Research and Mentoring for Postbaccalaureates in Biological Sciences (RaMP)

PROGRAM SOLICITATION
NSF 22-506

National Science Foundation
Directorate for Biological Sciences
Division of Biological Infrastructure

Full Proposal Deadline(s) (due by 5 p.m. submitter's local time):
January 20, 2022

IMPORTANT INFORMATION AND REVISION NOTES

Innovating and migrating proposal preparation and submission capabilities from FastLane to Research.gov is part of the ongoing NSF information technology modernization efforts, as described in Important Notice No. 147. In support of these efforts, proposals submitted in response to this program solicitation must be prepared and submitted via Research.gov or via Grants.gov and may not be prepared or submitted via FastLane.

Any proposal submitted in response to this solicitation should be submitted in accordance with the revised NSF Proposal & Award Policies & Procedures Guide (PAPPG) (NSF 22-1), which is effective for proposals submitted, or due, on or after October 4, 2021.

SUMMARY OF PROGRAM REQUIREMENTS

General Information

Program Title:
Research and Mentoring for Postbaccalaureates in Biological Sciences (RaMP)

Synopsis of Program:
The Research and Mentoring for Postbaccalaureates (RaMP) in Biological Sciences program invites the submission of proposals to establish networks to support full-time research, mentoring, and training for recent college graduates who have had few or no research or training opportunities during college in research fields typically supported by the Directorate of Biological Sciences (BIO). Fostering the growth of a globally competitive and diverse research workforce and advancing the innovative scientific skills of the U.S. is a strategic objective of the National Science Foundation (NSF). To that end, proposals submitted to this program are expected to create strong evidence-based and inclusive mentorship programs that will advance the goal of creating a competitive and highly representative science, technology, engineering, and mathematics (STEM) workforce in the U.S. Transitions into the STEM workforce could include pathways into research-focused M.S. or Ph.D. programs, industry, federal or state agencies, education and research centers, and other STEM careers.

Individuals from groups underrepresented in STEM, first generation college students, and students at under-resourced institutions frequently have limited opportunities to participate in the undergraduate research experiences that are necessary to be competitive for graduate programs or other STEM career pathways. This situation has been exacerbated by the COVID-19 pandemic, further slowing efforts to ensure diversity and inclusion in STEM fields. This program will provide postbaccalaureate research experiences for cohorts of trainees, either in ongoing research programs, existing networks, or in new research projects designed specifically for the RaMP networks.

Studies of capacity building and training across diverse disciplines have emphasized the importance of inclusive training via cohort mentoring and networks of individuals working together towards a common purpose. Cohorts promote the development of long-term relationships, and networks foster the exchange of ideas and resources to pursue common goals and to address shared challenges. Proposals will use a network structure that generates a supportive and strong collaborative mentoring environment centered around a cohesive biological research theme. The network will facilitate the recruitment and selection of postbaccalaureate research participants (hereafter, mentees) and mentors, and will provide professional development and additional mentoring and training opportunities to all network members, including mentees, mentors, co-mentors, and other STEM professionals. Networks are expected to involve and facilitate communication and training among mentors and mentees from different organizations, institutions, and/or departments. Proposals submitted under this solicitation should focus on research-based inquiry projects that include analytical and technical training and professional development opportunities.

Cognizant Program Officer(s):

Please note that the following information is current at the time of publishing. See program website for any updates to the points of contact.
Applicable Catalog of Federal Domestic Assistance (CFDA) Number(s):
- 47.074 — Biological Sciences

**Award Information**

**Anticipated Type of Award:** Standard Grant or Continuing Grant

**Estimated Number of Awards:** 13 to 16

Awards are contingent on availability of funds and the quality of proposals.

**Anticipated Funding Amount:** $40,000,000

The solicitation will support RaMP networks to engage 8-12 postbaccalaureate participants per year for 3 years (each award is expected to support a total of approximately 30 postbaccalaureate participants). Each participant will be supported by a stipend of at least $32,500 per year. Programs in areas with higher costs of living may adjust stipends to salary commensurate with the host institution’s relevant payroll schedule. Mentors and co-mentors should be supported with professional development and mentoring training. Although support will be provided for 3 annual cohorts of mentees over 36 months, awards of up to 48 months are allowed to facilitate upfront work prior to the first cohort for network establishment, mentor training, mentee recruitment and selection, and plans for network assessment and evaluation.

**Eligibility Information**

**Who May Submit Proposals:**

Proposals may only be submitted by the following:
- Institutions of Higher Education (IHEs) - Two- and four-year IHEs (including community colleges) accredited in, and having a campus located in the US, acting on behalf of their faculty members. Special Instructions for International Branch Campuses of US IHEs: If the proposal includes funding to be provided to an international branch campus of a US institution of higher education (including through use of subawards and consultant arrangements), the proposer must explain the benefit(s) to the project of performance at the international branch campus, and justify why the project activities cannot be performed at the US campus.
- Non-profit, non-academic organizations: Independent museums, observatories, research labs, professional societies and similar organizations in the U.S. associated with educational or research activities.

**Who May Serve as PI:**

The PI will be responsible for overseeing all aspects of the award. Additional network members may be designated as co-Principal Investigators if developing and operating the RaMP network would involve shared responsibility and well-justified close collaboration. Other anticipated members of the leadership team or research supervisors (mentors) are considered non-co-PI Senior Personnel.

**Limit on Number of Proposals per Organization:**

There are no restrictions or limits.

**Limit on Number of Proposals per PI or co-PI:**

There are no restrictions or limits.

**Proposal Preparation and Submission Instructions**

**A. Proposal Preparation Instructions**

- **Letters of Intent:** Not required
- **Preliminary Proposal Submission:** Not required
- **Full Proposals:**

**B. Budgetary Information**

- **Cost Sharing Requirements:**
  Inclusion of voluntary committed cost sharing is prohibited.
- **Indirect Cost (F&A) Limitations:**

RaMP Working Group, telephone: (703) 292-8470, email: RAMP@nsf.gov
I. INTRODUCTION

There is growing recognition of the need to develop strong and inclusive research training pathways to facilitate the growth of a competitive STEM workforce representative of the U.S. population. Increased inclusion through cohort mentoring and training in STEM produces a more diverse workforce and innovative research outcomes that ensure that science benefits all members of our society. With this program, the NSF Directorate for Biological Sciences seeks to remedy the loss of diverse talent that occurs between the attainment of a STEM undergraduate degree and entry into a STEM career pathway.

