Mid-Career Advancement (MCA)

PROGRAM SOLICITATION
NSF 22-603

REPLACES DOCUMENT(S):
NSF 21-516

National Science Foundation

Directorate for Biological Sciences
    Division of Environmental Biology
    Division of Molecular and Cellular Biosciences
    Division of Biological Infrastructure
    Division of Integrative Organismal Systems

Directorate for Geosciences
    Division of Atmospheric and Geospace Sciences
    Division of Earth Sciences
    Division of Ocean Sciences
    Office of Polar Programs

Directorate for Social, Behavioral and Economic Sciences
    SBE Office of Multidisciplinary Activities
    Division of Behavioral and Cognitive Sciences
    Division of Social and Economic Sciences

Directorate for STEM Education
    Division of Graduate Education
    Division of Undergraduate Education
    Division of Equity for Excellence in STEM
    Research on Learning in Formal and Informal Settings

Office of Integrative Activities

Directorate for Technology, Innovation and Partnerships

Submission Window Date(s) (due by 5 p.m. submitter's local time):

February 01, 2023 - March 01, 2023

February 1 - March 1, Annually Thereafter

IMPORTANT INFORMATION AND REVISION NOTES

- A pilot track in the Directorate for Biological Sciences and Directorate for Geosciences has been added that extends PI eligibility to include Full Professors (or equivalent) at Primarily Undergraduate Institutions (PUIs) only.
- The page limit of the Project Description has been reduced from 15 pages to 12 pages.
- A 2-page Impact Statement, uploaded as a Supplementary Document, is now required.
- In addition to the PI, each Partner must also complete the Collaborative and Other Affiliations (COA) template and upload the document as a Single Copy Document.
- Budget details have been clarified.

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:

>   Mid-Career Advancement (MCA)

Synopsis of Program:

>   The MCA program offers an opportunity for scientists and engineers at the mid-career stage (see restrictions under Additional Eligibility Information) to substantively enhance and advance their research program and career trajectory. Mid-career scientists are at a critical career transition stage where they need to advance their research programs to ensure long-term productivity and creativity but are often constrained by service, teaching, or other activities that limit the amount of time devoted to research. MCA support is expected to help lift these constraints to reduce workload inequities and enable a more diverse scientific workforce (more women, persons with disabilities, and individuals from groups that have been underrepresented) at high academic ranks.
>
>   The MCA program provides protected time, resources, and the means to gain new skills through synergistic and mutually beneficial partnerships, typically at an institution other than the candidate's home institution. Partners from outside the Principal Investigator's (PI) own sub-discipline or discipline are encouraged, but not required, to enhance interdisciplinary networking and convergence across science and engineering fields. Research projects that envision new insights on existing problems or identify new problems made accessible with cutting-edge methodology or expertise from other fields are encouraged.
>
>   *A key component of a successful MCA will be the demonstration that the PI's current research program could substantively benefit from the protected time, mentored partnership(s), and resources provided through this program, such that **there is a substantial enhancement to the PI's research and career trajectory, enabling scientific and academic advancement not likely without this support.***
>
>   The MCA is the only cross-directorate NSF program specifically aimed at providing protected time and resources to established scientists and engineers targeted at the mid-career stage. Participating programs in the Directorates for Biological Sciences (BIO), Geosciences (GEO), Social, Behavioral and Economic Sciences (SBE), STEM Education (EDU), and Technology, Innovation and Partnerships (TIP) will accept MCA proposals. To help identify the disciplinary program in which the MCA should be reviewed, PIs are urged to investigate the research areas supported by the different directorates and participating programs.
>
>   **PIs are strongly encouraged to discuss the suitability of their MCA proposal with a Program Officer from the appropriate directorate (see https://www.nsf.gov/bio/MCA_contacts.jsp).** PIs from EPSCoR jurisdictions are especially encouraged to apply.

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.

