

# NSF 23-503: Biological Anthropology Program Senior Research Awards (BA-SR)

## Program Solicitation

### Document Information

#### Document History

- **Posted:** October 12, 2022

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#### National Science Foundation

Directorate for Social, Behavioral and Economic Sciences  
Division of Behavioral and Cognitive Sciences

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

January 16, 2023 - January 26, 2023

July 20, 2023 - July 31, 2023

July 20 - July 30, Annually Thereafter

January 20, 2024 - January 31, 2024

January 20 - January 31, Annually Thereafter



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## Important Information And Revision Notes

The Biological Anthropology Senior Research solicitation provides information and instructions for preparation of faculty-level research proposals submitted to the Biological Anthropology Program.

Note to Graduate Students: There is a separate solicitation for [Biological Anthropology Doctoral Dissertation Research Improvement Grant \(BA-DDRIG\)](#) proposals. Also, the [Graduate Research Fellowship Program \(GRFP\)](#)  is administered by a separate program office.

Note to Postdoctoral Researchers: In addition to potential inclusion in Biological Anthropology senior research proposals, note that there are separate [postdoctoral fellowship programs at NSF](#).

New and clarified program and proposal requirements are described in this solicitation:

- Target dates have been changed to submission window dates.
- Undergraduate and graduate students should not serve as PI/co-PI on senior proposals.
- There is a limit of one submission from a PI/co-PI for a given submission window date.
- Declined proposals are not eligible for resubmission for one year from the original date of submission.
- If a proposal is resubmitted, the first paragraph of the project description must summarize how the proposal has been substantially revised and how the PI has responded to previous reviewer concerns.
- Two pages of supplementary figures and tables are allowed as a supplementary document.
- An ethics statement of no more than two pages is required for all projects as a supplementary document.
- Additional guidance is provided on data management plans and the program requires that data be shared (barring ethical limitations on sharing) within two years of final data collection.
- A project personnel list spreadsheet must be sent to the program via email in coordination with proposal submission.
- Additional funding opportunities, including Scholars awards, Community-Engaged Research awards and supplements, and Post-baccalaureate Research Experience supplements.

If a researcher is unsure whether the Biological Anthropology program is appropriate for a proposal topic, they are encouraged to email a one-page summary of their project to the program officer(s) prior to proposal submission.

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 *NSF Proposal & Award Policies & Procedures Guide* (PAPPG) that is in effect for the relevant due date to which the proposal is being submitted. The NSF PAPPG is regularly revised and it is the responsibility of the proposer to ensure that the proposal meets the requirements specified in this solicitation and the applicable version of the PAPPG. Submitting a proposal prior to a specified deadline does not negate this requirement.

## Summary Of Program Requirements

### General Information

#### Program Title:

Biological Anthropology Program Senior Research Awards (BA-SR)

#### Synopsis of Program:

The Biological Anthropology Program seeks to advance scientific knowledge about the processes that have shaped biological diversity in living and fossil humans and their primate relatives through support of basic research on human and primate evolution, biological variation, and interactions between biology, behavior, and culture. The program supports a portfolio of research that demonstrates engagement with biological anthropological and evolutionary theory; includes diverse and interdisciplinary methods in field, laboratory and computational settings; encompasses multiple levels of analysis (e.g., molecular, organismal, population, ecosystem) and time scales from the short-term to evolutionary; and considers the ethical implications and societal impacts of the research. The program also supports a wide range of broader impact activities as part of research grants, including research outcomes with inherent benefit to society, efforts to broaden participation in science, technology, engineering, and mathematics (STEM) research, training and outreach activities and other evidence-based activities developed within the context of the mission, goals, and resources of the organizations and people involved.

#### 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.*

- Marta P. Alfonso-Durruty, Program Director, telephone: (703) 292-7811, email: [malfonso@nsf.gov](mailto:malfonso@nsf.gov)
- Rebecca Ferrell, Program Director, W13144, telephone: (703) 292-7850, email: [rferrell@nsf.gov](mailto:rferrell@nsf.gov)
- Angelica Brewer, Program Specialist, W13254, telephone: (703) 292-4636, email: [abrewer@nsf.gov](mailto:abrewer@nsf.gov)

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

- 47.075 --- Social Behavioral and Economic Sciences

#### Award Information

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

**Estimated Number of Awards:** 20 to 40

**Anticipated Funding Amount:** \$4,000,000 to \$5,000,000

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

## **Eligibility Information**

### **Who May Submit Proposals:**

The categories of proposers eligible to submit proposals to the National Science Foundation are identified in the *NSF Proposal & Award Policies & Procedures Guide* (PAPPG), Chapter I.E. Unaffiliated individuals are not eligible to submit proposals in response to this solicitation.

### **Who May Serve as PI:**

PIs and co-PIs must be researchers who have a Ph.D. or equivalent education and experience, sufficient to allow them to carry out independent basic research. PIs of senior proposals are encouraged to include undergraduate and graduate students in their research projects, but not as PI/co-PI or 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:**

For a given Biological Anthropology proposal submission window, an individual may only be listed as a PI, co-PI, faculty associate or subaward lead on one proposal. Researchers may be listed in other capacities (e.g., collaborator, consultant) on one additional proposal. This limit does not apply to conference or DDRIG proposals. CAREER proposals that are submitted to the program are reviewed in the fall; therefore, CAREER PIs should not submit a non-CAREER proposal for the July Biological Anthropology submission window. Proposals exceeding the limit for any person will be returned without review in the reverse order received.