Research experiences constitute one of the most effective ways to attract, retain, and support career transitions of students in STEM. Research opportunities, however, are not equally available to all students. The COVID-19 pandemic has exacerbated this inequality through challenges faced by students at smaller and/or under-resourced institutions where limited field and laboratory research experiences exist for biology majors. The Research and Mentoring for Postbaccalaureates (RaMP) in Biological Sciences program is intended to provide research-based training at this critical academic juncture. The program seeks to fund networks that offer strong research, mentoring, technical skills, and professional development training opportunities in an inclusive, cohort environment for recent graduates with limited or no research opportunities during college, with the goal to increase their competitiveness to STEM graduate programs, industry, and research and teaching positions, among other career opportunities.

The RaMP solicitation supports the establishment of mentoring and training networks for 3 cohorts of 8-12 postbaccalaureate graduates per year over the
course of 3 years. RaMP activities should include high-quality interactions of postbaccalaureate participants with faculty members and/or other research mentors in a wide range of facilities, diverse mentorship, and professional development opportunities to prepare the postbaccalaureate participants for a range of competitive research and research-related careers within and outside academia. The network must facilitate collaboration, communication, professional development, and training opportunities to all network members. The RaMP networks are intended to advance novel and potentially transformative research in areas supported by the Directorate of Biological Sciences.

**II. PROGRAM DESCRIPTION**

The National Science Foundation’s (NSF) Directorate for Biological Sciences (BIO) created the RaMP program to support networks that will provide recent baccalaureates (mentees) in biological sciences fields the opportunity to spend one year developing and executing research projects. The mentee research experience should encourage and develop the participants independence and competence as an investigator and provide an opportunity to acquire the requisite technical and analytical skills to thrive in conducting research in biology. Postbaccalaureates will be paired with mentors throughout the program and will benefit from professional development and networking opportunities and additional mentoring offered by the network. Mentees must have a baccalaureate degree in a biology-related field before the start of the fellowship and show a demonstrated need for additional training and mentorship. The cohort must include a diverse pool of participants. Ideally, the projects will involve original independent or collaborative research by the mentee with the support, mentorship, and guidance required at this early career stage by mentors, co-mentors, and other network members. Networks are strongly encouraged to involve mentees and mentors who are members of groups underrepresented in the biological sciences, including Blacks or African Americans, Hispanics, Latinos, Native Americans, Alaska Natives, Native Hawaiians, and other Native Pacific Islanders; persons with disabilities; veterans of the U.S. Armed Services; and individuals who were first-generation college students.

**Key Elements of a RaMP Network**

Networks should be structured to support 8-12 postbaccalaureate participants per year with annual stipends of a minimum of $32,500 per participant. Programs in areas with higher costs of living may adjust stipends to salary commensurate with host institutions relevant payroll schedule. New participants supported with stipends will be recruited to create the second and third cohort of mentees in the network.

Proposals from, or that fully engage, Minority Serving Institutions (https://www2.ed.gov/about/offices/list/ocr/edlite-minorityinst.html) and Primarily Undergraduate Institutions (PUIs) are encouraged.

Networks should consider specific benefits to both mentees and mentors. Benefits to mentors could include formal training in inclusive mentorship and networking before the start of the program, collaboration building with other network mentees and mentors, and other valuable activities, such as leadership training, conflict management, teamwork, and the acquisition of skills that may increase institutional capacity to better support the training of future mentees. The network should schedule at least one annual required meeting for mentees, mentors, co-mentors, and other network participants to present research outcomes and to facilitate networking opportunities and professional development of all network members.

RaMP networks are encouraged to leverage established programs such as NSF INCLUDES (Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science) or other broadening participation programs (https://www.nsf.gov/od/broadeningparticipation/bp.jsp). Networks are strongly encouraged to leverage available resources to facilitate training of participants and train mentors (e.g., faculty teams, postdoctoral associates, and advanced PhD students). It is also expected that the networks develop evidence-based mentoring programs that are grounded in established practices that will help meet the network goals. Letters of collaboration with partners or other entities should be included as supplementary documents.

Networks must place emphasis on strategies for future success of postbaccalaureates by: a) enhancing critical thinking, creativity, and overall research skills in a safe research environment with ethically sound research practices; b) improving participants’ transition to graduate level programs, industry, federal or state agencies, education and research centers, or other STEM careers; c) providing training in a cohort and network environment with common scientific and professional goals; d) creating an environment that increases participants’ science identity, self-efficacy, and sense of belonging in STEM; and e) providing inclusive leadership training to develop the next generation of diverse leaders in biological sciences. Programs should build on participants’ strengths and the benefits of diverse and supportive research experiences that foster the development of cohort-based relationships between the network of team members (virtual or in person).

A successful RaMP network proposal must include the following: (1) A Scientific Theme that provides a compelling basis for investigating a biological phenomenon; (2) Network Structure and Development of a collaborative framework that encourages an understanding of the value of team-based research practices; (3) a Mentoring Program that values the role of advising early professionals on future stages of a career in the biological sciences; (4) Broader Impacts that leverage the collaborative nature of the program to the benefit of the professional goals of the participants; and (5) Evaluation and Assessment Plans that effectively gauge the progress of the proposed work. The organization of the network must include: PI/co-PI(s), coordinator, mentors and co-mentors, postbaccalaureate participants, and an external assessor. See Section V below for details on how to prepare these areas of consideration for review.


**III. AWARD INFORMATION**

Estimated program budget, number of awards and average award size/duration are subject to the availability of funds. For FY 2022, it is estimated that $40 million will be available to fund approximately 13-16 awards.

**IV. ELIGIBILITY INFORMATION**
Who May Submit Proposals:

Proposals may only be submitted by the following:

- Institutions of Higher Education (IHEs) - Two- and four-year IHEs (including community colleges) accredited in, and having a campus located in the US, acting on behalf of their faculty members. Special Instructions for International Branch Campuses of US IHEs: If the proposal includes funding to be provided to an international branch campus of a US institution of higher education (including through use of subawards and consultant arrangements), the proposer must explain the benefit(s) to the project of performance at the international branch campus, and justify why the project activities cannot be performed at the US campus.
- Non-profit, non-academic organizations: Independent museums, observatories, research labs, professional societies and similar organizations in the U.S. associated with educational or research activities.

Who May Serve as PI:

The PI will be responsible for overseeing all aspects of the award. Additional network members may be designated as co-Principal Investigators if developing and operating the RaMP network would involve shared responsibility and well-justified close collaboration. Other anticipated members of the leadership team or research supervisors (mentors) are considered non-co-PI Senior Personnel.

Limit on Number of Proposals per Organization:

There are no restrictions or limits.

Limit on Number of Proposals per PI or co-PI:

There are no restrictions or limits.

Additional Eligibility Info:

Note that institution types, other than those listed in the "Who May Submit Proposals" section, are allowed to receive subawards through an eligible institution, but there are limitations on what can be supported by those subawards. The PI should discuss with a program officer any plans to incorporate a subaward to an institution not eligible to submit directly to this solicitation.

