Oportunidades de Fondos Externos

ACADEMIC YEAR 2022 - 23 / VOLUME I

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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 8/3/2022 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.

INDEX

1. Improving Undergraduate STEM Education: Hispanic-Serving Institutions, NSF

Application Deadline: September 30, 2022; February 8, 2023
Anticipated Funding Amount:

- **Planning or Pilot Project – 20 to 40 awards**
  - **$200,000 - single institution**
  - **$300,000 - collaborative**
  - **Plus $100,000 incentive to partner with one or more community colleges**
  - **For up to three-year-long projects**
- **Implementation and Evaluation Project – up to 15 awards**
  - **$500,000 - single institution**
  - **$800,000 - collaborative**
  - **Plus $200,000 incentive to partner with one or more community colleges**
  - **For three- to five-year-long projects**
- **Institutional Transformation Project – 3 to 7 awards**
  - **Up to $3,000,000**
  - **For five-year-long projects**

The goals of the HSI program are to enhance the quality of undergraduate science, technology, engineering, and mathematics (STEM) education and to increase the recruitment, retention, and graduation rates of students pursuing associates or baccalaureate degrees in STEM. Achieving these, given the diverse nature and context of the HSIs, requires additional strategies that support building capacity at HSIs through innovative approaches: to incentivize institutional and community transformation; and to promote fundamental research (i) on engaged student learning, (ii) about what it takes to diversify and increase participation in STEM effectively, and (iii) that improves our understanding of how to build institutional capacity at HSIs. Intended outcomes of the HSI Program include broadening participation of students that are historically underrepresented in STEM and expanding students' pathways to continued STEM education and integration into the STEM workforce.

The HSI program accepts proposals in the following tracks:

- Track 1: **Planning or Pilot Projects (PPP)** track provides a funding opportunity for institutions that are new to NSF5 or are Primarily Undergraduate Institutions (PUIs6), including community colleges. The PPP has been designed to link with the other two tracks. The PPP track seeks to enhance undergraduate STEM education and build capacity at less-resourced institutions and to increase these institutions' ability to compete for NSF funding from other programs.

  Planning projects in this track undertake the activities necessary to develop a future HSI program Track 2 or Track 3 proposal submission. **Pilot projects** in this track may be carried out to achieve a short-term, well-defined goal to enhance the availability of high-quality undergraduate STEM education at the HSI and gather preliminary data for future HSI program Track 2 or Track 3 proposals. Importantly, Pilot projects may also develop fundamental STEM education research capacity on student learning at HSIs, discovering effective means for diversifying and increasing participation in STEM. All PPP projects must include project evaluation and dissemination components.

- Track 2: **Implementation and Evaluation Projects (IEP)** track supports the implementation of evidence-based unit-, department-, or multi-department-level activities that will enhance the quality of undergraduate STEM education. All HSI institution types are encouraged to apply, especially PUIs (including community colleges). These projects may design and implement a new educational practice or practices, and/or adapt/replicate evidence-based practices that are already known to be effective.

  IEP may conduct research that promotes one or more of the HSI program goals, including research on indicators of effective and successful undergraduate STEM education at HSIs. These projects must include both project evaluation and dissemination components, as well as an education research component. The IEP strategies are expected to be institutionalized and sustainable.

- Track 3: The **Institutional Transformation Projects (ITP)** track supports institution-wide structural or systemic changes to enhance undergraduate STEM education at the proposing HSI. The ITP must be grounded in STEM education research and broadening participation research and be designed to make institutional infrastructure and policy changes to support long-term institutional changes that encourage and support faculty in implementing evidence-based practices that enhance student outcomes in STEM at the proposing HSI.

  Under the **ITP** track, research (including foundational research) that improves our understanding of how to build HSI institutional capacity in STEM is encouraged. Such research should result in a strategic understanding about how the multiple components of the HSI program goals work synchronously to advance STEM education. All institution types are encouraged to apply, especially PUIs (including community colleges). Proposed activities can include adaptation of evidence-based strategies and/or the design and implementation of innovative strategies. The ITP must include both project evaluation and dissemination components, as well as an education research component. The ITP proposed structural or systemic changes are expected to be institutionalized and sustained by the HSI.

In addition to the core research of the proposed project, all tracks may support faculty research that is inter-, multi-, or trans-disciplinary, discipline-specific research, STEM education research, discipline-based STEM education research, or broadening participation research. Research may be based at their home institution, an NSF-funded research center, another institution of higher education, and/or a national laboratory. Fundamental research is particularly encouraged on engaged student learning at HSIs, and on effectively diversifying and increasing participation in STEM at HSIs. Research-related funds may be requested for undergraduate student research, supplies, equipment required to carry out the research, and faculty research development activities.

All projects must generate new knowledge through project evaluation activities and articulate a plan for dissemination of findings. Track 2 (IEP) and Track 3 (ITP) proposals must additionally generate new knowledge about how to improve access to and/or the quality of STEM education through a well-constructed STEM education research plan that is aligned with the project's goals. Additionally, under a specified heading, proposals must provide institutional data with a narrative explaining the institution's need for the project and its ability to enhance the quality of undergraduate STEM education.

Link to Additional Information: https://www.nsf.gov/pubs/2022/nsf22611/nsf22611.htm

2. Harnessing Technologies to Support Oral Health Promotion and Management Outside the Dental Setting (UG3/UH3 Clinical Trial Required), NIH

Application Due Dates:

- **Letter of Intent: October 20, 2022**
- **Full Proposal: November 10, 2022**

Estimated Funding Amount:

- **UG3 phase**
  - **less than $300,000 in direct costs for a one-year phase**
  - **less than $200,000 in direct costs per year for the two-year phase**
- **UH3 phase**
  - **budgets are not limited in the but need to reflect the actual needs of the proposed project**

This opportunity intends to support research that develops and/or adapts and tests technology-facilitated behavioral, social, and organizational tools for use in oral health promotion. Of particular interest are tools that harness mobile, web, sensor, or other technology-based platforms with the potential to improve oral care at home or in the community; to facilitate needs assessment, treatment planning, and engagement; and to expand access to quality care for those who are currently under-served.

This opportunity focuses on tools that are adjunctive to, or extensions of, clinical care, rather than clinical tools meant to diagnose or treat oral disease. Technology-facilitated clinical tools aiming to make diagnostic or treatment claims, e.g., those that fall within the regulatory purview of the Food and Drug Administration in the United States, are outside the scope of this FOA. Applications may propose research on tools that facilitate access to care; however, tools solely meant

to facilitate real-time (synchronous) communication with a dental care provider for diagnostic or treatment purposes (sometimes called teledentistry) are outside the scope of this FOA. Applicants wishing to propose research on such technology-facilitated teledentistry approaches are encouraged to consider submitting to NIDCR's Clinical Trial Planning and Implementation Cooperative Agreement Funding Opportunity (PAR-21-160).

This opportunity solicits clinical trials of oral health promotion approaches spanning from Stage I (early intervention development) to Stage V (dissemination and implementation research), following the NIH Stage Model of Intervention Development Research (for more information, please see the National Institute on Aging website). Tests of hypothesized mechanisms of action and monitoring of intervention fidelity should be included at each stage, as appropriate to the stage of intervention development. Although this FOA does not impose specific requirements about the type of technologies proposed in applications, potential applicants should consider carefully the clinical readiness of their technologies to fully respond to this FOA; technologies that require extensive, early prototype-development and testing may not be appropriate.

Applications must include the following two analyses, in addition to any study-specific analyses proposed:

- An analysis of the degree to which the proposed oral health promotion tool(s) adheres to standards for technology design and behavior change principles.
- An analysis of the degree to which use of the technology-facilitated oral health promotion tool(s) affects disparities or inequities in key outcomes or access to care.

Clinical Trial Planning Phase (UG3)

The UG3 award will provide up to 2 years of support for scientific and operational planning activities necessary to conduct the clinical trial. The UG3 planning phase should incorporate all activities required—and not yet completed--to prepare for conduct of a subsequent clinical trial.

When not yet already completed, at a minimum, UG3 planning activities should include the following activities, included as UG3 milestones:

1. Adherence to good technology design and behavioral/social/organizational intervention principles
2. Oral health disparities and/or inequities
3. Measurement of target engagement
4. Acceptability and feasibility of the study intervention(s) and procedures
5. Finalization of agreements for use of resources available within CTSAs, practice-based research networks, patient registries, etc., as applicable
6. Finalization of the clinical protocol and other required study documentation
7. Development of fidelity monitoring procedures
8. Completion of the data management system
9. Near-final drafts of all materials required for regulatory approvals (IRB and applicable oversight committees) and any other documents necessary to implement the trial

Clinical Trial Implementation Phase (UH3)

The UH3 award will provide up to 5 years of support to conduct the clinical trial in accordance with activities planned in the UG3 phase, and is contingent upon successful completion of the UG3 milestones. The NIDCR expects clinical trials supported during the UH3 phase to be hypothesis driven, milestone-defined, and to contribute meaningfully to a cumulative science of behavior change and public health research within the research mission of the NIDCR. The clinical trial must meet all applicable NIH, and Office of Human Research Protections (OHRP) policy requirements.

At a minimum, UH3 activities should include the following operational activities, expressed as UH3 milestones:

- Completion of regulatory approvals and site activation
- Registration of clinical trial in ClinicalTrials.gov
- Enrollment of the first subject
- Regular clinical and data quality management activities, including ongoing confirmation of intervention fidelity
- If applicable, enrollment and randomization of 25%, 50%, 75%, and 100% of the projected study sample

- Completion of data collection
- Completion of primary study analyses
- Completion of the final study report

Link to Additional Information: https://grants.nih.gov/grants/guide/rfa-files/RFA-DE-23-009.html

3. Paleo Perspectives on Present and Projected Climate (P4CLIMATE), NSF

Application Deadline: October 20, 2022
Estimated Award Amount: up to $800,000

Proposals to P4CLIMATE are expected to address one or both of the research themes described in detail below:

1. Past Regional and Seasonal Climate

Earth's climate varies across a range of spatial and temporal scales, and regional and short-term variability is often very different from long-term global changes. Understanding changes in regional climate variability and trends are important research goals because people and societies experience climate change most directly at a regional scale.

