UMD Funding Alert

Notes

- 1. 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 (November 1)

New Federal R&D Funding Opportunities

Department of Commerce

Dr. Nancy Foster Scholarship Program

The National Oceanic and Atmospheric Administration invites applications for its graduate student scholarships. The Dr. Nancy Foster Scholarship Program provides support for master's and doctoral degrees in oceanography, marine biology, maritime archaeology—these may include but are not limited to ocean and/or coastal: engineering, social science, marine education, marine stewardship, cultural anthropology, and resource management disciplines—and particularly encourages women and members of minority groups to apply. Dr. Nancy Foster Scholarships may provide, subject to appropriations, yearly support of approximately \$42,000 per student (a 12-month stipend of \$30,000 in addition to an education allowance of \$12,000) and up to \$10,000 of support for a 4-6 week program collaboration at a NOAA facility.

Awards:

4 awards providing yearly support of approximately \$42,000 per student

Eligibility:

U.S. citizens or permanent residents, or citizens of U.S. territories, and are applying to or have been accepted to a graduate program at a U.S. accredited institution

Deadline:

12/22/2022

AwardsID(s): NOAA-NOS-ONMS-2023-2007653 Links: https://www.grants.gov/web/grants/view-opportunity.html?oppId=344165

Department of Defense

Advanced Micro Characterization of Materials

The Materials and Manufacturing Directorate of the Air Force Research Laboratory seeks a contract partner to provide, primarily on-site in the AFRL Materials Characterization Facility if requested, materials characterization research of aerospace materials. The contractor shall also develop tools, software, digitization/automation and techniques to advance the state of the art in electron, x-ray, ion, a15nd optical microscopy as it pertains to materials characterization and microanalysis. Additionally, the successful candidate will foster research collaborations with other relevant facilities off-site for highly specialized/niche characterization areas of interest to AFRL.

Awards:

A single 63-month contract award valued up to \$22 million **Eligibility:** Unrestricted. **Deadline:** 11/29/2022 **AwardsID(s):** FA8650-23-S-5010 **Links:**

https://sam.gov/opp/47470dc1b78144ee8b8931fb7784051d/view

Information Innovation Office Broad Agency Announcement

[**Note:** While most DARPA funding announcements are full of very detailed explanations of the technological challenge to be addressed or knowledge gain desired, this one is wide open to the degree it isn't already covered elsewhere by the office.] DARPA seeks revolutionary research ideas for topics not being addressed by ongoing Information Innovation Opportunity (I2O) programs or other published solicitations. Potential proposers are highly encouraged to review the current I2O programs (<u>http://www.darpa.mil/about-us/offices/i2o</u>) and solicitations (<u>http://www.darpa.mil/work-with-us/opportunities</u>) to avoid proposing efforts that duplicate existing activities or that are responsive to other published I2O solicitations. White paper proposals are accepted on a rolling basis until next fall.

Awards:

Multiple awards may be made.

Eligibility:

Unrestricted

Deadline:

10/27/2023 AwardsID(s): HR001123S0001 Links: https://www.grants.gov/web/grants/view-opportunity.html?oppId=344202

Speed With Innovative Flowpath Technology

The Materials and Manufacturing Directorate of the Air Force Research Lab seeks a contract partner to develop a 1-3x size CMC inlet/isolator capable of uncooled, full-life, single cycle operation at Mach 5 or greater, using production-scalable processes with a clear path to atrate manufacturing. The contractor should:

- establish performance, affordability, and fabricability goals;
- fabricate, characterize, and test coupons, sub-elements, representative shapes, and sub-components to fill in gaps in the existing database and help show that the proposed material and fabrication approach will meet performance, affordability, and fabricability goals as required;
- design the inlet/isolator and fabricate, characterize, and test representative elements as appropriate;
- employ modeling and simulation to predict the thermo-mechanical performance prior to manufacturing and use the post manufacturing testing to evaluate the effectiveness of the predictions;
- accomplish a Manufacturing Readiness Assessment;
- fabricate and evaluate full-scale test hardware; and,
- perform representative component level validation testing such as direct connect and free jet tests.

Awards:

one contract award up to \$8 million and lasting up to 53 months.

Eligibility:

Unrestricted.