Given the timeline of the submission and review process for each review cycle, proposals that have been declined are not eligible for resubmission for one year from the original date of submission and must be substantially revised to be considered. Exceptions to this policy require prior approval by a cognizant program officer. A proposal that has not been substantially revised will be returned without review as per the PAPPG.

## **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](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](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:**

Not Applicable

### **C. Due Dates**

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

January 16, 2023 - January 26, 2023

July 20, 2023 - July 31, 2023

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### **Proposal Review Information Criteria**

#### **Merit Review Criteria:**

National Science Board approved criteria apply.

#### **Award Administration Information**

#### **Award Conditions:**

Standard NSF award conditions apply.

#### **Reporting Requirements:**

Additional reporting requirements apply. Please see the full text of this solicitation for further information.

## **I. Introduction**

Three anthropological science programs, Archaeology, Biological Anthropology and Cultural Anthropology, are housed in the Division of Behavioral and Cognitive Sciences, part of NSF's Social, Behavioral and Economic Sciences Directorate. As a group, these programs support basic research that advances anthropological theory, expands our understanding of human cultural and biological variation in the past and present and informs contemporary efforts to improve the human condition. The Biological Anthropology Program focuses specifically on processes that have shaped biological diversity in humans and their living and fossil primate relatives, through support of multifaceted, fundamental research on human and primate evolution, biological variation and adaptation, and interactions between biology, behavior and culture. This solicitation provides instructions and details (supplementary to the PAPPG) for preparation of proposals submitted to the Biological Anthropology Program, except for [Biological Anthropology Doctoral Dissertation Research Improvement Grants](#).

## **II. Program Description**

The Biological Anthropology Program supports a multifaceted portfolio of research on humans and their living and fossil primate relatives that 1) demonstrates engagement with biological anthropological and evolutionary theory, 2) includes

diverse, often interdisciplinary methods in field, laboratory and computational settings, 3) encompasses multiple levels of analysis (e.g., molecular, organismal, population, ecosystem) and time scales from the short-term to evolutionary and 4) considers the ethical implications and societal impacts of the research.

Proposals with a biocultural or bioarchaeological orientation may be appropriate for co-review with the Cultural Anthropology or Archaeology Programs. The Biological Anthropology Program also serves as a bridge within NSF between the social and behavioral sciences and the natural and physical sciences. Co-review may be requested by the PI but ultimately is at the discretion of the participating programs.

NSF does not support research on the etiology, diagnosis or treatment of disease; research focused on basic ecological, biological and behavioral processes that underlie health and disease in humans and non-human primates, however, may be eligible for support in the Biological Anthropology Program. The program does not support applied forensic anthropology research, but projects that demonstrate substantial theoretical or methodological engagement with both bioarchaeology and forensic anthropology may be eligible for support.

The program encourages PIs to consider the full scope of ethical implications that their proposed research has on individuals, communities, environments and the scientific enterprise. The program also supports a wide range of broader impact activities as part of research grants, including research outcomes with inherent benefit to society, efforts to broaden participation in STEM research, training and outreach activities and other evidence-based activities developed within the context of the mission, goals, and resources of the organizations and people involved. The program encourages the use of secondary data in research projects where appropriate. Examples of secondary data sources can include, but are not limited to, shared data resources, such as open-access data repositories, databases, and registries, as well as datasets from ongoing studies and publications.

A list of [recent awards made by the program](#) demonstrates the range of sub-fields, methods and topics typically supported by the program. If a researcher is unsure whether the Biological Anthropology Program and NSF more broadly are appropriate for a proposal topic, they are encouraged to email a one-page summary of their project to the program officer(s) prior to a proposal submission.

### **Additional Relevant Funding Opportunities**

The NSF Biological Anthropology Program supports multiple types of proposals:

- Senior Research Proposals
- Conference/Workshop Proposals
- Scholars Proposals and Mid-Career Advancement (MCA) Proposals
- Facilitating Community-Engaged Research Proposals and Supplemental Funding Requests
- Research Experiences for Post-Baccalaureates Supplemental Funding Requests
- Research Experiences for Undergraduates (REU) Supplemental Funding Requests
- Non-Academic Research Internships for Graduate Students (INTERN) Supplemental Funding Requests
- Faculty Early Career Development (CAREER) Program Proposals
- Facilitating Research at Primarily Undergraduate Institutions: Research in Undergraduate Institutions (RUI) and Research Opportunity Awards (ROA) Proposals and Supplemental Funding Requests
- Research Coordination Network Proposals
- High Risk Research in Biological Anthropology and Archaeology (HRRBAA) Proposals
- Rapid Response Research (RAPID) Proposals
- Early-concept Grants for Exploratory Research (EAGER) Proposals
- Research Advanced by Interdisciplinary Science & Engineering (RAISE) Proposals

This list does not exhaust the full range of types of proposals described in Chapter II of the [PAPPG](#). Rather, these are the types that may be most relevant for proposals submitted to the Biological Anthropology Program. Researchers are always

welcome to consult with program officers about which NSF mechanisms and programs might best serve their research needs.

### **Research Proposals**

Most faculty-level proposals submitted to the Biological Anthropology Program are “standard” research proposals. A project can be proposed to be carried out by a single researcher or a research team comprising a principal investigator along with co-principal investigators, other senior personnel, postdoctoral researchers, or other personnel (including specialists from other disciplines and other countries) as needed for the conduct of the research.

Specific guidelines on proposal preparation are described in the PAPPG. Note that for collaborative projects across institutions, the Biological Anthropology program allows researchers to submit a single proposal with subawards or a collaborative proposal submitted as separate submissions from multiple organizations.

