

UPR external funding success is of utmost importance to strengthen the connection between its investigators/faculty and funding entities who have the potential to sponsor their research and academic endeavors. This publication has been developed in order to summarize funding opportunities and promote the participation of faculty and collaborative research groups in their intent to apply for external funds. Such efforts are aligned with the UPR Strategic Plan 2017-2022: A New Era of Innovation and Transformation for Student Success; Certification 50 (2016-2017) of the Governing Board, December 19, 2016. Strategic Area: Research and Creative Work. Goal 2: Increase Applications for and awards of external funds for research and creative work.

SELECTED FUNDING OPPORTUNITIES

This is a selection of identified funding opportunities for the period ending 10/13/2022 and is in no way all-inclusive of funding opportunities available. Further information has been shared with External Resource Coordinators and Research Coordinators at each UPR campus by e-mail or MS Teams.

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1. EHR Core Research: Building Capacity in STEM Education Research (ECR: BCSER), NSF

Application Deadline: February 24, 2023

Award Amounts:

- **Individual Investigator Development in STEM Education Research: up to \$350,000 for three years**
- **Institutes for Methods and Practices in STEM Education Research: up to \$1,000,000 for three years**
- **Conference: between \$25,000 and \$100,000**

ECR: BCSER supports three types of projects designed to build investigators' capacity to carry out high-quality STEM education research. The Individual Investigator Development in STEM Education Research track (ECR: BCSER: IID) invites proposals to support individual investigators – both experienced and new to STEM education research – who have identified specific capabilities they need to develop more fully to conduct high-quality STEM education research in a critical area, along with a detailed professional development plan that will enable the investigator to complete a research project. The Institutes for Methods and Practices in STEM Education Research track (ECR: BCSER: IMP) invites proposals for institutes that would provide training and support in the use of cutting-edge methodological techniques and/or research practices to advance participants' knowledge, skills and competencies in STEM education research. Proposals that seek support to conduct well-focused conferences (ECR: BCSER: CONF) relevant to the competition goals also are invited.

Relevant Capacity-Building Foci

To successfully conceptualize, design, and execute studies capable of making contributions to knowledge in STEM education and learning, broadening participation, and workforce development, investigators and their teams typically require a wide range of knowledge, skills, expertise, and experiences. Examples of relevant capacity-building foci span a range of topics including but not limited to:

- Deep knowledge of subject-matter literature: Domain expertise (mastery of theories and findings) is critical to investigators' ability to identify important scientific questions and articulate a theoretically derived and framed rationale for the project.
- Interdisciplinary perspectives: Theories, methodologies, analytical techniques, and findings that can have a catalytic effect when explored in the context of multiple fields. Moreover, interdisciplinary endeavors also increase the human capacity of the nation to address problems, broadening the range and diversity of scholars working toward their solution (Porter & Rafols, 2009).
- Skill operationalizing research questions and articulating theories of change: Investigators should be able to operationalize the conceptual framework that organizes the responses to the research questions before collecting data, e.g., reducing variables into measurable factors.
- Expertise in study design, research methods, and data analysis techniques and familiarity with advances in computational, quantitative, qualitative and evaluative research methodologies: Expertise in these areas is essential in arguing the feasibility and appropriateness of the proposed research to generate sufficiently robust evidence on the topic(s) of interest and in executing the study as planned. Depending upon the nature of the research proposed, experience may be required identifying appropriate measures, devising appropriate sampling strategies, developing and establishing the psychometric properties of research instruments, and aligning analytic methods with the study design.
- Expertise that could advance educational innovation: Investigators should be able to incorporate new methods and techniques in their research that will improve education quality. For example, they may consider how artificial intelligence tools or large data sets could be used or mined to enhance traditional teaching and learning methods. Areas where this research may be applicable could include intelligent tutoring systems, personalized learning, computer-adapted assessments, or in automating of teaching tasks.
- Skill synthesizing study findings through meta-analysis, meta-synthesis, and other systematic review methodologies.
- Experience collecting, managing, documenting, and archiving data (e.g., to facilitate replication and reproducibility studies and secondary analyses).
- Experience building teams, establishing partnerships, leading collaborations, and mentoring junior collaborators.

Proposal Types

1. **Individual Investigator Development in STEM Education Research (ECR: BCSER: IID):** supports individual investigators – both experienced and new to STEM education research – in engaging with professional development activities that will build their capacity to advance knowledge of STEM education. The primary goal of ECR: BCSER Individual Investigator Development in STEM Education Research (ECR: BCSER: IID) awards is to facilitate the acquisition of expertise that will position the investigator to successfully conceive and execute STEM education research with the potential to meaningfully advance current knowledge about STEM learning and learning environments, broadening participation in STEM, and STEM workforce development. ECR: BCSER supports activities that enable researchers to expand their areas of expertise and acquire the requisite knowledge and skills to conduct rigorous research in STEM education. ECR: BCSER encourages IID proposals that will support investigators in shifting their research foci to potentially transformative, under-researched areas, including culturally competent and equitable STEM education research. IID submissions also may request support that would enable the PI to access facilities and other resources necessary to complete the proposed STEM education research project.
 - a. **Investigators New to STEM Education Research:** intended to support investigators who are new to the field and provide them with experiences that will build their capacity to make meaningful contributions to the STEM education knowledge base, while supporting them in establishing their careers within a STEM education research community.
 - b. **Investigators Experienced in STEM Education Research:** to support experienced STEM education researchers are intended to enable researchers to expand their areas of expertise and acquire additional requisite knowledge and skills to conduct rigorous fundamental STEM education research. ECR: Core and ECR: BCSER define fundamental research as curiosity-driven or use-inspired basic research that makes important contributions to general, explanatory knowledge (e.g., theories) that underlies STEM education. Fundamental research generates knowledge and understanding with the potential for broad relevance. (By contrast, applied research generates knowledge primarily with specific relevance such as to a particular pedagogy, curriculum, or technology.)
2. **Institutes for Methods and Practices in STEM Education Research:** supports field-initiated institutes that provide participants with training and support in the use of cutting-edge methodological techniques and/or practices that advance the participants' knowledge, skills, and competencies in STEM education research. Institute participants may include investigators at any stage in their career development.
3. **Conference Proposals:** proposals seeking for support to conduct well-focused conferences related to the ECR: BCSER goals may also be submitted. Proposals should include a conceptual framework for the conference, draft agenda, possible participant list, the outcomes or products that will result from the conference, and how these products serve the goals of the ECR: BCSER competition. Proposals focused on transition from discipline-based research to STEM education research and building skills for the future of STEM education research are of particular interest. Proposals focused on components of the national network of NSF INCLUDES also are welcomed. Investigators are encouraged to contact a cognizant EHR Program Officer prior to submission

Link to Additional Information: <https://www.nsf.gov/pubs/2022/nsf22548/nsf22548.htm>

2. Public Humanities Projects, NEH

Application Due Date: January 11, 2023

Anticipated Funding Amount:

- **Planning: up to \$75,000 for up to 24 months**
- **Implementation: from \$50,000 to \$400,000**
 - **Positions in Public Humanities: from \$50,000 to \$100,000 for a one-year, full-time staff position**
- **Chair's Special Awards: up to \$1,000,000**

This program supports projects that bring the ideas and insights of the humanities to life for general audiences through in-

person exhibitions and historic site interpretations, as well as in person, hybrid or virtual discussions and other scholar- or staff-led programs. Projects must engage humanities scholarship to analyze significant themes in disciplines such as history, literature, ethics, and art history.

Public Humanities Projects supports projects in three program categories and at two funding levels. Public Humanities Projects awards support projects that are intended to reach broad and diverse public audiences in non-classroom settings in the United States. Projects should engage with ideas that are accessible to the general public and employ appealing interpretive formats.

Project topics may be international, national, regional, or local in focus, but locally focused projects should address topics that are of regional or national relevance by drawing connections to broad themes or historical questions. Projects that do not address issues of concern to wider regional or national audiences might consider local sources of funding, such as state humanities councils. NEH will offer award amounts to successful applicants that reflect the project's scope and the expected audience size.

Public Humanities Projects must:

- be grounded in sound humanities scholarship
- offer an analytical perspective on the underlying themes and ideas in order to deepen public understanding of the humanities
- involve humanities scholars from outside the applying organization who contribute to all phases of the project
- attract a broad public audience or target a particular group underserved by the humanities
- offer engaging content approached through an appropriate variety of perspectives
- encourage dialogue and the exchange of ideas

Awards may support activities in support of public humanities projects, such as:

- meetings with humanities scholars and other content advisers, program partners, audience representatives, and consultants (consultants may include humanities scholars; education and public program specialists; historic site, interpretive, or cultural tourism experts; writers; media producers; or digital designers)
- research
- travel to archives, collections, sites, or other resources
- development and production of program or discussion guides, exhibition labels, brochures, digital assets, publications, or other interpretive material
- design of the interpretive formats
- planning and presentation of public programs and related publicity
- evaluation of the project's impact
- planning and conducting project-specific training for docents, discussion coordinators, or other interpretive leaders
- development, production, and publication of curriculum guides, catalogs, and other materials for teachers and students
- exhibition design and fabrication, as well as crating and shipping • conservation treatments of objects, not to exceed 15% of the NEH award
- development and construction of interactive components
- publicity expenses

Program categories:

1. Exhibitions - supports the creation of permanent exhibitions (on view for at least three years) and single-site temporary exhibitions (open to the public for a minimum of two months), as well as traveling exhibitions that will be available to public audiences in at least two venues in the United States (including the originating location)
2. Historic Places - supports long-term interpretive programs for historic sites, houses, neighborhoods, and regions that are intended to be presented to the public for at least three years. Such projects might include living history

presentations, guided tours, exhibitions, and public programs

3. **Humanities Discussions** - supports series of public programs related to your organization's humanities focus and resources. These programs should engage diverse public audiences with humanities resources such as historic artifacts, artwork, works of literature, or archival documents, and be geared toward topics or themes meaningful to your community. Discussion programs aimed at a local audience are encouraged to make connections to broader national themes. Programs may be moderated or led by a range of humanities experts such as historians, curators, librarians, scholars, authors, artists, or community or tribal leaders who will help interpret thematic content, and spark conversation and critical analysis. Projects may include, but are not limited to, symposiums, lecture series, reading and discussion programs, analytical discussions of museum collections or theater/musical performances, lifelong learning programs, or other methods of face-to-face audience engagement or informal education.

Funding levels:

- **Planning** - are available only to Exhibitions and Historic Places applicants. NEH does not fund Humanities Discussions at the Planning level. These awards support projects which have completed preliminary work resulting in the identification of possible analytical themes and interpretive methods that you will further explore during the planning period.
- **Implementation** - support projects that are in the final stages of preparation to "go live" before the public. Activities may include final scholarly research and consultation, design, production, and installation of a project for presentation to the public. The period of performance must include the required minimum exhibition time.
 - **Positions in Public Humanities** - provide full-time employment opportunities for recent graduates with an MA or PhD in the humanities and are intended to invigorate the interpretation of the humanities in a wide variety of cultural organizations.
- **Chair's Special Awards** - These projects must demonstrate the potential to address important humanities ideas in new ways and must be likely to reach very large national audiences. Successful proposals typically feature collaboration between multiple partners and a broad combination of diverse formats.

Link to Additional Information: <https://www.neh.gov/grants/public/public-humanities-projects>

3. Food and Agriculture Service-Learning Program (FASLP), USDA-NIFA

Submission Date: December 8, 2022

Award Budget: up to \$225,000 including direct costs for up to two years

The purpose of FASLP is to increase knowledge of agriculture and improve the nutritional health of children. The primary goals of FASLP are to:

1. Increase capacity for food, garden, and nutrition education within host organizations or entities and school cafeterias and in the classroom.
2. Complement and build on the efforts of the farm to school programs implemented under section 18(g) of the Richard B. Russell National School Lunch Act [(42 U.S.C. 1769(g)].
3. Complement efforts by the Department and school food authorities to implement the school lunch programs established under the Richard B. Russell National School Lunch Act (42 U.S.C. 1751 et seq.) and the school breakfast program established by section 4 of the Child Nutrition Act of 1966 (42 U.S.C. 1773).
4. Carry out activities that advance the nutritional health of children and nutrition education in elementary schools and secondary schools (as those terms are defined in section 9101 of the Elementary and Secondary Education Act of 1965 (20 U.S.C 7801).
5. Foster higher levels of community engagement and support the expansion of national service and volunteer opportunities.

FASLP supports projects that bring together stakeholders from the distinct parts of the food system to increase the capacity for food, garden, and nutrition education within host organizations or entities, such as school cafeterias and classrooms, while fostering higher levels of community engagement between farms and school systems. The goal of these efforts is to not only increase access to school meals for underserved children, but also to dramatically improve their quality.

FASLP is also focused on the development of leadership skills, knowledge, and qualities necessary to prepare students for food and agricultural and related careers in the private sector, government, and academia. Specific activities may include:

1. Developing practical applications to increase understanding of leadership roles, including critical thinking, problem solving, and communication skills; ethics and professionalism; and working in teams.
2. Connecting the academic classroom experiences with daily leadership roles and organizational activities.
3. Providing opportunities for mentoring and shadowing.
4. Organizing leadership academies, workshops, trainings, etc.

The projects intended for eligible applicants to expand existing farm-to-school initiatives and other food and agriculture experiential learning initiatives, such as training and technical assistance, evaluation activities, curriculum development, or incorporate farm to school strategies in trainings and professional opportunities along with working closely with agricultural producers in the local and regional areas with primary and secondary schools.