- MCA Cognizant Program Officers, telephone: (703) 292-4628, email: MCA.info@nsf.gov
- Leslie J. Rissler, telephone: (703) 292-4628, email: lrissler@nsf.gov

Applicable Catalog of Federal Domestic Assistance (CFDA) Number(s):

- 47.050 --- Geosciences
- 47.074 --- Biological Sciences
- 47.075 --- Social Behavioral and Economic Sciences
- 47.076 --- STEM Education
- 47.083 --- Office of Integrative Activities (OIA)
- 47.084 --- NSF Technology, Innovation and Partnerships

Award Information

Anticipated Type of Award: Standard Grant

Estimated Number of Awards: 35 to 45

The actual number of awards varies across disciplinary research programs.

Anticipated Funding Amount: $14,000,000 to $18,000,000

Pending availability of funding. Varies across disciplinary research programs.

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:

PIs must be a) at the Associate Professor rank (or equivalent; see Additional Eligibility Information) and b) at that rank for at least 3 years by the proposal submission date. PIs must have current or proposed research that falls within the purview of a participating disciplinary program.

Pilot PUI Track in Directorates for Biological Sciences and Geosciences only, extends PI eligibility: Researchers at the Full Professor rank (or equivalent; see Additional Eligibility Information) at PUI institutions *only* and with proposed research that falls within the purview of a participating program within the Directorate for Biological Sciences or the Directorate for Geosciences may also apply.

The collaborative partner(s) may not be listed as co-principal investigator(s) on the cover page. Instead the partner(s) should be designated as senior personnel or consultants.

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:**
  - Full Proposals submitted via Research.gov: *NSF Proposal and Award Policies and Procedures Guide* (PAPPG) guidelines apply. 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.
  - Full Proposals submitted via Grants.gov: *NSF Grants.gov Application Guide: A Guide for the Preparation and Submission of NSF Applications via Grants.gov* guidelines apply (Note: 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).

B. Budgetary Information

- **Cost Sharing Requirements:**

Inclusion of voluntary committed cost sharing is prohibited.

- **Indirect Cost (F&A) Limitations:**

Not Applicable

- **Other Budgetary Limitations:**

Other budgetary limitations apply. Please see the full text of this solicitation for further information.

C. Due Dates

- **Submission Window Date(s)** (due by 5 p.m. submitter's local time):

February 01, 2023 - March 01, 2023

February 1 - March 1, Annually Thereafter

Proposal Review Information Criteria

Merit Review Criteria:

National Science Board approved criteria. Additional merit review criteria apply. Please see the full text of this solicitation for further information.

Award Administration Information

Award Conditions:

Standard NSF award conditions apply.

Reporting Requirements:

Standard NSF reporting requirements apply.

TABLE OF CONTENTS

I. INTRODUCTION

I. Overview

Through the Mid-Career Advancement (MCA) program, the NSF is seeking proposals from mid-career scientists who wish to substantively advance their research program and career trajectory. A primary objective of the MCA is to ensure that scientists and engineers remain engaged and active in cutting-edge research at a critical career stage replete with constraints on time that can impinge on research productivity, retention, and career advancement[1-4]. Thus, by (re)-investing in mid-career researchers, NSF hopes to enable a more diverse scientific workforce (more women, persons with disabilities, and individuals from groups that have been underrepresented) at high academic ranks[5,6].

The MCA provides protected time and resources to overcome existing constraints and enable advancements in creativity and productivity. Projects that envision new insights on existing problems or identify new problems made accessible with cutting-edge methodology or expertise from other fields are encouraged, but not required. The MCA fosters innovation by supporting synergistic and mutually beneficial partnerships[1] to catalyze convergence across different disciplines or sub-disciplines. Scientists at the mid-career stage, post tenure, are freer than their more junior colleagues to pursue bold and innovative research ideas, but at the same time are often more constrained due to increased service and teaching responsibilities that can hamper scientific productivity[1-4,7,8]. MCA support is expected to help lift these constraints and reduce workload inequities.