Typical award sizes for the program are included in [descriptions of recent awards](#). There is no award ceiling, but please be advised that a typical research award in the Biological Anthropology Program is in the range of \$200,000-\$600,000 total budget, inclusive of indirect costs. Most projects are scoped to a three-year duration and related expenses. Requested costs must relate directly to the aims of the research; the PAPPG describes allowable and unallowable costs.

### **Conference Proposals**

The Biological Anthropology Program supports thematic conferences or workshops designed to highlight broadly relevant disciplinary or interdisciplinary research gaps and needs, future research priorities, innovations and grand challenges. The program does not support gatherings whose purpose is primarily to convey the results of completed research. The program encourages hybrid or virtual conferences when appropriate, as well as the inclusion of postdoctoral researchers, graduate students and members of groups underrepresented in anthropology and STEM as active conference participants.

Researchers must contact the program officers prior to submitting a conference proposal. *Conference proposals should generally be submitted a year in advance of the proposed event.* While conference proposals may be submitted at any time, the program may elect to have them reviewed by review panels along with research proposals submitted to the regular submission windows. Please consult Chapter II.E of the PAPPG for information about preparing and submitting conference proposals, including a list of required elements and budget exclusions, while keeping in mind the Biological Anthropology Program's specific interests and limitations.

Biological Anthropology Program conference support is typically in the range of \$20,000 to \$50,000, inclusive of indirect costs. We encourage seeking support from multiple agencies and organizations.

### **Scholars Proposals**

The Biological Anthropology Scholars Awards support specialized methodological training for post-PhD biological anthropologists who have active research programs that would be enhanced by such training. The goal of the program is to improve anthropological research skills by affording researchers the opportunity to undertake training not normally available on their home campuses. Support may be requested to learn any methodological skill that will advance the research agenda, as justified in the proposal with reference to results from prior work.

Mid-career researchers are eligible to apply for a related but separate cross-directorate program, [Mid-Career Advancement](#).

Please note that Biological Anthropology Scholars Awards are training projects, not research awards. The proposal must include a detailed study plan that indicates sponsorship by a senior expert (who should not have been involved with the proposer's Ph.D.), with whom the proposer will study and/or who will supervise the planned program of study. A signed statement affirming sponsorship must be included in the proposal (as a supplementary document). Proposals should show how this additional expertise would improve the proposer's ability to do research by referring to specific ongoing research projects and publications. Requests for support of a general upgrading of quantitative or methodological skills, for coursework routinely available on university campuses or for language training, will not be successful. Scholars proposals should be submitted in accordance with the PAPPG requirements to the Biological Anthropology submission window dates. Proposals are reviewed alongside other senior proposals in the Biological Anthropology program.

Scholars Awards have a ceiling of \$75,000 and a maximum duration of 36 months. They may include requests for summer salary, academic year release time, per diem, travel, equipment, supplies and other training expenses, as well as applicable indirect costs.

### **Facilitating Community-Engaged Research Funding Requests**

Funds for developing community-engaged research can be requested as a supplement to an active award or as a proposal for a stand-alone engagement effort prior to the submission of a standard proposal, in order to support mutually beneficial and respectful interactions that not only produce meaningful research and education or outreach outcomes but also focus on the concerns of partnering communities, including questions of data sovereignty, co-authorship or co-review of project outcomes.

Researchers interested in this opportunity must contact the Biological Anthropology program officers to discuss proposed activities and budget requirements. The proposal or supplemental funding request must describe the personnel and activities that will be conducted as part of the engagement process and the anticipated direction of research activities. Costs may relate to travel, meetings, and other activities directly related to establishing and maintaining the engagement process. Community engagement proposals should be submitted in accordance with the PAPPG requirements to the Biological Anthropology submission window dates and are reviewed alongside other senior proposals in the Biological Anthropology program. Supplemental funding requests can be submitted at any time and should be prepared and submitted in accordance with the guidance in PAPPG Chapter VI.E.

### **Research Experiences for Post-Baccalaureates**

PIs of existing NSF awards may submit supplemental funding requests for one post-baccalaureate individual to obtain anthropological research experiences that will augment their preparation for graduate school admission or other STEM career opportunities. A post-baccalaureate student is defined as an individual who has a bachelor's degree but is not currently enrolled in another degree program. The Biological Anthropology Program is particularly interested in increasing the participation of post-baccalaureate individuals from underrepresented groups in anthropology and STEM who desire to engage in research or who want to pursue a career in STEM but did not have the opportunity to begin or complete a research experience as an undergraduate student. Examples of such experiences include, but are not necessarily limited to, training in field research (e.g., primatology, paleoanthropology, human biology) or in specialized laboratory methods. PIs must provide the participant(s) with an independent but guided research project and professional development. Ideally, participants will be involved in the development of their research project. PIs are expected to provide training in ethics and the responsible conduct of research and to inform participants of institutional policies or code of conduct on sexual harassment.

Researchers must contact the Biological Anthropology program officers prior to submitting a supplemental funding request. A supplemental funding request must include a PI statement of no more than two pages that describes the participant's involvement in the research project, the mentoring plan for the participant, including any professional development activities, and information on the recruited participant, including a brief biographical sketch. The statement should also describe how the proposed program would contribute to the participants' long-term career goals and how the supplemental funding will serve to broaden participation. Supplemental funding requests can be submitted at any time and in accordance with the guidelines found in Chapter VI.E of the [PAPPG](#).