Deadline:

11/30/2022

AwardsID(s):

FA8650-23-S-5002

Links:

https://sam.gov/opp/305c7a88e845494a8e538d78c870ce42/view

Department of Energy

Atmospheric System Research

The DOE SC program in Biological and Environmental Research (BER) invites applications for Atmospheric System Research (ASR) within BER's Earth and Environmental Systems Sciences

Division. ASR supports research on key cloud, aerosol, precipitation, and radiative transfer processes that affect the Earth's radiative balance and hydrological cycle, especially processes that limit the predictive ability of regional and global models. Specifically sought in this announcement are research grant applications for observational, data analysis, and/or modeling studies that use observations supported by BER, including the Atmospheric Radiation Measurement (ARM) user facility, to improve understanding and model representation of:

- 1. Cloud, aerosol, precipitation, and thermodynamic processes from ARM's Tracking Aerosol Convection Interactions Experiment;
- 2. Cloud, aerosol, precipitation, and radiation processes from ARM's Surface Atmosphere Integrated Field Laboratory;
- 3. Warm boundary layer atmospheric processes; and
- 4. Southeast U.S. atmospheric processes through early use of observations from the third ARM Mobile Facility.

Awards:

\$15 million may be available to support awards lasting three years and up to \$945,000 **Eligibility:**

Unrestricted domestically, with the exception of 501(c)(4) organizations.

Deadline:

02/23/2023

AwardsID(s):

DE-FOA-0002850

Links:

https://www.grants.gov/web/grants/view-opportunity.html?oppId=344197

Chain Reaction Innovations Program

Chain Reaction Innovations is a DOE innovation program that serves as a platform for supporting and mentoring entrepreneurial researchers whose early-stage innovations are presently too challenging or technically uncertain to pursue in a venture capital-financed startup. Chain Reaction Innovations embeds innovators within a national laboratory for up to two years, working with innovators as they advance their early stage scientific discoveries to potentially commercialize-able opportunities within a discrete time period, enabling the translation of high-impact materials and manufacturing technologies through entrepreneurial mentorship and cooperative research and development.

Argonne is presently searching for up to ten innovators for its seventh cohort of the Chain Reaction Innovation program. Benefits to selected innovators may include up to 24 months of Chain Reaction Innovations resources including the following:

- Personal stipend, travel allowance, and health benefits through ORISE fellowship for up to 24 months;
- Lab space & technical collaboration support from Argonne National Laboratory for up to 24 months; and

• Chain Reaction Innovations programming and mentorship

Additionally, the Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE) will provide an Oak Ridge Institute for Science and Education fellowship to the selected innovators for the first year, with the possibility of renewal, subject to a one year review, for support up to a total of 2 years through this program.

Awards:

Up to ten innovators may be selected. **Eligibility:** Up to individuals (not companies or organizations) **Deadline:** 11/30/2022 **AwardsID(s):** 2-BB47-P-00618-00 **Links:** https://sam.gov/opp/2aa770e42e044d5daa1ea03f9d702ba6/view

Water Power Projects: Innovative Technologies to Enable Low Impact Hydropower and Pumped Storage Hydropower Growth

The Office of Energy Efficiency and Renewable Energy invites research proposals to address innovative solutions to retrofit non-powered dams with environmentally sustainable hydropower at a reasonable cost; applications to address development and testing technologies that mitigate challenges to pumped storage hydropower deployment, including market and revenue uncertainty, development costs and financing, long development timelines, permitting challenges, construction risks, and environmental impacts; and applications to address and encourage emerging organizations to support hydropower development.

The Water Power Technologies Office has identified three priority topic areas:

- Hydropower Retrofits for Non-Powered Dams;
- Innovative Pumped Storage Hydropower Technologies; and
- Hydropower R&D by Emerging Organizations.

Awards:

Up to \$14.5 million will be distributed across multiple awards.

Eligibility:

Unrestricted with the exception of FFRDCs

Deadline:

03/05/2023

AwardsID(s):

DE-FOA-0002731

Links:

https://www.grants.gov/web/grants/view-opportunity.html?oppId=344116

Department of Health and Human Services

All of Us Engagement, Communications, and Enrollment Partnerships

The NIH Office of the Director continues to accept white papers for the *All of Us* Research Program. The *p*rogram is an effort to gather data from at least 1 million people, with the goal of accelerating health research and medical breakthroughs, and enabling individualized prevention, treatment, and care. The program is creating a national research resource to inform thousands of studies, covering a wide variety of health conditions. Researchers will use data from the program to learn more about how individual differences in lifestyle, environment, and biological makeup can influence health and disease.