Regional climate trends and variability are already impacted by warming temperatures and feedbacks on the hydrological cycle. Extended periods of climate extremes and short-term changes in annual climate patterns and in the frequency and intensity of extreme weather events can have significant impacts on agriculture and infrastructure, and ultimately on entire economies and societies. Anticipating and mitigating those impacts requires an understanding of the sensitivity of short-term (weather and seasonal) regional climate to warming trends. That understanding, in turn, requires a process-based approach to identify and characterize regional changes in climate trends and extremes and to explore the drivers of those changes.

Paleoclimate reconstructions can provide a context for recent (post-Industrial) climate trends and extremes and can serve as test cases for attribution studies to identify the factors that drive those trends and extremes. The 'real-world' tests provided by paleo data will strengthen assessments of current and future conditions.

Proposals are particularly sought to improve understanding of processes, drivers, and feedbacks of climate variability at seasonal and regional scales. Examples include (but are not limited to): local sea-level change; permafrost thaw and feedbacks to the climate system; regional hydroclimate extremes and habitability; and regional teleconnections.

2. Past Climate Forcing, Sensitivity, And Feedbacks

Characterizing and quantifying the role and thresholds of climate forcings and feedbacks to the climate system is necessary to improve projections of future climate variability. Despite significant scientific progress in understanding the functioning of the climate system, there remain many uncertainties because of its complex and non-linear nature. For instance, cloud radiative feedback is known to affect Earth's climate sensitivity to greenhouse gas forcing and warming, yet the magnitude and the mechanisms of these feedbacks remains a challenging source of uncertainty.

Proposals are particularly sought to advance understanding of climate processes, forcings, sensitivity, and feedbacks. Examples include (but are not limited to): triggers, thresholds, and tipping points of climate forcings and feedbacks; controls, responses, and impacts of past land- and sea-ice changes, particularly during warm climate intervals; quantifying aerosol forcing by integrating modern observations, modeling, and assimilation of proxy data; the role of state-dependence in climate feedbacks; and climate forcing beyond CO2 (other greenhouse gases, volcanic, aerosols).

Additional Considerations - Proposers are encouraged to involve one or more of several approaches to address the research themes of the P4CLIMATE solicitation:

- Synthesis
- Applying Novel methodologies
- Evaluating uncertainties

In addition, the P4CLIMATE competition expects proposals to adhere to FAIR (Findability, Accessibility,

Interoperability, and Reuse) data principles. The competition also encourages submission of proposals that include a clear commitment to broadening participation and stakeholder engagement.

- FAIR data principles
- Broadening participation
- Stakeholder engagement

Link to Additional Information: https://www.nsf.gov/pubs/2022/nsf22612/nsf22612.htm

4. Laura Bush 21st Century Librarian Program, IMLS

Application Due Date:

- **Preliminary Proposals: September 21, 2022**
- **Invited Full Proposals: March 17, 2023**

Anticipated Funding Amount:

- **Planning Grants: $50,000 to $150,000 for up to 2 years; No Cost Share**
- **Forum Grants: $50,000 to $150,000 for up to 2 years; No Cost Share**
- **Implementation Grants: $50,000 to $1,000,000 for up to 3 years**
  - **Requests of more than $249,999 in IMLS funds require at least 1:1 cost share from non-federal sources**
- **Applied Research Grants & Early Career Development Grants: $50,000 to $750,000 for up to 3 years; No Cost Share**

The Laura Bush 21st Century Librarian Program (LB21) supports the training and professional development of library and archives professionals; developing faculty and information leaders; and recruiting, educating, and retaining the next generation of library and archives professionals in order to develop a diverse workforce of library and archives professionals and meet the information needs of their communities.

The goals for this program are to generate projects of far-reaching impact that:

- Recruit, train, develop, and retain a diverse workforce of library and archives professionals.
- Develop faculty, library, and archives leaders by increasing the institutional capacity of libraries, archives, and graduate programs related to library and information science.
- Enhance the training and professional development of the library and archival workforce to meet the needs of their communities.

Throughout its work, IMLS places importance on diversity, equity, and inclusion. This may be reflected in an IMLS-funded project in a wide range of ways, including efforts to serve individuals of diverse geographic, cultural, and socioeconomic backgrounds; individuals with disabilities; individuals with limited functional literacy or information skills; individuals having difficulty using a library or museum; and underserved urban and rural communities, including children from families with incomes below the poverty line.

Link to Additional Information: https://www.imls.gov/grants/available/laura-bush-21st-century-librarian-program

5. Mathematical Biology, NSF

Application Due Date: Proposal Accepted Anytime
Anticipated Funding Amount: budgets are not limited but need to reflect the actual needs of the proposed project

The Mathematical Biology Program supports research in areas of applied and computational mathematics with relevance to the biological sciences. Successful proposals must demonstrate mathematical innovation, biological relevance and significance, and strong integration between mathematics and biology.

Some projects of interest to the Mathematical Biology Program may include development of mathematical concepts and tools traditionally seen in other disciplinary programs within the Division of Mathematical Sciences, e.g., topology, probability, statistics, computational mathematics, etc. In general, if a proposal is appropriate for review by more than one NSF program, it is advisable to contact the program officers handling each program to determine when and where the proposal should be submitted and to facilitate the review process.

The Mathematical Biology Program regularly seeks joint reviews of proposals with programs in the Directorates of Biological Sciences and Engineering. Investigators are encouraged to discuss their project with program officers in relevant areas to determine if it should be considered by more than one program.

Link to Additional Information: https://beta.nsf.gov/funding/opportunities/mathematical-biology

6. Office of Postsecondary Education (OPE): Fund for The Improvement of Postsecondary Education (FIPSE): Basic Needs for Postsecondary Students Program, Dept. of Education

Application Due Date: October 03, 2022
Anticipated Funding Amount: up to $950,000 for the entire project period of 36 months

Purpose of Program
The Basic Needs for Postsecondary Students Program provides grants to eligible institutions of higher education (IHEs) to support programs that address the basic needs of students and to report on practices that improve outcomes for students. This competition is designed to promote student success by supporting interventions and programs that holistically address the basic needs of students and reporting on practices that improve student outcomes.

Priorities
This notice contains two absolute priorities and one competitive preference priority.

- Absolute Priority 1: Strengthening Cross-Agency Coordination and Community Engagement To Advance Systemic Change.
  Projects that are designed to take a systemic evidence-based approach to improving outcomes for underserved students through one or more of the following priority areas:
  a. Coordinating efforts with Federal, State, or local agencies, or community- based organizations, that support students, to address two or more of the following:
     1. Food assistance
     2. Housing
     3. Transportation
     4. Health, including physical health, mental health, and behavioral health and trauma
     5. Childcare
     6. Technology
  b. Conducting community needs and asset mapping to identify existing programs and initiatives that can be leveraged, and new programs and initiatives that need to be developed and implemented, to advance systemic change.
  c. Establishing cross-agency partnerships, or community-based partnerships with local nonprofit organizations, businesses, philanthropic organizations, or others, to meet family well-being needs.

- Absolute Priority 2: Promoting Equity in Student Access to Educational Resources and Opportunities.

Competitive Preference Priority
For FY 2022 and any subsequent year in which we make awards from the list of unfunded applications from this competition, this priority is a competitive preference priority. Under 34 CFR 75.105(c)(2)(i), we will award up to an additional 10 points to an application, depending on how well the application meets this priority. This priority is:

- Meeting Student Social, Emotional, and Academic Needs (up to 10 points).
  Projects that are designed to improve students' social, emotional, academic, and career development, with a focus on underserved students through creating a positive, inclusive, and identity-safe climate at institutions of higher education through one or both of the following activities:
  1. Fostering a sense of belonging and inclusion for underserved students.
  2. Implementing evidence-based practices for advancing student success for underserved students.

Link to Additional Information: https://www.grants.gov/web/grants/view-opportunity.html?oppId=342792

7. Computational and Data-Enabled Science and Engineering in Mathematical and Statistical Sciences, NSF

Application Deadline: Proposal Accepted Anytime
Anticipated Funding Amount: budgets are not limited but need to reflect the actual needs of the proposed project

The CDS&E-MSS program accepts proposals that engage with the mathematical and statistical challenges presented by (1) the ever-expanding role of computational experimentation, modeling, and simulation on the one hand, and (2) the explosion in production and analysis of digital data from experimental and observational sources on the other. The goal of the program is to promote the creation and development of the next generation of mathematical and statistical software tools, and the theory underpinning those tools, that will be essential for addressing these challenges.

The research supported by the CDS&E-MSS program will aim to advance mathematics or statistics in a significant way and will address computational or big-data challenges. Proposals of interest to the program must include a Principal Investigator or co-Principal Investigator who is a researcher in an area supported by the Division of Mathematical Sciences. The program welcomes submission of proposals that include multidisciplinary collaborations or provide opportunities for training through research involvement of junior mathematicians or statisticians. This program is part of the wider NSF Computational and Data-enabled Science and Engineering (CDS&E) enterprise.

Link to Additional Information: https://beta.nsf.gov/funding/opportunities/computational-and-data-enabled-science-and-engineering-mathematical-and

8. Understanding the Pathophysiology and Clinical Course of New-Onset Diabetes Following COVID-19 (U01 Clinical Trial Not Allowed), NIH

Application Deadline:

- **Letter of Intent: November 20, 2022**
- **Full Proposal: December 20, 2022**

Award Amounts:

- **$3.75 million in directs costs for FYs 2023 and 2026**
- **$5 million in directs costs for FYs 2024 and 2025**
- **need to reflect the actual needs of the proposed project**

Purpose
This opportunity invites multiple Program Director/Prinicipal Investigator (multi-PD/PI) applications to conduct a study to establish a longitudinal cohort of individuals who developed diabetes following SARS-CoV-2 infection to understand the pathophysiology and clinical course post-COVID-19 diabetes. The cohort must include children and adults and reflect the geography and demographics of COVID-19 in the U.S. There must be an appropriate comparator population recruited and followed. The goals are to determine the contribution of:

1. specific pathophysiologic pathways
2. overall health impact of the pandemic
3. COVID-19 severity
4. COVID-19 treatment upon excess new onset diabetes from SARS-CoV-2 infection and response to diabetes therapy.

The NIDDK strongly encourages Research on Sex/Gender Differences, Sexual and Gender Minority-Related Research and Race/Ethnic Diversity (see NOT-DK-22-003). This opportunity aligns with the Mission and Vision of the NIDDK Strategic Plan for Research, including the theme of empowering a multidisciplinary workforce, engaging diverse stakeholders, and pursuing pathways to health for all.