A key component of a successful MCA will be the demonstration that the PI's current research program could substantively benefit from the protected time, mentored partnership(s), and resources provided through this special program, such that **there is a substantial enhancement to the PI's research and career trajectory, enabling scientific and academic advancement not likely without this support.**

II. Alignment with NSF priorities and values

    i. **Broadening Participation** - The MCA enables a more diverse STEM workforce by facilitating research productivity and creativity from mid-career scientists and engineers. The mid-career stage is one where researchers may have fewer institutional resources, increased service and teaching responsibilities, and a need for retooling. Data show that women, persons with disabilities, and individuals from groups that have been underrepresented spend more time on service and teaching at the expense of research, creating an imbalance in workload. Such inequity can lower the likelihood of promotion to the highest academic and leadership ranks. The MCA offers a mechanism for broadening participation at all institutions, and will thus contribute to fostering a more inclusive, equitable, and diverse, world-class science and engineering workforce.

    ii. **Enables Convergence Research** - Scientific specialization, often accompanied by unique jargon, can impose challenges to integrative and innovative research. Effective communication across disciplines takes time and dedicated effort. The MCA provides that protected time for PIs to work with a partner(s) to learn new scientific and technical skills. By doing so, the MCA advances convergence research (https://beta.nsf.gov/funding/learn/research-types/learn-about-convergence-research)that integrates knowledge, theories, methods, data, and approaches across fields. Thus, the MCA enables creative and transformative research.

    iii. **Strategic Workforce Development** - The volume and variety of data and analytical tools available for scientific research continue to expand, creating unprecedented opportunity for discovery yet also challenging scientists to keep pace. Mid-career researchers, already possessing deep disciplinary expertise and broad professional networks, are a critical node in the scientific workforce necessary to propagate new perspectives and techniques. Thus, the MCA will help build workforce capacity to fulfill federal initiatives that will be key to the scientific and economic leadership of the United States.

    iv. **Fosters Risk Taking** - The MCA supports researchers who have demonstrated success in their professional career and are primed to pursue bold and innovative ideas. The MCA reflects the importance placed by the NSF on encouraging transformative ideas that a) challenge conventional wisdom, b) lead to unexpected insights that enable novel techniques or methodologies, and/or c) redefine the boundaries of science.

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[1] Mathews, K. R. 2014. Perspectives on mid-career faculty and advice for supporting them. Cambridge, MA: The Collaborative on Academic Careers in Higher Education. http://scholar.harvard.edu/files/kmathews/files/coache_mathews_midcareerfaculty_20140721.pdf

[2] Eagan, M.K., Jr., and J. C. Garvey. 2015. Stressing out: Connecting race, gender, and stress with faculty productivity. The Journal of Higher Education 86:923-954. https://doi.org/10.1080/00221546.2015.11777389

[3] O'Meara, K., C. J. Lennartz, A. Kuvaeva, A. Jaeger, and J. Misra. 2019. Department conditions and practices associated with faculty workload satisfaction and perceptions of equity. The Journal of Higher Education 90:744-772. https://doi.org/10.1080/00221546.2019.1584025

[4] Rissler, L. J., K. L. Hale, N. R. Joffe, and N. M. Caruso. 2020. Gender differences in grant submissions across science and engineering fields at the NSF. Bioscience 70:814-820. https://doi.org/10.1093/biosci/biaa072

[5] National Science Foundation, National Center for Science and Engineering Statistics (NSF/NCSES), "Women, Minorities, and Persons with Disabilities in Science and Engineering: 2019" (Special Report NSF 19-304). Alexandria, VA. https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf19304

[6] Huang, J., A. J. Gates, R. Sinatra, and A-L. Barabasi. 2020. Historical comparison of gender inequality in scientific careers across countries and disciplines. Proceedings of the National Academies of Sciences 117:4609-4616. https://doi.org/10.1073/pnas.1914221117