Preference will be given to applicants who submit FASLP proposals meeting priorities of 7 U.S.C. 7633(c)(2) that:

1. Hold a proven track record in carrying out the purposes described in Part 1.B of this RFA.
2. Work in underserved rural and urban communities.
3. Engage children in experiential learning about agriculture, gardening, nutrition, cooking, and where food comes from.
4. Facilitate a connection between elementary schools and secondary schools and agricultural producers in the local and regional area.

Proposals may include the following activities, but are not limited to:

1. Expanding farm-to-school programs beyond lunch to bring local or regional food products into the School Breakfast program.
2. Operating service projects (e.g., AmeriCorps, VISTA, Food Corps, local service corps programs, etc.) that support farm to school initiatives in schools.
3. Ready producers to participate in school food service by providing training on Good Agricultural Practices (GAP) and other food safety-related topics.
4. Providing technical support in the form of face-to-face and/or virtual training, consultations, webinars, etc.
5. Developing promotional campaigns in support of farm-to-school initiatives.
6. Expanding strategic planning efforts to expand or coordinate efforts across multiple school districts.
7. Conducting farm-to-school evaluation efforts.
8. Establishing new or strengthening existing community partnerships (e.g., working with personnel to identify appropriate suppliers, etc.).
9. Encouraging increased consumption of fruits and vegetables through promotional activities, taste tests, and other activities.
10. Expanding experiential or agriculture-based learning opportunities, such as the creation of school gardens, support to ag/food clubs, or increased exposure to on-farm activities.
11. Developing and evaluating integrated curriculum to reinforce food and nutrition-based learning throughout the school environment.

All projects must involve underserved rural and or urban communities and facilitate a connection between elementary schools and secondary schools with agricultural producers in the local and regional area.

Applicants are encouraged to seek and create partnerships with public or private, nonprofit or for-profit entities, including links with academic institutions (including minority-serving colleges and universities), and/or other appropriate professionals, community-based organizations, school districts, and local and state government entities.

Link to Additional Information: <https://www.nifa.usda.gov/grants/funding-opportunities/food-agriculture-service-learning-program>

4. Industry-University Cooperative Research Centers Program (IUCRC), NSF

Application Deadline:

- Preliminary Proposal: March 8, 2023
- Full Proposal: June 14, 2023

Award Budget:

- Planning Grants: up to \$20,000 for a one-year project
- Phase I: \$150,000 per year
- Phase III: \$50,000 per year

The IUCRC program catalyzes breakthrough pre-competitive research by enabling close and sustained engagement between industry innovators, world-class academic teams, and government agencies. IUCRCs help industry partners and government agencies connect directly and efficiently with university researchers to achieve three primary objectives:

1. Conduct high-impact research to meet shared and critical industrial needs in companies of all sizes.
2. Enhance U.S. global leadership in driving innovative technology development.
3. Identify, mentor, and develop a diverse, highly skilled science and engineering workforce.

Overview:

The IUCRC program provides a structure for academic researchers to conduct fundamental, pre-competitive research of shared interest to industry and government organizations. These organizations pay membership fees to a consortium so that they can collectively envision and fund research, with at least 90% of Member funds allocated to the direct costs of these shared research projects.

IUCRCs are formed around research areas of strategic interest to U.S. industry. Industry is defined very broadly to include companies (large and small), startups and non-profit organizations. Principal Investigators form a Center around emerging research topics of current research interest, in a pre-competitive space but with clear pathways to applied research and commercial development. Industry partners join at inception, as an existing Center grows or they inspire the creation of a new Center by recruiting university partners to leverage NSF support. Government agencies participate in IUCRCs as Members or by partnering directly with NSF at the strategic level.

Universities, academic researchers, and students benefit from IUCRC participation through the research funding, the establishment and growth of industry partnerships, and educational and career placement opportunities for students. Industry Members benefit by accessing knowledge, facilities, equipment, and intellectual property in a highly cost-efficient model; leveraging Center research outcomes in their future proprietary projects; interacting in an informal, collaborative way with other private sector and government entities with shared interests; and identifying and recruiting talent. NSF provides funding to support Center administrative costs and a governance framework to manage membership, operations, and evaluation.

Successful IUCRCs require:

- A capable research/management team with an entrepreneurial mindset.
- Universities, faculty, and students interested in engaging in research of interest to industry.
- A community of industry partners seeking pre-competitive, use-inspired research projects.
- Each IUCRC is expected to grow and become independently sustainable by the end of the NSF support.

Program Architecture

An NSF supported Industry-University Cooperative Research Center (“IUCRC” or “Center”) is a consortium comprising one or more University “Sites” and a number of Member organizations who pay membership fees that support the Center’s research costs and activities. It consists of the following main elements:

- University Sites: Universities/Institutions of Higher Education (IHEs) participating in an IUCRC, either as a

Lead Site or a Partner Site.

- **Members:** Companies (large and small businesses, startups, for-profit and non-profit entities) and government agencies (federal, state and local) who pay membership fees, recognized as Program Income (https://www.nsf.gov/publications/pub_summ.jsp?ods_key=pappg); please see Section VIII.D.4: Program Income, to become a Member of the IUCRC.
- **Industry Advisory Board (IAB):** Representatives from the Member organizations who participate actively in guiding and supporting the IUCRC's mission and vision, research roadmap, and related programs.
- **NSF:** NSF provides funding for administrative costs, program oversight, and a governance framework to manage membership, operations, and evaluation.

Link to Additional Information: <https://beta.nsf.gov/funding/opportunities/industry-university-cooperative-research-centers-program-iucrc-0>

5. Media Projects, NEH

Application Due Date:

- **Optional Draft:** December 7, 2022
- **Full Proposal:** January 11, 2023

Award Amounts:

- **Development:** up to \$75,000
- **Production:** up to \$700,000 (up to \$1,000,000 for Chair's Special Awards)

The Media Projects program supports the development, production, and distribution of radio programs, podcasts, and documentary films that engage general audiences with humanities ideas in creative and appealing ways. Projects must be grounded in humanities scholarship and demonstrate an approach that is thoughtful, balanced, and analytical; proposals must demonstrate the potential to attract a broad general audience.

The Division of Public Programs encourages media projects that promote a deeper understanding of American history and culture as well as those that examine international themes and subjects in the humanities.

Film and television projects may be stand-alone documentaries or series of films. Radio and podcast projects may be single programs, series, or segments within an ongoing program. Projects may include supplementary components such as discussion programs or websites. Regardless of subject and format, all projects should be intended for national or regional distribution.

All Media Projects proposals must:

- build on sound humanities scholarship
- deepen public understanding of significant humanities questions
- approach a subject analytically, presenting a variety of perspectives
- involve humanities scholars in all phases of development and production
- involve appropriate media professionals
- employ appealing and accessible program formats that will actively engage the general public in learning

Funding levels

- **Development:** enable media producers to collaborate with scholars to develop humanities content along with other program elements. Awards must result in a script or detailed treatment(s). You may also use a Development award to plan for outreach and public engagement. Prior to applying for a Development award, you should have:
 - assessed the major humanities scholarship related to the subject
 - identified humanities themes
 - assembled a group of humanities scholars to serve as advisers, and other experts if applicable
 - consulted with the humanities scholars to clarify the project's interpretive ideas
 - formed a media team to see the project through its development period

- identified resources (such as archival materials and potential interviewees)

Development awards may support activities such as:

- meetings with scholars
- research and preliminary interviews (including scholarly research and development of humanities themes)
- preparation of program treatments or scripts
- production of a work-in-progress or trailer
- creation of partnerships for outreach activities and public engagement

- **Production:** must result in the production and distribution of radio, podcast, television, and long- or short-form documentary film projects. Prior to applying for a Production award, you should have:
 - conducted extensive research on your subject, including archival work and preliminary interviews
 - identified humanities themes
 - involved humanities scholars in creating and interpreting the project’s content
 - drafted the script or detailed treatment(s)
 - designed your plans for distribution, outreach, and partnerships

Production awards may support activities such as:

- archival research and rights clearances
- meetings with scholars
- additional script development
- production (including filming, recording, and editing) and distribution
- development of related resources, such as websites, that explore the humanities content and themes central to the project
- outreach and public engagement

- **Chair’s Special Awards:** awards for projects of exceptional significance, audience reach, and complexity. A Chair’s Special Award should examine important humanities ideas in new ways and demonstrate the potential to reach especially large audiences. These goals can often be accomplished by combining a variety of program formats, forming creative collaborations among diverse institutions, and significantly expanding the scope and reach of the project.

Link to Additional Information: <https://www.neh.gov/program/media-projects>

6. Advanced Training in Artificial Intelligence for Precision Nutrition Science Research (AIPrN) – Institutional Research Training Programs (T32), NIH

Application Due Dates:

- **Letter of Intent: November 8, 2022**
- **Full Proposal: December 8, 2022**

Award Budget: budgets are not limited but need to reflect the actual needs of the proposed project

The overall goal of the NIH Ruth L. Kirschstein National Research Service Award (NRSA) program is to help ensure that a diverse pool of highly trained scientists is available in appropriate scientific disciplines to address the Nation's biomedical, behavioral, and clinical research needs. In order to accomplish this goal, NRSA training programs are designed to train individuals to conduct research and to prepare for research careers.

Research training activities can be in basic biomedical or clinical sciences, in behavioral or social sciences, in health services research, or in any other discipline relevant to the NIH mission. Institutional NRSA programs allow the Training Program Director/Principal Investigator (Training PD/PI) to select the trainees and develop a program of coursework, research experiences, and technical and/or professional skills development appropriate for the selected trainees. Each program should provide high-quality research training and offer opportunities in addition to conducting mentored research. The grant offsets the cost of stipends, tuition and fees, and training related expenses, including health insurance, for the appointed trainees in accordance with agency-approved support levels.

The objective of the Ruth L. Kirschstein National Research Service Award (NRSA) Institutional Research Training Grant (T32) program is to develop and/or enhance research training opportunities for individuals interested in careers in biomedical, behavioral and clinical research that are relevant to the NIH mission. The training program should provide:

- A strong foundation in research design, methods, and analytic techniques appropriate for the proposed research area.
- The enhancement of the trainees' ability to conceptualize and think through research problems with increasing independence.
- Experience conducting research using state-of-the-art methods as well as presenting and publishing their research findings.
- The opportunity to interact with members of the scientific community at appropriate scientific meetings and workshops.
- The enhancement of the trainees' understanding of the health-related sciences and the relationship of their research training to health and disease.

The proposed institutional research training program may complement other ongoing research training and career development programs at the applicant institution but must be clearly distinct from related programs currently receiving Federal support.

To be deemed responsive to this opportunity, applications must propose programs designed for the training of predoctoral students, postdoctoral fellows, or both. The training program is intended to create new intradepartmental/intercollege programs or augment the core methods courses in potentially two types of Ph.D. or postdoctoral training programs:

1. Biomedical sciences related to diet-related diseases, nutrition disparities, or nutrition science across the translational spectrum - In this situation, the applicants must describe plans and curricula that will offer new courses including practical and hands-on experience with AI including ML, advanced data analytics and computational modeling approaches specifically designed to handle the kinds of big and complex data described below as applied to health research at any different levels of focus (e.g., microscale, mesoscale or macroscale). While there are many different research topics trainees may select, ultimately the topic selected should be directly relevant to one or more objectives within the Strategic Plan for NIH Nutrition Research.
2. Mathematics, data science, AI, ML, computer science or computer engineering - In this situation, the applicants must describe plans and curricula that will offer new courses including practical and hands-on experience in biomedical/nutrition sciences relevant to diet-related chronic diseases across the translational spectrum and scales.

For either situation, next generation AIPrN scientists should be trained to curate, link, and mine large complex datasets. Inferential statistics developed for small sample surveys are inappropriate for analyzing populations with billions of records, which is why these trainees will require training in innovative computational and mathematical modeling approaches, techniques for data mining and harmonization, and methods for addressing data heterogeneity.

The foundational training for these AIPrN programs should include all the following:

- Coursework and training experiences in academia or industry using a multidisciplinary approach.
- Collaborative research opportunities.
- Mentorship in advanced computational methods.
- Training that promotes reproducibility of results and scientific rigor.

This program is not intended to support training or research in nutrition epidemiology or research that examines questions in food science or agricultural sciences.

Primary Organizational Focus of the Training Program

Given the cross-disciplinary focus of this AIPrN program, multiple PDs/PIs are required and necessary. This opportunity requires applicants to assemble an interdisciplinary team of scientific mentors to design and direct a cross-disciplinary training program.

Dual Primary Mentors

While traditional Ph.D. or postdoctoral programs may have a primary mentor for each trainee, this program requires two primary mentors (or thesis advisors) for each trainee. Mentors should have expertise in one of the following two areas:

1. Nutrition science or relevant biomedical research discipline.
2. AI including ML, computational or data science analytic approaches such as engineering, computer science, applied mathematics, or statistics.

Areas of Research Interest

Applications proposing AIPrN training programs should adequately prepare predoctoral and/or postdoctoral AIPrN candidates with expertise in biomedical sciences with skills in AI, ML, computational modeling and/or data science methods or vice-versa. These skills and knowledge should be applied as part of that training to topics that address objectives or cross-cutting areas in the Strategic Plan for NIH Nutrition Research, including but not limited to ingestive behaviors, imaging, precision nutrition science, dietary intake assessment, specific life stages or special populations, microbiome-host-disease interrelationships, diet-related chronic diseases, biomarkers, clinical nutrition, nutrition health disparities or other nutrition research topics of interest to one or more of the participating NIH Institutes and Offices.

