FUNDING ALERT

Notes

- Weekly opt-in funding alert provided by the UMD-College Park Division of Research and <u>SSTI</u>. Please feel free to forward this alert to colleagues.
- 2. If you have been forwarded this email and would like to receive this alert on a weekly basis, please fill out the following form: <u>http://go.umd.edu/fundingalert</u>.

SSTI (October 5)

New Funding Opportunities for TBED

National Science Foundation

Mid-scale Research Infrastructure-1

In 2016, the NSF unveiled a set of "Big Ideas," 10 bold, long-term research and process ideas that identify areas for future investment at the frontiers of science and engineering. The Big Ideas represent unique opportunities to position our Nation at the cutting edge of global science and engineering leadership by bringing together diverse disciplinary perspectives to support convergence research. With its Major Research Instrumentation (MRI) program and Major Multi-user Facilities projects, NSF supports infrastructure projects at the lower and higher range of infrastructure project costs, Foundation-wide, across science and engineering research disciplines. The Mid-scale Research Infrastructure Big Idea is intended to provide NSF with an agile, Foundation-wide process to fund experimental research capabilities in the mid-scale range between MRI and Major Facilities.

NSF anticipates making up to \$130 million available for awards. Mid-scale RI-1 emphasizes strong scientific merit, a response to an identified need of the research community and/or fulfillment of a national need to enable U.S. researchers to be competitive in a global research environment. Two types of projects may be submitted, implementation and design. Preproposals are required. For profit organizations may receive funding through subawards made to eligible entities

Awards:

Multiple Implementation awards greater than \$4 million but less than \$20 million each. Design awards may be for as low as \$400,000.

Eligibility:

U.S. institutions of higher education, nonprofit organizations, and formal and informal consortia led by an eligible entity.

Deadline: 01/05/2023 AwardsID(s): NSF 22-637 Links: https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf22637

New Federal R&D Funding Opportunities

Department of Commerce

Oceanic and Atmospheric Research

The National Sea Grant Office invites proposals to develop and execute local, regional, and national programs, workshops, and services to enable fishermen to enter career paths and make a living supplying seafood from our oceans, coasts, and Great Lakes. Sea Grant will support projects that provide career development opportunities in commercial fisheries. The objective is to increase the number of skilled individuals that are able and encouraged to enter these professions, addressing the current recruitment and retirement challenges these groups face.

Successful projects will create and implement trainings that include the following types of programs, workshops, and services:

- 1. seamanship, navigation, electronics, and safety;
- 2. vessel and engine care, maintenance, and repair;
- 3. sustainable fishing practices;
- 4. other training needs as identified by the community.

Applications require 25% non-federal match.

Awards:

5 awards up to \$400,000 each Deadline: 02/15/2023 AwardsID(s): NOAA-OAR-SG-2023-2007535 Links: https://www.grants.gov/web/grants/view-opportunity.html?oppId=343920

Department of Defense

Long Range Broad Agency Announcement (BAA) for Navy and Marine Corps Science and Technology

The Office of Naval Research has issued its BAA outlining the science and technology research interests of the Navy and Marine Corps. Specific topics of interest during Federal Fiscal Year 2023 will be posted at the Announcements link below as Calls. Each BAA Call will provide a description of the specific research effort being solicited, the application process to be used, as well as the recommended dates for submission of proposals. The current BAA provides the guidance for submitting responses to any of the calls made during the year associated with this BAA.

Awards:

Multiple awards are anticipated throughout the year through individual Calls.

Eligibility:

Unrestricted

Deadline:

10/02/2023

AwardsID(s):

N00014-23-S-B001

Links:

https://www.nre.navy.mil/work-with-us/funding-opportunities/fy23-long-range-broadagency-announcement-baa-navy-and-marine, https://www.nre.navy.mil/work-withus/funding-opportunities/announcements

NRL Long Range Broad Agency Announcement

The Naval Research Laboratory is interested in receiving innovative proposals that offer potential for advancement and improvement in the technical topic areas listed in Appendix 1 of its Long Range Broad Agency Announcement for Basic and Applied Scientific Research (BAA). NRL requests white papers for long-range Science and Technology projects which may offer advancement and improvement potential for Navy and Marine Corps operations. New, renewal and supplemental requests for existing projects are eligible for consideration, but white papers must be submitted and approved prior to submitting a full proposal. Hundreds of topics of interest are described in the following areas:

- high frequency radar (classified and unclassified)
- low-cost ultra-wide bandwidth multi-functional phased array antennas
- computational electromagnetics
- information management and decision architectures
- mathematical foundations of high assurance computing
- high assurance engineering and computing
- advanced naval network solutions
- federated, distrbuted computing .network infrastructure
- optical sciences R&D
- off-board countermeasures technologies and technology

- advanced machine learning methods for the radio frequency spectrum
- shipboard electronic warfare
- high performance computing on massively parallel architectures
- power/energy source materials and systems
- corrosion processes, control mitigation and technology
- development of microsensors and microsystems for physical, chemical and biochemical applications
- applications of molecular biology, biochemistry, analytical chemistry and advanced laser techniques
- multi-echelon diagnostics technology development and tiered evaluation
- materials performance, processing and modeling
- basic and applied research in high temperature plasmas
- RF vacuum electronics
- radiation effects research
- photovoltaics for portable power
- analog and mixed signal integrated circuit design and characterization
- research in bio/molecular science and engineering
- acoustic simulation, measurement and tactics
- elasto-acoustic materials
- low frequency radio interferometry
- optical remote sensing of the coastal range
- remote sensors and imaging systems
- airborne, shipboard and overhead data acquisition and analysis
- ocean dynamics and prediction oceanography
- seafloor sciences
- geospatial sciences and technology
- atmospheric effects, analysis and prediction
- research into space, backgrounds, imaging and modeling
- optical channel technologies
- spacecraft & space systems technology

White papers are accepted on a rolling basis for the entire 2023 Fiscal Year

Awards:

Multiple awards are anticipated.

Eligibility:

Unrestricted domestically

Deadline:

09/29/2023

AwardsID(s):

N00173-23-S-BA01

Links:

https://www.nrl.navy.mil/Doing-Business/Contracts/Broad-Agency-Announcements/

Department of Energy

Distinguished Early Career Program (for nuclear energy researchers)

The Distinguished Early Career Program is the Department of Energy Office of Nuclear Energy's (DOE-NE) most prestigious award for faculty members beginning their independent careers. The intent is to provide stable support at a sufficient level and duration to enable awardees to develop careers, not only as outstanding researchers, but also as educators demonstrating commitment to teaching, learning, and dissemination of knowledge. Applications should provide a clear research and education plan that highlights the applicant's research and educational strengths, the research and education vision to support the development of the faculty member, research focus while training the next generation of nuclear energy professionals.

Awards:

4 awards from a pool of \$2.5 million. Eligibility: Public and private U.S. institutions of higher education Deadline: 11/03/2022 AwardsID(s): DE-FOA-0002734 Links: https://www.grants.gov/web/grants/view-opportunity.html?oppId=343862

Marine Energy Systems Innovation at Sea

The Office of Energy Efficiency and Renewable Energy invites proposals, on behalf of the Water Power Technologies Office WPTO), to accelerate the development and field testing of renewable marine energy technologies by focusing on wave and ocean current resources as well as reductions in the energy use and carbon emissions associated with desalination to provide zero-carbon, affordable, and reliable sources of drinking water for disaster relief, emergency response, and small communities facing water scarcity and security issues. WPTO's focus on desalination directly supports coastal and island resilience, and incorporates end-user needs assessments, translating user requirements for design and advancement of marine energy technologies. This specific opportunity focuses on innovation of wave energy converters for nearshore environments across diverse coastal conditions through long duration at-sea testing and operations (i.e., two weeks to six months) and component/sub-system technology development and testing. It will additionally support commercialization opportunities for novel technologies and a feasibility assessment of an ocean current test facility off the coast of the United States.

Awards:

14 awards from a pool of \$10.3 million.

Eligibility: Unrestricted. Deadline: 02/24/2022 AwardsID(s): DE-FOA-0002793 Links: https://www.grants.gov/web/grants/view-opportunity.html?oppId=343842

Office of Science Financial Assistance Program

The DOE Office of Science (SC) has announced its continuing interest in receiving grant applications for support of work in the following program areas: Advanced Scientific Computing Research, Basic Energy Sciences, Biological and Environmental Research, Fusion Energy Sciences, High Energy Physics, Nuclear Physics, Isotope R&D and Production, and Accelerator R&D and Production. More than 50 pages of topics across all of those areas are described in the first half of the document. This announcement is the office's annual, broad, open solicitation that covers all research areas in SC and is open throughout the Fiscal Year. Any research within SC's Congressionally-authorized mission may be proposed. Information about submission of applications, eligibility, limitations, evaluation and selection processes and other policies and procedures are specified in 10 CFR 605.