This present announcement is to fund organizations who can help *All of Us* build its cohort of volunteers who reflect the rich diversity of the United States and are actively engaged as partners. Funded organizations will help design and implement strategies to raise awareness of the program through community and health care provider organizations, drive increased enrollment of participants, foster regular communication with participants, and engage the research community to use the data being gathered. Several specific tasks or areas of interest are described in the announcement, each with its own funding levels and requirements.

Awards:

Multiple awards of varying sizes, lasting up to five years each.

Eligibility:

Higher education institutions, nonprofit organizations, Tribal and governmental entities, and for-profit entities.

Deadline:

11/30/2022 AwardsID(s):

OTA-22-006

Links:

https://sam.gov/opp/0dae1301126e4f3ebac1ccb2a2e84d6d/view

Avenir Award Program for Chemistry and Pharmacology of Substance Use Disorders

The National Institute on Drug Abuse is inviting applications to support those in an early stage of their career who may lack the preliminary data required for an R01 grant, but who propose high impact research and who show promise of being tomorrow's leaders in the field. The Avenir Award for Chemistry and Pharmacology of Substance Use Disorders program will support early stage investigators proposing transformative studies that open new avenues of research in the area of chemistry and pharmacology of addictive substances, substance use disorders and addiction. The research may focus on development of novel chemical, pharmacological, or computational methods and tools that can potentially be applied to investigate basic mechanisms, targets, and pathways of relevance to treating addiction and substance use disorders.

Awards:

5-6 awards from a pool of \$3 million

Eligibility: Unrestricted Deadline: 08/09/2023 AwardsID(s): RFA-DA-24-007 Links: https://grants.nih.gov/grants/guide/rfa-files/RFA-DA-24-007.html

Avenir Award Program for Genetics or Epigenetics of Substance Use Disorders

The National Institute of Drug Abuse invites applications from early stage investigators proposing highly innovative studies that open new areas of research for the genetics or epigenetics of addiction. These may be novel methods or approaches that can potentially be applied to the analysis of the genetics or epigenetics of addiction. Applications proposing research on cannabis or its main psychotropic constituent delta-9-THC are required to measure and report results using a standard delta-9-THC unit in all applicable human subjects' research.

Awards: Multiple Awards are anticipated Eligibility: Unrestricted Domestically Deadline: 09/25/2025 AwardsID(s): PAR-23-021 Links: https://grants.nih.gov/grants/guide/pa-files/PAR-23-021.html

Biological and Emerging Infections Research Resources Program

The National Institute of Allergies and Infectious Diseases (NIAID) invites proposals to support the Biological and Emerging Infections Research Resources Program. BEI-RRP will serve as a vital repository that will provide a centralized resource for the broad community of microbiology and infectious diseases researchers. The BEI-RRP is central to NIAID's mission, as it receives; acquires; authenticates; produces; preserves; stores; deaccessions; disposes; and distributes most of the organisms and reagents that comprise the comprehensive resource. The BEI-RRP may also serve as a repository for materials produced by other federalsupported research projects and research service programs, at the discretion of NIAID. The selected contract is expected to provide 54.75 full-time equivalent staff as part of the work. **Awards:**

A single, multi-year contract award for a fixed negotiated amount.

Eligibility:
Unrestricted.
Deadline:
12/15/2022
AwardsID(s):
75N93021R00022
Links:
https://sam.gov/opp/42a4633c0282487b9e8ca7e9c185d567/view

Development of Resources and Technologies for Enhancing Rigor, Reproducibility, and Translatability of Animal Models in Biomedical Research

The Office of Research Infrastructure Programs (ORIP) encourages resource-related research grant applications in response to two funding opportunities aimed at developing broadly applicable technologies, tools, and resources for validating animal models and enhancing rigor, reproducibility, and translatability of animal research. Proposed studies, models, resources, or technologies must either address research interests of multiple NIH Institutes and Centers, explore multiple organ systems, or be applicable to diseases and processes that impact multiple organ systems in order to align with ORIP's NIH-wide mission and programs.