Eligible Participants: Postbaccalaureate participants supported with NSF funds must be U.S. citizens, U.S. nationals, or permanent residents of the United States. Participants must have a baccalaureate college degree before participating in the program (applicants must apply to the program before or within four years of graduation, with extensions allowed for family, medical leave, or military service). Individuals currently enrolled or accepted into a graduate program are not eligible.

V. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

A. Proposal Preparation Instructions

Full Proposal Preparation Instructions: Proposers may opt to submit proposals in response to this Program Solicitation via Research.gov or Grants.gov.

- Full Proposals submitted via Research.gov: Proposals submitted in response to this program solicitation should be prepared and submitted in accordance with the general guidelines contained in the NSF Proposal and Award Policies and Procedures Guide (PAPPG). The complete text of the PAPPG is available electronically on the NSF website at: https://www.nsf.gov/publications/pub_summ.jsp?ods_key=pappg. Paper copies of the PAPPG may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-8134 or by e-mail from nsfpubs@nsf.gov. The Prepare New Proposal setup will prompt you for the program solicitation number (located on the first page of this document). From ‘where to apply’, select Directorate for Biological Sciences, Division of Biological Infrastructure (DBI), Human Resources. Grants.gov users: The Prepare New Proposal setup will prompt you for the program solicitation number (located on the first page of this document). From ‘where to apply’, select Directorate for Biological Sciences, Division of Biological Infrastructure (DBI), Human Resources. Grants.gov users: The Prepare New Proposal setup will prompt you for the program solicitation number (located on the first page of this document). From ‘where to apply’, select Directorate for Biological Sciences, Division of Biological Infrastructure (DBI), Human Resources. Grants.gov users: The Prepare New Proposal setup will prompt you for the program solicitation number (located on the first page of this document). From ‘where to apply’, select Directorate for Biological Sciences, Division of Biological Infrastructure (DBI), Human Resources. Grants.gov users: The Prepare New Proposal setup will prompt you for the program solicitation number (located on the first page of this document). From ‘where to apply’, select Directorate for Biological Sciences, Division of Biological Infrastructure (DBI), Human Resources. Grants.gov users: The Prepare New Proposal setup will prompt you for the program solicitation number (located on the first page of this document). From ‘where to apply’, select Directorate for Biological Sciences, Division of Biological Infrastructure (DBI), Human Resources. Grants.gov users: The Prepare New Proposal setup will prompt you for the program solicitation number (located on the first page of this document).

- Full proposals submitted via Grants.gov: Proposals submitted in response to this program solicitation via Grants.gov should be prepared and submitted in accordance with the NSF Grants.gov Application Guide: A Guide for the Preparation and Submission of NSF Applications via Grants.gov. The complete text of the NSF Grants.gov Application Guide is available on the Grants.gov website and on the NSF website at: (https://www.nsf.gov/publications/pub_summ.jsp?ods_key=grantsgovguide). To obtain copies of the Application Guide and Application Forms Package, click on the Apply tab on the Grants.gov site, then click on the Apply Step 1: Download a Grant Application Package and Application Instructions link and enter the funding opportunity number, (the program solicitation number without the NSF prefix) and press the Download Package button. Paper copies of the Grants.gov Application Guide also may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-8134 or by e-mail from nsfpubs@nsf.gov.

See PAPPG Chapter II.C.2 for guidance on the required sections of a full research proposal submitted to NSF. Please note that the proposal preparation instructions provided in this program solicitation may deviate from the PAPPG instructions.

Although RaMP networks are expected to involve mentors from multiple sites and organizations, a single organization must serve as the submitting organization for each proposal. Of the two types of collaborative proposal formats described in the PAPPG, this solicitation allows only a single proposal submission with subawards administered by the lead organization if needed.

Cover Sheet: Research.gov Users: The Prepare New Proposal setup will prompt you for the program solicitation number (located on the first page of this document). From ‘where to apply’, select Directorate for Biological Sciences, Division of Biological Infrastructure (DBI), Human Resources. Grants.gov users: The program solicitation will be pre-populated by Grants.gov on the NSF Grant Application Cover Page. Refer to Section VI.1.2. of the NSF Grants.gov Application Guide for specific instructions on how to designate the NSF Unit of Consideration. Beginning Investigators (individuals who have not been a Principal Investigator [PI] or co-Principal Investigator [co-PI] on a Federally funded award with the exception of doctoral dissertation, postdoctoral fellowship or research planning grants) listed as Lead PI must check the box for "Beginning Investigator" on the proposal Cover Sheet.

Title of Proposed Project: Begin the title of the proposed project with the label "RaMP:” and carefully choose a project title that will permit prospective postbaccalaureate participants to easily identify the focus of the network.
Project Description: The Project Description should follow the PAPPG (II.C.2.d) guidelines and must address Intellectual Merit and Broader Impacts (see also specific solicitation review criteria under section VI). The Project Description is limited to 15 pages and should include the following named sections that describe the RaMP network:

1. Scientific Theme: As part of the Intellectual Merit of the proposal, projects must include a clearly articulated and cohesive science theme that fits within or integrate among the core research areas of the NSF BIO Directorate. The description should include the underlying conceptual framework, hypotheses, and research questions when appropriate. Research projects must focus primarily on BIO core research areas to enable discoveries for understanding life. BIO-supported research advances the frontiers of biological knowledge and proposals that creatively integrate diverse subdisciplines of biology are encouraged. Proposals must demonstrate capacity to involve participants in advanced, creative, and transformative research opportunities.

2. Network Structure and Development: The RaMP networks may be regional or national or may have international components. It is expected that a proposed network will involve investigators (mentors and co-mentors) from diverse organizations, which can include a variety of institutions of higher education, industry, federal and state agencies, and research and teaching centers. Proposals are encouraged to include institutions or research groups with highly qualified mentors and co-mentors who have demonstrated commitment to inclusive mentoring and broadening participation. The proposal must detail activities to facilitate networking, professional career opportunities, and dissemination of research products. The RaMP network structure is expected to create scientific impact by advancing biological research, facilitating increased collaboration and communication, increasing training opportunities, and providing peer support for postbaccalaureate mentees and their mentors. The network should also actively promote participation by interested parties outside of the initial participants in the proposed network. There should be clearly developed mechanisms for communication and transparency among collaborating units. Network members should have full access to virtual communication resources that include computational and data storage facilities as well as file-sharing capabilities. Proposers should describe plans for the orientation of all participants in the network (including mentees, mentors, co-mentors, graduate students, and network partners) to agree upon expectations of behavior to ensure a safe and respectful environment for all participants and to review the 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.