Scope
This opportunity invites investigator-initiated applications to establish a controlled longitudinal observational multi-center clinical study to comprehensively characterize new-onset diabetes and its clinical course following SARS-CoV-2 infection. This study must recruit adults and children with new-onset diabetes observed after SARS-CoV-2 infection and fully characterize the participants metabolically and clinically. Participants with pre-existing undiagnosed diabetes should

be excluded. Participants will be followed for 1-2 years to monitor the natural history and characterize the course of diabetes and glycemic response to therapy and assess any potential complications.

The study will recruit adults and children with new-onset diabetes diagnosed following documented SARS-CoV-2 infection. Ideally, participants would be recruited within several months of diabetes diagnosis; however, it is recognized that a longer post-diagnosis period may be necessary with waning COVID-19 rates and may be appropriate if adequate clinical electronic health records (EHR) data can be obtained for the period prior to enrollment. An appropriate comparator group must be included. Participants should be carefully phenotyped and metabolically characterized at enrollment and longitudinally for 1-2 years. Phenotyping should be directed at understanding: 1) the risk factors for diabetes pre and post SARS-CoV-2 infection; 2) whether post-COVID-19 diabetes is reversible or can be reversed; 3) the etiology/diabetes type; 4) temporal relationships between diabetes and COVID-19 clinical course (including severity of COVID-19 (i.e., non-hospitalized, hospitalized, ICU admission, etc.), therapies and other post-acute sequalae of SARS CoV-2 infection (PASC) symptoms); 5) impact of social determinants of health and other pandemic-related social conditions, and 6) responses to diabetes medical treatments.

One award will be made for a multi-center clinical study. The applicant should assemble adequate numbers of collaborators and pediatric and adult recruitment sites. Given the need to rapidly recruit individuals with new-onset diabetes in the context of waning SARS-CoV-2 infections, it is critical to expedite the launch of the study. Therefore, planning prior to application and award is essential, so the study can start quickly once an award is made. Since only one award will be made, each applicant will be expected to assemble a multi-center study with broad demographic and geographic representation. In addition to Clinical Centers (CC), the application should include a Biostatistics Research Center (BRC) that will provide scientific biostatistical input to the design of the study as well as provide coordination and oversight of all recruitment sites (see below). Any required cores (e.g., central laboratory) should also be included. The application is expected to be a multi-PD/PI award between an investigator well versed in clinical research and has documented experience in metabolic investigation in individuals with diabetes (e.g. endocrinologist, diabetologist) and a biostatistician.

Consortium Organization

1. Clinical Centers
2. Biostatistics Research Center (BRC)
3. Steering Committee
4. Project Scientist

Link to Additional Information: https://grants.nih.gov/grants/guide/rfa-files/RFA-DK-22-016.html

9. Galvanizing Health Equity Through Novel and Diverse Educational Resources (GENDER) Research Education R25 (R25 Clinical Trial Not Allowed), NIH

Application Deadline:

- **Letter of Intent: 30 days prior to the application due date**
- **Full Proposal: October 27, 2022; June 27, 2023**

Award Amount: limited to $150,000 in direct costs and need to reflect the actual needs of the proposed project

The over-arching goal of this program is to support educational activities that complement and/or enhance the training of a diverse workforce to meet the nation's biomedical, behavioral and clinical research. To accomplish the stated over-arching goal, this opportunity will support creative educational activities with a primary focus on:

- **Courses for Skills Development:** For example, advanced undergraduate courses in a specific discipline or research area, courses on clinical procedures or specialized research techniques, or community-based courses on topics of relevance to sex and/or gender and health. Specifically, this opportunity aims to support courses that develop skills in multidimensional and intersectional health-related research and healthcare delivery. The format of the courses may involve a traditional in-person approach, online activities, a hybrid of both approaches, or other methods.

- **Curriculum or Methods Development:** For example, undergraduate STEMM curricula focused on sex and gender in medicine, advanced curricula to improve biomedical, social and behavioral or clinical science education, or development of novel methods or instructional approaches such as graphic medicine. Proposed curricula or methods should have high potential to improve biomedical, social and behavioral, or clinical research education. Specifically, this FOA aims to support innovative curricula or methods at the undergraduate level or higher that integrate knowledge of sex and gender influences into health-related training or enhance understanding of sex and gender influences on health.

To enhance knowledge of sex and/or gender influences on health and disease among all scientists, clinicians, and other health professionals and accelerate the translation of that knowledge into practice, courses and curricula can target participant audiences at any career stage, including biomedical researchers; health care providers; undergraduate students; graduate students; medical, dental, veterinary, nursing, and other allied health professional students; postdoctoral scholars; and/or members of the lay community involved in the dissemination of health information.

Courses:

Courses supported by this opportunity should develop, implement, evaluate, and disseminate education and training to advance health-related research on sex (as a biological variable); gender (as a social determinant of health); and/or the consideration of interactions between sex and gender. Courses that take an intersectional approach to explore how sex and gender interact with other identity categories (e.g., race, ethnicity, sexual orientation, and others) to create disparate outcomes for certain individuals, groups, and communities, are strongly encouraged. Although courses can focus on a specific application (e.g., trauma informed care) or methodology (e.g. intersectional health research), applicants should also consider how that specific application can be of relevance to sex and gender research broadly.

Training courses can be of varying lengths (1 week to 16 weeks), but the duration of the training and the format (online, in-person, or some combination) must be justified based on the learning objectives. The development and implementation of fully or predominantly remote training programs is encouraged. Courses delivered primarily in-person are expected to include online adjuncts (lesson plans, readings, slide sets, etc.) that can be made broadly available to research, clinical, and community partners. Courses that include in-person activities should describe contingency plans to offer such activities remotely in case in-person activities are not possible due to pandemic or other disaster situations beyond the control of the PD(s)/PI(s). In such situations, prior approval from the ORWH Program Officer will be required to offer the course remotely.

Courses can be developed for integration into existing curricula or training programs at the grantee's institution; however, a clear dissemination plan for making course material accessible and available to researchers in the field should be described. The aim of this R25 program is for supported activities to benefit the fields of women's health and sex- and gender-specific medicine, meaning that plans to sustain the course beyond the immediate participants and the end of the project period should be clearly described. Supported courses will be made freely available, at no cost to the broader community, through the ORWH website.

It is expected that courses may require up to two years to develop, test, refine, and improve prior to being deployed to the target participant audience.

Curriculum or methods development:

Curricula and methods development activities should advance understanding of sex and/or gender influences on health, for example, intersectional methods and approaches for studying sex and/or gender. Activities can integrate knowledge of sex and gender influences into existing trainings or develop novel methods or curricula. Supported curricula will be made freely available, at no cost to the broader community, through the ORWH website; programs must be self-sustaining at the end of the award period.

It is expected that curricula and methods may require up to two years to develop, pilot, and disseminate prior to evaluation and refinement in subsequent years of the award. While proposed curricula or methods can be developed for use at the

grantee institution, it is expected that they will also be readily adaptable by the larger research education community. To this end, activities will be made available to the extramural and academic communities via the ORWH website.

Potential topics:

As sex and gender influence multiple domains of health, courses, curricula, and methods covering a broad range of topics are appropriate for this opportunity, as long as sex, gender, or both is a primary domain of focus. Educational topics for courses and curricula or methods development that are of high interest to ORWH include, but are not limited to:

- *Multidimensional and intersectional approaches:*
    - Intersectional research methods in health research
    - Models of trauma-informed care (generally, or in specific settings)
    - Culturally competent OB/GYN health models for transgender men and gender diverse individuals
    - Gender- and gender-identity based violence (screening, interventions, prevention)
    - Female-specific conditions (e.g., fibroids, cervical cancer, endometriosis, ovarian cancer, PCOS)
    - Screening, diagnosis, prevention, and treatment of comorbidities in women
    - Multimorbidity in women
    - HIV and women, including HIV cure, prevention, and treatment
    - Social, environmental, and/or structural factors affecting the health of women
    - Multidimensional and intersectional research of sex and/or gender, geography and socioeconomic disparities in screening, prevention, diagnosis, interventions, management and comorbidities of COPD and cardiovascular disease
    - Enhancing understanding and uptake of sex and/or gender-specific policies & guidelines (Inclusion across the lifespan policy, NIH Sex as a Biological Variable Policy, SAGER Guidelines)

- *Life course perspectives:*
    - Women's health in the transition from adolescence to adulthood
    - Women's health in midlife
    - Aging, frailty, and menopause
    - Gender and psychological health
    - Cultural and ethical competency in clinical practice, education and research
    - Sex and gender-based asthma incidence, diagnosis, intervention and management during transition from childhood to adulthood and menopause
    - Sex and gender differences in detection, diagnosis, management, and treatment of Alzheimer's disease and Alzheimer's disease-related dementias (AD/ADRD), as well as outcomes related to AD/ADRD, including the incidence, prevalence, risk factors, health care utilization, caregiving for people living with AD/ADRD

- *Innovative methodologies*:
    - Data science and informatics to advance the health of women
    - Graphic medicine
    - Methodologies for studying gender inequity in health-related research
    - Transdisciplinary methodologies to advance the health of women
    - Factoring sex and/or gender into research design
    - Methods to evaluate structural sexism, gender norms, relational power dynamics, and gender inequities in health
    - Novel methodologies for studying sex and/or gender differences in rare heart, lung and blood diseases and sleep disorders (e.g., pulmonary artery hypertension)
    - Community-focused, culturally-responsive education programs focusing on sex and/or gender differences of heart, lung and blood diseases and sleep disorders
    - Gender-transformative public health approaches

- *Advocacy & community-based education*:
    - Community-based, culturally-responsive women's health education programs

- Curricula for community-based birth workers and/or full spectrum doulas
- Capacity-building for the next generation of women's health advocates
- Community-based participatory research
- Reporting and communicating sex- and/or gender-related science
- Community-focused training curricula on conditions with differential gender effects (e.g., HIV; substance use disorder)
- Community-engaged research

The NIH encourages all programs to foster the participation of individuals from backgrounds underrepresented in biomedical and behavioral research, including individuals from underrepresented racial and ethnic groups, individuals with disabilities, and persons from disadvantaged backgrounds. Therefore, all applicants are strongly encouraged to involve a diverse group of faculty and mentors, and their applications must include a Recruitment Plan to Enhance Diversity. In addition, applicants are strongly encouraged to consider and describe how the methodologies and approaches being taught in the proposed course can be reliably and validly applied across diverse groups, including gender-diverse individuals, as well as how to address potential structural influences and/or consequences for communities/subpopulations that are disproportionally impacted by disease burden.