NIH strongly encourages institutions with expertise in the areas discussed above who have not previously received training grants from NIH to apply. Proposed training programs may complement other ongoing research training and career development programs at the applicant institution. However, the research training experiences for this new program must be distinct from those currently receiving NIH support or that already exist at the applicant institution. The purpose is to create a new predoctoral and/or postdoctoral training program that is not presently available to potential AIPrN candidates at the applicant institution.

Institutional research training grants must be used to support a program of full-time research training. The program may not be used to support studies leading to M.D., D.D.S., or other clinical, health-professional training. Short-term training is not intended. However, trainees can be supported for the Ph.D. part of a dual degree program designed to train academic research physicians or dentists. Research training programs solely for short-term research training should not apply to this announcement.

Applicants are strongly encouraged to contact the Scientific/Research Contacts in advance to discuss their application for its overall relevance and responsiveness to this ONR-led training program and its specific relevance to the interests of the participating ICs (see Section VII., Agency Contacts).

Participating ICs:

- National Center for Complementary and Integrative Health (NCCIH)
- National Cancer Institute (NCI)
- National Heart, Lung, and Blood Institute (NHLBI)
- National Institute on Aging (NIA)
- Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD)
- National Institute of Dental and Craniofacial Research (NIDCR)
- National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)
- National Institute on Minority Health and Health Disparities (NIMHD)
- National Institute of Neurological Disorders and Stroke (NINDS)
- National Institute of Nursing Research (NINR)

- Office of Research on Women’s Health (ORWH)

Link to Additional Information: <https://grants.nih.gov/grants/guide/rfa-files/RFA-OD-22-027.html>

7. Preservation Assistance Grants for Smaller Institutions, NEH

Application Deadline: January 12, 2023

Award Budget: up to \$10,000 for a project period from one to eighteen months

Preservation Assistance Grants help small and mid-sized institutions — such as libraries, museums, historical societies, archival repositories, cultural organizations, town and county records offices, and colleges and universities — improve their ability to preserve and care for their significant humanities collections. These may include special collections of books and journals, archives, and manuscripts, prints and photographs, moving images, sound recordings, architectural and cartographic records, decorative and fine art objects, textiles, archaeological and ethnographic artifacts, furniture, historical objects, and digital materials.

The program encourages applications from small and mid-sized institutions that have never received an NEH grant as well as minority serving institutions: community colleges, Hispanic Serving Institutions, Historically Black Colleges and Universities, and Tribal Colleges and Universities, and Native American tribes and Native Alaskan and Native Hawaiian organizations with significant humanities collections. Furthermore, NEH encourages organizations or collections that represent the contributions of historically excluded communities.

If you have previously received a Preservation Assistance Grant, you may apply for another one to support the next phase of your preservation efforts. For example, after completing a preservation assessment, you might apply to purchase storage supplies and cabinets to rehouse a collection identified as a high priority for improved storage.

Allowable activities

The Preservation Assistance Grants for Smaller Institutions program funds a range of activities described below. You may combine two or more activities in a single application. For example, you may request funds for a consultant (and an assistant, if applicable) to conduct a preservation assessment and an on-site preservation workshop for the institution’s staff. Or you could request re-housing supplies, environmental monitoring supplies, and training by a consultant in environmental monitoring.

Within the conservation field, conservators usually specialize in the care of specific types of collections, such as objects, paper, or paintings. You should choose a conservator whose specialty is appropriate for the nature of your collections. Similarly, when assessing the preservation needs of libraries, museums, or archival holdings, you should seek a consultant specifically knowledgeable about the preservation of collections in these types of institutions.

1. General preservation assessments - You may request funding to engage a conservator or other preservation specialist to conduct a general preservation assessment and to help draft a long-range plan for the care and sustainability of your humanities collections. The consultant visits your institution to assess its policies, practices, and conditions affecting the care and preservation of its humanities collections and prepares a report that summarizes the findings and prioritizes recommendations for future preservation action.
2. Consultations with preservation professionals to address a specific preservation issue, need, or problem - You may request funding to hire a consultant to address specific challenges in the stewardship of your humanities collections. Consultants may engage in activities such as:
 - assessing the conservation treatment needs of selected items in a collection
 - assessing mechanical systems, such as HVAC, based on collection environmental needs for minor repairs and adjustments to improve efficiency and environmental conditions
 - studying light levels in exhibition and storage spaces and recommending appropriate methods for limiting light damage to collections

- planning for capital improvements that would enhance care of collections
 - developing detailed plans for improving storage or rehousing a collection
 - developing plans for improving security or fire protection for collections
 - developing and revising disaster preparedness and response plans, including continuity of operations plans
 - establishing an environmental monitoring program
 - instituting an integrated pest management program
 - implementing preventive conservation strategies that pragmatically balance effectiveness, cost, and environmental impact
3. Purchase of storage furniture and preservation supplies - You may request funding to purchase permanent and durable furniture and supplies (e.g., cabinetry, shelving units, storage containers, boxes, folders, and sleeves). Additionally, you may purchase discrete units to improve the environment, such as portable dehumidifiers, air conditioning units, or vacuums, if recommended in an assessment. You may also use NEH funds to support installation of storage furniture and shipping for furniture and other necessary supplies and materials.
 4. Purchase of environmental monitoring equipment - If you have previously completed a preservation assessment or consulted with an appropriate professional, you may request funding to purchase environmental monitoring equipment (e.g., dataloggers or light meters) and related software. If your staff does not have experience using the equipment or software, your request should include funding for training in its installation and use of and the interpretation of the data.
 5. Digital preservation assessment and storage - You may request funding to hire a digital preservation consultant for a general assessment or the development of detailed plans for the preservation of your digital collections. Also, you may request funding to purchase the recommended storage and storage media (e.g., external hard drives, RAID, NAS, and LTO systems).
 6. Education and training - You may request funding to support attendance at workshops and training courses that address preservation and/or access topics. Workshops must occur during the period of performance.
 7. Federally declared disaster areas - If your organization is in an area where the federal government declared a disaster or major emergency, you may request funding for the following activities:
 - disaster response, recovery, and mitigation for your humanities collections
 - conservation treatment of damaged collections
 - temporary storage and relocation
 - purchase of cleaning supplies and equipment
 - the reformatting of impacted collections as a preservation methodology

Link to Additional Information: <https://www.neh.gov/grants/preservation/preservation-assistance-grants-smaller-institutions>

8. BRAIN Initiative Cell Atlas Network (BICAN): Coordinating Unit for Biostatistics, Informatics, and Engagement (CUBIE) (U24 Clinical Trial Not Allowed), NIH

Application Deadline:

- **Letter of Intent: 30 days prior to the application due date**
- **Full Proposal: February 1, 2023**

Award Budget: budgets are not limited but need to reflect the actual needs of the proposed project

The BRAIN Initiative Cell Census Program is looking to establish the BICAN to broaden and deepen the systematic cell census and atlas efforts with a new emphasis on human brain. This FOA and the companion announcements intend to establish a network of projects that will work cooperatively to:

- Generate comprehensive and high-resolution brain cell atlases that encompass molecular, anatomical, and functional annotations of brain cell types (neurons, glia, and other non-neuronal cells) across the lifespan in human and other species, thereby providing a framework to enable both basic neuroscience and brain disorders-focused research.
- Develop and use leading-edge scalable technologies and multi-modal assays to enhance the capability and capacity of large-scale brain cell atlas research.
- Coordinate and collaborate across and beyond the BRAIN Initiative toward establishing a broadly accessible data ecosystem for brain cell types and circuits.

The expected outcomes of the BICAN include:

- Fundamental knowledge of diverse cell types and their three-dimensional organizational principles in the brain across lifespan and evolutionary trajectories.
- Comprehensive molecular taxonomies of brain cell types in human, non-human primate, and mouse.
- Open-access digital brain cell reference atlases of human, non-human primate, and mouse.
- Validated high throughput and low-cost approaches to characterizing brain cell diversity in human, non-human primate, and other species.

This opportunity seeks to fund cooperative agreement award(s) to join the Coordinating Unit for Biostatistics, Informatics, and Engagement (CUBIE). The aggregated capabilities of the awardees from this opportunity are expected to result in an ensemble of data analysis tools required to interpret the diverse imaging-based cell atlas data types. CUBIE will serve as a central unit of the BICAN to coordinate and collaborate with all BICAN projects. In particular, CUBIE will work closely together with the BRAIN Initiative Data Archives funded under RFA-MH-20-600 and the related FOAs, which are expected to establish cloud-based data archiving infrastructure for storing BICAN data and provide a high-performance computing environment and software development tools. The data visualization and analysis tools developed for the common imaging data processing pipelines are expected to be optimized and implementable in the computing environment of the BRAIN Initiative Data Archives. Thus, models, analytical tools, and analyzed data generated under this FOA are expected to be deposited to an appropriate BRAIN Initiative Data Archive where the investigators can optimize software toolchain and create data sandboxes for testing and comparing their codes and analysis results. Further, CUBIE is expected to collaborate with the broader research community to analyze and interpret all existing brain cell census/atlas data to enhance statistical power, ensure research rigor and data reproducibility, and foster the formation of a brain cell atlas ecosystem.

Specific goal

The specific goal is to establish common cloud-based data pipelines for uniform image registration to Common Coordinate Frameworks, analysis, visualization, and query of imaging-based molecular and anatomical phenotypes and features. Expected imaging data include those acquired from multiscale whole brain imaging in human, NHPs, and mouse at cellular resolution, 3D and 2D, spatial transcriptomics (e.g., MERFISH), immunohistochemistry, single neuron morphology (fMOST, MouseLight), cytoarchitecture histology (e.g., Nissl, H&E, myelin, nuclei, mitochondria), neural circuit tracing, etc. Imaging modalities include fluorescence, bright-field, MRI, etc. (see data examples, <https://biccn.org/data>). Expected activities include but are not limited to:

- Establishing common data/metadata formats and schema, data quality control, common coordinate frameworks, data compression, preprocessing, stitching, visualization, registration, and segmentation.
- Developing and optimizing cloud-based computing tools for scalable data analysis and normalization, artifacts and batch effects correction, 2D and 3D image viewer, interactive proofreading and editing tools, search and query tools.
- Identifying, quantifying, and classifying key cell type features (e.g., morphology; location and distribution; intra-, inter-, and extra-cellular characteristics that include molecules, organelles, connectivity, spatial and temporal relationships) and providing summary statistics, multimodal data mapping and integration, and visualization at different scales.

- Reprocessing brain cell atlas imaging data when appropriate to enhance data FAIRness.

Common goals of CUBIE

All CUBIE awards will be coordinated and integrated closely with BICAN, BRAIN Initiative data archives, standards, secondary analysis projects in the respective working groups to be established during the BICAN project years. As a whole, CUBIE will work together to:

- Enable the exploration of large-scale brain cell atlas data and knowledge and inspire research in brain function and disorders.
- Ensure research rigor and data reproducibility by making the data to be Findable, Accessible, Interoperable, and Reusable (FAIRness), and the process transparent.

The brain cell census and atlas data will be an important and unique resource for use by the broad research community, and thus applicants are expected to address the following issues related to the large-scale brain cell atlas data production and analysis and the BICAN operation as a whole.

Link to Additional Information: <https://grants.nih.gov/grants/guide/rfa-files/RFA-MH-22-291.html>

9. Biological Basis for how Environmental Exposures Impact Risk for Psychiatric Disorders (R01 Clinical Trial Not Allowed), NIH

Application Due Dates:

- Letter of Intent: January 22, 2023
- Full Proposal: February 22, 2023

Award Budget: limited to \$400,000 direct cost per year and should reflect the actual needs of the proposed project

The purpose of this opportunity is to stimulate research that builds on suggestive data linking exposure and psychiatric outcomes by supporting fundamental/basic studies that seek to understand the underlying biology of these relationships.

Psychiatric outcomes/phenotypes of interest and assessment in model systems

Studies should focus on psychiatric disorder(s) that typically emerge in late childhood, adolescence, or early adulthood. Given the high morbidity found in individuals diagnosed with a mental health disorder, applicants are encouraged to consider co-occurring psychiatric disorders/traits and potential shared etiologies in their model systems. The use of in vitro and ex vivo cellular/molecular models with accompanying rationale for their relevance to psychiatric disorders/traits, are also welcomed. Applicants proposing mechanistic studies in whole organism model systems should provide strong justification for the model and the phenotypes to be assessed (e.g., deficits in pre-pulse inhibition of the startle reflex response; impairments in executive function) and their relationship to the targeted psychiatric disorder(s)/trait(s). However, investigators should take great care in describing translation of models to the human condition, such as avoiding the attempt to validate an animal model for a particular psychiatric disorder. (Further discussion on the appropriate use of animals in basic and pre-clinical studies are described in this NIMH notice, <https://grants.nih.gov/grants/guide/notice-files/NOT-MH-19-053.html>).

Research approaches to link biology, exposure and psychiatric outcomes

All projects should incorporate one or more non-behavioral biologic measures that are directly relevant to the hypothesized relationship between the exposure(s) and psychiatric outcome(s). Applicants should provide a strong justification for the biologic measure(s) proposed for study. Biologic measures may include, but are not limited to, genomic, metagenomic, transcriptomic, proteomic, metabolic and small molecule biomarkers of cellular processes. Applicants are encouraged to capitalize on modern tools and approaches (e.g., chemogenetics and optogenetics, functional and structural brain imaging, population-based rodent models, exposomics) in their studies.