Each RaMP project must include the following organizational structure/individuals:

a. Principal Investigator (PI, co-PI): The principal investigator will serve as the intellectual leader of the project, taking primary responsibility for overseeing activities and ensuring that participants will have meaningful research experiences and development opportunities. Proposals should describe the PI’s leadership mentoring experience and/or plans for building a community of mentors to train diverse students. The PI is designated as the contact for the project and along with any co-PIs is expected to provide leadership in coordinating and integrating the activities of the network. Strong and inclusive leadership, clear communication plans, and delineation of responsibilities are essential for successful network function (see project management plan section). A team-based and collaborative leadership structure with individuals from different institutions is encouraged.

b. Coordinator: The project coordinator is expected to facilitate communication, coordination of training and professional development opportunities, execution of recruitment, and project management, including active involvement on evaluation and project assessments.

c. Mentors and co-mentors: Primary mentors in the network will lead the training and mentorship of postbaccalaureate participants each year. Networks may include and facilitate collaborations among researchers, institutions, or organizations, including universities, field stations, national laboratories, industry, government agencies, non-governmental organization, private sector institutions and teaching and research centers. Primary mentors may work with co-mentors, which may include postdoctoral scholars, collaborators, and/or advanced Ph.D. students. Primary mentors are responsible for overseeing participants’ training and coordinating activities with co-mentors. High-quality mentoring of participants is a demanding time commitment; thus, incentives and strong support for mentors and co-mentors in this role is expected. Proposed activities should provide clear benefits to mentors, co-mentors, and other STEM professionals in the research network. Proposals must also include a description of mentor involvement and training and clearly demonstrate linkages with NSF BIO directorate research areas. Evidence of commitment from mentors and participant institutions to mentees should be described. The network must ensure that lead mentors receive formal training prior to being assigned a mentee and must outline strategies for the recruitment, training, and inclusion of new mentors for the new cohorts of mentees. Approximately 8-12 mentors should be identified in the proposal with a specific plan to add and train new mentors for the second and third cohort of postbaccalaureate participants (list of mentors and co-mentors must be submitted as a combined RaMP Participant List document, see proposal preparation instructions). Primary mentors (along with the project coordinator if named at the time of submission) must be listed as Senior Personnel with Biographical Sketches and Current and Pending Support included in the appropriate sections of the proposal.

d. Postbaccalaureate Participants (mentees); Participants receiving stipend support must be U.S. citizens, U.S. nationals, or permanent residents of the United States. Specific efforts to increase participation of underrepresented minorities must be included. Participants must be appointed for one full year. Participants must have a baccalaureate college degree in a relevant field before or within four years of graduation, with extensions allowed for family, medical or military leave). The program goal is to offer opportunities to those who had little or no research experiences during college to facilitate entry into the STEM workforce. Individuals accepted into or already participating in graduate programs are not eligible; those with relatively little formal research experience in their backgrounds will be prioritized for participation in the program. A convincing and well-conceived mentee recruitment and selection process grounded in best practices must be included. Recruitment plans must outline national-level efforts to attract diverse, eligible applicants. Networks are expected to provide opportunities to postbaccalaureate participants with limited prior training and research experience, including individuals from traditionally underrepresented groups, first-generation students, and college graduates of lower-resourced institutions. A recruitment plan section should clearly address selection criteria, methods to pair students with research mentors and co-mentors, and logistical support to facilitate transitions into the program, all supported by inclusive best practices with the goal of broadening participation. The recruitment plan must outline specific efforts for recruitment of participants who are members of groups underrepresented in the biological sciences, including Blacks or African Americans, Hispanics, Latinos, Native Americans, Alaska Natives, Native Hawaiians, and other Native Pacific Islanders; people with disabilities; veterans of the U.S. Armed Services; and first-generation college students.

e. External assessor: It is expected that an external assessor will work with the project coordinator, PI, and co-PI to perform both formative and summative assessments, particularly of the mentees, to ensure project goals are being met and to allow for course-corrections throughout the program.

3. Mentoring Program: Projects should increase mentees’ competency for future research-based career opportunities, including eligibility for graduate programs or competitive jobs in biological sciences. Proposals must describe details of planned research and professional development activities, including how they align with the future goals of the postbaccalaureates. Strong mentorship should be at the core of the program, including mentee-mentor activities and training supported by inclusive and culturally appropriate research-based best practices. Proposals must describe plans for building and sustaining professional relationships among participants, mentors, and co-mentors centered on the shared scientific and training goals. Opportunities for mentees to interact with co-mentors and other role models, including doctoral students, postdoctoral fellows, and diverse researchers from state and federal agencies, non-profit organizations, and industry as well as research and teaching centers or institutes, are encouraged. It is expected that the program would include important components of research and professional training, including not only training in the needed technical and research skills to conduct a research project, but also communication, team science, ethics, project management, leadership, and conflict resolution. Proposals must demonstrate specific plans to develop participant-tailored mentoring agreements with clear expectations, ethical conduct guidelines, problem mediation strategies, and benchmarks of progress. Plans should include deployment of a policy or code of conduct that addresses sexual harassment, other forms of harassment, and sexual assault.
Intellectual Contribution and Credit: The proposal should include a clear plan for the management of the rights of and credit to project mentees related to research products, including but not restricted to: data, tools, methods, code, models, manuscript authorship as authors or coauthors, and other intellectual contributions of mentees in the research programs in which they will be working. This section should complement, rather than overlap with, the Data Management Plan and explain how the project participants will collaboratively ensure a fair and equitable assignment of credit to all project participants based on agreed-upon criteria for contribution. Because different sub-disciplines and disciplines can have vastly different expectations related to credit, the proposers need to document how they will address these important policies for mentees who will be active contributors in research and so must receive credit. The research experiences are expected to provide clear opportunities for mentees to participate in manuscript development as part of their research experience with credit as authors or coauthors in publications as appropriate.

4. Broader Impacts: Outcomes of the project relevant to Broader Impacts must be highlighted in this section. We encourage activities that aim to expand the network efforts, including best practices that increase the participation of underrepresented groups in biological sciences. Specific broader impacts may include plans to improve cohort training practices and mentoring programs at participating institutions and network partners, expand institutional research capacity, and reduce factors that limit career transitions and training opportunities for college graduates.

5. Evaluation and Assessment Plan: Proposals must describe a plan to measure the success of the project in achieving its goals, particularly the degree to which postbaccalaureate participants have developed research and professional skills and have expanded their knowledge in their biological research area. Evaluation should include formative assessments throughout the project to ensure that it is progressing satisfactorily according to the project plan and may involve pre-project and post-project measures aimed at determining the degree of participant learning that has been achieved. In addition, it is highly desirable to have a structured means of tracking participants beyond completion of the program, with the aim of gauging the degree to which the network has influenced the participants' career paths and has impacted other members. It is expected that an external evaluator conducts this important component.