[7] Misra, J., J. H. Lundquist, E. Holmes, and S. Agiomavritis. 2011. The ivory ceiling of service work. Academe 97:22-26. https://www.aaup.org/article/ivory-ceiling-service-work#.Xim9Ei3MxTY

[8] O'Meara, K., A. Kuvaeva, G. Nyunt, C. Waugaman, and R. Jackson. 2017. Asked more often: Gender differences in faculty workload in research universities and the work interactions that shape them. American Educational Research Journal 54:1154-1186. https://doi.org/10.3102/0002831217716767

II. PROGRAM DESCRIPTION

The MCA program offers an opportunity for scientists and engineers at the mid-career stage (see restrictions under Additional Eligibility Information) to substantively enhance and advance their research program and career trajectory. Mid-career scientists are at a critical career transition stage where they need to advance their research programs to ensure long-term productivity and creativity but are often constrained by service, teaching, or other activities that limit the amount of time devoted to research. MCA support is expected to help lift these constraints to reduce workload inequities and enable a more diverse scientific workforce (more women, persons with disabilities, and individuals from groups that have been underrepresented) at high academic ranks.

The MCA program provides protected time, resources, and the means to gain new skills through synergistic and mutually beneficial partnerships, typically at an institution other than the candidate's home institution. Partners from outside the PI's own sub-discipline or discipline are encouraged, but not required, to enhance interdisciplinary networking and convergence across science and engineering fields. Research projects that envision new insights on existing problems or identify new problems made accessible with cutting-edge methodology or expertise from other fields are encouraged.

All MCA proposals must include letters from a) the partner(s) describing the nature of the collaboration and the benefits of doing so for both parties, as well as b) the departmental chairperson (or an equivalent organizational official). The 12-page Project Description of an MCA proposal must include the following three sections in addition to the other required elements as defined in the PAPPG (for example, Broader Impacts). These are described in more detail under Proposal Preparation Instructions and include:

1. **Candidate's Past Research**
2. **Candidate's Proposed Research Advancement and Training Plan**
3. **Candidate's Long-Term Career Plans**

MCA proposals must also provide convincing evidence in a 2-page Impact Statement, uploaded as a Supplementary Document, that the candidate's research program could substantively benefit from the protected time and resources provided, such that there is a *substantial enhancement to their research and career trajectory, enabling scientific and academic advancement not likely without this support.* Information on past or current constraints to the PI's time and resources available for research should be included.

MCA proposals may request funds to support the mid-career researcher (PI) and one month of summer support for each collaborative partner (in lieu of summer support for the partner(s), other reasonable collaborative costs may be considered). Funds for the PI may include a) up to a total of 6.5 months of salary (plus fringe benefits) over the course of the award, and b) up to $100,000 for other direct costs in support of the research advancement and training plan. **The aforementioned funds (salary and direct costs) are not yearly allocations, but rather total amounts that can be expended over the course of 3 years.** The $100,000 direct cost allotment should include funds to cover the cost of attendance of one in-person 2-day awardee networking meeting held at NSF headquarters in Alexandria, VA. Costs for one partner to accompany the PI may be requested but must be included as part of the $100,000 cap on direct costs. (Note: For MCA proposals submitted to TIP, NSF funds can only be used to support the partners at organizations eligible to submit proposals to this solicitation, i.e., IHEs and non-profit, non-academic organizations.)

PIs are strongly encouraged to discuss the suitability of their MCA proposal with a Program Officer from the appropriate directorate (see https://www.nsf.gov/bio/MCA_contacts.jsp). Only PIs whose current or proposed research falls within the purview of a participating program are eligible.

III. AWARD INFORMATION

Anticipated Type of Award: Standard Grant

Estimated Number of Awards: 35 to 45

The actual number of awards varies across disciplinary research programs.

Anticipated Funding Amount: $14,000,000 to $18,000,000

Varies across disciplinary research programs.