Link to Additional Information: https://grants.nih.gov/grants/guide/rfa-files/RFA-OD-22-015.html

10. Dynamic Language Infrastructure-Doctoral Dissertation Research Improvement Grants (DLI-DDRI), NSF

Application Deadline: October 14, 2022; February 15, 2023
Award Budget: up to $15,000 in direct costs

As part of its effort to encourage and support projects that explicitly integrate education and basic research, the DLI-DDRI grants provide support to enhance and improve the dissertation projects conducted by doctoral students enrolled in U.S. universities in Linguistics, Language Documentation, and associated fields.

All DDRI proposals recommended for funding must clearly demonstrate how the proposed research will contribute to the advancement of the basic science of linguistics and the field of language documentation and infrastructure. Principal Investigators (PIs) may propose projects involving one or more of the following three emphasis areas:

1. **Language Description**
   To conduct fieldwork to record in digital audio and video format one or more endangered languages; to carry out the early stages of language documentation including transcription and annotation; to carry out later stages of documentation including the preparation of lexicons, grammars, text samples and databases; to conduct initial analysis of findings in the light of current linguistic theory.

2. **Infrastructure**
   To digitize and otherwise preserve and provide wider access to the documentary materials described above, including previously collected materials and those concerned with languages that have recently lost all fluent speakers and are related to currently endangered languages; to create other infrastructures to make the problem of endangered languages more widely understood and more effectively addressed.

3. **Computational Methods**
   To further develop standards and databases to make the documentation of a certain language or languages widely available in consistent, archivable, interoperable and web-based formats; to develop computational tools for endangered languages, which present an additional challenge for statistical tools (taggers, grammar induction tools, parsers, etc.) since they do not have the large corpora for training and testing the models used to develop those tools; to develop new approaches to building computational tools for endangered languages, based on deeper knowledge of linguistics, language typology and families, which require collaboration between theoretical and field linguists and computational linguists (computer scientists).

Link to Additional Information: https://www.nsf.gov/pubs/2022/nsf22616/nsf22616.htm

11. HEAL Initiative: Rapidly Assessing the Public Health Impact of Emerging Opioid Threats (UG1 - Clinical Trial Not Allowed), NIH

Application Deadline:

- **Letter of Intent: January 2, 2023**
- **Full Proposal: February 2, 2023**

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

This opportunity is expected to help promote the development and distribution of tools and methods to detect and quantify emerging drug threats across the range of affected settings. The use of a UG1 mechanism provides the resources to permit the flexibility to respond rapidly as new threats emerge. The ultimate goal is to ensure doctors and policy makers get the information they need to develop timely, data-driven responses to emerging drug threats.

Research Objectives may include (but are not limited to):

- Development and distribution of validated GC-MS and LC-MS/MS, LC-QTOF protocols and data, designed to identify and quantify new opioid / stimulant threats and their principal metabolites in biomatrices such as urine and blood. These methods, if designed for compatibility with current workflows, would reduce implementation costs and improve standardization across sites. Such standardization is desperately needed by hospital toxicology labs and medical examiners across the country and will improve vision wherever implemented. A distribution plan intended to reach organizations without expensive journal access, would also be a valuable consideration.
- Evaluating the pharmacokinetics and metabolic profiles of emerging drug threats, using accepted using validated methods. This information would serve a range of roles, from understanding metabolite toxicity and drug interactions, defining expectations of parent/ metabolite accumulation, to understand the time of drug consumption relative to sampling (or mortality). Appropriate techniques to speed information gathering may include comparative studies of drug clearance and metabolite formation in human and rodent hepatocyte models, drug / metabolite screening against a battery of targets, and rodent pharmacokinetic studies. A distribution plan intended to reach organizations without expensive journal access, would also be a valuable consideration.
- Preparation and supply of validated standards of new drugs and their key (diagnostic) metabolites. The development plan should include a manufacture and distribution strategy at least as part of a longer-term project timeline for a successful project.
- Development of point of care urine toxicological drug detection test strips for emerging drugs. Ideally, the capacity of the strips to detect different related drugs should be described. These strips are a vital simple drug detection mechanism used at point of care. This can be in the emergency department to provide understanding to toxidromes, and are essential component of relapse prevention monitoring. A briefly outlined future development strategy would be a valuable addition
- Development of drug test strips suitable for a member of the public to successfully identify unrealized threats in purchased drugs. The fentanyl experience showed that such strips are only effective when they maintain selectivity and specificity in the presence of high levels of potentially interfering compounds and do not cross react with predictably present compounds such as methamphetamine or diphenhydramine. Data also shows that any sample preparation required that effectively destroys the sample (such as extensive dilution) deters test use. A briefly outlined future development plan would be a valuable addition.

This announcement aims to accelerate understanding of emerging drug threats as they develop and thereby improve harm reduction efforts. It is anticipated that applicants to this RFA will propose to develop assessment technologies to improve assessment of emerging drug threat prevalence in multiple environments. These include including emergency departments, rehabilitation treatment clinics, forensic analytical labs and even to provide harm reduction tools to users at the point of drug consumption. the UG1 cooperative agreement funding opportunity seeks to allow projects to rapidly respond to the appearance of new opioids and other consumed illicit drugs. Each project will receive funds to develop and maintain the infrastructure to accomplish the initial proposed project, with further funds potentially available to enable PIs to refocus their developed infrastructure to address future emerging opioid/stimulant threats. Each awarded UG1 project is expected to provide an important component for improving and maintaining vision into a rapidly evolving drug landscape.

Link to Additional Information: https://grants.nih.gov/grants/guide/rfa-files/RFA-DA-23-045.html

12. BRAIN Initiative: Brain Behavior Quantification and Synchronization (R61/R33 Clinical Trial Optional), NIH

Application Due Date:

- **Letter of Intent: 30 days prior to the application due date**
- **Full Proposal: February 17, 2023; February 15, 2024**

Anticipated Funding Amount: budgets are not limited but need to reflect the actual needs of the proposed project

The two BRAIN Initiative 2.0 reports ("The BRAIN Initiative 2.0: From Cells to Circuits, Toward Cures" and "The BRAIN Initiative and Neuroethics: Enabling and Enhancing Neuroscience Advances for Society") highlight that a critical step forward is to study "the brain in action," including efforts to develop "tools to analyze naturalistic (untrained) and trained behaviors" and "to assimilate and link brain recordings with behavior" (p. 34 of "The BRAIN Initiative 2.0: From Cells to Circuits, Toward Cures"). Matching the scientific rigor and precision of measurements of brain activity with equally precise, temporally dense measurements of the functional output of the brain, as expressed in a broad range of behaviors, will accelerate the discovery of brain-behavior relationships in both health and disease. Achieving a comprehensive understanding across these levels of analysis demands the same level of rigor, precision of measurement, and temporal resolution across all levels.

At present, tools for measuring behavior in humans and other species lack the necessary precision and resolution to fully capture behavioral dynamics synchronously with data from the environment with which the organism is interacting and which shapes the behavior under study. To address this gap, the BRAIN Initiative BBQS funding opportunities support:

1) development of tools for simultaneous, multimodal measurement of behavior within complex, dynamic physical and/or social environments and align these data with simultaneously-recorded neural activity
2) development of novel conceptual and computational models that capture dynamic behavior-environment relationships across multiple timescales and that can integrate correlated neural activity into the model.

This opportunity focuses on the development of cutting-edge tools that can transition from lab-based settings to naturalistic or home-based environments. Tools may be developed to explore a broad spectrum of naturally occurring behavior, across multiple environments, in both health and disease states. Such tools should seek to innovate technological approaches (e.g., photonics, light detection and ranging [LiDAR]) to measure and integrate multiple behavioral dimensions (e.g., body kinetics, vocalizations) and capture responses to different acute and/or longer-lasting environmental challenges. Novel behavioral measurement tools and analytical approaches should be compatible for use in individuals across the lifespan, in NIH-designated U.S. health disparity populations, in diverse sociocultural settings, and in a range of disease states.

Research that is appropriate for this RFA includes (but is not limited to):

- Development of hardware and/or software tools that advance novel methods to capture and quantify multiple dimensions of behavior in real time
- Development of hardware and/or software tools to advance environmental sensing (e.g., Internet of Things [IoT]) and/or to improve integration of contextual measures with measures of behavior
- Novel application and/or utilization of existing smart hardware technologies (e.g., phones, wearable technology) to capture dynamic behavior and/or to integrate behavioral and physiological measures at the same time scale
- Development of less obtrusive, ambulatory devices that are wireless (e.g., no backpack), that have longer term and high storage capacity (e.g., memory or power consumption that allows for sampling across days as opposed to intermittently) to achieve a higher temporal resolution and/or usage across temporal scales (e.g., from milliseconds to days)
- Development and validation of reliable tools that can passively obtain objective measures that accurately reflect or predict subjective or internal mental states
- Development of novel approaches that integrate passive measures of behavior with subjective reports of individuals' internal states (e.g., subjective mood or cognitive state using ecological momentary assessments

[EMAs])
- Development of novel approaches to integrate multiple data modalities and/or data streams (e.g., integration of peripheral biophysiological measures with complex behaviors)
- Development of novel analytic tools and approaches (e.g., ML/AI methods) focused on behavioral quantification and/or novel conceptual or computational frameworks that incorporate integration/synchronization of multi-modal data streams

Required components of R61/33:

This opportunity utilizes a biphasic, milestone driven R61/R33 mechanism consisting of novel tool (i.e., hardware/software) and/or methodological development in the R61 phase, followed by the integration/synchronization of these novel tools with established methods for recording human brain activity in the R33 phase. The R33 phase may or may not contain an additional clinical trial component described below. Applications using only the R61 mechanism or only the R33 mechanism will be considered incomplete and will not be accepted under this FOA. Applicants are strongly encouraged to consult with relevant agency staff when developing plans for an application (see Agency Contacts, Section VII). This early contact will provide an opportunity to clarify institute policies and guidelines and discuss whether the proposed project is consistent with program priorities.