- Resource Related Research Projects (PAR-23-039) which does not require clinical trials, may be predominantly research based if that research potentially leads to the development of tools or resources that will have a broad impact on the NIH-wide biomedical research community. An application also may be aimed at final development or enhancement of existing resources.
- Research Project Grant (PAR-23-040) should be aimed at developing or improving technologies, tools, and resources for validating animal models and improving rigor, reproducibility, and translatability of animal research, which will be broadly applicable to biomedical research involving animal models.

Awards:

Multiple awards are anticipated Eligibility: Unrestricted domestically Deadline: 12/22/2022 AwardsID(s): PAR-23-039, PAR-23-040 Links: https://grants.nih.gov/grants/guide/pa-files/PAR-23-039.html, https://grants.nih.gov/grants/guide/pa-files/PAR-23-040.html

Feasibility Studies to Build Collaborative Partnerships in Cancer Research

The National Cancer Institute (NCI) invites grant applications in response to two funding opportunities tailored to develop collaborative partnerships between institutions serving health disparity populations and underrepresented students and NCI-designated Cancer Centers (or Cancer Centers with highly integrated cancer research programs).

- The P20 Opportunity (PAR-22-239) is designed to facilitate the planning and execution
 of focused collaborations in cancer-related research, research experience, and
 research education. A joint pilot research project may be in any area of cancer-related
 basic, clinical, translational, prevention, control, behavioral and/or population
 research. Each Partnership is encouraged to develop research applications in
 translational research as defined by the NCI, such as research utilizing emerging
 technologies (for example, nanotechnology, proteomics, genomics, and imaging),
 precision medicine, and/or therapeutic clinical trials in individuals from underserved
 populations.
- The U54 Opportunity (PAR-22-249) aims to achieve a stronger national cancer program and address challenges in cancer and cancer disparities research, education, and outreach, as well as cancer's impact on underserved populations. The Institutions in each partnership are expected to promote the diversity of the cancer research workforce and improve the effectiveness of Cancer Centers in developing and sustaining research programs focused on cancer health disparities

Awards:

Multiple awards are anticipated Eligibility: Unrestricted domestically Deadline: 01/06/2023 AwardsID(s): PAR-22-239, PAR-22-249 Links: https://grants.nih.gov/grants/guide/pa-files/PAR-22-239.html, https://grants.nih.gov/grants/guide/pa-files/PAR-22-249.html

HIV/AIDS Scholars Using Nonhuman Primate Models Program

Multiple NIH Institutes are looking to provide salary and research support to investigators who are within ten years of completing their terminal professional degree or residency training. Research and mentorship must be in the field of HIV/AIDS translational studies, using nonhuman primates (NHPs) as preclinical models. These awards will provide 3 years of support for intensive research career development under the guidance of an experienced mentorship team, with expertise in both the pre-clinical application of NHP HIV/AIDS models and in translation of the results from such studies to clinical application in humans. This funding opportunity is designed specifically for applicants proposing research that does not

involve leading an independent clinical trial, a clinical trial feasibility study, or an ancillary clinical trial. The topics of interest to this opportunity include, but are not limited to:

- Vaccines, vaccine adjuvants and other novel antiretroviral therapy-free approaches to viral remission or eradication directed towards Simian Immunodeficiency Virus/Simian-Human Immunodeficiency Virus at various stages of the lifespan, including neonates and infants;
- Non-vaccine prevention, such as oral pre-exposure prophylaxis neutralizing monoclonal antibodies, or mucosal microbicides;
- Antiretrovirals, safe and effective combination antiretroviral treatment, or combined drug/immunotherapeutic approaches;

Awards:

Multiple awards are anticipated Eligibility: Unrestricted Domestically Deadline: 01/07/2023 AwardsID(s): PAR-22-248, PAR-22-252 Links: https://grants.nih.gov/grants/guide/pa-files/PAR-22-248.html, https://grants.nih.gov/grants/guide/pa-files/PAR-22-252.html

Music-Based Interventions for Pain or Alzheimer's Disease and Alzheimer's Disease Related Dementias

The National Center for Complementary and Integrative Health and the National Institute on Aging are inviting applications to support a collection of research networks that promote multidisciplinary mechanistic studies of music-based interventions for pain or Alzheimer's disease and Alzheimer's disease-related dementias. The scientific scope of the networks is limited to the following high-priority research areas: Music-based Interventions; Mechanisms and Biomarkers; and Technologies, Tools, & Models.