Specific areas of research interest

- Developmental windows of susceptibility for how chemical exposure(s) impact the underlying biology of sex differences (e.g., estrogen and androgen receptor expression in discreet brain regions) in the trajectory of psychiatric phenotypes.
- Neural circuitry underlying toxicant-induced changes in behavioral phenotypes relevant to psychiatric disorders/traits
- Relationship(s) between environmental exposures and synaptic processes (e.g., synaptic integrity, synaptic plasticity and/or synaptic transmission) that are implicated in psychiatric disorders/traits
- Epigenetic and epigenomic alterations (e.g., histone modifications, changes in DNA methylation, non-coding RNA regulation) caused by developmental exposures and their role in mediating the association of those exposures with psychiatric disorders/traits
- Alterations in level or pattern of peripheral biomarkers (e.g., cortisol, cytokines) and their role in mediating the relationship between environmental exposures and psychiatric disorders/traits
- Impact of environmental exposures on gut microbiome and consequences for risk of psychiatric disorders/traits
- Neurobiological changes underlying how environmental chemical exposures combine with other environmental factors (e.g., microbial pathogens such as viruses, diet and nutrition, psychosocial stress, substance use, physical activity levels) to protect or increase risk for psychiatric disorders/symptoms.
- Use of genetically engineered models (e.g., population-based rodent models) to identify susceptibility to exposure-related psychiatric phenotypes
- Role of non-neuronal cell populations, which make up close to 90% of the cells in the brain, in the effects of environmental toxicants on psychiatric disorders/traits.

Link to Additional Information: <https://grants.nih.gov/grants/guide/rfa-files/RFA-ES-22-008.html>

10. Advanced Chip Engineering Design and Fabrication (ACED Fab), NSF

Application Deadline:

- **Research Concept Outline: December 13, 2022**
- **Full Proposal: January 17, 2023**

Anticipated Funding Amount: \$6,000,000 for 5 to 7 awards

The program aims to accelerate discoveries and innovations in semiconductor research by overcoming chip design and fabrication barriers through an international partnership. The ACED Fab program will support, based on its collaborative agreement, the cost of chip fabrication using managed multi-project wafer (MPW) services. The ACED Fab program also emphasizes the importance of providing hands-on experiences for faculty and students in the entire cycle of conception, design, fabrication, testing, and functional evaluation of semiconductor chips. Furthermore, ACED Fab will support a collaborative cloud-based virtual design environment and encourage exchange and visiting activities among faculty and students from both sides of the collaborating teams.

An ACED Fab proposal must describe an integrated collaborative effort between the U.S. and Taiwan researchers focusing on bringing a specific innovation to integrated circuit prototypes. The project must aim to demonstrate cutting-edge functionality utilizing advanced fabrication technology as differentiators. The scope of an ACED Fab proposal must include at least one, but not more than three, semiconductor chip designs for tape-out utilizing fabrication process technologies of Taiwan's semiconductor foundries via multi-project wafer runs within the duration of the project.

The proposed ACED Fab research may target a wide range of applications including but not limited to, those listed below:

- Energy-efficient circuits and systems: low latency and high performance at lower power for sensing, computing, and communication.
- Edge-AI sensing, computing, and communication: edge-intelligence system-on-chip (SoC) development.
- Quantum chips: essential building blocks of very compact form factors and great scalability for quantum

computers and quantum communications.

- Emerging semiconductor heterogeneous integration: enabling beyond 5G and E-car.

The proposed collaborative research should emphasize the dramatic energy consumption reduction of existing computation and communication systems, reduce the environmental impacts of device and system manufacturing processes, and increase performance such as speed, capacity, and security.

It is expected that ACED Fab projects will integrate state-of-the-art experimental and computational approaches using advanced electronic design automation (EDA) tools in modeling and verification. They should offer hands-on training opportunities on design, fabrication, and testing to students and postdoctoral researchers engaged in the project. The proposal should articulate the intellectual merit and broader impacts of the proposed international collaboration.

NSF intends to establish a Research Coordination Network (RCN) for semiconductor foundry technology access (see priority A in NSF 22-116) that serves as the interface between foundries and the academic researchers funded by the ACED Fab program. The goals of the designated RCN are to lower the barrier for accessing advanced technology nodes at participating foundries, accommodate collaborative design teams including international partnerships, and enhance faculty and students' hands-on experiences in semiconductor chip design, fabrication, and evaluation. The RCN will provide ACED Fab teams one-stop service and uniform design support, such as handling legal processes, issuing design packages, facilitating a cloud design environment, validation of error-free designs, and distribution of foundry wafers to users, through embedded technology service provider(s) of the designated RCN. Collaborating teams awarded by this program become members of the designated RCN.

In tandem with the NSF RCN specified above, the Taiwan Semiconductor Research Institute (TSRI) will provide support for all funded ACED Fab teams on their tape-out submissions to the participating foundries. Prior to tape-out fabrication, TSRI expects to conduct design rule validation on the designs developed by the collaborative research teams. Applications, including uploading of layout and verification files, for chip tape-out under the joint projects are expected to be submitted to TSRI by the Taiwan principal investigator's account.

A collaborating team responding to this solicitation should develop and submit a single proposal. It is the responsibility of the U.S. proposer to submit the joint proposal to the NSF ACED Fab program for review. Proposers are expected to designate investigators from the U.S. and Taiwan to coordinate with NSF and NSTC and to serve as the Principal Investigators to their respective agencies. The joint proposal submitted to NSF must identify one U.S.-eligible PI as the lead and at least one Taiwan-eligible collaborator as senior personnel (non-funded). The proposals may leverage prior or existing NSF supported projects by extending novel concept in device/circuit/system/architecture to chip-level design, fabrication, and evaluation. Projects that extend fundamental research frontiers by the integration of advanced materials, devices, architectures, interconnect, and packaging solutions in chip design and fabrication are strongly encouraged. Although no prior tape-out experiences are required, the proposing team is expected to address readiness to access foundry fabrication, which is enabled by the proposed synergistic collaboration.

Link to Additional Information: <https://www.nsf.gov/pubs/2022/nsf22636/nsf22636.htm>

11. Build and Broaden (B2): Enhancing Social, Behavioral and Economic Science Research and Capacity at Minority-Serving Institutions, NSF

Application Deadline: January 19, 2023

Anticipated Funding Amount: \$8,000,000 for 25 to 30 awards

The goal of the SBE B2 funding opportunity is to encourage submission of proposals from MSIs, and partnerships with and among MSIs, in order to advance fundamental research and build capacity in the SBE sciences. NSF's SBE directorate welcomes submission of proposals from MSIs, and from partnerships that include MSIs, that address any of the research areas supported by the directorate.

B2 is designed to support research projects that:

- Contribute to stronger, more innovative science by diversifying research and widening the STEM pipeline.
- Furthers intellectual innovation in the social and behavioral sciences.
- Provide researchers with new ways to diversify and sustain collaborations.
- Build capacity and enhance research productivity in the SBE sciences at MSIs.
- Foster partnerships that strengthen career and research trajectories for faculty at MSIs.

Supported projects are expected to yield results that will promote scientific progress; advance national health, prosperity and welfare; strengthen collaborative research initiatives involving MSI scholars and MSI institutions; and establish more robust training and research networks among researchers in the SBE sciences and across other disciplines that have similar interests.

MSIs include historically Black colleges and universities (HBCUs), Hispanic-serving institutions (HSIs), Tribal Colleges or Universities (TCUs), and other institutions that enroll a significant percentage of underrepresented minority students 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. For more information, please see the U.S. Department of Education's definitions and lists of eligible postsecondary institutions.

Proposals from Principal Investigators who are not affiliated with MSIs must partner with senior personnel, a co-PI or a subawardee PI who is based at an MSI. In these cases, PIs must describe how their project will foster partnerships or research capacity-building with at least one MSI.

In addition to standard research and collaborative research proposals that advance research and build capacity for investigators at MSIs, the B2 Program also invites conference proposals, Early-concept Grants for Exploratory Research (EAGER) proposals) and Research Coordination Network (RCN) proposals (for more information on conference proposals and EAGERS, please consult the PAPPG). EAGER and RCN proposals should describe exploratory and experimental activities involving projects that are theory-driven with outcomes that may be uncertain and involve risk. Proposals may address any of the scientific areas supported by SBE.

Link to Additional Information: <https://www.nsf.gov/pubs/2022/nsf22638/nsf22638.htm>

12. Climate Program Office (CPO) Adaptation Sciences: Interdisciplinary research, engagement and capacity building to advance adaptation and resilience in islands of the Caribbean and the Pacific, NOAA

Application Deadline:

- Letter of Intent: October 31, 2022
- Full Proposal: January 31, 2023

Award Budget: up to \$150,000 per year for up to two years

The Adaptation Sciences Program resides in the Climate Program Office's (CPO's) Climate and Societal Interactions Division (CSI). CSI has traditionally been a home for high impact science, catalyzing some of the earliest U.S. government investments in regionally scaled, societally relevant, interdisciplinary climate research and engagement focused on characterizing risk and addressing vulnerability and adaptation through the use of climate knowledge and information in social context. Today, CSI continues to work with partners to enhance community, sectoral and national resilience in the face of climatic changes, through human-centered research, engagement and capacity building activities designed to connect innovative science directly to complex and dynamic preparedness, adaptation, and resilience challenges and opportunities.

The Adaptation Sciences Program

The AdSci program is composed of several lines of effort - each shaped by ongoing engagement and structured

partnerships with key stakeholders - and program strategies that reflect the societal needs and opportunities for collaboration that emerge from these partnerships. AdSci's current lines of effort include partnerships and projects focused on the following: international collaboration to advance adaptation and resilience; climate impacts on fisheries and pathways for adaptation in fishing communities; and water-resources challenges and opportunities in coastal communities. Research focuses on the integration of acute and chronic stressors that occur over multiple timescales, which can lead to cascading impacts that threaten to overwhelm and undermine systems important to daily life and social and economic well-being. The goal of the AdSci Program is to foster adaptation and resilience by supporting research and partnerships focused on:

- Developing an understanding of key drivers and conditions that shape and enable adaptation across multiple temporal and spatial scales (e.g., socioeconomic context, adaptive behaviors, risk perception, public awareness, and education)
- Identifying key aspects of and promoting opportunities for the use of scientific information to best support preparedness and planned adaptation of high value to social and economic goals.

The AdSci International program element works with partners in the public and private sector to enhance the knowledge, engagement and capacity needed to foster adaptation and resilience in the face of a changing climate. Programs work across regions, and the sectors and systems upon which communities depend (e.g., human health, disaster risk reduction, water resources, coastal and marine ecosystem management, food security, infrastructure), and help support the integration of climate information in related risk management and decision-making processes.

Adaptation Sciences: Island Resilience

Through this FY23 Federal Funding Opportunity, the Adaptation Sciences (AdSci) Program is seeking projects designed to advance interdisciplinary, participatory adaptation research, engagement and capacity building activities focused on select, permanently inhabited islands in the Caribbean and Pacific regions. Prior to submitting applications, investigators are encouraged to review the AdSci FY23 Information Sheet for additional information about program priorities and contacts.

In FY23, AdSci is seeking proposals for interdisciplinary adaptation research activities to identify and better understand evolving climate-related risks, vulnerabilities, and adaptive capacity, and to foster the integration of this knowledge into adaptation and resilience planning for islands. Applicants are encouraged to consider risks and solutions related to compound events and cascading impacts across sectors that have critical implications for systems such as food security, human health, energy, sustainable and regenerative tourism, ecosystems and livelihoods, coastal resilience and infrastructure, and methods to advance effective adaptation solutions, decision support tools, early warning systems and networks in island regions.

Through this competition, AdSci seeks to support interdisciplinary and participatory research activities that address island-identified resilience needs, with an emphasis on projects that result in:

1. contextually relevant and usable information about climate impacts, vulnerabilities, and solutions
2. the evaluation, identification and strengthening of the adaptive capacities of institutions, communities, sectors, and islands
3. the integration of climate information from NOAA and other regional or local sources in adaptation planning, action, and long-term resilience strategies. Within this framework, proposals should seek to address one or more of the following topics:
 - a. Identify evolving risks and vulnerabilities that arise as a result of the intersection of socioeconomic and climate stressors in these islands and assess the adaptive related capacity within and across key sectors, including the food-energy-water nexus.
 - b. Evaluate, test and/or scale up approaches to mitigating risk and advancing effective adaptation, including methods related to compound events and cascading impacts, nature based solutions, climate information and early warning systems, and/or low-carbon adaptation and resilience solutions.
 - c. Advance understanding of key barriers and enabling conditions (e.g., governance, attitudes, political norms, education, culture) that influence adaptation and resilience in islands of the Caribbean and Pacific

through the use of participatory social science methods.

Proposals should focus on one or more islands within the following regions:

Region A (Caribbean): Antigua and Barbuda, The Bahamas, Barbados, Belize, Dominica, Dominican Republic, Grenada, Jamaica, St. Kitts and Nevis, St Lucia, St. Vincent and the Grenadines, and Trinidad and Tobago, **Puerto Rico** and the U.S. Virgin Islands.

Region B (Pacific): the Federated States of Micronesia, Fiji, Kiribati, Maldives, Marshall Islands, Mauritius, Mauru, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu, Hawaii, American Samoa, Guam, the Northern Mariana Islands.

