costs can include student stipends (if not paid by an industry partner), travel, temporary relocation, and course fees. Spouse and dependent travel are not allowed. The Chemistry Division expects to fund 10-15 supplements in Fiscal Year (FY) 2016, depending on the availability of funds.

Submission and Review

We anticipate funding no more than 15 supplement awards in FY 2016. Investigators are strongly encouraged to contact their cognizant program directors for more information.

For full consideration, requests should be submitted no later than May 20, 2016 for FY 2016.

Cognizant CHE Program Directors:

- Chemical Catalysis (CAT) - George Janini
- Chemistry of Life Processes (CLP) - David Rockcliffe
- Chemical Structure, Dynamics and Mechanisms (CSDM-A) - Colby Foss
- Chemical Structure, Dynamics and Mechanisms (CSDM-B) - Tingyu Li
- Chemical Theory, Models and Computational Methods (CTMC) - Evi Goldfield
- Chemical Synthesis (SYN) - Richard Johnson

- Macromolecular, Supramolecular and Nanochemistry (MSN) - Suk-Wah Tam-Chang
- Chemical Measurement and Imaging (CMI) - Kelsey Cook
- Environmental Chemical Sciences (ECS) - Jim Lisy

Division of Physics (PHY)

PHY will consider *Enhanced Experience* supplemental requests to existing grants in the following investigator programs (including theory and experiment): Accelerator Science, Atomic, Molecular and Optical Physics, Computational Physics, Elementary Particle Physics, Gravitational Physics, Nuclear Physics, Particle Astrophysics, Physics of Living Systems, and Quantum Information Science. Please contact the cognizant Program Director managing your grant prior to submitting a supplement request.

Preparation Instructions

It is expected that the student and supervisor will work together to identify a preparedness activity. The supplement request must describe the purpose and plan for the activity. The request should include a brief (at most one-page) curriculum vitae for the student following the template specified in this DCL.

DIRECTORATE FOR SOCIAL, BEHAVIORAL & ECONOMIC SCIENCES (SBE)

Summary of Opportunity

The Directorate of Social, Behavioral, and Economic Sciences (SBE) invites its grantees to apply for supplemental funding to enhance the training experience of their doctoral students. Funding is available to support two types of activities. First, funding may be requested to support student participation in experiences that extend beyond their discipline and/or broaden their career options. For example, funds may be used to support the student for a brief internship period in the private, non-profit, government, or academic arena, or to obtain specialized skills in a cross-disciplinary setting. Second, funds may be requested to compensate trainees to attend professional development courses (not formal degree programs) that enhance skills needed to be competitive in the job market. Courses with special emphasis on training in robust and reliable science (methods institutes) and/or that improve broader impacts (e.g., communicating social, behavioral and economic science to the public) will be considered a priority.

Eligibility

This opportunity is open to all PhD students supported on active SBE awards. The proposed activity should not negatively impact the student's dissertation research or inadvertently increase the time to degree.

Preparation Instructions and Allowable Costs

A Summary of the Proposed Work is limited to 2 pages. In addition to these two pages, the request must include a one-paragraph student statement of purpose and the student's CV following the template specified in this DCL. The average award is expected to range from \$6,000 - \$10,000 for a period of one year, and will depend on the availability of funds. Eligible costs can include travel, tuition, and training costs. Successful applicants will be expected to report on training outcomes of their doctoral students in their annual reports. This is a pilot program that will run for two years. Awards are subject to the availability of funds.

Submission and Review

It is anticipated that no more than 8 awards will be made per year. Supplemental requests will be considered on a first-come, first-served basis. Investigators are encouraged to contact their cognizant program director for more information.

Requests should be made no later than June 1, 2016 for FY 16 support and June 1, 2017 for FY 17 support.

SBE Cognizant Program Director:

- Beth A. Rubin, Program Director, brubin@nsf.gov.

OFFICE OF INTEGRATIVE ACTIVITIES (OIA)

Summary of Opportunity

The Office of Integrative Activities (OIA) invites Science and Technology Center (STC) grantees to apply for supplemental funding to support activities designed to enhance the preparation of STC graduate students for a broad range of careers. Support might focus on development of professional development courses; student travel to attend such courses; student internships in non-profit or informal STEM arenas such as science museums, and citizen science; and science communication. This list is not meant to be exhaustive.

The intent of this supplemental opportunity is to impact students from across the STC program. Therefore, supplement proposals must involve graduate students from at least three of the currently funded STCs.

Eligibility

It is expected that graduate students affiliated with the lead or partner institutions currently supported by the STC Program will be the primary beneficiaries of these activities. Thus, only STC Principal Investigators are eligible to submit a supplement. It is expected that no STC will receive more than one supplement in response to this DCL.

Preparation Instructions and Allowable Costs

Pending availability of funds, OIA will support up to three supplements per year in FY 2016 and in FY 2017 at a total funding level of \$500K per year. STC investigators are encouraged to discuss, with the OIA cognizant program director listed below, planned activities before submitting. The proposal should be a maximum of five pages in length, including a Summary of the Proposed Work and also Justification for the Supplement. Investigators should provide detailed plans, including timelines and evaluation/assessment plans, participation of students from partner institutions, and plans to ensure participation of students from underrepresented groups.

A one-year budget should be provided with budget justification. It is expected that the bulk of the funding will be used to support student participation in relevant activities. Awards are subject to the availability of funds.

Successful investigators must describe supported activities and outcomes when submitting annual project reports and during the annual STC Directors Meeting.

Submission and Review

Proposals must be submitted to the Division/Program that currently funds the STC award. Proposals will be reviewed internally at NSF.

Applications for this supplement are due by May 31, 2016 for consideration in FY 2016 and by May 31, 2017 for consideration in FY 2017.

OIA Cognizant Program Directors:

- Dragana Brzakovic, Senior Staff Associate, dbrzakov@nsf.gov
- Joan M. Frye, Senior Staff Associate, jfrye@nsf.gov.