- **The R61 Phase -** focuses on supporting novel tool development (i.e., hardware/software) to enable or facilitate capture of quantifiable complex behavioral data, in real time, for subsequent integration with brain data. Proposed new tools should overcome current limitations by providing multi-modal data capture (e.g., movement, vocalization, or facial expressions in conjunction with biophysiological measures such as blood flow or heart rate); advancing less obstructive recording apparatus or increasing ease of monitoring; extending storage and telemetry capabilities to enable longer-term data collection with high temporal resolution in the ambulatory setting; incorporating environmental sensing (e.g., noise, temperature, distractions, odor); and/or developing innovative remote sensing/detector technologies, not currently used in neuroscience, that may provide new means to detect aspects of behavior not accessible with existing neurotechnology.

- **The R33 Phase -** focuses on integration of tools developed in the R61 phase with approaches to measure brain activity in humans. Work in this phase should seek to synchronize behavioral and neural data collection and measure both behavioral and neural data with a high degree of temporal resolution. The R33 phase is clinical trial optional and may also incorporate a neuromodulation/neurostimulation component. R33 applications that do not contain a clinical trial component should strive to advance brain-behavioral quantification systems to accelerate discovery of how underlying neural activity gives rise to complex cognition and behaviors. R33 applications that include a clinical trial component should strive to facilitate development of next-generation closed-loop systems by modulating brain activity and consequent behavior through incorporation of a neurostimulation component. Proposed clinical trials should be appropriately mechanistic in order to address questions related to how the brain gives rise to specific behaviors or components of cognition. Proposed clinical trials should be appropriately mechanistic in order to address questions related to how the brain gives rise to specific behaviors or components of cognition. Proposed clinical trials must be mechanistic or Basic Experimental Studies involving Humans (BESH) studies that meet the NIH definition of a clinical trial. Proposed clinical trials that aim to develop a therapeutic intervention for a specific disorder are outside the scope of this announcement.

Link to Additional Information: https://grants.nih.gov/grants/guide/rfa-files/RFA-MH-22-240.html

13. Innovation Corps (I-Corps) Pilot, NASA

Application Due Date:
- **Letter of Intent: 30 days prior to the application due date**
- **Full Proposal: October 07, 2022**

Estimated Total Program Funding:
- **Short Course award may not exceed $10,000**
- **National Course award may not exceed $40,000**

The program is intended to provide support for participation in the National Science Foundation (NSF) Innovation Corps (I-Corps™) Program to train faculty, students in higher education, post-docs, and other researchers in innovation and entrepreneurship skills. The pilot employs education through virtual courses to guide teams in the process of developing a business model while supporting teams as they explore the commercial potential of their research. NASA's Science Mission Directorate (SMD) and Space Technology Mission Directorate (STMD) are partnering to expand the agency's participation by leveraging the infrastructure of NSF's I-Corps Program and National Innovation Network.

The goal is to give teams the opportunity to develop the following capabilities:

- Informed decision-making to facilitate research and/or technology transitions and new NASA funding opportunities.
- Facilitated focus and inspiration on the commercial potential of proposed research and/or technology.
- Advanced workforce development opportunities in science missions and space technology by preparing students with a foundational education in entrepreneurship.
- Enhanced entrepreneurial mindsets.

Key Features

The NASA I-Corps Pilot is aimed to accelerate the translation of promising ideas from the lab to the marketplace. All pilot teams are required to take a Regional Short Course (hereinafter Short Course) offered by an NSF I-Corps sponsored Hub. While the NSF Hubs do not provide geographic representation for all regions of the U.S., teams are encouraged to participate in the Hubs of nearest geographic proximity. Courses are provided virtually.

Teams that complete the Short Course may propose to take the National Course, see below. The NSF I-Corps National Course (referred to on the NSF website as "I-Corps Cohorts") is offered throughout the year. The steps for National Course participation are described in other sections, including Table F.18-5. Courses have limited capacity, and each course will be comprised of teams that are working on a broad range of topics (i.e., not exclusively science missions and space technologies).

Team Composition

For both the Short and National Course, a NASA I-Corps Pilot team must include a Technical Lead, an Entrepreneurial Lead, and an Industry Mentor. The Technical Lead serves as the Principal Investigator (PI) of the award, the Entrepreneurial Lead should be listed as a Co-I, and the Industry Mentor as a collaborator. The Technical Lead provides a deep and direct technical expertise in the relevant core research and/or technology area the I-Corps team is exploring. The Entrepreneurial Lead has relevant knowledge of the research and/or technology area and guides translation of the research and/or technology if the project demonstrates the potential for commercial viability. The Industry Mentor is responsible for advising the team through the duration of the course(s) and usually has contacts in the industry area being explored. The Industry Mentor may not receive a stipend or consultancy fees through the grant.

Summary of Training Activities

All team members of a NASA I-Corps Pilot award are required to participate in the entire Short Course and, if selected, the entire National Course. The curriculum, delivered exclusively in an online format, includes a kick-off meeting with entrepreneurial immersion training, a weekly training meeting, weekly office hours with I-Corps instructors, and a lessons-learned closing presentation. The main activity of the program is to develop a business model through customer discovery, where the team leaves the lab to evaluate potential product-market fit. A team will conduct many interviews with potential customers during both courses. NASA I-Corps Pilot teams are encouraged to travel for in-person customer interviews when feasible. At the end of the Short Course curriculum, teams are expected to have conducted at least thirty (30) virtual or in-person interviews with potential customers (including government agencies) and from their proposed target market(s). At the end of the National Course, teams are expected to have performed at least one hundred (100) virtual or in-person interviews with potential customers (including government agencies) from their proposed target market(s). The interviews provide teams with the customer data needed to refine their hypotheses – ultimately resulting in a more viable business model.

Link to Additional Information: https://nspires.nasaprs.com/external/solicitations/summary.do?solId=%7b1B42E782-61BB-9834-F20F-44CBEF13C0A6%7d&path=&method=init

14. Type 1 Diabetes Mellitus Stakeholder Engagement Innovation Center to Advance Health Equity (U2C Clinical Trial Not Allowed), NIH

Application Due Date:

- **Letter of Intent: October 17, 2022**
- **Full Proposal: November 17, 2022**

Estimated Total Program Funding: limited to $1,500,000 direct costs per year, for a maximum project period of 5 years

This U2C funding opportunity announcement (FOA) is a National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) initiative to establish a novel national Stakeholder Engagement Innovation Center for advancing equity in type 1 diabetes research (SEIC-T1D). A primary goal of the SEIC-T1D is to accelerate equitable engagement of diverse stakeholders (specifically people from NIH designated health disparities populations) in T1D research; particularly those from diverse communities that experience diabetes-related health disparities, and live within the healthcare and social systems that negatively impact community members' and patients' health. The SEIC-T1D will establish a network consisting of diverse, multidisciplinary research investigators with expertise in T1D and community-engaged methods, community experts with lived experiences, and representatives of various health and other organizations deemed essential for addressing disparities and advancing health equity in T1D early detection and treatment.

The Stakeholder Engagement Innovation Center for Advancing Health Equity in Type 1 Diabetes Research (SEIC-T1D) will provide highly specialized research resources to accelerate use of appropriate methods and meaningful and equitable engagement of diverse stakeholders. The stakeholders will include communities and people living with T1D that experience diabetes-related health disparities, and the organizations and people that impact their health and are essential for promoting health equity, to improve NIDDK mission-related T1D research. Specific goals are to support T1D investigators or investigative teams to facilitate or improve:

1. Use of appropriate research methodologies with potential for addressing health disparities and promoting equity such as community-engaged research methods, implementation science, and pragmatic effectiveness trials which may allow researchers to better identify/address barriers to care and other health promoting resources, and optimal outcomes.
2. Use of key equity approaches such as strength-based perspectives, incorporating community members' research priorities, values, lived experiences, and their health promoting resources and challenges into the research; and avoiding unintended stigmatization, tokenism, and harmful implicit bias in the research efforts.
3. The science of engagement involving outreach, communications, recruitment and retention strategies, and principles of reciprocity that would benefit clinical trial research.
4. Equitable stakeholder partnership development between researchers and community-based organizations, members, or other entities to promote research efforts that involve mutually beneficial processes, metrics, and outcomes.
5. Dissemination of effective practices for equitable engagement with stakeholders, including effective strategies for sharing research findings with diverse communities, lessons for improving the adoption and scalability of efficacious and evidence-based interventions, and tailored health communications to reduce T1D-related disparities and promote health equity.

The SEIC-T1D will focus on initiating and building a robust infrastructure for delivering expert research engagement resources to improve uptake of appropriate research principles and methods to improve equity, and stakeholder engagement in developing research studies, and in mitigating obstacles with research studies that are not meeting proposed targets (e.g., challenges with delayed recruitment and retention, insufficient participatory research methods). Consultations should be made available to the T1D research community through a minimum of two core services: 1) stakeholder engagement studios whereby the Center designs customized consultation sessions to provide varied stakeholder or community input on the research objectives and approaches; and 2) structured, expert research

consultations with center faculty at any stage of the investigator's (i.e., core user's) grant writing or research project. It is anticipated that the number of engagement studios and research consultations may be limited in scope in the first two grant years while the SEIC-T1D builds the infrastructure and capacity to deliver them (unless infrastructure already exists). In addition, the Center will be responsible for compiling registries of stakeholder members (community members, care takers, and people living with T1D, family members, organizations and people that impact their health, etc.) willing to serve as engagement studio experts for various T1D research topics.

The SEIC-T1D will leverage existing partnerships and establish new ones, as needed, across U.S. geographic regions with diverse communities and organizations representing populations at risk for or living with T1D, especially underserved communities and those with diabetes-related health disparities. These partnerships will be leveraged to conduct engagement studios and research consultations to engage communities and address specific T1D health equity research objectives. It is anticipated that some of these activities will occur (in-person or remotely) at the awardee's institution while a portion will occur at partner or satellite institutions in the Partnership Hub. These partnerships will include linkages between networks representing experts with various disciplines, other institutions, community partners, health departments, and human service organizations and should be based on the Center's framework and assessed needs of the user base (i.e., the SEIC-T1D research customers). The SEIC-T1D will establish a Partnership and Outreach Fund to support additional partnership development with diverse stakeholders to meet the needs of the T1D research community as new opportunities arise.