Link to Additional Information: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=343880>

13. Biotechnology Risk Assessment Research Grants Program (BRAG), USDA-NIFA

Application Deadline:

- **Letter of Intent (Standard Research Only): December 1, 2022**
- **Full Proposal: January 19, 2023**

Award Budget:

- **Standard Research Proposals: up to \$650,000 total (including indirect costs) for project periods up to four years**
- **Conference Grants: up to \$50,000 total (indirect costs are not allowed)**

The purpose of the program is to support the generation of new information that will assist Federal regulatory agencies [USDA's – Animal and Plant Health Inspection Service - Biotechnology Regulatory Services (APHIS-BRS), Environmental Protection Agency (EPA), and Department of Health and Human Services (DHHS) Food and Drug Administration (FDA)] in making science-based decisions about the environmental effects of introducing genetically engineered (GE) organisms by techniques that use recombinant, synthesized, or amplified nucleic acids to modify or create a genome. The organisms include plants, microorganisms (including fungi, bacteria, and viruses), arthropods, fish, birds, livestock, and other animals. These include related wild and agricultural organisms.

The statutory program goals and objectives are to authorize and support environmental assessment research to help identify and analyze environmental effects of biotechnology and to authorize research to help regulators develop long-term policies concerning the introduction of such technology.

The BRAG program supports applied and/or fundamental research relevant to environmental risk assessment, including biological risk, and the Federal regulatory process. When evaluating GE organisms, Federal regulators must answer the following four general questions:

1. Is there a hazard? (Potential hazard identification.)
2. How likely is the hazard to occur? (Quantifying the probability of occurrence; identifying likely exposure scenarios.)
3. What is the severity and extent of the hazard if it occurs? (Quantifying the effects)
4. Is there an effect beyond what might occur with an unmodified organism or an organism that has similar traits, but was developed using other technologies?

The BRAG program will also support risk management research, which is defined as either:

1. Research aimed primarily at reducing negative effects of specific biotechnology derived agents.
2. A policy and decision-making process that uses risk assessment data in deciding how to avoid or mitigate the negative consequences identified in a risk assessment.

The program also encourages proposals seeking partnership with or involvement of international entities where appropriate and domestically beneficial. Research proposals must be of high quality and have merit based upon their relevance to the purpose of the BRAG program. The BRAG program is especially interested in research that is not already

in well-developed areas of study. Exploratory research that relates specifically to federal regulatory needs is preferred.

NIFA is soliciting applications for the BRAG program under the following program areas:

- **Standard Research Proposals** - address issues related to newly developed GE organisms that are animals, plants, insects, and/or microorganisms. Research proposals can be applied and/or fundamental and must address one of the following five program areas:
 1. Management Practices to Minimize Environmental Risk of GE Organisms - Research designed to develop appropriate management practices to minimize physical and biological risks to the environment associated with GE organisms.
 2. Methods to Monitor and Understand the Dispersal of GE Organisms - Research designed to develop methods to monitor and understand the dispersal and/or population dynamics of GE organisms.
 3. Gene Transfer between Genetically Engineered Animals, Plants, and Microorganisms and Related Wild and Agricultural Organisms - Research designed to further existing knowledge about the characteristics, rates, and mechanisms of gene transfer that may occur between GE organisms, and related wild and agricultural organisms.
 4. Environmental Effects of GE relative to Non-GE Organisms in the Context of Production Systems - Environmental assessment research on production systems that compare the relative impacts of animals, plants, and microorganisms modified through incorporation of traits introduced by genetic engineering to other types of production systems.
 5. Other Research Topics Designed to Further the Purposes of this Program - Other areas of research designed to help identify and analyze environmental effects of biotechnology and help regulators develop long-term policies concerning the introduction of such technologies.

- **Conference Proposals** - Applicants to the BRAG program may request partial funding to organize a conference or workshop that brings together scientists, regulators, and other stakeholders to review science-based data relevant to gene flow and co-existence, emerging technologies related to biotechnology (such as genome editing and gene drives), risk assessment, or risk management of GE organisms released into the environment. To be eligible for funding, the steering committee for the proposed conference should include representatives from a variety of relevant and appropriate scientific disciplines. The conference must occur after August 1, 2023.

Link to Additional Information: <https://www.nifa.usda.gov/grants/funding-opportunities/biotechnology-risk-assessment-research-grants-program>

14. Community Partnerships to Advance Science for Society (ComPASS): Coordination Center (U24 Clinical Trial Optional), NIH

Application Deadline:

- **Letter of Intent: December 27, 2022**
- **Full Proposal: January 27, 2023**

Award Budget: budgets are not limited but need to reflect the actual needs of the proposed project

The purpose of this Funding Opportunity Announcement (FOA) is to solicit applications for the Community Partnerships to Advance Science for Society (ComPASS) Coordination Center (CCC). The CCC will provide administration, coordination, data, and research capacity-building and training support to the ComPASS consortium. In addition to the CCC, the consortium includes Community-led, Health Equity Structural Intervention (CHESI) projects that intervene on structural factors that create and perpetuate health inequities and Health Equity Research Hubs to provide localized technical assistance to the community-led health equity structural interventions. This FOA seeks to fund a single Coordination Center as an integral part of the ComPASS Program.

The first overall goal of the ComPASS Program is to catalyze, develop, and rigorously assess Community-led, Health Equity Structural Interventions that leverage multisectoral partnerships to advance health equity. A second overall goal of ComPASS is to develop a new health equity research model for community-led, multisectoral structural intervention

research across NIH and other federal agencies.

Three initiatives will be used to achieve the ComPASS Program goals:

- The **Community-Led, Health Equity Structural Interventions (CHESIs)** will develop, implement, assess, and disseminate co-created community-led, health equity structural interventions in partnership with research organizations, by intervening upon structural factors that produce and perpetuate health disparities. Approximately, 20-25 CHESIs will be awarded.
- The **ComPASS Coordination Center (CCC)** will lead overall program management and coordination of administrative, data, capacity-building, partnership, training, and the National Health Equity Research Assembly (HERA) activities.
- The **Health Equity Research Hubs (Hubs)** will be funded in FY 2024 and provide localized technical assistance and scientific support, as well as partnership support and research capacity-building and training previously designed in collaboration with the CCC. Five Hubs will be awarded.

Through these initiatives, the ComPASS goals will be achieved by:

- Supporting community organizations and their research partners in co-creating research to evaluate community-led, health equity structural interventions.
- Engaging multisectoral partnerships, both locally and nationally, in advising, guiding, and sustaining the community-led health equity structural interventions.
- Building the research capacity in structural intervention research and implementation, community-led research, and sustainability among community organizations and their research partners.
- Developing methods for capturing social determinants of health information and collecting and analyzing data to evaluate outcomes from community-led health equity structural interventions.
- Disseminating promising approaches resulting from the community-led health equity structural interventions.

ComPASS Coordination Center (CCC) – This Opportunity:

The CCC will be responsible for managing cross-consortium functions, including effective communication, collaboration, and coordination across the CHESIs and Hubs. The Center will comprise three core functions:

1. administration and coordination - includes facilitating the work of the ComPASS consortium in collaboration with NIH scientific staff for the overall management of the ComPASS Program
2. data collection, management, and assessment - will manage data infrastructure, collection, integration, storing, security, access, sharing, and analysis for the ComPASS Program. Data collected from ComPASS activities and awardees will be used to study program goals, inputs, activities, outputs, and impacts
3. research capacity-building and training - will develop, identify, and facilitate common research capacity-building and training of ComPASS awardees and their research partners to support the capacity of community organizations and their partners to lead the development, implementation, and assessment of community-led structural interventions and to foster future capacities to conduct health equity research.

The administration and coordination function will focus on developing the overall organizational framework of ComPASS, providing and managing the administrative and logistical support for all program activities including the ComPASS consortium (i.e., CHESI awardees, the Hubs, and other scientists and groups as appropriate) in collaboration with NIH scientific staff, and fostering synergy across activities and functions. The data and assessment function will manage data infrastructure and collection; common data elements, in collaboration with the CHESI and Hub awardees; data harmonization; and data storing, access, security, and sharing for the ComPASS Program. The CCC will also assist in standardizing data analysis and monitoring data sharing progress. An additional function of the data core is to coordinate metadata/data models and/or provide a service that maps ComPASS data models to a common data model/schema that would facilitate the harmonization of ComPASS data across CHESI projects, assist projects with identifying appropriate repositories for the data, and with ensuring deposition of data to those repositories. All data collected as part of ComPASS

activities will be used to achieve the overall goals of ComPASS and to determine health impacts. Also, the CCC is expected to publicly share de-identified data from the ComPASS Program in accordance with NIH Policy for Data Management and Sharing and the Responsible Management and Sharing of American Indian/ Alaska Native Participant Data. Dissemination of other material such as conceptual models, tools, and resources will align with the CCC milestones. The purpose of the research capacity-building and training function is to enhance the capabilities of community organizations and their partners to conduct health equity structural intervention research in collaboration with relevant multisectoral entities and to make meaningful positive impacts on improving health outcomes among populations with health disparities. This function will identify and facilitate common research capacity-building and training needs and opportunities for CHESI awardees and their research partners to support the planning, implementation, assessment, and dissemination of the CHESIs projects.

Central to the CCC is the establishment and management of the National Health Equity Research Assembly (HERA). The National HERA will comprise an invited group of federal and non-federal members such as those in the transportation, housing, urban planning, and public health sectors to provide vital consultation on the development and implementation of the CHESI projects. These national level representatives will facilitate successful research collaborations and opportunities as well as consult on the sustainability of the interventions and their potential policy levers. Local HERAs will also be established by the CHESIs, based on consultation from the National HERA and the needs of the specific CHESI. Each intervention project will have a local HERA comprised of Tribal (as appropriate), state, regional, local government, and relevant private sector partners to provide contextualized support to guide the development, implementation, assessment, dissemination, and sustainability of the interventions at the local level.

Link to Additional Information: <https://grants.nih.gov/grants/guide/rfa-files/RFA-RM-23-001.html>

15. DOL Nursing Expansion Grant Program, US Dept. of Labor

Application Deadline:

- **Letter of Intent: 30 days prior to the application due date**
- **Full Proposal: December 15, 2022; September 12, 2023**

Anticipated Funding Amount:

- **Nurse Education Professional Track (Individual): range between \$2 million and \$6 million**
- **Nursing Career Pathways Track: range between \$1 million to \$3 million**

The purpose of this program is to increase nursing instructors and educators, and to expand and diversify the pipeline of nursing professionals who can fill quality jobs to boost the nation’s healthcare systems while advancing equity. The U.S. is facing a healthcare workforce crisis, particularly for nurses, due to a variety of factors, many of which impact job quality, including an aging healthcare workforce; lack of qualified instructors, educators, and preceptors; workload intensity and burnout; high patient-to-nurse ratios; and an increased demand for healthcare workers, all compounded by the global COVID-19 pandemic.

This opportunity seeks to align and build on the stakeholder engagement, research, and lessons learned from “The Future of Nursing: Leading Change, Advancing Health,” developed by the National Academy of Medicine (NAM) (formerly known as the Institute of Medicine), in partnership with the Robert Wood Johnson Foundation. [6] This report provided the following recommendations for an action-oriented blueprint for the future of nursing, including changes in public and institutional policies at the national, state, and local levels:

- Reconceptualizing the role of nurses within the context of the entire workforce, the shortage of nurses, societal issues, and current and future technology.
- Expanding nursing faculty, increasing the capacity of nursing schools, and redesigning nursing education to assure that it can produce an adequate number of well-prepared nurses able to meet current and future healthcare demands.
- Examining innovative solutions related to care delivery and health professional education by focusing on nursing and the delivery of nursing services.
- Attracting and retaining well-prepared nurses in multiple care settings, including acute, ambulatory, primary care,

long term care, community, and public health.

1. Program Design: Dual Tracks for Training Nurse Education Professionals and Nursing Professionals

To achieve the goals of the FOA, applicants are required to propose research and evidence-based solutions that address one of the following two training tracks:

a. Nurse Education Professional Track: Increase Nursing Instructors and Educators to Train the Next Generation Healthcare Workforce and Build Resilient Healthcare Systems

This FOA will fund projects to bolster the nursing instructor and educator infrastructure by developing innovative strategies for recruiting and training current and former nurses to transition their nursing careers, in whole or in part, from a healthcare clinician focus to a nurse education focus. Nursing schools across the country lack the capacity to educate and train the next generation of needed nurse education professionals. Currently, there is a high number of vacancies for nurse education professionals for baccalaureate and/or graduate nursing programs, which will only be exacerbated by the impending wave of nurse education professional retirements. According to the American Association of Colleges of Nursing (AACN), this nurse education professional shortage is impacting nursing programs' ability to enroll enough students to meet the projected demand for nursing services. In 2019, U.S. nursing schools turned away 80,407 qualified applicants from baccalaureate and graduate nursing programs due to an insufficient number of faculty, clinical sites, classroom space, and clinical preceptors, as well as budget constraints.