Budget Guidelines: The maximum request per eligible network is $3,000,000 for up to 48 months to facilitate network establishment, mentor training, mentee recruitment and selection, and network assessment and evaluation at the outset of the funding period in addition of the training and mentoring of 3 cohorts of participants.

All support costs for participants should be listed on Line F, "Participant Support," of budget.

- Postbaccalaureate participant stipends should be a minimum of $32,500 per year for each of the postbaccalaureate participants. Programs in areas with higher costs of living may adjust stipends to salary commensurate with the host institution’s relevant payroll schedule. Stipend cost may include fringe benefits to cover individual or family health insurance. New participants supported with stipends will be recruited during each year of the project. Individual participants can only be supported for one year.
- Mentee-support research funds, up to $10,000 per participant per year, may be requested to cover research expenses under participant cost materials.
- Mentee-support professional development funds may be requested to support professional development that includes: training or workshops, travel to a national conference to present research outcomes or to enhance research training with a collaborator at a different institution (exchange visits) or in a non-academic setting to acquire new skills (e.g., industry laboratories, industry research and development groups, startup businesses, etc.). Relocation expenses should not be covered with travel funds, but programs may consider mechanisms to facilitate early support from stipends to facilitate participant relocation.
- Salary and fringe benefits support for a program coordinator to implement and direct the program is allowable.
- Salary for lead PI or co-PI(s) and other staff is allowed following limits in the PAPPG. Duties and responsibilities of the program coordinator, PIs, co-PI(s), external assessor, and others should be clearly described in the budget justification.
- Funds to support mentors and co-mentors for training, networking, and attendance to a national conference with the mentees are allowed. Mentors and their co-mentors may be provided a stipend up to a total of $10,000 dollars per year to support their time commitment to mentoring, training and professional development activities.
- Network should schedule an annual required meeting for mentees, mentors, co-mentors, and other network participants to present research outcomes and to facilitate networking opportunities and professional development of all network members. Although preference is given for in-person meetings, well-justified use of online communication can be substituted as needed in the networking design. Funds are expected to be used to support formal evaluation and assessment activities and workshop development, and/or other related costs that incur direct costs. Awards of up to 48 months are allowed to facilitate network establishment, mentor training, mentee recruitment and selection, and preparation for network assessment and evaluation prior to the initiation of the first cohort of mentees.

Supplementary Documents: The following documents are uploaded as Supplementary Documents:

- Project Management Plan with clearly defined and measurable objectives: The Project Management Plan should (1) explain the organizational structure, (2) articulate how the leadership and coordinators will facilitate participant communication and interactions with other members of the network, (3) present a code of conduct policy, and (4) provide a timeline that specifies milestones and expected completion dates. The plan should include provisions for flexibility to allow the structure of the network and participant group to change over time as membership and the network's foci evolve. The project management plan must describe specific roles of the project coordinator and network strategies to facilitate communication (virtual and in person) and interactions among all network members and the inclusion of network partners. The management plan should also include a timeline with expected completion dates for network establishment, mentor training, mentee recruitment and selection, professional development activities, mentoring activities, and project evaluation. The Project Management Plan must be no more than 3 pages in length.
- Data Management Plan: The PAPPG (II.C.2.i) requires the inclusion of a Data Management Plan with all full proposal submissions. The Data Management Plan can be no longer than two pages and must be inclusive of the entire project. All participant projects must ensure that data and biological materials are collected, archived, digitized, and made available using methods that allow current and future investigators to access data and material. Funded projects must disseminate project data broadly, using widely accepted electronic data standards, and a named publicly accessible data site. Investigators are strongly encouraged to make use of appropriate community infrastructure for data management. The Directorate for Biological Sciences provides additional context and guidance to PIs on the preparation of Data Management Plans here: https://www.nsf.gov/bio/biodmp.jsp.
- Postdoctoral Research Mentoring Plan (if applicable): This one-page document should describe the mentoring of all postdocs in the project, including those at collaborating institutions and co-mentors.
- Letters of Collaboration: Supplementary Documents may include letters of collaboration from individuals or organizations that are integral to the proposed project but are neither senior personnel nor supported by subawards. This may include subsidiary involvement in some aspect of the project, cooperation on recruitment, mentoring, or training efforts. Letters of collaboration must focus solely on affirming that the individual or organization is willing to collaborate on the project as specified in the Project Description or the Facilities, Equipment and Other Resources section of the proposal. No additional description of research activities or endorsements of the potential value or significance of the project may be included. Each letter of
collaboration must be signed by the designated collaborator. Requests to collaborators for letters of collaboration should be made by the PI well in advance of the planned proposal submission date because they must be included at the time of the proposal submission. PIs should use the recommended template for letters of collaboration from the PAPPG (Chapter II.C.2.d(iv)).

Single-Copy Documents:

- **Combined RaMP Participant List document**: The template found at https://www.nsf.gov/bio/dbi/RaMP_Participant_List.xlsx, contains two tabs. Please read the Instructions carefully and follow guidance. Using the template, compile an Excel Workbook that identifies RaMP network mentors and co-mentors. Following the Instructions provided in the template, the completed Excel Workbook should be emailed to RaMP@nsf.gov immediately after you submit your proposal, but no later than Jan 23 by 5pm EDT. Proposals from PIs who fail to submit the required Excel document by 5PM EDT on Jan 23 will be immediately Returned without Review.

Do not use the temporary proposal number to fill out the template. You must use only an assigned NSF Proposal ID, which should be 7 digits long and will start with the fiscal year numbers (e.g., for FY22, all the Proposal ID's will start with "22"). Do not send in the RAMP participant list until you have been assigned the official NSF Proposal ID at the time of submission. Include the NSF proposal ID in the subject line and file title.

- **Collaborators & Other Affiliations (COA) Information**: As detailed in the PAPPG (II.C.1.e), information regarding collaborators and other affiliations must be provided for each individual who has a biographical sketch in the proposal, this includes all senior personnel (mentors and co-mentors listed in the proposal). If you have correctly added biographical sketches for all persons, there should be a separate space within Single Copy Documents to upload each individual's COA file. The COA information must be provided through use of the COA template.

- **Suggested Reviewers**: PIs are encouraged to provide a list of suggested reviewers, including the individuals' names, institutions, areas of expertise, email addresses, and URLs if available. Please ensure no one on this list has a conflict with the proposal.

### B. Budgetary Information

**Cost Sharing:**

Inclusion of voluntary committed cost sharing is prohibited.