The Biological Anthropology Program will consider funding requests for up to three months and \$8,000 for a post-baccalaureate individual, to support the costs of the individual's training through an NSF-funded research project. Person-related participant support costs can include a stipend (recommended at \$650/week for full-time participation) and, as appropriate, fringe benefits and travel. NSF expects that participant costs are included under the participant support costs category (Line F) in the budget. A modest amount for materials and supplies can be requested and should be included on line G1 in the budget. All costs should be clearly explained in the budget justification. Indirect costs should be calculated only on the amount listed on line G1.

### **Research Experiences for Undergraduates (REU) Supplemental Funding Requests**

An [REU supplement](#) usually provides support for one or two undergraduate students to participate in research as a part of a new or ongoing NSF-funded research project. The student's research must be their own research project within the PI's larger research program; these supplements are not intended to support clerical or research assistance to the PI. For



REU requests submitted to the Biological Anthropology Program, proposers are advised that the PI should be a post-PhD anthropologist who holds existing NSF award(s).

REU requests generally should be submitted as part of a senior research proposal; post-award supplemental funding is intended only for unanticipated opportunities that arise during the course of the project. Researchers must contact the Biological Anthropology program officers prior to submitting a supplemental request. See the [REU Sites and Supplements guidelines](#) for additional details. Supplemental funding requests can be submitted at any time.

The Biological Anthropology Program will consider REU funding requests for up to \$6000 per student and no more than two students per year, to support the cost of the student's independent research activity.

#### **Non-Academic Research Internships for Graduate Students (INTERN) Supplemental Funding Opportunity**

The [INTERN program](#) at NSF offers graduate students who are currently funded on an NSF award the opportunity to pursue research experiences in non-academic settings that will augment their graduate studies. For Biological Anthropology, this may involve experiences at other government agencies, corporations, nonprofit and nongovernmental organizations, science communication organizations or museums, among many other possibilities. The experience should augment but not be part of the student's master's or dissertation research. Researchers should contact the Biological Anthropology program officers prior to submitting a supplemental request. See the [INTERN announcement](#) for additional details.

For Biological Anthropology, PIs may request up to \$55K total costs and one 6-month period for a given student.

#### **Faculty Early Career Development (CAREER) Program Proposals**

The NSF Biological Anthropology Program participates in the NSF-wide [CAREER Program](#) for junior faculty (untenured but tenure-track or equivalent). CAREER proposals have a maximum duration of five years. In addition to research costs, proposers may include expenses for specialized training to enhance the research and their future professional trajectory. CAREER proposals also must have an educational component; the Biological Anthropology Program suggests that this component be integrated with the research, either in the field or at the home institution.

Researchers who want to submit CAREER proposals should consult the [CAREER-specific guidelines](#) for eligibility information, allowable costs, submission deadlines (which are different than Biological Anthropology proposals) and other CAREER Program requirements. CAREER proposals that are submitted to the Biological Anthropology program are reviewed during the fall review cycle; a PI may not submit both a CAREER and a Senior Research proposal in the same cycle.

Unlike standard research proposals, the *minimum* CAREER award is \$400,000. CAREER award sizes in Biological Anthropology typically range from \$400,000-\$600,000.

#### **Facilitating Research at Primarily Undergraduate Institutions: Research in Undergraduate Institutions (RUI) and Research Opportunity Awards (ROA)**

The [Research in Undergraduate Institutions \(RUI\) and Research Opportunity Awards \(ROA\)](#) funding opportunities support research by faculty members at predominantly undergraduate institutions (PUIs). RUI proposals support PUI faculty in research that engages them in their professional field(s), builds capacity for research at their home institution and supports the integration of research and undergraduate education. ROAs similarly support PUI faculty research, but these awards typically allow faculty to work as visiting scientists at research-intensive organizations where they collaborate with other NSF-supported investigators.

RUI proposals are reviewed alongside other senior proposals in the Biological Anthropology program. Please refer to the [RUI guidelines](#) for additional details on submission requirements. For questions about the ROA supplement opportunity, please contact the Biological Anthropology program officer(s).

#### **Research Coordination Network (RCN) Proposals**

The Biological Anthropology Program supports the "general" track of the NSF-wide [Research Coordination Networks \(RCN\) program](#). RCN awards are intended to advance research directions by supporting new, thematically focused collaborations of researchers to communicate and coordinate research, training and educational activities across

disciplinary, organizational, geographic and international boundaries. RCN awards do not support primary research, existing research networks, ongoing collaborations or collaborations at a single institution. Instead, they are intended to advance the creation of new collaborations, new fields, and new research directions.

RCN proposals may request a maximum duration of 5 years and up to \$500,000. They are reviewed alongside other senior proposals submitted to the Biological Anthropology Program. Researchers should follow the [RCN Program guidelines](#).

### **High-Risk Research In Biological Anthropology And Archaeology (HRRBAA)**

Much anthropological research is conducted in areas of the world where circumstances may exist that render access to data, research sites or other resources uncertain. To allow projects for which *research outcomes* are at risk for these or other reasons, Archaeology and Biological Anthropology programs have established the [High-Risk Research in Biological Anthropology and Archaeology program \(HRRBAA\)](#).

Researchers should refer to the separate [HRRBAA guidelines](#) and contact the Biological Anthropology program officers prior to submitting a HRRBAA proposal.

PIs may apply for small awards (not to exceed \$35,000 total costs and a one-year duration) to support pilot projects for proof of concept or proof of access.