The nursing instructor and educator career track has not traditionally been seen as desirable by nurses due to the lower amount of pay and the expected higher education requirements, compared to nurse caregiving occupations. This is not only an economic issue, but an equity issue because it lends itself to an inadequately diverse group of nurse education professionals, which further impacts nurse preparation. This FOA will support projects that develop innovative strategies that address critical obstacles which inhibit individuals from achieving the required advanced degrees and certifications necessary to move into nurse education occupations. Applicants must foster strategic partnerships and design training programs that address these challenges to make instructors and educators a desirable occupation

b. Nursing Career Pathways Track: Expanding the Pipeline of Nursing Professionals

The DOL Nursing Expansion Grant Program will expand the pipeline of nursing professionals by providing nursing career pathways training and employment programs to train participants as frontline healthcare professionals and paraprofessionals, including direct care workers, seeking to advance to quality jobs along the nursing career pathway. A key aspect of nursing training is the mentorship of an experienced nurse during a nurse trainee's clinical rotation, referred to as preceptors. Preceptors are experienced nursing professionals who provide one-on-one relationships with students to help them develop clinical skills and competencies, gain practical experience working with patients in the work environments, understand the clinical setting and the patient population, and acclimate to the role of a professional nurse. These preceptor duties are in addition to a nurse's regular day-to-day duties, and often are done for no additional monetary or non-monetary compensation. To achieve the FOA's goal to expand the pipeline of nursing professionals, applicants must describe the strategy to support the increased uptake of experienced nursing professionals who will become preceptors to mentor and prepare a new generation of nurses. This track requires applicants to address this issue as part of their workforce development strategy by using partnership agreements with their employer partners to ensure reduced administrative barriers, time carved out of the regular schedule for the preceptor work, and incentives or additional pay for taking on the preceptor role. Applicants should also consider ways to address the growing need for mental health services provided by healthcare professionals, creating career pathways to behavioral health nurses and psychiatric nurse practitioners.

These grants will fund public-private partnerships that will develop robust career pathways and training models for workers to advance along the career ladder to middle- to high-skilled occupations in the

nursing field. Therefore, applicants must develop partnerships that will create training to support advancement along a nursing career pathway that results in nursing postsecondary degrees and licensure to practice nursing. These training models may include accelerated Associates degree to BSN programs, and bachelor's degree or equivalent programs to support individuals' advancement from occupations such as certified nursing assistants (CNA), licensed practical nurses (LPN), and licensed vocational nurses (LVN) into registered nurses (RN), nurse practitioners, clinical nurse specialists, or other advanced nursing occupations.

For the Nursing Career Pathways Track, applicants must also propose partnership strategies and career pipelines that will fill the critical shortage of nursing preceptors. Allowable activities to support this would include the development of partnership agreements with clinical settings to identify, support, and assign more experienced nurses as preceptors, while ensuring the preceptors are incentivized through flexible scheduling, set-aside hours for preceptor work, and leveraging employer-funded financial incentives or other types of non-monetary incentives provided by the employer to address the critical shortage of nursing preceptors. ETA strongly encourages grantees to leverage other sources of funding for preceptor payments, such as through dedicated HRSA grants that support such efforts, as well as human services programs, and other community partners.

2. Worker-Centered Sector Strategies

The DOL Nursing Expansion Grant Program is grounded in the principles of worker-centered sector strategies. A sector strategy is a systems approach to workforce development that involves a public-private partnership of multiple employers within an industry, that brings together educational institutions, economic development agencies, workforce development systems, and labor, worker, and community organizations to identify and collaboratively meet the workforce needs of that industry within a given labor market. Sector strategies often bring together partners that jointly execute a career pathways model.

- a. Cross-Cutting Principles:
 - i. Strategies for Ensuring Diversity, Equity, Inclusion, and Accessibility
 - ii. Career Pathways
 - iii. Approaches for Increasing Job Quality

Link to Additional Information: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=341995>

16. Leading Culture Change Through Professional Societies of Biology (BIO-LEAPS), NSF

Application Deadline: July 3, 2023

Award Information:

- **Evaluation Awards: up to \$500,000 for up to two years**
- **Design Awards: up to \$500,000 for up to two years**
- **Implementation Awards: up to \$2,000,000 for four to five years**

The BIO-LEAPS program of the NSF Directorate for Biological Sciences (NSF BIO) aims to advance diversity, equity, and inclusion (DEI) in the biological sciences by leveraging the leadership, broad reach, and unique ability of professional societies to enact culture change that results in welcoming climates for diverse individuals. This program will consider the involvement of professional societies or organizations that support research in any of the sub-disciplines in biology that is supported by NSF's Directorate for Biological Sciences. The BIO-LEAPS program is particularly interested in culture change efforts with potential for broad impacts on an entire discipline or sub-discipline, such as might be achieved through partnerships across multiple societies; engagement with key stakeholders, including but not restricted to, grass-roots organizations, early-career groups, or industries; and consortium-building for collective action. Proposals are expected to articulate how the investigators define culture, what specific components of culture they are trying to change, and how they will facilitate change at a broad scale. BIO-LEAPS proposers are expected to partner with, or use the resources available through, professional societies to help change the culture of biology. NSF BIO-LEAPS is interested in supporting a wide range of professional society activities, especially those with strong potential to influence cultural factors that impact individuals historically excluded from STEM. Examples include, but are not limited to: demographic

self-assessments to determine baselines for change; development of community standards and how they are implemented for strongest impact; diversification of journal editorial and publishing practices; inclusive society conference practices; equitable composition of society leadership; networking and mentoring opportunities for historically excluded groups; DEI and inclusive leadership training; society partnerships for amplifying change; and early-career leadership opportunities.

The BIO-LEAPS program recognizes that disciplines and professional societies may be at different points in the process of assessing and addressing their culture. Therefore, this solicitation offers three tracks appropriate for various stages of project development. Proposers are not required or expected to pursue these in a specific order, and there is no requirement that one track be completed prior to any other. Proposers should assess the three tracks described below to determine which one best fits their current needs. Description of the three BIO-LEAPS tracks:

1. **Evaluation Track** - for projects focused on assessment and research of the values, norms, priorities, and practices associated with the culture of the discipline or sub-discipline (e.g., demographics and/or climate--including power-dynamics, procedural justice, norms, and behavioral expectations). Proposals submitted to this track can include evidence-based assessment and research activities (e.g., applied social science research focused on equity or cultural change in biology), as long as these activities are associated with measuring and assessing culture change through professional societies, and they have the potential for broad impact. Examples of activities supported by this track include the creation of new tools for measuring climate or other approaches for evaluation and assessment of culture, as well as dissemination. Assessment and evaluation tools must include evidence of their effectiveness in measuring the intended factors. PIs may request up to \$500,000 for up to 2 years of support for this track. Formative assessments of activity in this track need to be reported in annual reports. Submissions to this track should begin with "EVALUATION:" in the title.
2. **Design Track** - for projects to develop an evidence-based plan to address broad-scale culture change within a discipline or sub-discipline. Proposals submitted to this track can include activities such as gathering the appropriate partners for a larger network of participants and/or developing resources to build the necessary infrastructure to submit a larger proposal. Proposals should explicitly describe why the funded activities are necessary and how the funded activities will be used to create a future initiative, be it a grant proposal (e.g., a future BIO-LEAPS proposal or a proposal to another solicitation) or other activity. PIs may request up to \$500,000 for up to 2 years of support for this track. Formative assessments of activity in this track need to be reported in annual reports. Submissions to this track should begin with "DESIGN:" in the title.
3. **Implementation Track** - for projects to implement evidence-based cultural change strategies that leverage the influence of biological professional societies. These projects are expected to have a broad scope for cultural change across one or more (sub-)disciplines. Significant impacts will likely differ, depending on the systemic inequity issue(s) addressed, the culture-change goals identified, and the proposed intervention(s). Information on the numbers and percentages of individuals or organizations reached and the degree of change that is expected from those who participate should be articulated in the proposal to explain the scope of reach. For example, proposals by professional societies to alter the format/content/approach of all their regional and national conferences to include activities meant to change the practices, norms, and values of biology or its sub-disciplines as a whole could have significant reach if the societies have a large and broad enough membership and conference attendance. PIs may request up to \$2,000,000 for 4-5 years of support for this track. Formative assessments of activities in this track need to be reported in annual reports. Submissions to this track should begin with "IMPLEMENTATION:" in the title.

All BIO-LEAPS proposals need to be evidence-based and grounded in relevant literature on organizational or systemic change and DEI. Proposals submitted to Tracks 1 or 2 should include a clear description of the state of the sub-discipline or discipline and the evidence-based strategies to be used. Proposals submitted to Track 3 should clearly articulate what aspect(s) of the culture of the sub-discipline or discipline they will focus on, what the current state of that culture is, and what evidence-based strategies for change they will implement. They must also include individuals with expertise in one or more of the following areas: assessment, systemic or organizational change, or DEI. It is expected that individuals who

are participating in the scope of work for a BIO-LEAPS proposal are given the appropriate resources and compensation to accomplish this work. Proposals are encouraged from, or that fully partner with, Minority Serving Institutions, Primarily Undergraduate Institutions (PUIs), professional societies focused on DEI in STEM, and DEI community initiatives in STEM.

Link to Additional Information: <https://www.nsf.gov/pubs/2022/nsf22542/nsf22542.htm>

17. NLM Research Grants in Biomedical Informatics and Data Science (R01 Clinical Trial Optional), NIH

Application Deadline: February 05, 2023; June 05, 2023

Award Budget: limited to \$250,000 per year in direct costs and need to reflect the actual needs of the proposed project

The National Library of Medicine (NLM) supports innovative research aimed at advancing biomedical informatics and data science. Biomedical informatics applies theories and analytical processes or methods to data to improve decision-making and human health. The NLM strategic plan outlines a platform for biomedical discovery and data-powered health, integrating streams of complex and interconnected data that can be translated into scientific insights, clinical care, public health practices, and personal wellness. NIH defines data science as “the interdisciplinary field of inquiry in which quantitative and analytical approaches, processes, and systems are developed and used to extract knowledge and insights from increasingly large and/or complex sets of data.” Research problems that can be addressed with biomedical informatics and data science are broad, but should align with NLM’s focus for the acceleration of data-driven discovery by the advancement of human health using the exposome (from the intracellular environment to the built environment), broadening analytics across heterogeneous data sources including natural language processing and deep learning, and increasing computable biomedical knowledge,(e.g., diagnostics), and decision-analytic models.

The NLM strategic plan reinforces the need to accelerate discovery by enhancing health through data-driven research. Applications proposed to NLM should align with the strategic plan. Proposals should emphasize novel methods to foster data driven discovery in biomedical and clinical health sciences that are domain-independent, reusable/reproducible and use FAIR (Finable, Accessible, Interoperable, Reusable) standards for increased harmonization.

NLM supports innovative research projects focused on biomedical data that combine elements of computer science and information technology to optimize the use of information and technology to improve individual and public health and biomedical research. Research areas of interest to NLM include, but are not limited to:

- Development of novel approaches enabling analysis and discovery at scale across biomedical domains and health care sectors, including those leveraging high-performance cloud computing and federated learning
- Development and demonstration of innovative informatics methods and data science techniques for informing biological, clinical, public health, and social science research.
- Computational approaches integrating structured and unstructured data, natural language processing, automated metadata assignment.
- Advanced information retrieval and knowledge discovery from very large and/or heterogeneous data sets
- Multi-level, reusable, data analytic models, simulations, information visualization, and presentation approaches to enhance decisions, learning or understanding of biological and clinical processes
- Approaches to assess and address algorithmic bias and/or fairness and health equity
- Innovative analytic methods to advance decision support that are generalizable within and across underserved populations
- Applying natural language processing to unstructured health-related data, including Electronic Health Record (EHR) data, to increase provider-patient health care understanding
- Informatics approaches that translate basic biomedical research to clinical methods to support patient and provider decision making
- Data science methods and approaches that enhance the quality, security, understandability and utility of data, information, or knowledge related to health and biomedicine

- Informatics methods and approaches to improve public health and population-level health outcomes
- Using biomedical informatics and data science to address health disparities and health equity

Research in biomedical informatics and data science is inherently multidisciplinary, including mathematics, statistics, information science, computer science and engineering, and social/behavioral sciences. Applications that propose team science approaches are encouraged. NLM expects that investigators will employ rigorous, scientifically defensible research techniques leading to sound empirical and reproducible evidence. These techniques may include quantitative and qualitative approaches, in silico experiments, simulation studies, model generation and testing, computer-based analytical techniques supporting clinical and non-clinical decisions through novel uses of computational analytics, text mining and natural language processing, network inference and pathway analyses, ontologies, and other advanced approaches. For NLM support, a research project's innovation should be centered in the development and testing of novel data science or biomedical informatics methods and approaches.

Applications submitted to this funding opportunity should focus on a well-defined research problem, a rigorous research design, based on preliminary studies, and advance the field of informatics or data science to improve human health. NLM will consider supporting projects where the primary focus of informatics or data science is applied to a clinical or disease domain when the approach is novel and will benefit findings in the domain, although priority will be placed on funding applications that propose to develop tools and approaches that can be reproduced, generalized, and scaled to ensure maximum benefit is achieved. NLM will not support infrastructure or product development or continued development of existing software tools or knowledge resources as an endpoint of research funded through this FOA.

Potential applicants are strongly encouraged to discuss their proposed project with one of the Scientific/Research Contacts listed in Section VII for advice about the application process and suitability of the project for support by NLM.

NOTE: Under this FOA, NLM will support applications involving small, early-stage to Phase I clinical trials that are part of the evaluation component of the proposed research project. Applicants whose applications may include a clinical trial are strongly encouraged to contact one of the NLM Scientific Contacts listed in this FOA for guidance in advance of applying to ensure that their proposed project follows NIH clinical trials policies (<https://grants.nih.gov/policy/clinical-trials.htm>) and consistent with the types of clinical trial applications that NLM supports.