The SEIC-T1D will be structured with three required cores: Administrative Core, Stakeholder Engagement Studio Core, and the Research Consultation Services Core.

Link to Additional Information: https://grants.nih.gov/grants/guide/rfa-files/RFA-DK-22-019.html

15. FY2023 Ocean Technology Transition Project, National Ocean Service (NOS), National Oceanic and Atmospheric Administration (NOAA) and Department of Commerce

Application Due Date:

- **Letter of Intent: October 21, 2022**
- **Full Proposal: January 17, 2023**

Estimated Program Funding: up to $400,000 per year for up to three years

The U.S. Integrated Ocean Observing System (IOOS®) is a national and regional partnership working to provide ocean, coastal and Great Lakes observations, data, tools, and forecasts to improve safety, enhance the economy, and protect the environment. To increase observational and technical capabilities we need smart investments to innovate sensors, data management, decision support products, and other technical capabilities that will improve our ability to monitor and forecast environmental conditions with greater efficiency. The primary objective of IOOS' Ocean Technology Transition Project (OTT) is to reduce the Research to Operations transition period for ocean observing, product development, and data management technologies for the ocean, coastal and Great Lakes. The term 'Technologies' includes ocean, coastal, and Great Lakes sensors, information technology (data management, data visualization), platform enhancement, and technology modernization efforts. This objective is accomplished by investing in the transition of emerging and promising marine and Great Lakes observing technological capabilities from the mid to latter phases of research into operational status.

The Office will accept applications to accelerate the transition of advanced coastal, ocean, and Great Lakes observing technologies to operations mode. Technologies which support developing and improving observation, sensors, and information capabilities for chemical, biological, and physical parameters at multiple spatial and temporal scales to monitor changing conditions in the oceans, coasts, and Great Lakes will be considered.

Specific areas of interest under this funding opportunity include, but are not limited to:

1. sensors for physical, biological, or chemical parameters
2. use of cloud-based technologies and platforms
3. novel autonomous vehicles/platforms
4. HAB sensors and sensor platforms including deployment of sensors on new platforms

5. novel data management, analytics, and integration to improve service delivery to customers
6. sensors for ocean acidification related measurements
7. high frequency radar use impact and metrics, development, and improvement

Link to Additional Information: https://www.grants.gov/web/grants/view-opportunity.html?oppId=342720

16. Formal Methods in the Field (FMitF), NSF

Application Due Date: February 15, 2023
Estimated Program Funding:

- **Track I: up to $750,000 in total budget, with durations of up to four years**
- **Track II: up to $100,000 in total budget, with durations of up to 18 months**

FMitF posits the need for close and continuous collaboration between two groups of researchers. The first group consists of researchers in the area of formal methods, which, for the purposes of this solicitation, is broadly defined as principled approaches based on mathematics and logic to system modeling, specification, design, program analysis, verification, and synthesis. The second group consists of researchers in the "field," which, for the purposes of this solicitation, is defined as all areas within computer and information science and engineering that currently do not benefit from having established communities already developing and applying formal methods in their research. Initially the program limited the field to these five areas: computer networks, embedded systems, operating/distributed systems, human centered computing, and machine learning. These fields are still priority areas for the program, but other field areas that stand to directly benefit from a grounding in formal methods are now also in scope.

The FMitF program solicits proposals in two classes:

- **Track I: Research proposals:**
  FMitF solicits proposals that advance general theories, principles and methodologies that go beyond specific problem instances. FMitF seeks to support proposals that have the potential to make strong advances in both formal methods and in the application area to which the formal methods are being deployed; an ideal proposal will integrate both formal methods and field components and argue the potential for lasting impact on both sides. Proposals that make strong advances primarily on one side of this relationship are not in scope. Proposals that seek to apply existing formal methods without theoretical advances that leverage characteristics of the underlying application domain are also not in scope. Research that includes security as part of a more general effort to ensure correctness and reliability is in scope, while efforts that are focused on protecting against specific vulnerabilities or attacks are not in scope. Finally, proposals that only explore theoretical advances without strong connection to the application domain, or those that do not target a realistic problem in the field, are not in scope. A proposal focused on a field area not listed above must make a strong case for why that field area is one that does not currently benefit from formal methods but would be a strong candidate for inclusion as a field area.

- **Track II: Transition to Practice (TTP) proposals:**
  The objective of this track is to support the ongoing development of extensible and robust formal methods research prototypes/tools to enable usability and accessibility to a larger and more diverse community of users. Track II proposals should support the development, implementation, and deployment of later-stage successful formal methods research and tools into an operational environment in order to bridge the gap between research and practice. A TTP proposal must include a project plan that addresses major tasks and system-development milestones as well as an evaluation plan for the working system. Proposals are expected to identify a target user community or organization that will serve as an early adopter of the technology. Collaborations with industry are strongly encouraged.

Link to Additional Information: https://www.nsf.gov/pubs/2022/nsf22618/nsf22618.htm

17. Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science (NSF INCLUDES), NSF

Application Due Date: October 25, 2022
Estimated Program Funding:

- **DDLPs: up to $300,000 per year for up to two years**
- **Collaborative Change Consortia: up to $1,000,000 per year for up to five years**
- **Alliances: up to $2,000,000 per year for up to five years**
- **Network Connectors: up to $250,000 per year for up to two years**
- **Conferences: up to $100,000 for one year**

With this solicitation, NSF invites proposals for five types of projects that connect and contribute to the National Network:

1. **Design and Development Launch Pilots (DDLPs)** - explore new strategies and models for collaborative approaches to broadening participation in STEM. Successful proposals will identify a specific broadening participation challenge to address, measurable objectives, and collaborative partners, with explanation of the role of each partnering individual or organization. Successful pilot projects will test and deliver models that enable new collaborative efforts or new approaches to advance equity and broaden participation in STEM.

   Should facilitate innovative partnerships, networks, and theories of action for broadening participation in STEM, with the goal of establishing future alliances, centers, or other large-scale networks. DDLPs can explore and build capacity for the development of collaborative infrastructure. Submissions from a broad range of diverse institutional partnerships, principal investigators, and contexts are encouraged.

2. **Collaborative Change Consortia** - are networks that implement, study, and scale up systemic strategies that address a critical broadening participation challenge in STEM. Collaborative Change Consortia build the infrastructure necessary to:
   a. foster collaboration
   b. broaden participation in STEM at city, state, or regional levels of impact by operationalizing the five design elements of collaborative infrastructure
   c. contribute rigorous and innovative research to the knowledge base about broadening participation in STEM.

   These projects should result in research findings and sustainable, replicable models for city, state, and/or regional implementation and impact.

   Consortium partners work to achieve common goals through well-defined, common objectives and use lessons learned, promising practices, evidence-based mechanisms, the science of broadening participation, and research and evaluations from past and present efforts to transform systems in order to broaden participation in STEM at scale and provide new research.

   Consortium proposals must include:

   - a shared vision and strategy for broadening the participation of an identified population(s) in STEM, along with relevant metrics of progress and key milestones/goals to be achieved during the funding period and beyond
   - multi- sector partnerships and plans to build infrastructure to achieve progress on the project's goals
   - a framework for continuous communication, data management, capacity building, networking, expansion, sustainability, and visibility of the project network
   - a plan for contributing rigorous and innovative research to the knowledge base on broadening participation in STEM
   - a plan for contributing project evaluations, data, new scientific findings/discoveries, and promising practices to the NSF INCLUDES National Network

- planned connections and contributions to the National Network online community and the NSF INCLUDES Coordination Hub
- a logic model or other heuristic that identifies outcomes reflecting the implementation of systemic change at scale and progress toward developing an inclusive STEM enterprise

Collaborative Change Consortia may, but are not required to, build on the work of current or previously funded NSF INCLUDES projects. A Consortium award is not a required prerequisite to a proposal for other NSF INCLUDES project types.

3. **Alliances** - are large-scale networks that implement, study, and scale up systemic strategies that address a critical broadening participation challenge in STEM, Like Collaborative Change Consortia, Alliances build the infrastructure necessary to foster collaboration and broaden participation in STEM, but for Alliances, the level of impact should be national and supported by a backbone organization, Alliance s engage partners to operationalize the five design elements of collaborative infrastructure; work to achieve common goals through well-defined, common objectives; contribute rigorous and innovative research to the knowledge base about broadening participation in STEM; leverage NSF's broadening participation investments; and use lessons learned, promising practices, evidence-based mechanisms, the science of broadening participation, and research and evaluations from past and present efforts to transform systems and broaden participation in STEM at scale.

   Alliances are required to:
   - Develop a shared vision and strategy for broadening the participation of an identified population(s) in STEM, along with relevant metrics of progress and key milestones/goals to be achieved at a national level, during the funding period and beyond.
   - Establish multi-sector partnerships and build infrastructure to achieve progress on the project's goals.
   - Contribute rigorous and innovative research to the knowledge base on broadening participation in STEM.
   - Establish a "backbone" (i.e., support) organization that provides a framework for continuous communication, data management, capacity building, networking, expansion, sustainability, and visibility of the project network beyond a single city, state, or region.
   - Advance a logic model or other heuristic that identifies Alliance outcomes, reflecting the implementation of change at a national scale and progress toward developing an inclusive STEM enterprise.
   - Collaborate with the NSF INCLUDES Coordination Hub to share project evaluations, data, new scientific findings/discoveries, and promising practices with the NSF INCLUDES National Network and build critical knowledge that enables measurable progress toward NSF INCLUDES goals.
   - Participate in a network of peer alliances and the NSF INCLUDES National Network to achieve NSF INCLUDES goals.
   - Work to build connections to other organizations and broadening participation stakeholders to join in and expand the NSF National Network.