Awards:

Up to \$400 million is anticipated to be distributed through 200-350 awards.

Eligibility:

Unrestricted domestically with the exception of 501(c)(4) organizations and DOE labs

Deadline:

09/30/2023

AwardsID(s):

DE-FOA-0002844

Links:

https://www.grants.gov/web/grants/view-opportunity.html?oppId=343866

Department of Health and Human Services

Advancing Adolescent Tobacco Cessation Intervention Research

The National Cancer Institute and the National Institute on Drug Abuse jointly invite applications for to inform the planning, design, and initial development of adolescent tobacco cessation behavioral intervention studies, with an emphasis on the critical developmental risk period ranging from mid- to late adolescence (i.e., approximately 14-20 years old). Two types of grants are offered:

• Applications for **Planning Grants (**RFA-CA-22-042**)** should propose clinical trial planning activities that are scientifically necessary to guide the design and conduct of a future clinical trial evaluating a tobacco cessation behavioral intervention for

adolescents. Four awards from a pool of \$3 million are anticipated for this opportunity.

 Research Project Grant projects should use RFA-CA-22-043 and must be grounded in the adolescent developmental literature and draw on a well-established theoretical model of behavior change. Six awards from a pool of \$30 million are anticipated for this opportunity.

Eligibility: Unrestricted Deadline: 01/23/2023 AwardsID(s): RFA-CA-22-042, RFA-CA-22-043 Links: https://grants.nih.gov/grants/guide/rfa-files/RFA-CA-22-042.html, https://grants.nih.gov/grants/guide/rfa-files/RFA-CA-22-043.html

Basic/Translational Research on Health Disparities in Underrepresented People Living with HIV

The National Cancer Institute is soliciting applications to focus on the biological interactions of cancer health disparities in people living with HIV from underrepresented minority groups through basic mechanistic or translational studies to investigate how HIV interacts with health disparities to promote both non-AIDS and AIDS-defining cancer initiation, progression, and the resulting pathogenic disease sequelae. Proposals should be directed to one of two funding announcements, the one most closely matching the stage of the proposed work:

- **Research** Projects (RFA-CA-22-056): 7-10 awards from a pool of 3.5 million are anticipated for this opportunity.
- **Exploratory Development** projects (RFA-CA-22-057): 5-7 awards from a pool of 1.5 million are anticipated for this opportunity.

Eligibility: Unrestricted Deadline: 12/15/2022 AwardsID(s): RFA-CA-22-056, RFA-CA-22-057 Links: https://grants.nih.gov/grants/guide/rfa-files/RFA-CA-22-056.html, https://grants.nih.gov/grants/guide/rfa-files/RFA-CA-22-057.html

Biological Basis for how Environmental Exposures Impact Risk for Psychiatric Disorders

The National Institute of Environmental Health Sciences is soliciting applications that propose to better understand the biological basis by which environmental exposures alter brain and

behavioral functioning to increase risk for psychiatric disorders with onset in late-childhood, adolescence, or early adulthood. Topics that are appropriate for this opportunity include, but are not limited to, the following:

- Developmental windows of susceptibility for how chemical exposure(s) impact the underlying biology of sex differences (e.g., estrogen and androgen receptor expression in discreet brain regions) in the trajectory of psychiatric phenotypes.
- Neural circuitry underlying toxicant-induced changes in behavioral phenotypes relevant to psychiatric disorders/traits
- Relationship(s) between environmental exposures and synaptic processes (e.g., synaptic integrity, synaptic plasticity and/or synaptic transmission) that are implicated in psychiatric disorders/traits

Research projects should use opportunity RFA-ES-22-008. Opportunity RFA-ES-22-009 is for **Exploratory Development** grants.

Awards:

5-6 awards from a pool of \$3 million Eligibility: Unrestricted Domestically Deadline: 10/22/2023 AwardsID(s): RFA-ES-22-008, RFA-ES-22-009 Links: https://grants.nih.gov/grants/guide/rfa-files/RFA-ES-22-008.html, https://grants.nih.gov/grants/guide/rfa-files/RFA-ES-22-009.html

Cannabis and Cannabinoid Use in Adult Cancer Patients During Treatment: Assessing Benefits and Harms

Multiple NIH Institutes invite applications that propose prospective research studies to assess the benefits and harms of cannabis and cannabinoid use among adult cancer patients during active treatment. The goal is for well-designed prospective cohort studies of cancer patients with solid or hematologic tumors currently receiving treatment. Studies are expected to compare cancer patients who use cannabis/cannabinoids with cancer patients that do not use cannabis and/or cannabinoids. Two separate funding opportunities are offered:

- **Research Project:** Four awards from a pool of \$4.05 million are anticipated for opportunity RFA-CA-22-052
- **Resource-Related Research Projects:** One award of \$800,000 is anticipated for opportunity RFA-CA-22-053

Eligibility: Unrestricted Deadline: 02/17/2023 AwardsID(s): RFA-CA-22-052, RFA-CA-22-053 Links: <u>https://grants.nih.gov/grants/guide/rfa-files/RFA-CA-22-</u> 052.html, <u>https://grants.nih.gov/grants/guide/rfa-files/RFA-CA-22-053.html</u>

Clinical Sites for HIV/Cervical Cancer Prevention 'CASCADE' Clinical Trials Network

The National Cancer Institute is soliciting applications from institutions/organizations to participate as Clinical Sites for the HIV/Cervical Cancer Prevention 'CASCADE' Clinical Trials Network. The 'CASCADE' Network will conduct pragmatic clinical trials evaluating the effectiveness of clinically proven interventions to overcome barriers and reduce failures in the cervical cancer screening, management, and precancer treatment cascade for women living with HIV.

Awards: 5 awards from a pool of \$1.5 million Eligibility: Unrestricted Deadline: 10/28/2022 AwardsID(s): RFA-CA-22-051 Links: https://grants.nih.gov/grants/guide/rfa-files/RFA-CA-22-051.html

Genetic Tools for Understanding Rickettsial and Related Infections

This funding opportunity will address that research gap by dedicating support to the generation and functional characterization of mutant libraries for rickettsial species that cause infections in humans, and to the application of these new tools to better understanding the biology of rickettsial pathogens. This opportunity specifically supports genetic transformation of *Anaplasma, Ehrlichia, Orientia* and *Rickettsia* species pathogenic to humans, as well as initial functional characterization of generated mutant strains.

Awards:

6-8 awards from a pool of \$2 million **Eligibility:** Unrestricted **Deadline:** 02/14/2022 **AwardsID(s):** RFA-AI-22-047 **Links:** https://grants.nih.gov/grants/guide/rfa-files/RFA-AI-22-047.html

Human Islet Research Network (HIRN) Pancreas Knowledgebase Program

The National Institute of Diabetes and Digestive and Kidney Diseases invites applications to develop a centralized resource of the human pancreas for diabetes research that will provide access to deeply curated high-quality datasets, knowledge in computable forms, and advanced data science tools and workflows; and enable open and reproducible multidisciplinary collaboration toward accelerating biomarker and therapeutic target development. The overarching goals of the program will include: meeting community needs for accessing essential data, knowledge and tools; fostering cross-disciplinary collaborations; promoting rigor and reproducibility in research; and driving innovation, discovery and paradigm shifts toward biomarker and therapeutic target development.

Awards:

One award of \$3 million Eligibility: Unrestricted Domestically Deadline: 03/31/2023 AwardsID(s): RFA-DK-22-018 Links: https://grants.nih.gov/grants/guide/rfa-files/RFA-DK-22-018.html

Immunity in Older Adults

Multiple NIH institutes invite applicants to participate in the Immunity in Older Adults (65 years and older) cooperative agreement research program, which will focus on developing mechanistic insights into innate and adaptive immune function changes that occur during the aging process. The major goal of the program is to define the contribution of age-related alterations in different components of the immune system and the functional consequences in relation to infections, vaccine responses, and chronic inflammatory conditions. Additionally, the program aims to foster collaborative science and establish innovative approaches that accelerate the discovery of cellular changes and the underlying molecular events occurring in the aging immune system that may potentially be exploited to improve the health of older adults.

This particular opportunity will support studies that provide mechanistic insights into innate and adaptive immune changes that occur during the aging process. The main objective of the program is to define the contribution of age-related alterations in different components of the immune system and the functional consequences in relation to infections, vaccine responses, and chronic inflammatory conditions.

Awards:

5-7 awards from a pool of \$4.42 million.

Eligibility: Urestricted. Deadline: 01/14/2023 AwardsID(s): RFA-AI-22-060 Links: https://grants.nih.gov/grants/guide/rfa-files/RFA-AI-22-060.html

INvestigation of Co-occurring conditions across the Lifespan to Understand Down syndromE (INCLUDE) Clinical Research Short Course

Multiple NIH Institutes collectively invite applications that develop creative and innovative short courses to train the next generation of Down Syndrome (DS) researchers in state-of-the-art clinical research skills that will improve the understanding of the co-occurring clinical features in DS and support development of new treatments for health conditions experienced by those with DS.