Link to Additional Information: <https://grants.nih.gov/grants/guide/pa-files/PAR-23-034.html>

18. Capacity Building Grants for Non-Land Grant Colleges of Agriculture Program, USDA-NIFA

Application Deadline: December 1, 2022

Award Amount:

- **Planning Conference: up to \$30,000**
- **Regular: up to \$150,000**
- **Collaborative – Joint: \$300,000**
- **Collaborative – Large-scale Comprehensive Initiative (LCI): \$750,000**

The purpose of this program is to assist NLGCA Institutions in maintaining and expanding their capacity to conduct education, research, outreach/extension and integrated activities relating to agriculture, renewable resources, and other similar disciplines. NLGCA Institutions may use the funds to maintain and expand capacity:

1. To successfully compete for funds from Federal grants and other sources to carry out educational, research, outreach/extension and integrated activities that address priority concerns of national, regional, state, and local interest.
2. To disseminate information relating to priority concerns to:
 - a. interested members of agriculture, renewable resources, and other relevant communities
 - b. the public
 - c. any other interested entity
3. To encourage members of the agriculture, renewable resources, and other relevant communities to participate in priority education, research, outreach/extension and integrated activities by providing matching funds to leverage

grant resources.

4. Through:
 - a. the purchase or other acquisition of equipment and other infrastructure (not including alteration, repair, renovation, or construction of buildings)
 - b. the professional growth and development of the faculty of the NLGCA Institution
 - c. the development of graduate assistantships

Applicants must propose one of the following project types. Each of the project types include Need Areas. Applications must demonstrate how the chosen project type and Need Area will support the legislatively authorized purpose of this program, listed in Part I, B of this RFA. Projects must address a demonstrated and/or documented issue/problem/challenge of national, regional, state, or local interest within the food and agricultural sciences. This can be undertaken through a variety of mechanisms, approaches, or strategies within the Activity Type.

1. Education- applications with an education/teaching focus must address at least one of the Education Need Areas within this subsection. Proposed education focused activities must support for-credit coursework (academic curriculum), leading to a degree within the broadly defined food and agricultural sciences. Projects must be innovative; have potential for adoption by other academic institutions; exhibit broad-based applicability beyond a single course or an individual instructor; have a strong potential for institutionalization; and must be supported by evidence-based studies, publications, or practices. Education Need Areas include:
 - a. Curriculum Design, Materials Development, Library Resources, and Instruction Delivery Systems
 - b. Scientific Instrumentation for Education
 - c. Student Recruitment, Retention, and Educational Equity
 - d. Experiential Learning
 - e. Professional Development for Faculty Members
 - f. Collaborative Interaction with Other Academic Institutions
2. Research - applications with a research focus must address at least one of the Research Need Areas discussed in this subsection. Research Need Areas may encourage student assistantships. Such student learning opportunities must emphasize team-oriented, problem-solving, decision-making situations in the context of addressing real-world research experiences. Projects addressing student assistantships must:
 - a. demonstrate how the experience will produce qualified and well-trained graduates
 - b. contain an evaluation process involving both the faculty or mentor to assure that students meet project objectives
 - c. document that the field of science under consideration is experiencing a shortage of scientific and professional personnel, and how the project plans to address this deficiency.

Individual students may be supported under this opportunity for up to three years (including summers, semesters, or semester breaks). Requested project funds may be used as stipends for students while they are working in research/field settings. (NLGCA funds cannot be used to fund student scholarships or other tuition-remission activity). Students will be required to prepare written and oral summaries of the experiential learning gained through this opportunity. To attract high-caliber students, stipends should be competitive with alternative employment options. A modest amount of funds may be requested for materials/supplies to facilitate a student's broad exposure to research/field techniques and methodologies. Recipients are encouraged to take advantage of any related paid internship opportunities provided by County, State, Federal, business and industry sources. Research Need Areas include:

- a. Studies and Experimentation in Food and Agricultural Sciences
 - b. Applied Studies in the Food and Agricultural Sciences
 - c. Centralized Research Support Systems
3. Outreach/Extension - applications with an outreach/extension focus must address at least one of the Outreach/Extension Need Areas discussed in this subsection. Outreach/Extension projects generally focus on a primary, targeted, beneficiary 12 consisting of individuals and communities outside of a formal, academic program setting. Applications may choose to develop studies that have relevancy and application within the

communities that these institutions serve. Outreach/Extension Need Areas include the following:

- a. 4-H, or Other, Similar Youth Development Activity
 - b. Food and Agricultural Sciences
 - c. Leadership Development
 - d. Natural Resources
 - e. Human, Family, and Consumer Sciences
 - f. Community and Economic Development
 - g. Technology-based Information Delivery Systems
4. Integrated - includes at least two of the three functions of the agricultural knowledge system (i.e., education, research, and outreach/extension) within a project. The functions addressed in the project must be focused on a problem or issue and must be interwoven throughout the life of the project to complement and reinforce one another. The functions must be interdependent and necessary for the success of the project, and no more than two-thirds of the project's budget may be focused on a single component. For Integrated projects that include an Education component, note that routine use of graduate and postdoctoral students as personnel on research projects is not considered education for the purposes of this program. Only students actively engaged in the scholarship of research or outreach/extension projects are considered as education. Actively engaged students may contribute to presentations, articles, posters, and other expressions of scholarship that reflect their own work on the PD's project.

For Integrated projects that include an Outreach/Extension component, activities will synthesize and incorporate a wide range of relevant research results. However, research-related activities such as publication of papers or speaking at scientific meetings are not considered "Outreach/Extension" for the purpose of an Integrated Project.

Grant Types - applicants must select the appropriate grant type:

1. Planning Activity/Conference – grants to facilitate strategic planning session(s) required of faculty, industry, professional association, community leaders, or other necessary participants for the specific purpose of developing a formal plan leading to a subsequent submission of a collaborative grant. A Planning Activity/Conference grant application may not be submitted in the same year for which a collaborative grant application for the same project is also submitted.
2. Regular - this is an award instrument by which NIFA agrees to support a specified level of effort for a predetermined project period without the announced intention of providing additional support at a future date.
3. Collaborative - supports projects with at least one additional partner or a multi-partner approach. Collaborative grants should build linkages to generate a critical mass of expertise, skill, and technology to address education/teaching programs related to the food and agricultural sciences. Grants can reduce duplication of efforts and/or build capacity and must be organized and led by a strong applicant with documented project management knowledge and skills to organize and carry out the initiative. The partners must share grant funds (see explanation of required funds distribution percentage among partners in the definition).
 - a. Joint Grants (Applicant + One or more partners) - in a joint grant, the applicant executes the project with assistance from at least one additional partner. The partner(s) must share grant funds (see explanation of required funds distribution percentage among partners).
 - b. Large-scale Comprehensive Initiatives (LCI) (Applicant + two or more partners) - in an LCI Grant, the applicant executes the project with assistance from at least two additional partners. Additional partners must share grant funds (see explanation of required funds distribution percentage among partners). An LCI project differs from a Joint Project Proposal in project 14 scope and impact. LCI Project Proposals must support a multi-partner approach to solving a major state or regional challenge facing the agricultural sciences at the postsecondary level. LCI Project Proposals are characterized by multiple partners (each providing a specific expertise) organized and led by a strong applicant with documented

project management ability to organize and carry out the initiative.

Note: LCI Projects must include both the Research & Related Budget and the Research & Related Subaward Budget Attachment Forms. The forms must clearly identify the total grant funding anticipated for the applicant and each partner to demonstrate the required sharing percentage. All expenditures for the applicant and all partners must be further itemized in the Budget Justification.

LCI Project Proposal funds do not have to be divided equally among project years, nor do they need to be divided equally among project partners. LCI projects must include a statement on expected impacts of the project as well as an Evaluation Plan to measure success.

Link to Additional Information: <https://www.nifa.usda.gov/grants/funding-opportunities/capacity-building-grants-non-land-grant-colleges-agriculture-program>

19. Cultural Anthropology Program - Doctoral Dissertation Research Improvement Grants (CA-DDRIG), NSF

Application Deadline: January 17, 2023

Award Information: total direct costs may not exceed \$25,000

The primary objective of the Cultural Anthropology Program is to support basic scientific research on the causes, consequences and complexities of human social and cultural variability.

Contemporary cultural anthropology is an arena in which diverse research traditions and methodologies are valid in investigations of human cultural variation. Recognizing the breadth of the field's contributions to science, the Cultural Anthropology Program welcomes proposals for empirically grounded, theoretically engaged and methodologically sophisticated research in all sub-fields of cultural anthropology. Because the National Science Foundation's mission is to support basic research, the NSF Cultural Anthropology Program does not fund research that takes as its primary goal improved clinical practice, humanistic understanding or applied policy. A proposal that applies anthropological methods to a social problem but does not propose how that problem provides an opportunity to make a theory-testing and/or theory-expanding contribution to anthropology will be returned without review.

Program research priorities include, but are not limited to, research that increases our understanding of:

- Sociocultural drivers of critical anthropogenic processes such as deforestation, desertification, land cover change, urbanization and poverty.
- Resilience and robustness of sociocultural systems.
- Scientific principles underlying conflict, cooperation and altruism, as well as explanations of variation in culture, norms, behaviors and institutions.
- Economy, culture, migration and globalization.
- Variability and change in kinship and family norms and practices.
- General cultural and social principles underlining the drivers of health outcomes and disease transmission.
- Biocultural work that considers the nexus of human culture and its relationship with human biology.
- Social regulation, governmentality and violence.
- Origins of complexity in sociocultural systems.
- Language and culture: orality and literacy, sociolinguistics and cognition.
- Theoretically-informed approaches to co-production in relation to scientific understandings of human variability and environmental stewardship.
- Mathematical and computational models of sociocultural systems such as social network analysis, agent-based models, multi-level models, and modes that integrate agent-based simulations and geographic information systems (GIS).

As part of its effort to encourage and support projects that explicitly integrate education and basic research, CA provides

support to enhance and improve the conduct of doctoral dissertation projects designed and carried out by doctoral students enrolled in U.S. institutions of higher education who are conducting scientific research that enhances basic scientific knowledge.

Link to Additional Information: <https://www.nsf.gov/pubs/2023/nsf23502/nsf23502.htm>

Non-Scientific Forecasted Opportunities

1. Spotlight on Humanities in Higher Education, NEH

The program supports the exploration and development of small projects that would benefit underserved populations through the teaching and study of the humanities. Eligible applicants include small- to medium-size two- and four-year institutions of higher education and nonprofit organizations whose work advances the humanities at these institutions and among their faculty and students. NEH especially welcomes applications from Native American and Indigenous institutions, Historically Black Colleges and Universities, Hispanic-Serving Institutions, Asian American and Native American Pacific Islander-Serving Institutions, Tribal Colleges and Universities, minority-serving institutions, community colleges, rural colleges and universities, schools that have a majority-minority undergraduate enrollment, and those that serve significant numbers of first-generation and nontraditional students.

The program supports activities such as curricular or program development, expert consultations, speakers' series, student research, creation of teaching resources, and community engagement. Projects may benefit students, faculty, the institution or organization, and/or the community.

Link to Additional Information: <https://www.neh.gov/program/spotlight-humanities-higher-education>

2. Sustaining Cultural Heritage Collections, NEH

The program helps cultural institutions meet the complex challenge of preserving large and diverse holdings of humanities materials for future generations by supporting sustainable conservation measures that mitigate deterioration, prolong the useful life of collections, and support institutional resilience: the ability to anticipate and respond to disasters resulting from natural or human activity.

Cultural institutions, including libraries, archives, museums, and historical organizations, face an enormous challenge: to preserve humanities collections that facilitate research, strengthen teaching, and provide opportunities for lifelong learning. To ensure the preservation of books and manuscripts, photographs, sound recordings and moving images, archaeological and ethnographic artifacts, art, and historical objects, cultural institutions must implement measures that slow deterioration and prevent catastrophic loss from emergencies resulting from natural or human activity. They can accomplish this work most effectively through preventive conservation. Preventive conservation encompasses managing relative humidity, temperature, light, and pollutants in collection spaces; providing protective storage enclosures and systems for collections; and safeguarding collections from theft, fire, floods, and other disasters.

Link to Additional Information: <https://www.neh.gov/grants/preservation/sustaining-cultural-heritage-collections>

3. YouthBuild, Department of Labor

Under the YouthBuild Funding Opportunity Announcement, DOL will award grants through a competitive process to organizations providing pre-apprenticeship services that support education, occupational skills training, and employment services to opportunity youth, ages 16 to 24, while performing meaningful work and service to their communities. The YouthBuild program model prepares participants for quality jobs in a variety of careers, including infrastructure, and contains wrap-around services such as mentoring, trauma-informed care, personal counseling, and employment – all key strategies for addressing community violence.

YouthBuild applicants must include construction skills training and may include occupational skills training in other in-demand industries. This expansion into additional in demand industries is the Construction Plus component, a priority in this grant competition. YouthBuild is a community-based alternative education program for youth between the ages of 16 and 24 who left high school prior to graduation that also have other risk factors, including being an adjudicated youth, youth aging out of foster care, youth with disabilities, migrant farmworker youth, youth experiencing housing instability, and other disadvantaged youth populations. The YouthBuild program simultaneously addresses multiple core issues important to youth in low-income communities: affordable housing, leadership development, education, and employment opportunities in in-demand industries and apprenticeship pathways. YouthBuild programs serve as the connection point to vital services for participants. Key aspects of the YouthBuild service delivery model include meaningful partnership and collaboration with the public workforce development system, education and human services systems, and labor and industry partners. The YouthBuild model balances project-based academic learning and occupational skills training to prepare opportunities for career placement and supports the Administration's goal to build a modern and sustainable infrastructure.