### C. Due Dates

- **Full Proposal Deadline(s) (due by 5 p.m. submitter's local time):**
  
  January 20, 2022

### D. Research.gov/Grants.gov Requirements

**For Proposals Submitted Via Research.gov:**

To prepare and submit a proposal via Research.gov, see detailed technical instructions available at: https://www.research.gov/research-portal/appmanager/base/desktop?_nfb=true&_pageLabel=research_node_display&_nodePath=/researchGov/Service/Desktop/ProposalPreparationandSubmission.html. For Research.gov user support, call the Research.gov Help Desk at 1-800-673-6188 or e-mail rgov@nsf.gov. The Research.gov Help Desk answers general technical questions related to the use of the Research.gov system. Specific questions related to this program solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this funding opportunity.

**For Proposals Submitted Via Grants.gov:**

Before using Grants.gov for the first time, each organization must register to create an institutional profile. Once registered, the applicant's organization can then apply for any federal grant on the Grants.gov website. Comprehensive information about using Grants.gov is available on the Grants.gov Applicant Resources webpage: https://www.grants.gov/web/grants/applicants.html. In addition, the NSF Grants.gov Application Guide (see link in Section V.A) provides instructions regarding the technical preparation of proposals via Grants.gov. For Grants.gov user support, contact the Grants.gov Contact Center at 1-800-518-4726 or by email: support@grants.gov. The Grants.gov Contact Center answers general technical questions related to the use of Grants.gov. Specific questions related to this program solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this solicitation.

**Submitting the Proposal**: Once all documents have been completed, the Authorized Organizational Representative (AOR) must submit the application to Grants.gov and verify the desired funding opportunity and agency to which the application is submitted. The AOR must then sign and submit the application to Grants.gov. The completed application will be transferred to the NSF FastLane system for further processing.

Proposers that submitted via Research.gov may use Research.gov to verify the status of their submission to NSF. For proposers that submitted via Grants.gov, until an application has been received and validated by NSF, the Authorized Organizational Representative may check the status of an application on Grants.gov. After proposers have received an e-mail notification from NSF, Research.gov should be used to check the status of an application.

### VI. NSF PROPOSAL PROCESSING AND REVIEW PROCEDURES

Proposals received by NSF are assigned to the appropriate NSF program for acknowledgement and, if they meet NSF requirements, for review. All proposals are carefully reviewed by a scientist, engineer, or educator serving as an NSF Program Officer, and usually by three to ten other persons outside NSF either as ad hoc reviewers, panelists, or both, who are experts in the particular fields represented by the proposal. These reviewers are selected by Program Officers charged with oversight of the review process. Proposers are invited to suggest names of persons they believe are especially well qualified to review the proposal.
and/or persons they would prefer not review the proposal. These suggestions may serve as one source in the reviewer selection process at the Program Officer's discretion. Submission of such names, however, is optional. Care is taken to ensure that reviewers have no conflicts of interest with the proposal. In addition, Program Officers may obtain comments from site visits before recommending final action on proposals. Senior NSF staff further review recommendations for awards. A flowchart that depicts the entire NSF proposal and award process (and associated timeline) is included in PAPPG Exhibit III-1.

A comprehensive description of the Foundation’s merit review process is available on the NSF website at: https://www.nsf.gov/bfa/dias/policy/merit_review.

Proposers should also be aware of core strategies that are essential to the fulfillment of NSF’s mission, as articulated in Building the Future: Investing in Discovery and Innovation - NSF Strategic Plan for Fiscal Years (FY) 2018 – 2022. These strategies are integrated in the program planning and implementation process, of which proposal review is one part. NSF’s mission is particularly well-implemented through the integration of research and education and broadening participation in NSF programs, projects, and activities.

One of the strategic objectives in support of NSF’s mission is to foster integration of research and education through the programs, projects, and activities it supports at academic and research institutions. These institutions must recruit, train, and prepare a diverse STEM workforce to advance the frontiers of science and participate in the U.S. technology-based economy. NSF’s contribution to the national innovation ecosystem is to provide cutting-edge research under the guidance of the Nation’s most creative scientists and engineers. NSF also supports development of a strong science, technology, engineering, and mathematics (STEM) workforce by investing in building the knowledge that informs improvements in STEM teaching and learning.

NSF’s mission calls for the broadening of opportunities and expanding participation of groups, institutions, and geographic regions that are underrepresented in STEM disciplines, which is essential to the health and vitality of science and engineering. NSF is committed to this principle of diversity and deems it central to the programs, projects, and activities it considers and supports.

A. Merit Review Principles and Criteria

The National Science Foundation strives to invest in a robust and diverse portfolio of projects that creates new knowledge and enables breakthroughs in understanding across all areas of science and engineering research and education. To identify which projects to support, NSF relies on a merit review process that incorporates consideration of both the technical aspects of a proposed project and its potential to contribute more broadly to advancing NSF’s mission “to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense; and for other purposes.” NSF makes every effort to conduct a fair, competitive, transparent merit review process for the selection of projects.

1. Merit Review Principles

These principles are to be given due diligence by PIs and organizations when preparing proposals and managing projects, by reviewers when reading and evaluating proposals, and by NSF program staff when determining whether or not to recommend proposals for funding and while overseeing awards. Given that NSF is the primary agency charged with nurturing and supporting excellence in basic research and education, the following three principles apply:

- All NSF projects should be of the highest quality and have the potential to advance, if not transform, the frontiers of knowledge.
- NSF projects, in the aggregate, should contribute more broadly to achieving societal goals. These “Broader Impacts” may be accomplished through the research itself, through activities that are directly related to specific research projects, or through activities that are supported by, but are complementary to, the project. The project activities may be based on previously established and/or innovative methods and approaches, but in either case must be well justified.
- Meaningful assessment and evaluation of NSF funded projects should be based on appropriate metrics, keeping in mind the likely correlation between the effect of broader impacts and the resources provided to implement projects. If the size of the activity is limited, evaluation of that activity in isolation is not likely to be meaningful. Thus, assessing the effectiveness of these activities may best be done at a higher, more aggregated, level than the individual project.

With respect to the third principle, even if assessment of Broader Impacts outcomes for particular projects is done at an aggregated level, PIs are expected to be accountable for carrying out the activities described in the funded project. Thus, individual projects should include clearly stated goals, specific descriptions of the activities that the PI intends to do, and a plan in place to document the outputs of those activities.

These three merit review principles provide the basis for the merit review criteria, as well as a context within which the users of the criteria can better understand their intent.

2. Merit Review Criteria

All NSF proposals are evaluated through use of the two National Science Board approved merit review criteria. In some instances, however, NSF will employ additional criteria as required to highlight the specific objectives of certain programs and activities.