Estimated program budget, number of awards and average award size/duration are subject to the availability of funds.

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:

PIs must be a) at the Associate Professor rank (or equivalent; see Additional Eligibility Information) and b) at that rank for at least 3 years by the proposal submission date. PIs must have current or proposed research that falls within the purview of a participating disciplinary program.

Pilot PUI Track in Directorates for Biological Sciences and Geosciences only, extends PI eligibility: Researchers at the Full Professor rank (or equivalent; see Additional Eligibility Information) at PUI institutions *only* and with proposed research that falls within the purview of a participating program within the Directorate for Biological Sciences or the Directorate for Geosciences may also apply.

The collaborative partner(s) may not be listed as co-principal investigator(s) on the cover page. Instead the partner(s) should be designated as senior personnel or consultants.

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:

PIs must be a) at the Associate Professor rank (or equivalent; see below) and b) at least three years in that position by the proposal submission date. PIs must have current or proposed research that falls within the purview of a participating disciplinary program.

Pilot PUI Track in Directorates for Biological Sciences and Geosciences only, extends PI eligibility: Researchers at the Full Professor rank (or equivalent) at PUI institutions *only*, and with proposed research that falls within the purview of a participating program within the Directorate for Biological Sciences or the Directorate for Geosciences, may apply.

The collaborative partner(s) may not be listed as co-principal investigator(s) on the cover page. Instead the partner(s) should be designated as senior personnel or consultants. In addition, only PIs who propose research topics that fall under the purview of one of the participating NSF programs for the MCA are eligible.

Additional Eligibility Restrictions for the Pilot PUI Track in the Directorates for Biological Sciences and Geosciences only:

Under the Pilot PUI track, PI eligibility is extended to include the Full Professor rank (or equivalent) but only for researchers at Primarily Undergraduate Institutions (PUIs), including PUIs that are also considered Historically Black Colleges and Universities (HBCUs), Hispanic-Serving Institutions (HSIs), Tribal Colleges or Universities (TCUs), and other institutions that enroll a significant percentage of students from groups that have been underrepresented as defined by the U.S. Department of Education. These other institutions include Alaska Native-serving institutions, Native Hawaiian-serving institutions, Predominantly Black Institutions, Asian American and Native American Pacific Islander-serving institutions, and Native American-serving non-tribal institutions, as long as they are a PUI.

PUIs are accredited colleges and universities (including two-year community colleges) that award Associates degrees, Bachelor's degrees, and/or Master's degrees in NSF-supported fields, but have awarded 20 or fewer Ph.D./D.Sci. degrees in all NSF-supported fields during the combined previous two academic years. **The required Departmental Letter must certify that the PI's institution is a PUI if submitting as a Full Professor (or equivalent)**.

Under the Pilot PUI track, PIs at the Full Professor rank must be engaged in a research program that is under the purview of one (or more) of the participating programs in the Directorate for Biological Sciences or the Directorate for Geosciences. PIs are urged to contact a Program Officer prior to submission to ensure that the research topic is appropriate. Note that biological research on mechanisms of disease in humans, including the etiology, diagnosis, or treatment of disease or disorder, is normally not supported. Biological research to develop animal models of such conditions or to develop or test procedures for their treatment is also not normally eligible for support. Such proposals are not appropriate for the Directorate for Biological Sciences and will be returned without review.

Associate (or Full, only under Pilot PUI Track) Professor Equivalency - For a position to be considered an Associate or Full Professor equivalent position, it must meet all of the following requirements: (1) the employee has a continuing appointment that is expected to last for at

least the duration of the grant; (2) the appointment has substantial research and educational and/or service responsibilities; and (3) the proposed project relates to the employee's career goals and job responsibilities as well as to the mission of the department or organization. As stated in the Proposal Preparation Instructions, the Departmental Letter must affirm that the candidate's appointment is at a mid-career level equivalent to Associate status (or Full, if applying under the Pilot PUI Track), and the Departmental Letter must also clearly and convincingly demonstrate how the candidate's appointment satisfies all the above (1-3) requirements of equivalency.