Course participants are limited to graduate/medical students, medical residents, postdoctoral scholars, and/or early-career faculty. NIH expects all programs to engage in outreach activities designed to encourage participation of individuals from underrepresented groups in the biomedical sciences, such as racial and ethnic groups underrepresented in biomedical and behavioral research, individuals with disabilities, individuals from disadvantaged backgrounds, and women as described in the Notice of NIH's Interest in Diversity.

Awards:

Multiple awards are anticipated Eligibility: Unrestricted Deadline: 06/27/2023 AwardsID(s): PAR-22-195 Links: https://grants.nih.gov/grants/guide/pa-files/PAR-22-195.html

Mechanism-Focused Research to Promote Adherence to Healthful Behaviors to Prevent Mild Cognitive Impairment (MCI) and Alzheimer's Disease (AD) and AD-Related Dementias The National Institute on Aging invites applications to address psychological and interpersonal mechanisms driving adherence to behaviors or lifestyle changes relevant to the prevention of cognitive decline, Mild Cognitive Impairment (MCI), and Alzheimer's disease (AD) and ADrelated dementias (ADRD). Applications should seek to identify malleable, mechanistic, psychological, or interpersonal targets that, if modified, will strengthen adherence to, maintenance of, and continued/renewed engagement in behaviors that may promote cognitive health and prevent AD/ADRD.

Awards:

2-4 awards from a pool of \$1.4 million **Eligibility:** Unrestricted **Deadline:** 01/20/2023 **AwardsID(s):** RFA-AG-23-034 **Links:** https://grants.nih.gov/grants/guide/rfa-files/RFA-AG-23-034.html

Novel Approaches to Address HIV Related Health Disparities in Underserved Racial and/or Ethnic Populations

The National Institute on Drug Abuse is seeking applications for new observational and intervention research on structural factors, organizational practices, policies, and other social, cultural, and contextual influences that lead to inequities at the intersection of HIV and substance use among underserved racial and/or ethnic minority populations affected by persistent HIV disparities. Proposals should be directed to one of two funding announcements, the one most closely matching the stage of the proposed work:

- Opportunity RFA-DA-23-062 is soliciting applications for **Planning Grant** awards. Preliminary Data is allowed but not required for this opportunity.
- Opportunity RFA-DA-23-061 is soliciting applications for **Project Grant** awards.

Awards:

5-9 awards from a pool of \$3 million Eligibility: Unrestricted Domestically Deadline: 11/14/2022 AwardsID(s): RFA-DA-23-061, RFA-DA-23-062 Links: https://grants.nih.gov/grants/guide/rfa-files/RFA-DA-23-061.html

Therapeutics for Eliminating Hepatitis B Virus cccDNA

The National Insititute of Allergy and Infectious Diseases invites applications aimed at discovery of new antivirals that result in the transcriptional suppression and elimination of Hepatitis B (HBV) cccDNA from infected cells. For Phase I (R21), proposed studies must

develop assays for reliable, sensitive, quantitative detection of HBV cccDNA; discover drugs to inhibit HBV proteins, nucleic acids, or cellular factors and mechanisms of chronic infection using HBV cccDNA assays; and evaluate their effects on HBV cccDNA in appropriate experimental models. It is anticipated that investigators will have identified promising candidates to bring forward into the R33 phase for pre-clinical development. For Phase II (R33), proposed studies must demonstrate durability of anti-HBV activity; demonstrate significant benefit in combination with approved drugs or drugs in development; and initiate preclinical studies of new drug compounds shown to reduce HBV cccDNA. It is not expected that preclinical development will be completed by the end of the award period.

Awards:

7-9 awards from a pool of \$3.8 million Eligibility: Unrestricted Deadline: 02/14/2023 AwardsID(s): RFA-AI-22-068 Links: https://grants.nih.gov/grants/guide/rfa-files/RFA-AI-22-068.html

Department of the Interior

Biotechnological Tools for White-nose Syndrome

The U.S. Fish and Wildlife Service is making funding available in 2022 and 2023 for research and development of enduring solutions to manage white-nose syndrome (WNS) in bats. Projects supported under this funding opportunity will investigate, develop, evaluate, and implement innovative biotechnologies to eliminate the threat of WNS to bats in North America. The Service seeks management solutions that are pathogen-specific, effective, scalable, and safe for native biota and environments. As of August 2022, WNS is confirmed or suspected in bats in 39 states and eight Canadian provinces, and evidence of the causative fungus, Pd, has been detected in at least four additional states without signs of the disease. For information on WNS and previously funded projects, please see: http://www.whitenosesyndrome.org/

Awards:

Multiple awards up to \$300,000 from a pool of \$1.5 million.