The two merit review criteria are listed below. Both criteria are to be given full consideration during the review and decision-making processes; each criterion is necessary but neither, by itself, is sufficient. Therefore, proposers must fully address both criteria. (PAPPG Chapter II.C.2.d(i), contains additional information for use by proposers in development of the Project Description section of the proposal). Reviewers are strongly encouraged to review the criteria, including PAPPG Chapter II.C.2.d(i), prior to the review of a proposal.

When evaluating NSF proposals, reviewers will be asked to consider what the proposers want to do, why they want to do it, how they plan to do it, how they will know if they succeed, and what benefits could accrue if the project is successful. These issues apply both to the technical aspects of the proposal and the way in which the project may make broader contributions. To that end, reviewers will be asked to evaluate all proposals against two criteria:

- **Intellectual Merit**: The Intellectual Merit criterion encompasses the potential to advance knowledge; and
- **Broader Impacts**: The Broader Impacts criterion encompasses the potential to benefit society and contribute to the achievement of specific, desired societal outcomes.

The following elements should be considered in the review for both criteria:

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

Broader impacts may be accomplished through the research itself, through the activities that are directly related to specific research projects, or through activities that are supported by, but are complementary to, the project. NSF values the advancement of scientific knowledge and activities that contribute to achievement of societally relevant outcomes. Such outcomes include, but are not limited to: full participation of women, persons with disabilities, and other underrepresented groups in science, technology, engineering, and mathematics (STEM); improved STEM education and educator development at any level; increased public scientific literacy and public engagement with science and technology; improved well-being of individuals in society; development of a diverse, globally competitive STEM workforce; increased partnerships between academia, industry, and others; improved national security; increased economic competitiveness of the United States; and enhanced infrastructure for research and education.

Proposers are reminded that reviewers will also be asked to review the Data Management Plan and the Postdoctoral Researcher Mentoring Plan, as appropriate.

Additionl Solicitation Specific Review Criteria

Additional merit review considerations apply. Please see the full text of this solicitation for further information.

In addition, reviewers will be asked to evaluate proposals for:

- The network structure, including coordination plans, communication strategies, community engagement plan, training and professional development and approaches to optimize networking opportunities for participants.
- Optimization of the cohort structure. With distribution of the participants into mentor labs, does the program ensure a cohesive training environment that fosters interactions among mentees, and among all network participants.
- Overall quality of the participants recruitment and selection process with effective plans to broaden participation.
- The strength of the evidence-based and inclusive mentoring program that includes such factors as critical thinking, authentic research experiences, sense of identity and belonging, culturally-appropriate practices, fair assigning of research credit, and professional development.
- The effectiveness of the plans to evaluate and assess project progress and outcomes
- The Project Management Plan that includes strategies to facilitate communication of all network members.

B. Review and Selection Process

Proposals submitted in response to this program solicitation will be reviewed by Ad hoc Review and/or Panel Review.

Reviewers will be asked to evaluate proposals using two National Science Board approved merit review criteria and, if applicable, additional program specific criteria. A summary rating and accompanying narrative will generally be completed and submitted by each reviewer and/or panel. The Program Officer assigned to manage the proposal’s review will consider the advice of reviewers and will formulate a recommendation.

After scientific, technical and programmatic review and consideration of appropriate factors, the NSF Program Officer recommends to the cognizant Division Director whether the proposal should be declined or recommended for award. NSF strives to be able to tell applicants whether their proposals have been declined or recommended for funding within six months. Large or particularly complex proposals or proposals from new awardees may require additional review and processing time. The time interval begins on the deadline or target date, or receipt date, whichever is later. The interval ends when the Division Director acts upon the Program Officer's recommendation.

After programmatic approval has been obtained, the proposals recommended for funding will be forwarded to the Division of Grants and Agreements for review of business, financial, and policy implications. After an administrative review has occurred, Grants and Agreements Officers perform the processing and issuance of a grant or other agreement. Proposers are cautioned that only a Grants and Agreements Officer may make commitments, obligations or awards on behalf of NSF or authorize the expenditure of funds. No commitment on the part of NSF should be inferred from technical or budgetary discussions with a NSF Program Officer. A Principal Investigator or organization that makes financial or personnel commitments in the absence of a grant or cooperative agreement signed by the NSF Grants and Agreements Officer does so at their own risk.

Once an award or declination decision has been made, Principal Investigators are provided feedback about their proposals. In all cases, reviews are treated as confidential documents. Verbatim copies of reviews, excluding the names of the reviewers or any reviewer-identifying information, are sent to the Principal Investigator/Project Director by the Program Officer. In addition, the proposer will receive an explanation of the decision to award or decline funding.

VII. AWARD ADMINISTRATION INFORMATION

A. Notification of the Award

Notification of the award is made to the submitting organization by a Grants Officer in the Division of Grants and Agreements. Organizations whose proposals are declined will be advised as promptly as possible by the cognizant NSF Program administering the program. Verbatim copies of reviews, not including the identity of the reviewer, will be provided automatically to the Principal Investigator. (See Section VI.B. for additional information on the review process.)

B. Award Conditions

An NSF award consists of: (1) the award notice, which includes any special provisions applicable to the award and any numbered amendments thereto; (2) the budget, which indicates the amounts, by categories of expense, on which NSF has based its support (or otherwise communicates any specific approvals or disapprovals of proposed expenditures); (3) the proposal referenced in the award notice; (4) the applicable award conditions, such as Grant General Conditions (GC-1)*; or Research Terms and Conditions* and (5) any announcement or other NSF issuance that may be incorporated by reference in the award notice.
Cooperative agreements also are administered in accordance with NSF Cooperative Agreement Financial and Administrative Terms and Conditions (CA-FATC) and the applicable Programmatic Terms and Conditions. NSF awards are electronically signed by an NSF Grants and Agreements Officer and transmitted electronically to the organization via e-mail.

*These documents may be accessed electronically on NSF’s Website at https://www.nsf.gov/awards/managing/award_conditions.jsp?org=NSF. Paper copies may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-8134 or by e-mail from nsfpubs@nsf.gov.


Special Award Conditions:

In addition to the evaluation required as part of the project, awardees may be required to participate in NSF-sponsored across-the-sites evaluation and assessment activities. These activities will be conducted by NSF or its contractor(s) and necessitate access to project-related documents, staff, activities, and data. They may occur at any time during the grant period or shortly after the grant ends. Participation may include, but is not limited to, responding to inquiries (including surveys), engaging in interviews and focus groups, and providing requested data. NSF may arrange site visits or reverse site visits during the lifetime of the awards.