Link to Additional Information: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=343870>

Scientific Forecasted Opportunities

1. Ensuring Research Integrity - Research, Development, and Demonstration, DHHS

ORI seeks projects that will: 1) conduct research, on one of the four focus areas identified below, related to ensuring research integrity and compliance with 42 C.F.R. Part 93; 2) develop innovative approaches/tools/resources based on the results of this research; and 3) demonstrate the impact and/or effectiveness of these approaches/tools/resources. The purpose of this initiative is to ensure the integrity and reliability of PHS-funded research through the development and implementation of innovative practical approaches/tools/resources that improve practices related to one of the following four focus areas: 1) transparency in the conduct or reporting of research; 2) effective communication between authors/collaborators for the purpose of avoiding, mitigating, and resolving authorship/collaborator disputes and/or issues related to the integrity of the research (e.g. conflicts of interest, research integrity, rigor, reproducibility, transparency, reliability); 3) handling allegations of research misconduct under 42 C.F.R. Part 93; or 4) interventions to address issues related to research culture and climate (e.g., ultra-competitive environments, toxic workplaces, bullying, harassment, etc.) that can negatively impact the integrity, conduct, quality, and reliability of research. ORI expects that approaches/tools/resources developed through this funding opportunity will be disseminated to and made freely available for use by the PHS-funded research community.

Link to Additional Information: <https://www.grants.gov/web/grants/search-grants.html?keywords=gender%20harassment>

2. Notice of Intent to Publish a Funding Opportunity Announcement for Advancing Gender Inclusive Excellence (AGIE) – Coordinating Center (U24 Clinical Trial Not Allowed), NIH

The Office of Research on Women's Health (ORWH) in collaboration with the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) intends to promote a new initiative by reissuing RFA-OD-21-010, "Advancing Gender Inclusive Excellence (AGIE) – Coordinating Center (U54 Clinical Trial Not Allowed)" to solicit applications for an Advancing Gender Inclusive Excellence (AGIE) – Coordinating Center (U24 – Clinical Trial Not Allowed). The purpose of the AGIE Coordinating Center will be to provide the organizational framework for the management, direction, and overall coordination of all common activities aimed at investigating strategies, approaches, and interventions enabling, and barriers preventing, women to attain leadership positions in many areas of science, technology, and engineering.

The primary vision for the AGIE Coordinating Center is to ensure collaborative coordination of data collection and serve as a means for developing and operating as a centralized resource hub to collect, store, and disseminate resources for and results of current and future programs. The AGIE Coordinating Center will be responsible for the

administration and management of a Pilot and Feasibility Studies program (expected to start in year two (2) of the agreement), the provision of quality assurance and monitoring, and function as a central repository for data and other tools and resources across NIH programs. The goal of the FOA is to seek a Coordinating Center with the knowledge, skills, and abilities required to coordinate research aimed at providing a more inclusive environment to enhance the retention and advancement of women in leadership positions; the research is anticipated to include diverse research designs, approaches, and academic disciplines and target different or multiple organizational levels (from interpersonal to departmental to institutional).

Link to Additional Information: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=343972>

3. Notice of Intent to Publish a Funding Opportunity Announcement for Transformative Educational Advancement and Mentoring Network (TEAM) (R25 Clinical Trial Not Allowed), NIH

The purpose of this Notice is to announce the NCI's intention to issue a Funding Opportunity Announcement (FOA) as a Request for Applications (RFA) for the Transformative Educational Advancement and Mentoring Network (TEAM) (R25). The overarching goal of this R25 program is to support research and educational activities that complement and/or enhance the training of a workforce to meet the nation's biomedical, behavioral, and clinical research needs. We seek to do this by supporting and providing training navigation and mentorship to support scholars from diverse backgrounds, including individuals from groups known to be underrepresented in the cancer biomedical workforce.

To accomplish the overarching stated goal, this FOA will support creative educational activities with a primary focus on: (1) Courses for Skills Development and (2) Mentoring Activities. The TEAM program will pilot test the use of training champions (TCs) at minority serving institutions (MSIs), to support the development of educational activities and scientific career development programs to enhance the preparation, productivity, and progress of scholars from diverse backgrounds, including individuals from underrepresented groups. See, Notice of NIH's Interest in Diversity, NOT-OD-20-031. The career development levels of focus for this FOA will include predoctoral and postdoctoral fellows, and early-stage investigators (ESIs). TCs are defined as personnel located within the MSI who can assist potential applicants with their plans to apply, attain, or transition to an independent grant award. TC(s) should have exceptional administrative and networking skills, sufficient time to commit to scholars, and be knowledgeable of the NIH grantsmanship process. This RFA will leverage TCs to assist scholars in identifying funding opportunities, networking with appropriate NCI/NIH program directors, and locating resources for competitive application preparation. TCs will provide additional training support, navigation, and appropriate resources to enhance the skills required for scholars to successfully identify, submit, and obtain grants and career development opportunities.

The TEAM program will also leverage institutional and core academic resources to enhance scholar expertise, and mentor-mentee relationships, both in conventional and peer-to-peer settings. Additionally, this program will adapt or adopt culturally appropriate activities, short courses, and scientific writing to enhance the competitiveness and professional career development of scholars of this program.

Link to Additional Information: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=343975>

Proposals Accepted Anytime

1. Division of Environmental Biology, NSF
<https://www.nsf.gov/pubs/2022/nsf22541/nsf22541.pdf>
2. Mathematical Biology, NSF
<https://beta.nsf.gov/funding/opportunities/mathematical-biology>
3. Computational and Data-Enabled Science and Engineering in Mathematical and Statistical Sciences, NSF

<https://beta.nsf.gov/funding/opportunities/computational-and-data-enabled-science-and-engineering-mathematical-and>

4. Sedimentary Geology and Paleobiology (SGP), NSF
<https://www.nsf.gov/pubs/2022/nsf22597/nsf22597.htm>
5. Condensed Matter and Materials Theory (CMMT), NSF
https://www.nsf.gov/pubs/2022/nsf22610/nsf22610.htm#pgm_desc_txt
6. Division of Materials Research: Topical Materials Research Programs (DMR: TMRP), NSF
<https://www.nsf.gov/pubs/2022/nsf22609/nsf22609.htm>
7. Research in the Formation of Engineers, NSF
<https://beta.nsf.gov/funding/opportunities/research-formation-engineers-rfe>
8. Computer and Information Science and Engineering (CISE): Core Programs, NSF – Small Projects
<https://www.nsf.gov/pubs/2022/nsf22631/nsf22631.htm>

Announcing Previous Important Funding Opportunities

1. Astronomy and Astrophysics Research Grants (AAG), NSF
Deadline Window Date: October 01, 2022 - November 15, 2022
<https://www.nsf.gov/pubs/2022/nsf22624/nsf22624.htm>
2. Cyberinfrastructure for Sustained Scientific Innovation (CSSI), NSF
Deadline: December 16, 2022
<https://www.nsf.gov/pubs/2022/nsf22632/nsf22632.htm>
3. EPSCoR Research Infrastructure Improvement Program: Track-2 Focused EPSCoR Collaborations (RII Track-2 FEC), NSF
Deadline: December 20, 2022
<https://www.nsf.gov/pubs/2022/nsf22633/nsf22633.htm>
4. Computer and Information Science and Engineering (CISE): Core Programs, NSF
Deadline: December 22, 2022
<https://www.nsf.gov/pubs/2022/nsf22631/nsf22631.htm>
5. Advancing Informal STEM Learning (AISL), NSF
Deadline: January 11, 2023
<https://www.nsf.gov/pubs/2022/nsf22626/nsf22626.htm>
6. NIAID Investigator Initiated Program Project Applications (P01 Clinical Trial Not Allowed), NIH
Deadline: January 11, 2023
<https://grants.nih.gov/grants/guide/pa-files/PAR-22-225.html>
7. National Digital Newspaper Program (NDNP), NEH
Deadline: January 12, 2023
<https://www.neh.gov/grants/preservation/national-digital-newspaper-program>
8. Racial Equity in STEM Education (EHR Racial Equity), NSF
Deadline: January 17, 2023
<https://www.nsf.gov/pubs/2022/nsf22634/nsf22634.htm>

9. Launching Early-Career Academic Pathways in the Mathematical and Physical Sciences (LEAPS-MPS), NSF
Deadline: January 26, 2023
<https://www.nsf.gov/pubs/2022/nsf22604/nsf22604.htm>
10. Dangers and Opportunities of Technology: Perspectives from the Humanities, NEH
Deadline: February 2, 2023
<https://www.grants.gov/web/grants/view-opportunity.html?oppId=343684>
11. National Early Care and Education Workforce Center, HHS
Deadline: February 2, 2023
<https://www.grants.gov/web/grants/view-opportunity.html?oppId=341390>
12. Mid-Career Advancement (MCA), NSF
Deadline Window Date: February 01, 2023 - March 01, 2023
<https://www.nsf.gov/pubs/2022/nsf22603/nsf22603.htm>
13. NIAMS Clinical Trial Planning Grant (R34) - Clinical Trial Not Allowed, NIH
Deadline: March 03, 2023
<https://grants.nih.gov/grants/guide/pa-files/PAR-22-205.html>
14. NHPRC-Mellon Planning Grants for Collaborative Digital Editions in African American, Asian American, Hispanic American, and Native American History and Ethnic Studies, National Archives
Deadline: June 7, 2023
<https://www.archives.gov/nhprc/announcement/digitaleditions>

Fellowships and Scholarships Funding Opportunities

1. DOE Omni Technology Alliance Internship Program - Summer 2023, Dept. of Energy **Deadline: January 13, 2023**

This motto represents the Omni Technology Alliance Internship Program which seeks to provide opportunities for students to participate in programs, projects, and activities designed to secure the Nation's energy, scientific, and nuclear technologies from malicious attackers.

As a program participant, you will:

- Have the opportunity for PAID progressive and rotational internship assignments for three consecutive summers while pursuing a degree.
- Be part of world-class research and operations opportunities across the DOE complex.
- Explore a federal career with DOE and gain a competitive edge as you apply your education, talent, and skills in a variety of settings.
- Have the potential to obtain a security clearance and postgraduate employment.

The Omni Technology Alliance Internship Program will begin on June 5, 2023, and end on August 11, 2023. Summer interns will be expected to commit to full-time participation based on 40 hours per week, including a week-long culminating event in Washington, D.C., August 5-11, 2023. Exceptions to the proposed period may be considered on a case-by-case basis to accommodate the candidate's academic schedule.

The following benefits will be offered:

- **Stipend:** \$750 per week (stipend will increase to \$850 and \$950 in the second and third year of future participation, respectively)
- **Housing Allowance:** A housing allowance of a minimum of \$240 per week will be provided.
- **Travel:** Travel reimbursement will be provided for inbound and outbound expenses up to \$1,000 for participants

who relocate more than fifty miles, one-way, from the assigned hosting site. Depending on your project assignment, you may be eligible to receive reimbursement for travel and education to further the educational goals of your appointment.

- **Virtual Appointments:** Appointments may be hosted virtually at the discretion and approval of the host site or facility.

Link to Additional Information: <https://zintellect.com/Opportunity/Details/DOE-Omni-Summer-2023>

2. #SpaceToPitch - NASA's MUREP Innovation and Tech Transfer Idea Competition (MITTIC)!, NASA **Deadline: from January 3 through March 15, 2023**

#SpaceToPitch through NASA's MUREP Innovation and Tech Transfer Idea Competition (MITTIC)! Can you turn a creative idea into a real-world application? Do you want to be an entrepreneur? Are you fascinated by NASA technology? Then MITTIC is your #SpaceToPitch! MITTIC is a spinoff challenge to develop new ideas for commercialization open to multi-disciplinary student teams attending Minority Serving Institutions (MSIs). Teams selected to participate will receive up to \$5,000 with the winning team receiving an additional \$10,000! Open office hours are available for your questions every Tuesday and Thursday from 3-4 p.m. CDT on Microsoft Teams, or you can contact HQ-MITTIC@mail.nasa.gov to schedule a personalized session, exclusively geared to faculty and/or students at your institution. To get started on your NASA MITTIC journey, visit the website. Check out the new enhancements for this year's MITTIC competition!

Link to Additional Information: <https://microgravityuniversity.jsc.nasa.gov/nasamittic>

3. Spring 2023 Internship, NASA **Deadline: November 7, 2022**

As a NASA intern, students will work with leading experts and gain valuable experience as they participate in research and mission projects in a variety of fields. Spring internship applications are being accepted through November 7th. Applications for Summer 2023 are due March 10th. Share the "5 Misconceptions about Applying for a NASA Internship" with students undecided about applying.

Link to Additional Information: <https://intern.nasa.gov/>

4. SBE Postdoctoral Research Fellowships, NSF **Deadline: January 10, 2023**

The Directorate for Social, Behavioral and Economic Sciences (SBE) offers Postdoctoral Research Fellowships to encourage independence early in the fellow's career by supporting his or her research and training goals. The research and training plan of each fellowship must address important scientific questions within the scope of the SBE directorate and the specific guidelines in this solicitation. The SPRF program offers two tracks: (I) Fundamental Research in the SBE Sciences (SPRF-FR) and (II) Broadening Participation in the SBE Sciences (SPRF-BP). See the full text of the solicitation for a detailed description of these tracks.

Link to Additional Information: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=343980>



Universidad *de Puerto Rico*

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