Awards:

2 awards from a pool of \$1 million Eligibility: Unrestricted domestically Deadline: 01/10/2023 AwardsID(s): RFA-AT-23-006 Links: https://grants.nih.gov/grants/guide/rfa-files/RFA-AT-23-006.html

National Center for a System of Services for Children and Youth with Special Health Care Needs

The Health Resources and Services Administration announces the opportunity to apply for funding under the National Center for a System of Services for Children and Youth with Special Health Care Needs (National Center). The purpose of this program is to advance the system of services for children and youth with special health care needs (CYSHCN) by supporting the implementation of the Blueprint for Change: Guiding Principles for a System of Services for Children and Youth With Special Health Care Needs1 (Blueprint for Change), a national agenda to improve health and well-being for CYSHCN and their families.

The National Center's key activities are divided into two phases: Phase 1- Exploration, Roadmap Development, and Pilot Testing: which will take place in years 1 - 2; Phase 2 -Implementation: Phase 2 will take place in years 3, 4, and 5. It will focus on assisting states, communities and other key stakeholders in implementing the Blueprint Implementation Roadmap and innovations tested in Phase 1.

Awards:

1 award of \$1.5 million Eligibility: Unrestricted domestically Deadline: 01/26/2023 AwardsID(s): HRSA-23-075 Links: https://www.grants.gov/web/grants/view-opportunity.html?oppId=340376

NCMRR Early Career Research Award

The Eunice Kennedy Shriver National Institute of Child Health and Human Development invites applications from clinical and basic scientists who are in the early stages of their independent career in rehabilitation research for the National Center for Medical Rehabilitation Research (NCMRR) Early Career Research Award to support both basic and clinical research from rehabilitation scientists who are establishing independent research careers. The research must be focused on one or more of the areas within the mission of NCMRR. Applicants are strongly encouraged to contact the Scientific/Research contact for this opportunity for guidance in advance of submitting an application to ensure their proposed project is in compliance with new NIH human subjects research and clinical trials policies

Awards:

Multiple awards are anticipated Eligibility: Unrestricted Deadline: 03/28/2023 AwardsID(s): PAR-23-029 Links: https://grants.nih.gov/grants/guide/pa-files/PAR-23-029.html

Occupational Safety and Health Education and Research Centers

The National Institute for Occupational Safety and Health (NIOSH) and Centers for Disease Control and Prevention invites grant applications for Education and Research Centers that are focused on occupational safety and health training. Centers may have different strengths, experiences, research training opportunities, capacities and focus areas on training, education and outreach, but all should have objectives and outcomes that positively impact the US workforce. The objectives and outcomes should help NIOSH provide an adequate supply of highly qualified personnel to carry out the purposes of the Occupational Safety and Health Act.

Awards:

Multiple awards are anticipated Eligibility: Unrestricted domestically Deadline: 01/09/2023 AwardsID(s): RFA-OH-23-003 Links: https://grants.nih.gov/grants/guide/rfa-files/RFA-OH-23-003.html

Toward ElucidAting MechanismS of HIV Pathogenesis within the Mission of the NIDDK

The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) invites applications from multidisciplinary research teams with complementary expertise in HIV and pathobiology, pathophysiology, and/or metabolism in organs, tissues, and/or biological systems of specific interest to the Institute. Selectged teams will comprehensively interrogate fundamental biological mechanisms underlying HIV-associated comorbidities, co-infections, and complications relevant to the mission of the NIDDK and advance progress toward preventing or alleviating them. Because this opportunity is being issued to address the need to develop greater interdisciplinary communication between research communities, there is no expectation that teams necessarily have previous publications with each other or otherwise have a history of extensive previous collaboration.

Awards:

2-3 awards from a pool of \$2 million

Eligibility: Unrestricted Deadline: 03/15/2023 AwardsID(s): RFA-DK-22-039 Links: https://grants.nih.gov/grants/guide/rfa-files/RFA-DK-22-039.html

Utilizing Telomere Status to Reveal Molecular Mechanisms Underlying Susceptibility and Resiliency in Response to Environmental Exposures

National Institute of Environmental Health Sciences is soliciting applications that further examine and characterize molecular underpinnings surrounding telomere status and accompanying biological pathways in response to environmental insults. This opportunity ultimately seeks to identify key mechanistic insights into telomere dynamics and how this could better dissect the interplay between environmental exposures at this vulnerable site contribute to disease (e.g., cancer, cardiovascular disease, and other age-related outcomes, such as neurodegeneration).