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.
- 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.

Collaborative proposals submitted as separate submissions from multiple organizations are not permitted.

Mid-Career Advancement (MCA)

1) The title of an MCA proposal must begin with "MCA:", followed by the substantive title.

If submitting under the Pilot PUI Track (see Additional Eligibility Info), the title must begin with "MCA Pilot PUI:", followed by the substantive title.

2) In addition to requirements in the PAPPG, including the separate section labeled "Broader Impacts," the Project Description of MCA proposals must also include the following three sections within a 12-page limit. Please note that if submitting via Research.gov, the section header for Broader Impacts must be on its own line with no other text on that line.

Section 1. Candidate's Past Research: All MCA proposals must describe the past (and current) research efforts and accomplishments of the candidate to their field of science or engineering. In this section, the candidate should include a list of no more than 6 publications. Each should be followed by a brief explanation of its significance, the candidate's role in the research, and funding source(s). This discussion should be incorporated into the section on Results of Prior NSF Support, when appropriate. It is not necessary to list the full citation of these articles in the Project Description; full citations of the articles discussed should be listed as a separate group in the References Cited section (see below).

Section 2. Candidate's Proposed Research Advancement and Training Plan: All proposals must describe the scientific research and training enhancement experiences to be undertaken, and how the collaboration between the candidate and partner(s) is likely to be mutually beneficial and create "added value" beyond that which would occur through a typical collaboration (for example, by opening new avenues of inquiry). The candidate and partner(s) should be engaged in a research project that addresses fundamental questions and challenges in the scientific discipline to which the proposal is submitted (see participating programs) and is likely to result in publications and a foundation for future competitive proposals. The candidate should include enough information to permit an evaluation of the intellectual merit of the research advancement and training plans, including their novelty, creativity, and significance.

Section 3: Candidate's Long-Term Career Plans: This forward-looking section should describe how the proposed work builds upon past (and current) research and related accomplishments of the candidate to enable a productive long-term scientific career extending well beyond the award period. This section should also include a timeline for present and future career enhancement activities and associated products, including expected outcomes from the MCA-funded activities that will serve as a foundation for future research endeavors.

3) The References Cited section must include references to the articles discussed in Item 2, Section 1 above, grouped separately under a heading labeled "Past Research".

4) Biographical Sketches: The Principal Investigator and each partner must submit a biographical sketch. The biographical sketches should be prepared following the instructions in the PAPPG. If the partner(s) is listed as senior personnel, a bio-sketch will automatically be required. If the partner(s) are not listed as senior personnel because they are designated as consultants or funded through a subaward, the bio sketch of each partner must be prepared in accordance with the guidance in the PAPPG and uploaded in the Supplementary Documents section of the proposal.

5) Additional Supplementary Documentation Required for Mid-Career Advancement Proposals:

Either scan the signed originals of the following documents and upload them as separate PDF files into the Supplementary Documents section of the proposal or upload digital copies with official digital signatures directly. Requests for letters should be made by the PI well in advance of the proposal submission target date because they must be included at the time of submission.

a) MCA Impact Statement: This statement should provide details on why (and how) an MCA award would substantially enhance the PI's research and career

trajectory *enabling scientific and academic advancement not likely without such support*. Any proposal that does not include the MCA Impact Statement will be **returned without review**. The statement should be no more than 2 pages in length and include:

- Information on past or current constraints to the PI's time and resources available for research; and
- The impact of an MCA award on the PI's research and career trajectory, and if relevant, more far-reaching impacts including those on the PI's discipline(s), department, and/or institution.