### **Rapid Response Research (RAPID) Proposals**

RAPID awards are to support urgent research. The urgency is that unanticipated research data would be lost if the researchers had to wait for the completion of a normal review cycle. This might be because of the unanticipated availability of access to rarely available phenomena, specialized equipment, research sites or specialized informants. RAPID support is often requested for quick-response research on natural or anthropogenic disasters and other unanticipated events. To be successful in obtaining RAPID support, investigators must convincingly argue that the particular situation to be investigated will produce data that are unlikely to be found in any other situation and that are essential for identified and important research questions. If the research is routine, failure to plan ahead is not sufficient rationale for RAPID support.

Researchers must have prior approval from a Biological Anthropology program officer to submit a RAPID proposal to the program. In this initial email, proposers should briefly explain the data to be collected, why these data are scientifically important, an estimate of the needed budget and a timeline for the research. RAPID proposals are limited to 5 pages and only internal NSF review is required so funding can be made available relatively quickly. Please consult Chapter II.E of the PAPPG for further instructions on the preparation and submission of RAPID proposals.

Please note that the Biological Anthropology Program rarely supports RAPID budgets over \$30,000, which is less than the maximum allowed by the PAPPG. The maximum duration is 12 months.

### **Early-Concept Grants for Exploratory Research (EAGER) Proposals**

The Biological Anthropology Program supports EAGER proposals for funding research on untested but potentially transformative research ideas and approaches.

Researchers must have prior approval from a Biological Anthropology program officer to submit an EAGER proposal. The EAGER proposal type should not be used for proposals that could be submitted to a regular competition, so the initial inquiry should explain carefully why the anticipated project fits the EAGER criteria. There are no deadlines, the project description is limited to no more than 8 pages, and only internal NSF review is required. Please consult Chapter II.E of the PAPPG for further instructions on the preparation and submission of EAGER proposals.

The Biological Anthropology Program rarely supports EAGER budgets over \$30,000, which is less than the maximum allowed by the PAPPG. The maximum duration is 24 months.

### **Research Advanced by Interdisciplinary Science and Engineering (RAISE) Proposals**

The Biological Anthropology Program is willing to consider requests to submit a RAISE proposal. This type of proposal is for unusually bold, innovative, risky but potentially transformative and unconventionally interdisciplinary research (that is,

bringing together disciplines that do not normally collaborate) for which there is no other appropriate NSF program. Projects that typically would be co-reviewed by core programs are not appropriate for RAISE.

Researchers interested in this type of proposal must consult with and receive the written support from program officers in two distinct NSF programs (usually in different directorates) before being allowed to submit a RAISE proposal. There are no deadlines and review is internal. Please consult Chapter II.E of the PAPPG for further instructions on the preparation and submission of RAISE proposals.

The maximum duration is 5 years and the maximum award is \$1 million.

### **Additional Program Considerations**

#### **Broader Impact Activities**

The program supports a wide range of broader impact activities, and successful projects will include creative, well-integrated, effective, evidence-based broader impact activities developed within the context of the mission, goals and resources of the organizations and people involved. The expertise of collaborators, the proposal budget and the budget justification should reflect this integration. Example activities include but are not limited to those that create effective methods of science outreach and engagement with local communities or the public at large; translate research to benefit broader societal needs; involve early career researchers and students who are veterans, persons with disabilities or from other groups that are underrepresented in science, technology, engineering and mathematics (STEM); or foster new partnerships, including if focused on capacity building (e.g., with Minority Serving Institutions, two-year colleges or internationally). Additional guidance for broader impacts may be found in the PAPPG and in the [Dear Colleague Letter: A Broader Impacts Framework for Proposals Submitted to NSF's Social, Behavioral, and Economic Sciences Directorate](#).

#### **Ethics Statement**



The field of biological anthropology aspires to continually improve the integration of ethical considerations and practices into research projects. Such considerations could relate to community-engaged research or co-production of knowledge with living populations (e.g., research participants, descendant communities), many of whom are underrepresented in the STEM research enterprise; environmental impact of research; use of vertebrate animals; collection and analysis of human skeletal and biological data; researcher safety; data archiving and sharing, and other issues. With this solicitation, the program is therefore instituting a requirement for an ethics statement of no more than two pages for all research proposals, where the PIs can summarize the most salient ethical issues raised by the research and how the research team is approaching them. This document provides space to discuss issues not addressed at length elsewhere in the proposal, as well as to refer to issues that are addressed in other parts of the proposal.

#### **Community Engagement in Research**

Community engagement refers to substantive interaction with community partner organizations and anchor institutions such as governments; federal, state and local agencies; schools, libraries, health and social service providers; tribes and Indigenous-serving organizations; nonprofits; cultural organizations; and businesses. Co-production of knowledge includes the integration of different knowledge systems and methodologies to systematically understand the phenomena, systems and processes being studied in a research project. A co-produced approach includes research in which local and Indigenous peoples and organizations fully engage in the complete research process cycle from the development of research questions to the collection, use and stewardship of data and the interpretation, application and dissemination of results.

Proposals that include community engagement, partnerships with communities and international collaboration should either (1) have already established agreed-upon partnerships, documented with the appropriate letters of collaboration and budget allocations, or (2) provide a clear plan for community engagement and partnership building as part of the first year of the grant. Both options must follow best practices in community partnerships, especially if partnerships are to be established with underrepresented communities. Successful proposals will have the appropriate expertise on the PI's team to conduct community-based research, participatory research or place-based research. Sufficient funding should be allocated in the budget to support mutually beneficial and respectful interactions that not only produce meaningful research and education or outreach outcomes, but also focus on the concerns of partnering communities, including questions of data sovereignty, co-authorship or co-review of project outcomes.