Awards:

4-5 awards from a pool of \$2 million
Eligibility:
Unrestricted Domestically
Deadline:
02/14/2023
AwardsID(s):
RFA-ES-22-007
Links:
https://grants.nih.gov/grants/guide/rfa-files/RFA-ES-22-007.html

Department of State

Safety & security of Artificial Intelligence

The Department of State's Office of the Nonproliferation and Disarmament Fund is pleased to announce an open competition for proposals to conduct a comprehensive assessment focused on the proliferation and security risks associated with advanced AI, particularly during research and development stages. Proposals should also address the challenges and risks of both intentional and accidental negative outcomes – including misalignment – resulting from advanced AI R&D.

Awards:

A single award of \$250,000

Eligibility:

U.S. non-profit/non-governmental organizations, educational institutions, and for-profit organizations

Deadline: 11/28/2022 AwardsID(s): SFOP0009226 Links: https://www.grants.gov/web/grants/view-opportunity.html?oppId=344200

Department of the Interior

Joint Fire Science Program

The Joint Fire Science Program (JFSP) is a partnership of seven federal wildland fire management and research agencies that have a shared need to address problems associated with managing wildland fuels, fires, and fire-impacted ecosystems. JFSP currently requests proposals through six separate funding announcements addressing the following four research opportunities, student stipend, and one informational exchange network. All six requests for applications can be found through the single link below.

- 23-1-01 Graduate Research Innovation (GRIN) Award open to current master and doctoral students enrolled at colleges or universities within the US in the field of wildland fire and related physical, biological, and social sciences. The purpose of a \$25,000 GRIN award is to enhance student exposure to the management and policy relevance of their research to achieve beneficial outcomes of funded work. Multiple awards are anticipated.
- 23-2-01 Longevity of fuel treatment effectiveness under climate change The objectives of this research task is to 1) understand patterns of fuel accumulation, vegetation change, and potential fire behavior following fuel treatments over time and 2) inform the frequency and type of treatments needed to maintain treatment effectiveness. A third desired, but not mandatory task is 3) incorporation of additional collected data into existing models and decision support tools that predict ecosystem change over time under different climate change scenarios and use of such models to project trends in fuel treatment effectiveness in the future. Multiple awards up to \$500,000 are anticipated.
- 23-2-02 Fuels treatment effectiveness across landscapes The objective of this research task is to inform planning and implementation of landscape fuel treatment strategies that allow for safe and effective management of wildfire to meet protection and resource management objectives. Multiple awards up to \$500,000 are anticipated.
- **23-2-03 Pre-fire management actions for reducing post-fire hazards** Proposals should lead to better understanding of the factors that lead to successful cross-jurisdictional pre-fire planning aimed at reducing the potential for post-fire hazards,

through synthesis and evaluation of existing tools and investigations of enabling conditions that foster successful cross-jurisdictional planning and action. Multiple awards up to \$500,000 are anticipated.

- 23-2-04 Social and political factors that influence fire suppression and rehabilitation costs - Proposals should seek to evaluate understudied factors that influence costs associated with wildfire suppression and immediate post-fire rehabilitation to inform cost models and performance metrics for efficient use of fire suppression and rehabilitation resources. Multiple awards up to \$500,000 are anticipated.
- 23-3-01 Regional Science Exchange and Outreach This solicitation is seeking individual proposals (i.e., each proposal must be specific to one region) for the following six regions of the Fire Science Exchange Network (FSEN): Alaska, Great Basin, Northern Rockies, Oak Woodlands, Northwest and Pacific Islands. The FSEN brings fire, fuel, natural resource, and land managers, practitioners, and scientists together to address regional wildland fire management needs and challenges. Proposers should submit two year budgets. Six awards may be made from total funding of \$2,744,000.