b) Letter of Collaboration by the Partner(s): Competitive MCA proposals will demonstrate the potential for a synergistic and mutually beneficial collaboration between the mid-career PI and their chosen partner. If there is more than one partner, each person should include a letter. Partners can be at any academic rank but must hold a faculty appointment or equivalent at their institution. In addition, research partnerships with scientists and engineers in industry are possible. Any proposal submitted without this Letter of Collaboration by the Partner(s) will be returned without review. The letter must be on letterhead, signed, and no more than 2 pages in length. The content should include:

- A brief description of the research projects and expertise of the partner(s);
- A description of the role the partner will play in the proposed research, training, and (mutually beneficial) mentorship plans; and
- An acknowledgement that the partner and PI have discussed and agree on the plans as written in the MCA proposal.

c) Departmental Letter: To demonstrate the department's support of the mid-career candidate, the proposal must include one letter from the department chairperson (or equivalent organizational official). Any proposal that does not include a Departmental Letter will be returned without review. The letter must be on letterhead, signed, and no more than 2 pages in length. The content should include:

- A description of the PI's past successes in terms of scholarship, service, teaching, and mentorship of students, faculty, etc.;
- An acknowledgment that the PI's protected time request will be honored if an award is made and a description of how the PI's duties (research, service, and training) will be balanced during the award duration since awards may require the PI to spend some time in the partner's lab or institution for the career enhancement experience;
- An assessment of the potential value of the proposed activity for advancing the PI's research program and academic career; and
- A statement to the effect that the PI is eligible for the MCA program as defined in the eligibility criteria specified in this solicitation. *(If the PI is applying under the Pilot PUI track, the Departmental Letter must affirm that the institution is a PUI.)*

6) Budget: MCA may request funds to support the mid-career researcher (PI) and one month of summer support for each collaborative partner (in lieu of summer support for the partner(s), other reasonable costs may be considered). Because the MCA is designed to advance the research and career trajectory of the mid-career scientist, the collaborative partner(s) may not be listed as co-principal investigator(s) on the cover page. Rather, the one-month summer salary support for the partner(s) should be requested in the senior personnel or consultant services budget line items of the proposal, or as a subaward to the other institution. Funds for the PI may include a) up to a total of 6.5 months of salary (plus fringe benefits) over the course of the award, and b) up to $100,000 for other direct costs in support of the research advancement and training plan. **The aforementioned funds are not yearly allocations, but rather total amounts that must be expended over the course of the grant.** The $100,000 direct cost allotment should include funds to cover the cost of attendance of the PI to one in-person 2-day awardee networking meeting held at the NSF headquarters in Alexandria, VA. Costs for one partner to accompany the PI may be requested but must be included as part of the $100,000 direct cost cap. (Note: For MCA proposals submitted to TIP, NSF funds can only be used to support the partners at organizations eligible to submit proposals to this solicitation, i.e., IHEs and non-profit, non-academic organizations.)

7) Single Copy Documents

- **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 identified as senior personnel on the project. Please note that if submitting via Research.gov, the COA form for individuals identified as senior personnel must be included in the Senior Personnel Documents section. While there will not be a separate space for partners who are designated as consultants, COA information for these individuals must also be uploaded as Additional Single Copy Documents. 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, and 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.

Other Budgetary Limitations:

Because the MCA is designed to advance the research and career trajectory of the mid-career scientist, the collaborative partner(s) may not be listed as co-principal investigator(s) on the cover page. Rather, the one-month summer salary support for the partner(s) should be requested in the senior personnel or consultant services budget line items of the proposal, or as a subaward to the other institution.

C. Due Dates

- **Submission Window Date(s)** (due by 5 p.m. submitter's local time):

  February 01, 2023 - March 01, 2023

  February 1 - March 1, Annually Thereafter

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?
_nfpb=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 *Leading the World in Discovery and Innovation, STEM Talent Development and the Delivery of Benefits from Research - NSF Strategic Plan for Fiscal Years (FY) 2022 - 2026*. 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 federal 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.