4. **Network Connectors** - initiate or maintain linkages to the NSF INCLUDES National Network for projects or partnerships that are not currently funded by NSF INCLUDES. Network connector proposals may be submitted by existing NSF-funded and non-NSF funded projects seeking funding to provide or participate in
   - new collaborations that expand the impact of active or previously funded NSF INCLUDES projects
   - new opportunities for collaboration across the NSF INCLUDES National Network
   - novel ideas to bring a community of NSF-funded projects into the NSF INCLUDES National Network
   - efforts to equitably scale up innovative and evidence-based approaches to broadening participation in STEM
   - NSF-funded research activities with the goal of broadening participation in STEM
   - development of shared goals, measures, and mutually reinforcing activities to build collaborative infrastructure for broadening participation in STEM
   - communicating knowledge and results from the NSF broadening participation portfolio of programs and projects, NSF Center-scale activities, or other major Foundation investments

- communicating findings from the science of broadening participation research community to the NSF INCLUDES National Network, especially pertaining to new efforts to translate basic research into practice

5. **Conferences** - provide platforms for new collaborations or exchange of ideas that strengthen the NSF INCLUDES National Network. Conference proposals may be submitted by current or former NSF INCLUDES awardees or organizations that are not currently part of the NSF INCLUDES portfolio. NSF INCLUDES will consider conference proposals on an ongoing basis.

Investigators planning to submit a proposal are strongly encouraged to submit a one-page description of their proposal idea to nsfincludes@nsf.gov at least three months prior to proposal submission. An NSF INCLUDES program director with related expertise will review and provide feedback on the alignment of the idea with the solicitation.

Link to Additional Information: https://www.nsf.gov/pubs/2022/nsf22622/nsf22622.htm

18. Geroscience Course (R25 Independent Clinical Trial Not Allowed), NIH

Application Due Date:

- **Letter of Intent: September 21, 2022**
- **Full Proposal: October 21, 2022**

Estimated Program Funding: up to $250,000 in direct costs per year for a 3-year maximum project period

The program goal is to support educational activities that complement and/or enhance the training of a workforce to meet the nation's biomedical, behavioral and clinical research needs. To accomplish the overarching goal, this opportunity supports creative educational activities with a primary focus on the following:

- **Curriculum or Methods Development:** To improve basic, clinical, behavioral, social science, and translational geroscience education; to develop novel approaches, methods, and tools for instruction on the design of geroscience studies; and to develop a repository of important reviews, opinion pieces, and clinical trials in progress as an educational resource.

- **Courses for Skills Development:** To design courses that increase skills development and create a more broadly trained, interdisciplinary geroscience workforce.

- **Research Experiences:** To provide hands-on exposure to translational geroscience research for investigators at all levels of professional development, and to extend the opportunity for the development of additional skills, experiences, and knowledge base in the geroscience field. These experiences could include short- and long-term laboratory studies, clinical rotations, sabbaticals, and summer research programs in geroscience.

- **Outreach:** To increase the general public's awareness of geroscience by supporting educational activities with a primary focus on the dissemination of biomedical, behavioral, and clinical geroscience research findings to the public. Outreach could include short courses, computer-based educational tools, and the creation of lay documents on geroscience for the public.

Additionally, this FOA seeks to increase general awareness of geroscience by taking a multidisciplinary approach to support educational activities with a primary focus on the development and integration of basic, applied, translational, and clinical topics in geroscience.

Link to Additional Information: https://grants.nih.gov/grants/guide/pa-files/PAR-22-214.html

19. Postbaccalaureate Research Education Program (PREP)(R25 - Independent Clinical Trial Not Allowed), NIH

Application Due Date: January 31, 2023, January 31, 2024, January 31, 2025
Estimated Program Funding: up to $400,000 annually in direct costs for a 5-year maximum project period

The overarching goal of this R25 program is to support educational activities that encourage individuals from diverse backgrounds, including those from groups underrepresented in the biomedical and behavioral sciences, to pursue further studies or careers in research.

To accomplish the stated overarching goal, this FOA will support creative educational activities with a primary focus on:

- **Research Experiences:** For example, to provide hands-on exposure to research, to prepare participants for graduate school admissions, successful completion of a research-focused doctoral degree, and careers in the biomedical research workforce.

- **Courses for Skills Development:** For example, to provide advanced courses in a specific discipline, research technique or research area, and/or courses or workshops to develop scholarly potential to prepare participants for graduate school admissions, successful completion of a research-focused doctoral degree, and careers in the biomedical research workforce.

This opportunity is intended to enable the community to develop and implement evidence-informed approaches to biomedical research education and mentoring to enhance diversity in the biomedical research workforce. Funded programs are expected to provide activities that will build a strong cohort of research-oriented individuals while enhancing the science identity, self-efficacy, and a sense of belonging among the cohort members in the biomedical research community. Programmatic activities include, but are not limited to, providing authentic research experiences, courses for skills development, and additional mentoring -- activities proven to increase persistence in STEM fields.

Each program should provide high-quality research education experiences that equip participants with the technical (e.g., appropriate methods, technologies, and quantitative/computational approaches), operational (e.g., independent knowledge acquisition, rigorous experimental design, and interpretation of data) and professional (e.g., management, leadership, communication, and teamwork) skills required for careers in the biomedical research workforce. Funded programs are expected to promote inclusive research environments (i.e., institutional and departmental environments where researchers from all backgrounds are and feel integrated into and supported by the biomedical research community).

Applications are encouraged from doctoral degree granting research-intensive institutions that propose to develop recent baccalaureate science graduates from diverse backgrounds (e.g., see the Notice of the NIH's Interest in Diversity) so that they have the necessary knowledge, skills, and networks to transition into and complete rigorous, research-focused biomedical doctoral degree programs (e.g., Ph.D. or M.D./Ph.D.).

Link to Additional Information: https://grants.nih.gov/grants/guide/pa-files/PAR-22-220.html

Proposals Accepted Anytime

a. Research in the Formation of Engineers, NSF
https://beta.nsf.gov/funding/opportunities/research-formation-engineers-rfe

b. Earth Sciences Instrumentation and Facilities, NSF
https://www.nsf.gov/pubs/2022/nsf22577/nsf22577.htm

c. Geobiology and Low-Temperature Geochemistry (GG), NSF
https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf22578

d. Dynamics, Control and Systems Diagnostics, NSF
https://beta.nsf.gov/funding/opportunities/dynamics-control-and-systems-diagnostics-dcsd-0

e. Opportunities for Promoting Understanding through Synthesis (OPUS), NSF
https://www.nsf.gov/pubs/2022/nsf22591/nsf22591.htm#pgm_intr_txt

f. Sedimentary Geology and Paleobiology (SGP), NSF
https://www.nsf.gov/pubs/2022/nsf22597/nsf22597.htm

g. Condensed Matter and Materials Theory (CMMT), NSF
https://www.nsf.gov/pubs/2022/nsf22610/nsf22610.htm#pgm_desc_txt

h. Division of Materials Research: Topical Materials Research Programs (DMR:TMRP), NSF
https://www.nsf.gov/pubs/2022/nsf22609/nsf22609.htm

Forecasted Opportunities

1. Educational Funding Opportunity: Expanding education on skin lightening products, FDA

The purpose of the funding opportunity is to expand and advance FDA's Office of Minority Health and Health Equity (OMHHE) work with stakeholders and partners for education, outreach, and public awareness activities on the use of and potential risks from skin lightening products (e.g., hydroquinone).

Applicants will propose innovative and community-based strategies and activities that have the potential to strengthen the science base for education and public health awareness on the use of and potential risks from skin lightening products.

Link to Additional Information: https://www.grants.gov/web/grants/view-opportunity.html?oppId=341831

2. Advancing COVID health disparities focused research to strengthen and advance health equity, FDA

The purpose of this funding opportunity announcement (FOA) is to fund COVID research that will strengthen and advance research in minority health and healthy equity, increase understanding of health disparities, and provide future direction for research that will contribute to regulatory decision making.

OMHHE is interested in research proposals that will contribute to advancing understanding of long COVID or post-COVID conditions for racial and ethnic minorities, or contribute to informing the continued evaluation of the safety and efficacy of FDA approved products (therapeutics, diagnostics, and vaccines) for the treatment, prevention, or diagnosis of COVID-19. These research proposals should support evaluation of outcomes by demographic data including, but not limited to, ethnicity, race, age, disability and geography.

Link to Additional Information: https://www.grants.gov/web/grants/view-opportunity.html?oppId=341830

3. Building capacity for implementing evidence-based epilepsy self-management supports in health care settings, CDC
Estimated Post Date: April 05, 2023 **Estimated Application Due Date: June 06, 2023**

This notice of funding opportunity aims to develop health care system (e.g, neurology/epilepsy center clinics) capacity to deliver evidence-based epilepsy self-management supports (e.g., evidence-based epilepsy self-management programs) through health care settings. The notice of opportunity includes an additional component for the delivery of expert technical assistance and training in health care system change, chronic care collaboratives,

and/or clinical quality improvement to enhance outcomes.

Link to Additional Information: https://www.grants.gov/web/grants/view-opportunity.html?oppId=341824

4. **OMHHE Racial & Ethnic minority Acceleration Consortium for Health Equity (REACH), FDA**

This Funding Opportunity Announcement (FOA) is for FDA OMHHE's Racial & Ethnic minority Acceleration Consortium for Health equity (REACH) which solicits applications from diverse institutions, to participate in a consortia to strengthen and advance minority health and health equity. The consortium will consist of 5-8 multi-project cooperative agreement (U01) awardees that will strengthen and advance minority health and health equity regulatory needs by supporting communications, research, and collaborations on diseases and conditions that disproportionately impact racial and ethnic minority populations, as well as prepare for and proactively respond to existing/emerging threats that impact racial and ethnic minority and other underrepresented or undeserved communities.

Link to Additional Information: https://www.grants.gov/web/grants/view-opportunity.html?oppId=341833

5. **Nursing Expansion Grant Program, Dept. of Labor**
Estimated Post Date: August 9, 2022 **Estimated Application Due Date: October 23, 2023**

This opportunity solicits applications for the DOL Nursing Expansion Grant Program. This FOA will address bottlenecks in training the United States nursing workforce and expand and diversify the pipeline of qualified nursing professionals through two training tracks. The first track (Nurse Education Professional Track) will increase the number of clinical and vocational nursing instructors and educators by training new or upskilling experienced current or former nurses (including retired nurses) into advanced postsecondary credentialing necessary for nurses to become clinical and vocational nursing instructors and educators. The second track (Nursing Career Pathway Track) will train frontline healthcare professionals and paraprofessionals, including direct care workers, to advance along a career pathway and attain postsecondary credentials needed for middle- to high-skilled nursing occupations during the grant period of performance. Applicants will propose strategies to improve nursing professional, clinical instructor, and educator recruitment, preparation, development, training, and retention. Through the Nursing Career Pathway Track, grantees will develop training partnerships between clinical settings and education and training providers to support accelerated learning and expanded access to clinical residencies and specialty care rotations.