Eligibility:

Unrestricted Deadline: 03/31/2023 AwardsID(s):

F23AS00037

Links: <u>https://www.grants.gov/web/grants/view-opportunity.html?oppId=343941</u>

Environmental Protection Agency

Student Design Competition Focusing on People, Prosperity and the Planes

EPA invites proposals from college student teams for the 20th annual People, Prosperity and the Planet (P3) Student Design Competition. Emphasizing the use of innovation in proposed projects, the P3 program challenges and empowers interdisciplinary student teams to transform their classroom learning into hands-on experience by designing and demonstrating tangible solutions to real-world environmental issues in their communities. Four separate funding opportunities were released, each dealing with a separate environmental priority. Each priority has at least two more specific titles. All four have the same deadlines:

- EPA-G2023-P3-Q1 Clean and Healthy Air (use link below ending in 343923)
- EPA-G2023-P3-Q2 Clean and Safe Water (use link below ending in 343924)
- EPA-G2023-P3-Q3 Safeguard and Revitalize Communities (use link below ending in 343925)
- EPA-G2023-P3-Q4 -- Ensure Safety of Chemicals (use link below ending in 343926)

Awards:

16 two-year awards of \$75,000.

Eligibility:

Public and private institutions of higher education

Deadline:

02/01/2023

AwardsID(s):

EPA-G2023-P3-Q1, EPA-G2023-P3-Q2, EPA-G2023-P3-Q3, EPA-G2023-P3-Q4 Links:

https://www.grants.gov/web/grants/view-

opportunity.html?oppId=343923, https://www.grants.gov/web/grants/viewopportunity.html?oppId=343924, https://www.grants.gov/web/grants/viewopportunity.html?oppId=343925, https://www.grants.gov/web/grants/viewopportunity.html?oppId=343926

National Aeronautics and Space Administration

Heliophysics Low Cost Access to Space

The Heliophysics Low Cost Access to Space program seeks to investigate key heliophysics science questions and to advance the development of technologies and their application to enable new investigations of heliophysics science questions in the coming years. This is achieved through investigations flown on suborbital rockets, stratospheric balloons, or airborne platforms. H-LCAS is a component of the Heliophysics Research Program and proposers interested in this program element are encouraged to see B.1 The Heliophysics Research Program Overview, for Heliophysics-specific requirements. The LCAS program

supports investigations addressing NASA Heliophysics Science Goals using investigatordeveloped instrumentation that must be completed through suborbital flights. A notice of intent to apply is mandatory and are due Nov 17.

Awards:

3-6 awards lasting to three years from pool of \$3-4 million for new awards.

Eligibility: Unrestricted Deadline: 11/17/2022 AwardsID(s): NNH22ZDA001N-HLCAS Links: https://nspires.nasaprs.com/external/solicitations/summary.do?solId={10514572-CA34-A48D-7887-425E5A561AD2}&path=&method=init

Multidomain Reusable Artificial Intelligence Tools

The Science Mission Directorate invites applications for proposals that enable critically needed machine learning tools to advance Heliophysics and Earth Science research. Proposed tool projects must be Technology Readiness Level (TRL) 5, as defined by the Earth Science Technology Office, at the start of the award and present a convincing plan to mature to TRL 6 by the end. Emphasis in proposals should be on improved ease of use and discoverability of data that enhance science applications and incorporates best practices and state of the art technologies utilizing deep learning, machine learning, and artificial intelligence and in applying these techniques, where meaningful, in an appropriate computing environment. Notional areas of interest for proposals include, but are not limited to:

- Super resolution of imagery data
- De-noising of observational data
- Uncertainty quantification
- Data visualization
- Anomaly visualization
- Al ready data preparation

Letters of intent are mandatory.

Awards:

\$2 million to support 10-13 one-year awards of \$150,000 - \$200,000.