Additional Solicitation Specific Review Criteria

Reviewers will be instructed to evaluate MCA proposals using the following additional criteria:

- A key component of a successful MCA will be the **demonstration that the candidate's research program could substantively benefit from the protected time and resources provided by this program, such that there is a substantial enhancement to their research and career trajectory, enabling scientific and academic advancement,** *not likely without such support.* Thus, the Impact Statement should make a strong case for the value of the MCA by providing information on past or current constraints to the PI's time and resources available for research.
- There should be a strong case for how the proposed work builds upon past (and current) research and related accomplishments of the PI to enable a productive long-term scientific career extending well beyond the award period.
- The research project proposed in Section 2 of the MCA may be considered risky or preliminary, but this is appropriate given a) that the PI is submitting to the MCA program to gain expertise that they do not currently have; and b) the MCA is meant to foster bold and innovative ideas that, in some cases, cross disciplinary boundaries. The work should result in publications that lay the foundation for future competitive research proposals.
- Successful proposals should demonstrate a high likelihood of a synergistic and mutually beneficial collaboration between the PI and partner(s) given each of their respective skills, background, and areas of expertise. This should be more than what is normally achievable through a typical collaborative research grant.
- MCA Broader Impacts are expected to contribute to broadening participation in research by PIs whose research careers have been diverted by extensive administrative duties, service, outreach, mentoring, and/or teaching, in addition to project-specific broader impacts.
- The required Letter of Collaboration by the Partner and the Departmental Letter should demonstrate support for the candidate and the plans for advancement.

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 or the Division of Acquisition and Cooperative Support 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 an NSF Grants and Agreements Officer. 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.

More comprehensive information on NSF Award Conditions and other important information on the administration of NSF awards is contained in the NSF *Proposal & Award Policies & Procedures Guide* (PAPPG) Chapter VII, available electronically on the NSF Website at https://www.nsf.gov/publications/pub_summ.jsp?ods_key=pappg.

Administrative and National Policy Requirements

Build America, Buy America

As expressed in Executive Order 14005, Ensuring the Future is Made in All of America by All of America's Workers (86 FR 7475), it is the policy of the executive branch to use terms and conditions of Federal financial assistance awards to maximize, consistent with law, the use of goods, products, and materials produced in, and services offered in, the United States.

Consistent with the requirements of the Build America, Buy America Act (Pub. L. 117-58, Division G, Title IX, Subtitle A, November 15, 2021), no funding made available through this funding opportunity may be obligated for an award unless all iron, steel, manufactured products, and construction materials used in the project are produced in the United States. For additional information, visit NSF's Build America, Buy America webpage.

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.

More comprehensive information on NSF Reporting Requirements and other important information on the administration of NSF awards is contained in the *NSF Proposal & Award Policies & Procedures Guide* (PAPPG) Chapter VII, available electronically on the NSF Website at https://www.nsf.gov/publications/pub_summ.jsp?ods_key=pappg.

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:

- MCA Cognizant Program Officers, telephone: (703) 292-4628, email: MCA.info@nsf.gov
- Leslie J. Rissler, telephone: (703) 292-4628, email: lrissler@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.

A list of the participating programs is available at https://www.nsf.gov/bio/MCA_participants.pdf.

Program specific MCA contacts available at https://www.nsf.gov/bio/MCA_contacts.jsp.

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.

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.

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 https://www.nsf.gov

- **Location:**   2415 Eisenhower Avenue, Alexandria, VA 22314

- **For General Information**   (703) 292-5111
  (NSF Information Center)**:**

- **TDD (for the hearing-impaired):**   (703) 292-5090

- **To Order Publications or Forms:**

        Send an e-mail to: nsfpubs@nsf.gov

            or telephone: (703) 292-8134

- **To Locate NSF Employees:**   (703) 292-5111

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
Policy Office, Division of Institution and Award Support
Office of Budget, Finance, and Award Management
National Science Foundation
Alexandria, VA 22314

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