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

6. **Birth Defects Study To Evaluate Pregnancy exposureS (BD-STEPS), DHHS-CDC/ERA**
Estimated Post Date: November 7, 2022 **Estimated Application Due Date: January 10, 2023**

This notice of funding opportunity will continue to support the capacity of BD-STEPS to identify novel epidemiologic and genetic risk factors for major, structural birth defects and for stillbirths, and to provide research findings that are intended to be translated into public health prevention messages, as warranted.

Component A (BD-STEPS Core): Support the epidemiological and genetic birth defect-related research capabilities of BD-STEPS, with a focus on studying: (1) maternal chronic diseases and their treatments; (2) infectious disease in pregnancy; and (3) medications used during pregnancy.

Component B (BD-STEPS Stillbirth): Support the exploration of modifiable risk factors for stillbirths. Component B recipients must apply for and receive concurrent Component A funding.

New applicants and current BD-STEPS recipients are encouraged to apply for both components.

Link to Additional Information: https://www.grants.gov/web/grants/view-opportunity.html?oppId=342111

7. **Ensuring Research Integrity - Research, Development, and Demonstration, DHHS**
Estimated Post Date: November 15, 2022 **Estimated Application Due Date: February 1, 2023**

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
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
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 anticipates making awards of between $75,000 and $150,000 in total federal share (direct plus indirect) per year, for a project period not to exceed two years (two 12-month budget periods). Recipients will be required to submit a non-competing application for any budget period after the first. (Budget periods are typically 12 months).

Link to Additional Information: https://www.grants.gov/web/grants/view-opportunity.html?oppId=342411

8. **Advanced Rehabilitation Research Training (ARRT) Program - Health and Function, DHHS/ACL**
Estimated Post Date: October 3, 2022 **Estimated Application Due Date: December 5, 2022**

The purpose of NIDILRR's ARRT program is to provide advanced research training and experience to individuals with doctorates, or similar advanced degrees, who have clinical or other relevant experience. ARRT projects train rehabilitation researchers, including researchers with disabilities, with particular attention to research areas that support the implementation and objectives of the Rehabilitation Act, and that improve the effectiveness of services authorized under the Rehabilitation Act. ARRT projects under this opportunity announcement must provide advanced research training to eligible individuals to enhance their capacity to conduct high-quality multidisciplinary disability and rehabilitation research to improve outcomes for individuals with disabilities in NIDILRR's major domain of health and function. NIDILRR plans to make one grant under this announcement. Grants will have a 60-month project period with five 12-month budget periods.

Link to Additional Information: https://www.grants.gov/web/grants/view-opportunity.html?oppId=342543

9. **Field Initiated Projects Program: Minority-Serving Institution (MSI) - Development, DHHS/ACL**
Estimated Post Date: January 13, 2023 **Estimated Application Due Date: March 13, 2023**

The purpose of the Field Initiated Projects (FIP) program is to generate new knowledge through reseach or to develop methods, procedures, and rehabilitation technologies -- to maximize the full inclusion and integration into society, employment, independent living, family/caregiver support, and economic and self-sufficiency of people with disabilities, especially people with the greatest support needs. Another purpose of this grant opportunity is to improve the capacity of minority serving institutions (MSI) to conduct high-quality disability and rehabilitation research and development. In carrying out a development activity under a FIP development grant, a grantee must

use knowledge and understanding gained from research to create materials, devices, systems, methods, measures, techniques, tools, prototypes, processes, or intervention protocols that are beneficial to the target population. Please note that this will be the funding opportunity for FIP-MSI Development proposals. We will invite FIP-MSI Research proposals under a separate announcement. NIDILRR plans to make two FIP-MSI awards in FY 2023. Grants will have a 36- month project period, with three 12-month budget periods. NIDILRR's FY 2023 FIP-MSI grants will include a combination of research applications and development applications, depending on the combined ranking of individual research and development applications by the peer review panel.

Link to Additional Information: https://www.grants.gov/web/grants/view-opportunity.html?oppId=342546

10. **Allergy and Asthma Statistical and Clinical Coordinating Center (AA-SCCC) (U01 Clinical Trial Not Allowed), NIH**
Estimated Post Date: August 30, 2022 **Estimated Application Due Date: November 30, 2022**

The AA-SCCC will provide a broad range of support critical for design, development, execution, and analysis of clinical research in allergic diseases and asthma. The types of research for which support will be provided include clinical trials, integrated studies of underlying mechanisms, clinical studies (e.g., longitudinal observational studies, genetic studies, etc.), and studies to identify and validate surrogates/biomarkers.

Link to Additional Information: https://www.grants.gov/web/grants/view-opportunity.html?oppId=342663

11. **Bioengineering Research Grants (BRG) (R01 Clinical Trial Not Allowed), NIH**
Estimated Post Date: August 17, 2022 **Estimated Application Due Date: October 17, 2022**

The National Cancer Institute (NCI) intends to reissue PAR-19-158 Bioengineering Research Grants (BRG; R01 Clinical Trial Not Allowed) with additional partnering NIH Institutes and Centers, to encourage collaborations between the life and physical sciences to foster the development of innovative technology, model, technique, design, or method that has the potential for significant impact on biomedical research by infusing principles and concepts from the quantitative science.

Link to Additional Information: https://www.grants.gov/web/grants/view-opportunity.html?oppId=342671

12. **FDA Support for Conferences and Scientific Meetings (R13 Clinical Trial Not Allowed), FDA**
Estimated Post Date: October 12, 2022 **Estimated Application Due Date: April 12, 2023**

The purpose of the grant program is to facilitate the provision of federal financial assistance in support of high-quality conferences and scientific meetings designed to research and investigate a topic clearly aligned with the FDA mission. The FDA recognizes the value of supporting high quality conferences and scientific meetings relevant to its mission and to the public health. A conference or scientific meeting is defined as a symposium, seminar, workshop, or any formal meeting, whether conducted face-to-face or virtually to exchange information and explore a defined subject, issue, or area of concern impacting the public's health within the scope of the FDA's mission. Permission to submit a conference grant application does not assure funding or funding at the level requested. FDA will not issue a conference grant award unless it can be issued before the conference start date.

Link to Additional Information: https://www.grants.gov/web/grants/view-opportunity.html?oppId=342752

Announcing Previous Important Funding Opportunities

a. National Institute of General Medical Sciences (NIGMS) Bridges to the Baccalaureate Research Training Program (T34), NIH
Deadline: September 26, 2022
https://grants.nih.gov/grants/guide/pa-files/PAR-22-125.html

b. Bridges to the Doctorate Research Training Program (T32), NIH
Deadline: September 27, 2022
https://grants.nih.gov/grants/guide/pa-files/PAR-21-198.html

c. NINDS Interdisciplinary Team Science Grant (RM1 Clinical Trial Optional), NIH
Deadline: October 2, 2022
https://grants.nih.gov/grants/guide/rfa-files/RFA-NS-22-036.html

d. Engineering for Agricultural Production and Processing, USDA-NIFA
Deadline: October 6, 2022
https://www.nifa.usda.gov/grants/funding-opportunities/agriculture-food-research-initiative-foundational-applied-science

e. Engineering Research Initiation (ERI), NSF
Deadline: October 11, 2022
https://www.nsf.gov/pubs/2022/nsf22595/nsf22595.htm

f. Geometric Analysis, NSF
Deadline: November 1, 2022
https://beta.nsf.gov/funding/opportunities/geometric-analysis

g. Topology, NSF
Deadline: November 1, 2022
https://beta.nsf.gov/funding/opportunities/topology

h. Linguistics, NSF
Deadline: January 15, 2023
https://beta.nsf.gov/funding/opportunities/linguistics

i. 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

j. Graduate Research Training Initiative for Student Enhancement (G-RISE) (T32 - Clinical Trial Not Allowed), NIH
Deadline: January 30, 2023
https://grants.nih.gov/grants/guide/pa-files/PAR-21-026.html

Internships Opportunities

1. **Program for Faculty Historically Underrepresented in STEM Research, DOE**
Deadline: October 5, 2022

Faculty from HBCUs, MSIs, Community Colleges, and Other Institutions to Have Extended Collaborations with National Laboratory as part of the *Reaching a New Energy Sciences Workforce (RENEW*) Initiative.

As part of the Office of Science's RENEW initiative, the program is expanding to offer extended opportunities for faculty to engage in research and build collaborations at the national laboratories. This opportunity will strengthen partnerships between DOE national laboratories and minority-serving institutions (MSIs), two-year colleges, and other colleges and universities nationwide.

The Office of Science's Visiting Faculty Program (VFP) seeks to increase the research competitiveness of faculty members and their students at institutions historically underrepresented in research to expand the workforce vital to DOE mission areas. Selected college and university faculty members collaborate with DOE laboratory scientific research staff on research projects of mutual interest. Each participating faculty member may invite one

or two students (one of whom may be a graduate student) to join the research team during a summer term. The program will focus on faculty only in non-summer terms.

The RENEW initiative (https://science.osti.gov/Initiatives/RENEW) leverages the Office of Science's unique national laboratories, user facilities, and other research infrastructure to provide training opportunities for undergraduate and graduate students, postdoctoral researchers, and faculty at academic institutions currently underrepresented in the U.S. science and technology ecosystem. RENEW will offer hands-on experiences and open new career avenues for talented young scientists, engineers, and technicians.

2. **Spring 2023 Undergraduate Internships**
   Deadline: October 5, 2022

Applications are currently being accepted for the Spring 2023 term of two undergraduate internship programs offered by the Department of Energy (DOE) Office of Science: the Science Undergraduate Laboratory Internships (SULI) program and the Community College Internships (CCI) program.

Through SULI and CCI, undergraduate students discover science and technology careers at the DOE national laboratories and gain the experience needed to transition from intern to employment. Interns work directly with national laboratory scientists and engineers, assisting them on research or technology projects that support the DOE mission. SULI is open to full-time students attending 4-year institutions and community colleges or recent graduates within two years of receiving their bachelor's degree, while CCI is exclusively for community college students. Both programs are stipend-based and offered three times annually in fall, spring, and summer terms.

SULI and CCI are managed by the Office of Workforce Development for Teachers and Scientists (WDTS) in the Office of Science. More information can be found at https://science.osti.gov/wdts .


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