Eligibility:

Eligibility unrestricted

Deadline:

11/09/2022

AwardsID(s):

NNH22ZDA001N-MDRAIT

Links:

https://nspires.nasaprs.com/external/solicitations/summary.do?solId={DFB2642A-EFEC-317C-C8EE-C41B6FE64D93}&path=&method=init

National Science Foundation

Advanced Chip Engineering Design and Fabrication

NSF and the Department of Engineering and Technologies of the Taiwan National Science and Technology Council are launching an NSF-NSTC semiconductor collaboration program titled "Advanced Chip Engineering Design and Fabrication (ACED Fab)". This program aims to leverage the complementary academic talent and engineering strengths of semiconductor research in the U.S. and Taiwan to enable chip design and fabrication to advance semiconductor science, engineering, and education. The ACED Fab will support innovative design and fabrication projects of semiconductor chips utilizing advanced technologies of Taiwan's semiconductor foundries. Proposals are encouraged to target emerging applications (but not limited to): High-performance, low-power circuits and systems; Edge-AI sensing, computing, and communication; Quantum computing and communication chips; and Emerging semiconductor heterogeneous integration.

An ACED Fab proposal must be an integrated collaborative effort between the U.S. and Taiwan researchers. The research project must aim to bring a specific innovation to integrated circuit prototypes that demonstrate advanced functionality and utilize advanced fabrication technology as differentiators. The scope of an ACED Fab proposal must include at least one semiconductor chip design for tape-out utilizing fabrication process technologies of Taiwan's semiconductor foundries via multi-project wafer runs within the duration of the project.

Awards:

5-7 awards lasting up to three years from a pool of \$6 million.

Eligibility:

Institutions of Higher Education Deadline: 01/17/2023 AwardsID(s): NSF 22-636 Links: https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf22636

Atmospheric and Geospace Sciences Postdoctoral Research Fellowships

The Division of Atmospheric and Geospace Sciences awards two-year Postdoctoral Research Fellowships to highly qualified early career investigators to carry out an independent research program. The research plan of each Fellowship must address scientific questions within the scope of the division's disciplines, including Atmospheric Chemistry, Climate and Large-Scale Dynamics, Paleoclimate, and Physical and Dynamic Meteorology in the Atmospheric Sciences, and Aeronomy, Magnetospheric Physics, Solar Terrestrial and Space Weather Research in the Geospace Sciences. Proposals will be accepted at any time.

Awards:

10 awards from a \$2 million pool.

Eligibility:

Individuals with present research and professional development plans that fall within the purview of the Atmospheric and Geospace Science Sections within the Division of Atmospheric and Geospace Sciences at NSF

AwardsID(s):

NSF 22-639

Links:

https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf22639

Office of Polar Programs Postdoctoral Research Fellowships

The Directorate for Geosciences invites applications to provide opportunities for early career scientists, including social scientists, to accomplish one or more of the following goals: expand their work across traditional disciplinary lines, develop new partnerships connecting the polar regions and/or non-polar research communities, and provide entry to researchers who have traditionally had limited access to polar research resources, sites and facilities. The fellowship program encourages the integration of new investigators who have not previously worked in polar regions and/or innovative techniques that have not previously been applied to polar science into polar research. Successful proposers will participate in a professional development program that will promote mentoring skills and coordinate their involvement in activities that increase the engagement of groups that have previously had limited engagement in polar Science, Technology, Engineering, and Mathematics.

Awards:

10 awards from a pool of \$3 million.

Eligibility:

U.S. individuals who must identify a scientific mentor(s) and must affiliate with a U.S. host organization.

Deadline:

02/06/2023

AwardsID(s):

NSF 22-635

Links:

https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf22635

New Foundation R&D Funding Opportunities

Aniara Diagnostica

Coagulation Research

Aniara Diagnostica's Coagulation Research Grant provides funding for established investigators (e.g., faculty at an academic institution) and for students/trainees to do innovative coagulation / hematology research. All proposed projects must in the coagulation / hematology scientific field. Applicants are expected to have advanced degrees (Ph.D. or equivalent) and be associated with an educational organization or institution The award may not be used to cover costs of educational tuition, nor does it offer scholarships of fellowships of any kind.

Awards:

One award each year of \$10,000

Eligibility:

Funding is restricted to North America, South America, Latin America, and Nordic countries. **Deadline:**

11/01/2022

Links:

https://philanthropynewsdigest.org/rfps/rfp14272-aniara-diagnostica-invites-applicationsfor-coagulation-research, https://www.aniara.com/aniara-grant.html

Cystic Fibrosis Foundation

Therapeutics Development Award

In an effort to stimulate development of new pharmaceutical products for cystic fibrosis (CF) patients, the foundation aspires to provide funds to companies that will develop commercial products to benefit individuals with CF. Structured as a matching award program, funds will be awarded only if they are matched by the recipient. Applicants may apply for either of two phases of research funding. The award amount is determined by which phase the project will pursue: Component (Phase) I –Preclinical Development and/or Component (Phase) II – Clinical. Funding for Component I is for up to \$600,000 over no more than a three- (3-) year period while Component II is in the range of \$3,000,000 to \$5,000,000 over no more than a three- (3-) year period.