### **Projects Involving Native, Tribal and Indigenous Communities**

Proposals that include research in Native or Tribal communities or on Tribal lands must include a letter or email as a supplementary document that confirms community collaboration and/or permission to work on associated lands from the relevant community organizations or tribal leadership (see the [U.S. Department of Housing and Urban Development Tribal Directory Assessment tool](#) or the [National Congress of American Indians tribal directory](#) ) . Collaborations should be well justified, in that they represent true intellectual collaboration and utilize the expertise and specialized skills, facilities and resources of the community. Collaboration with Native, Tribal and Indigenous communities should be reflected in the proposal budget and budget justification, such as through requests for sufficient funding to support the time and travel of Native community members, and through co-authorship on publications and presentations, as appropriate. Arrangements to allocate and share samples and data with the relevant communities should be discussed in the proposal or in the data management plan, following FAIR (Findable, Accessible, Interoperable and Reusable) principles for data management and [CARE \(Collective benefit, Authority to control, Responsibility and Ethics\)](#)  principles for indigenous data governance.

### **Projects Involving Collaboration with Foreign Organizations or Work in Foreign Countries**

As stated in the PAPPG, NSF rarely provides direct funding to support foreign organizations and only provides support for the U.S. portion of collaborative projects. If foreign organization involvement is essential to the project, subawards or consultant arrangements may be considered if the foreign organization contributes unique resources not otherwise available, or significant education, training and/or research opportunities to the U.S. Such information must be provided in the project description section of the proposal. For studies in countries other than the United States, the project description should discuss, where appropriate, collaborations with scientists and students from the host country, and how these individuals will be involved in the project.

Collaborations should be well justified, in that they represent true intellectual collaboration and use the expertise and specialized skills, facilities and resources of the foreign collaborator. Letters of collaboration must be included in the other supplementary documents section of the proposal. Principal investigators are encouraged to provide U.S. students and junior researchers with international research experiences. Where relevant, arrangements to allocate samples and data between host country organizations or institutions and U.S. organizations or institutions should be discussed in the proposal. Investigators are encouraged to include any such permits (including legally required collecting, import and export permits for samples, instrumentation and data), authorizations, and agreements, in the other supplementary documents section of the proposal.

### **Data Management**

As stated in the [PAPPG](#), principal investigators (PIs) are expected to share with other researchers, at no more than incremental cost and within a reasonable time, the data, samples, physical collections and other supporting materials created or gathered in the course of work under NSF grants. The Biological Anthropology Program is committed to the establishment, maintenance, validation, description and distribution of high-quality data sets generated by program-funded projects. Proposals should generate data products that are findable, accessible, interoperable and reusable (FAIR). The Biological Anthropology program requires that data be shared (barring ethical limitations on sharing) within two years of final data collection. See proposal preparation and submission instructions below for additional information.

Plans for the dissemination and sharing of research results will be traceable from the beginning to the end of a project (proposal, review and annual/final report). PIs are required to provide updates on the status of metadata and data archiving in annual and final project reports. See reporting requirements below for additional information.

### **Permits, Permissions and Collaborations**

PIs are responsible for obtaining the required authorizations from federal, state or local authorities for any collecting or other activities and for advising NSF that they have been obtained or requested. The proposal should briefly list the permits that are required and the timeline for approvals in the supplementary figures and tables document. For proposals that require support from centrally supported facilities, investigators must obtain letters of collaboration from the managing organization that follow the standard text described in the PAPPG, and those letters should be included as a supplementary document.


### **Field Projects**

Field projects must describe the protocol that will be undertaken to ensure the safety of the field party, especially students and others who are inexperienced in working under conditions that can be, at times, uncomfortable, unfamiliar, or threatening. Protocols should incorporate best practices to ensure both physical and emotional safety of all participants and should be uploaded as other supplementary documents. See the PAPPG for additional guidance.

### **Human Subjects Research**

Projects involving human subjects must indicate this on the cover sheet, including status of IRB approval and federal-wide assurance, and will need to provide Institutional Review Board approval prior to any award being processed (see the PAPPG). Though IRB approval is not required at the time of proposal submission, the program encourages PIs to briefly address the status of approval or the plan for IRB approval in the project description and provide any additional ethical considerations related to human subjects research in the ethics statement supplementary document.

### **Vertebrate Animal Research**

Projects involving vertebrate animals must indicate this on the cover sheet, including status of IACUC approval and PHS Assurance, and must provide IACUC approval and current PHS Assurance information prior to any award being processed (see the PAPPG). Though IACUC approval and PHS Assurance are not required at the time of proposal submission, the program encourages PIs to briefly address the status of approval or plan for vertebrate animals approvals in the project description and discuss any additional ethical considerations related to vertebrate animals research in the ethics statement supplementary document. For proposals with plans for primary data analysis in captive or laboratory animals, PIs are encouraged to discuss in the project description or ethics statement: 1) the Essential 10 items in the [ARRIVE Guidelines 2.0](#)  (Animal Research: Reporting of In Vivo Experiments) and 2) the 3R principles of Replacement, Reduction and Refinement and how the proposed study can accelerate progress toward meeting these goals.

## **III. Award Information**

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

**Estimated Number of Awards:** 20 to 40

**Anticipated Funding Amount:** \$4,000,000 to \$5,000,000

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:**

The categories of proposers eligible to submit proposals to the National Science Foundation are identified in the *NSF Proposal & Award Policies & Procedures Guide* (PAPPG), Chapter I.E. Unaffiliated individuals are not eligible to submit proposals in response to this solicitation.