C. Reporting Requirements

For all multi-year grants (including both standard and continuing grants), the Principal Investigator must submit an annual project report to the cognizant Program Officer no later than 90 days prior to the end of the current budget period. (Some programs or awards require submission of more frequent project reports). No later than 120 days following expiration of a grant, the PI also is required to submit a final project report, and a project outcomes report for the general public.

Failure to provide the required annual or final project reports, or the project outcomes report, will delay NSF review and processing of any future funding increments as well as any pending proposals for all identified PIs and co-Pis on a given award. PIs should examine the formats of the required reports in advance to assure availability of required data.

PIs are required to use NSF's electronic project-reporting system, available through Research.gov, for preparation and submission of annual and final project reports. Such reports provide information on accomplishments, project participants (individual and organizational), publications, and other specific products and impacts of the project. Submission of the report via Research.gov constitutes certification by the PI that the contents of the report are accurate and complete. The project outcomes report also must be prepared and submitted using Research.gov. This report serves as a brief summary, prepared specifically for the public, of the nature and outcomes of the project. This report will be posted on the NSF website exactly as it is submitted by the PI.


 VIII. AGENCY CONTACTS

Please note that the program contact information is current at the time of publishing. See program website for any updates to the points of contact.

General inquiries regarding this program should be made to:

- RaMP Working Group, telephone: (703) 292-8470, email: RAMP@nsf.gov

For questions related to the use of FastLane or Research.gov, contact:

- FastLane and Research.gov Help Desk: 1-800-673-6188
- FastLane Help Desk e-mail: fastlane@nsf.gov.
- Research.gov Help Desk e-mail: rgov@nsf.gov

For questions relating to Grants.gov contact:

- Grants.gov Contact Center: If the Authorized Organizational Representatives (AOR) has not received a confirmation message from Grants.gov within 48 hours of submission of application, please contact via telephone: 1-800-518-4726; e-mail: support@grants.gov.

 IX. OTHER INFORMATION

The NSF website provides the most comprehensive source of information on NSF Directorates (including contact information), programs and funding opportunities. Use of this website by potential proposers is strongly encouraged. In addition, "NSF Update" is an information-delivery system designed to keep potential proposers and other interested parties apprised of new NSF funding opportunities and publications, important changes in proposal and award policies and procedures, and upcoming NSF Grants Conferences. Subscribers are informed through e-mail or the user's Web browser each time new publications are issued that match their identified interests. "NSF Update" also is available on NSF’s website.

Grants.gov provides an additional electronic capability to search for Federal government-wide grant opportunities. NSF funding opportunities may be accessed via this mechanism. Further information on Grants.gov may be obtained at https://www.grants.gov.
ABOUT THE NATIONAL SCIENCE FOUNDATION

The National Science Foundation (NSF) is an independent Federal agency created by the National Science Foundation Act of 1950, as amended (42 USC 1861-75). The Act states the purpose of the NSF is "to promote the progress of science; [and] to advance the national health, prosperity, and welfare by supporting research and education in all fields of science and engineering."

NSF funds research and education in most fields of science and engineering. It does this through grants and cooperative agreements to more than 2,000 colleges, universities, K-12 school systems, businesses, informal science organizations and other research organizations throughout the US. The Foundation accounts for about one-fourth of Federal support to academic institutions for basic research.

NSF receives approximately 55,000 proposals each year for research, education and training projects, of which approximately 11,000 are funded. In addition, the Foundation receives several thousand applications for graduate and postdoctoral fellowships. The agency operates no laboratories itself but does support National Research Centers, user facilities, certain oceanographic vessels and Arctic and Antarctic research stations. The Foundation also supports cooperative research between universities and industry, US participation in international scientific and engineering efforts, and educational activities at every academic level.

Facilitation Awards for Scientists and Engineers with Disabilities (FASED) provide funding for special assistance or equipment to enable persons with disabilities to work on NSF-supported projects. See the NSF Proposal & Award Policies & Procedures Guide Chapter II.E.6 for instructions regarding preparation of these types of proposals.

The National Science Foundation has Telephonic Device for the Deaf (TDD) and Federal Information Relay Service (FIRS) capabilities that enable individuals with hearing impairments to communicate with the Foundation about NSF programs, employment or general information. TDD may be accessed at (703) 292-5090 and (800) 281-8749, FIRS at (800) 877-8339.

The National Science Foundation Information Center may be reached at (703) 292-5111.

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<th>The National Science Foundation promotes and advances scientific progress in the United States by competitively awarding grants and cooperative agreements for research and education in the sciences, mathematics, and engineering.</th>
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<td>To get the latest information about program deadlines, to download copies of NSF publications, and to access abstracts of awards, visit the NSF Website at <a href="https://www.nsf.gov">https://www.nsf.gov</a></td>
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<td>● Location: 2415 Eisenhower Avenue, Alexandria, VA 22314</td>
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<td>● For General Information (NSF Information Center): (703) 292-5111</td>
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<td>● To Order Publications or Forms: Send an e-mail to: <a href="mailto:nsfpubs@nsf.gov">nsfpubs@nsf.gov</a> or telephone: (703) 292-8143</td>
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PRIVACY ACT AND PUBLIC BURDEN STATEMENTS

The information requested on proposal forms and project reports is solicited under the authority of the National Science Foundation Act of 1950, as amended. The information on proposal forms will be used in connection with the selection of qualified proposals; and project reports submitted by awardees will be used for program evaluation and reporting within the Executive Branch and to Congress. The information requested may be disclosed to qualified reviewers and staff assistants as part of the proposal review process; to proposer institutions/grantees to provide or obtain data regarding the proposal review process, award decisions, or the administration of awards; to government contractors, experts, volunteers and researchers and educators as necessary to complete assigned work; to other government agencies or other entities needing information regarding applicants or nominees as part of a joint application review process, or in order to coordinate programs or policy; and to another Federal agency, court, or party in a court or Federal administrative proceeding if the government is a party. Information about Principal Investigators may be added to the Reviewer file and used to select potential candidates to serve as peer reviewers or advisory committee members. See System of Record Notices, NSF-50, "Principal Investigator/Proposal File and Associated Records," and NSF-51, "Reviewer/Proposal File and Associated Records." Submission of the information is voluntary. Failure to provide full and complete information, however, may reduce the possibility of receiving an award.

An agency may not conduct or sponsor, and a person is not required to respond to, an information collection unless it displays a valid Office of Management and Budget (OMB) control number. The OMB control number for this collection is 3145-0058. Public reporting burden for this collection of information is estimated to average 120 hours per response, including the time for reviewing instructions. Send comments regarding the burden estimate and any other aspect of this collection of information, including suggestions for reducing this burden, to:

Suzanne H. Plimpton
Reports Clearance Officer