Proposals are accepted on a rolling basis.

Eligibility:

U.S. and international companies Links:

https://philanthropynewsdigest.org/rfps/rfp14282-cystic-fibrosis-foundation-invites-loisfor-therapeutics-development-award-program

Parkinson's Foundation

Parkinson's research

The foundation is accepting applications for three opportunities related to fellowships and early career research support related to Parkinson's Disease. Letters of intent for all three are due November 1.

- The Launch Award will cultivate a strong cohort of new and talented independent investigators dedicated to PD research. The award will provide research support to outstanding postdoctoral researchers that will enable them to complete needed mentored training and transition promptly to independent research careers in the PD field. This award is a two-stage program consisting of a Mentored Stage (1-2 years) and an Independent Stage (up to 2 years). Total funding over the four years per awardee is \$400,000. Applicant must possess a PhD, MD, or equivalent degree and be within 18 months to 6 years of completing that degree or clinical training at the time of application, including resubmission.
- For young clinicians who have completed their neurology residency and are seeking clinical research experience, the Parkinson's Foundation offers the Postdoctoral Fellowships for Clinical Neurologists, two-year awards in the amount of \$140,000. This award includes salary support of \$65,000 per year. Applicants seeking a Postdoctoral Fellowship for Neurologists must possess an M.D. or equivalent and be within three years of having completed a residency in neurology at the time the award starts. Applicants may not have their own lab and must name an individual who will serve as his or her mentor and supervisor of their research.
- The **Postdoctoral Fellowships for Basic Scientists** are two-year fellowships for young scientists, fresh from their PhD training, to study at major research institutions. The Parkinson's Foundation seeks research proposals from promising early-career scientists that will directly impact the understanding of Parkinson's disease or its treatment. Grants total \$124,000 over two years. The applicant must be within five years of receiving his or her PhD at the time the award starts and must name an individual who will serve as his or her research mentor and supervisor.

Awards:

Multiple awards across all three programs are anticipated. Eligibility: see above. Deadline: 11/01/2022 Links: https://www.parkinson.org/advancing-research/for-researchers/fellowships-early-careerawards

Rheumatology Research Foundation

Lawren H. Daltroy Preceptorship in Health Communication

The foundation invites applications for its Lawren H. Daltroy Preceptorship in Health Communication, established to improve patient-clinician interactions and communications. The preceptorship program will award up to \$15,000 to support a one-year project directly addressing patient-clinician interactions and communications. Projects could include but are not limited to conducting a small-scale research or education project related to patient-

clinician communication; creation of a teaching curriculum, training materials, measurements, etc. that can be used to enhance the field's understanding and mastery of effective patient-clinician communication; participation in education and training opportunities aimed at improving the awardee's communication skills; creating patient-facing materials to enhance patients' understanding of disease status based on clinical or patient assessments; studies of the impact of health literacy/numeracy on patient outcomes or creation of low-literacy/numeracy materials to improve communication with patients; and studies to enhance shared decision making in healthcare settings.

Awards:

Two awards across two selection cycles each year

Eligibility:

Eligible candidates for this mentored award include trainees and junior researchers or health professionals with no current or prior NIH R01 or R01-equivalent funding.

Deadline:

11/01/2022

Links:

https://philanthropynewsdigest.org/rfps/rfp14274-rheumatology-research-foundationinvites-applications-for-communication-preceptorship

Toshiba America

Grade 6-12 science projects

Sixth to 12th grade teachers are invited to apply on-line for a Toshiba America Foundation grant of up to \$5,000 to help bring an innovative project into their own classroom. Applications must be for project based learning. The program hopes to find and fund teachers who want to try a new or different way of reaching and engaging their students. Sometimes trying these ideas involves equipment or expenses that ordinary school budgets do not cover. However, Toshiba will not consider requests for computers, laptops or tablets.

Awards:

Multiple awards are anticipated.

Eligibility:

U.S.-based teachers of grades 6-12 **Deadline:** 11/01/2022

Links:

https://www.toshiba.com/taf/612.jsp

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