### **Who May Serve as PI:**

PIs and co-PIs must be researchers who have a Ph.D. or equivalent education and experience, sufficient to allow them to carry out independent basic research. PIs of senior proposals are encouraged to include undergraduate and graduate students in their research projects, but not as PI/co-PI or 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:**

For a given Biological Anthropology proposal submission window, an individual may only be listed as a PI, co-PI, faculty associate or subaward lead on one proposal. Researchers may be listed in other capacities

(e.g., collaborator, consultant) on one additional proposal. This limit does not apply to conference or DDRIG proposals. CAREER proposals that are submitted to the program are reviewed in the fall; therefore, CAREER PIs should not submit a non-CAREER proposal for the July Biological Anthropology submission window. Proposals exceeding the limit for any person will be returned without review in the reverse order received.

Given the timeline of the submission and review process for each review cycle, proposals that have been declined are not eligible for resubmission for one year from the original date of submission and must be substantially revised to be considered. Exceptions to this policy require prior approval by a cognizant program officer. A proposal that has not been substantially revised will be returned without review as per the PAPPG.

## 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](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](mailto: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](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](mailto:nsfpubs@nsf.gov).

In determining which method to utilize in the electronic preparation and submission of the proposal, please note the following:

Collaborative Proposals. All collaborative proposals submitted as separate submissions from multiple organizations must be submitted via Research.gov. PAPPG Chapter II.D.3 provides additional information on collaborative proposals.

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.

It is critical for investigators to adhere to the standard proposal requirements that are described in detail in the PAPPG, except as modified by this solicitation.

### Proposal Set-Up

Select "Prepare New Full Proposal" in Research.gov. Search for and select this solicitation title in Step 1 of the Full Proposal wizard. The information in Step 2, Where to Apply, will be prepopulated by the system.

You may select additional programs if you would like those programs to consider co-review of your proposal with Biological Anthropology. After the proposal is created click on the 'Manage Where to Apply' link on the proposal main

page. This will open the "Manage Where to Apply" page where additional programs can be selected. Note that co-review of a proposal with other programs is considered when the work makes a strong case for advancing theory and basic knowledge in multiple communities served by multiple programs and when the project description engages literature from those communities.

### Cover Sheet

- Please pay careful attention to all PAPPG requirements regarding human subjects and vertebrate animal research (PAPPG II.D.iv&v). This includes listing IRB or IACUC approval status AND ensuring that relevant assurance numbers are provided.



### Project Summary

- Researchers should ensure that this one-page document provides sufficient summary information about the research design in the overview section (e.g., types of data and sample sizes, locations of fieldwork, methods of data collection and analysis) so that the reader has a relatively complete picture of the proposed project.

### Project Description

- If a proposal is a resubmission, the first paragraph of the project description must summarize how the proposal has been substantially revised and how the PI has responded to previous reviewer concerns.

**Data Management Plan:** There are five required sections as described in the PAPPG. In preparing those sections, PIs should ensure that the following points are addressed:

- Describe what data or samples will be collected, what analyses will be done and how the project will provide open and rapid access to samples, data, derived data products (e.g., models and model output) and other information on the project during and after the project's completion. If there are ethical limitations on the timing or extent of data use or sharing, these limitations should be described.
- Describe plans to make full data sets, derived data products (e.g., model results, output, and workflows), software, and physical collections publicly accessible within two years of final collection, barring any human subject and other ethical considerations. Some types of data may be considered "final" at different stages of processing in different fields. Thus, PIs should define, in their data management plans, in what state they would consider their data to be final and ready for public access. Any limit on access to data, samples or other information beyond the two-year moratorium period must be based on compelling justification, documented in the data management plan of the proposal, or approved by the program director. If the project is not expected to generate new data, samples or derived data products, the data management plan should include a statement that no detailed plan is needed, accompanied by a clear justification.
- For proposals that incorporate fieldwork or new sample collections, describe well-documented plans for fieldwork coordination and permitting, vouchering of new collections, specimen preparation, long-term specimen storage regimes that are openly accessible, specimen identifications and descriptions, georeferencing, data modeling and databasing and rapid dissemination of data into public databases. Where no repository or archive exists for collected data and samples, the PI is required to identify a preservation plan in the data management plan that complies with the general philosophy of sharing research products and data within two years of collection. This could include a museum- or university-hosted repository if that repository is intended for long-term curation.
- In addition, the following are resources that may be helpful:
  - [NSF Social, Behavioral and Economic Sciences \(SBE\) Directorate data management guidelines.](#)
  - Mulligan CJ, Boyer DM, Turner TR, Delson E, Leonard WR. 2022. [Data sharing in biological anthropology](#) . Yearbook of Biological Anthropology.
  - [American Journal of Biological Anthropology guidelines regarding data sharing](#) .

- [American Anthropological Association's \(AAA\) Statement on Professional Ethics](#), Sections 5, "Make Your Results Accessible," and 6, "Protect and Preserve Your Records," as well as the [AAA's digital data management course modules](#).
- [Registry of Anthropological Data Wiki](#).

#### Supplementary Documentation (as applicable or where required):

- Up to two pages of **technical illustrations, maps, sample survey questions, lists of collections/specimens and lists of required permits**. This space may not be used to extend the text section of the project description.
- **Biographical sketches** for postdoctoral scholars and primary international collaborators who are not already included as senior personnel should be uploaded into the Other Personnel Biographical Information section in Research.gov.
- **Letters of collaboration** from individuals or organizations that are integral parts of the proposed project but are not listed as PI, co-PI, or other senior personnel on the main proposal or any subaward. **These should be limited to stating the intent to collaborate, should not contain endorsements or evaluation of the proposed project, and must follow the template provided in the PAPPG:**

"If the proposal submitted by Dr. [insert the full name of the Principal Investigator] entitled [insert the proposal title] is selected for funding by NSF, it is my intent to collaborate and/or commit resources as detailed in the Project Description or the Facilities, Equipment and Other Resources section of the proposal."

- A **statement on ethics** of no more than two pages is required for all research proposals. Please discuss the most salient ethical issues raised by your research and explain how you are approaching them. We encourage you to think broadly about your ethical obligations to research participants, descendant communities, local stakeholders and others affected by your work. Such considerations could relate to community-engaged research or co-production of knowledge with living populations (e.g., research participants, descendant communities); environmental impact of research; use of vertebrate animals; collection and analysis of human skeletal and biological data; researcher safety; data archiving and sharing, and other issues. For research that involves human skeletal material, researchers may wish to refer to the [AJBA guidelines](#). This document provides space to discuss issues not addressed at length elsewhere in the proposal, as well as to refer to issues that are addressed in other parts of the proposal.

#### Other Required Documents

- **Project personnel list spreadsheet.** An additional spreadsheet listing all personnel involved in the project **must** be submitted. By "project personnel" we refer to all individuals involved in project activities, regardless of institutional affiliation or extent or duration of involvement. This spreadsheet is separate from the spreadsheet that lists collaborators and other affiliations (COA) information. Please [download the personnel list spreadsheet template](#) and read the instructions carefully. Using the template, compile an Excel file that provides information for all persons identified in the proposal as: "PI or co-PI" (i.e., those listed on the cover sheet), "Other Senior Personnel/Subawardee" or "Other Personnel" who have a biographical sketch included in the proposal, including all international collaborators. Only one spreadsheet should be submitted per project. The file must include the proposal ID assigned after submission of your proposal (i.e., not the Temporary ID # or Grants.gov ID #). Once completed, the file should be submitted by email to [SBE-BioAnthTemplate@nsf.gov](mailto:SBE-BioAnthTemplate@nsf.gov) within one business day of proposal submission.

#### B. Budgetary Information

##### Cost Sharing:

Inclusion of voluntary committed cost sharing is prohibited.

##### C. Due Dates



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

January 16, 2023 - January 26, 2023

July 20, 2023 - July 31, 2023

July 20 - July 30, Annually Thereafter

January 20, 2024 - January 31, 2024

January 20 - January 31, Annually Thereafter

Submission windows are for senior awards, scholars awards, RUIs, RCNs and stand-alone community-engaged research awards. Other proposals, including supplement proposals, are accepted on a rolling basis, while programs with separate solicitations, including CAREER and MCA, have their own deadlines specified in their separate program guidelines.

#### **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/ProposalPreparationanc](https://www.research.gov/research-portal/appmanager/base/desktop?_nfpb=true&_pageLabel=research_node_display&_nodePath=/researchGov/Service/Desktop/ProposalPreparationanc)

For Research.gov user support, call the Research.gov Help Desk at 1-800-673-6188 or e-mail [rgov@nsf.gov](mailto: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](mailto: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/](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.

## **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](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](mailto: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](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](https://www.nsf.gov/publications/pub_summ.jsp?ods_key=pappg).

### **Biological Anthropology Program Annual and Final Reports**

Annual and final reports should provide a succinct outline of the specific aims, broader impacts and data management plan as the first entry of the accomplishments section ("What are the major goals of the project?").

PIs are expected to specifically address progress on activities related to proposed broader impacts in annual and final reports. Information should be provided in the accomplishments section under questions about opportunities for training and professional development and dissemination of results to communities of interest. The impacts of these activities should be described in the impacts section, under impacts on society beyond science and technology.

Compliance with the project data management plan must be documented in annual and final reports. Identifiers for archived metadata and data, such as Digital Object Identifiers (DOIs) or persistent URLs, must be included in these reports in the section entitled "Products-Websites." Where the final report is due before the required date of sample or data submission, the PI must report plans for final data or sample submission in the impacts/information resources section. The PI should notify the program director by e-mail after final data and/or sample submission has occurred, even if this is after the end date of the award.

## **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:

- Marta P. Alfonso-Durruty, Program Director, telephone: (703) 292-7811, email: [malfonso@nsf.gov](mailto:malfonso@nsf.gov)
- Rebecca Ferrell, Program Director, W13144, telephone: (703) 292-7850, email: [rferrell@nsf.gov](mailto:rferrell@nsf.gov)
- Angelica Brewer, Program Specialist, W13254, telephone: (703) 292-4636, email: [abrewer@nsf.gov](mailto:abrewer@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](mailto:fastlane@nsf.gov)
- Research.gov Help Desk e-mail: [rgov@nsf.gov](mailto: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](mailto:support@grants.gov).

For general questions or more information, contact [opp-prf@nsf.gov](mailto:opp-prf@nsf.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.

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** (NSF Information Center): (703) 292-5111
- **TDD (for the hearing-impaired):** (703) 292-5090
- **To Order Publications or Forms:**
  - Send an e-mail to: [nsfpubs@nsf.gov](mailto:nsfpubs@nsf.gov)
  - or telephone: (703) 292-8143
- **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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