Eligibility:

Unrestricted Deadline: 12/20/2022 AwardsID(s): FA-NOFO0023-003 Links: https://www.firescience.gov/JFSP_funding_announcements.cfm

Environmental Protection Agency

Nanosensor technology to detect and monitor pollutants

EPA seeks research proposals to develop and demonstrate nanosensor technology with functionalized catalysts that have potential to degrade selected contaminants in addition to detecting and monitoring pollutants. The class of contaminants (e.g., pesticides, heavy metals, pathogens, PFAS, halogenated compounds) is not limited in the solicitation. The type of nanomaterial (e.g., carbon-based, metal oxides, quantum dots), recognition element (e.g., antibodies, enzymes, DNA), and signal transduction method (e.g., optical, electrochemical, magnetic) that make up the nanosensor are also at the discretion of the applicant. Importantly, EPA in this specific funding opportunity is seeking nanotechnology that is ready to be validated and demonstrated outside the lab in the relevant environment, equivalent to a Technology Readiness Level of 5-6.

Awards:

A single award of up to \$1.5 million **Eligibility:**

Limited to public and private nonprofit institutions/organizations, public and private institutions of higher education, and Tribal and state governments.

Deadline: 12/07/2022 AwardsID(s): EPA-G2023-STAR-A1 Links: https://www.grants.gov/web/grants/view-opportunity.html?oppId=344112

Understanding and Control of Municipal Solid Waste Landfill Air Emissions

The EPA has issued two funding opportunities accepting proposals until Dec 21 to address the following research priorities:

- How can cost effective stationary, mobile, aerial, and remote sensing technologies be combined to more easily and accurately quantify landfill methane emissions, hazardous air pollutants (HAPs), and other air pollutant emissions from municipal solid waste (MSW) landfills?
- How can cost effective stationary, mobile, aerial, and remote sensing measurements be used to increase ease of use and evaluate mitigation strategies and technologies to identify best landfill management practices?

The difference between the two solicitations is the length of the career of the principal investigators. The purpose of the **early career award** (EPA-G2023-STAR-B2) is to fund research projects smaller in scope and budget by early career PIs. Early career awards will not support multiple PIs. These prospective respondents should use the link below ending in oppID=344114. All other respondents should use the link ending in oppID=344113.

Awards:

4 awards across both opportunities from a total pool of \$3.2 million

Eligibility:

Limited to nonprofit organizations, Tribal and state governments, and institutions of higher education.

Deadline:

12/21/2022

AwardsID(s):

EPA-G2023-STAR-B1, EPA-G2023-STAR-B2

Links:

<u>https://www.grants.gov/web/grants/view-</u> <u>opportunity.html?oppId=344113</u>, <u>https://www.grants.gov/web/grants/view-</u> opportunity.html?oppId=344114

National Science Foundation

Atmospheric Chemistry

The NSF Division of Atmospheric and Geospace Sciences invites proposals on a rolling basis for research into atmospheric chemistry: research on atmospheric gases and aerosols, including sources and sinks; transport and chemical reactions of atmospheric species; atmospheric photochemistry; heterogeneous reactions; and aqueous-phase chemistry and aerosol processes. Interested researchers should use the most current version of the NSF Proposal & Award Policies & Procedures Guide, which may be updated annually.

Eligibility:

Unrestricted AwardsID(s): NSF PD 23-1524

Links:

https://beta.nsf.gov/funding/opportunities/atmospheric-chemistry

Biology Integration Institutes

The Biological Sciences Directorate invites proposals to support collaborative teams of researchers investigating questions that span multiple disciplines within and beyond biology. The resulting institutes will focus on biological themes that enable the discoveries of life's innovations. The outcomes from biological integration will inspire new biotechnologies and applications to drive our bioeconomy and provide solutions to societal challenges. While this solicitation focuses on the integration of biological subdisciplines, any field beyond biology may be included as needed to address the overarching biological theme.

Awards:

5 awards from pool of \$10 million.

Eligibility:

Limited to nonprofit organizations and institutions of higher education.

Deadline:

02/21/2023

AwardsID(s):

NSF 23-511

Links:

https://www.grants.gov/web/grants/view-opportunity.html?oppId=344223

Using the Rules of Life to Address Societal Challenges

Using the Rules of Life to Address Societal Challenges (URoL:ASC) will support use-inspired research that builds on knowledge from previous investments in the NSF "Big Ideas", including in the Understanding the Rules of Life program. Through use-inspired research using convergent, multidisciplinary approaches, URoL:ASC seeks to apply lessons learned from studying rules of life across a broad array of living systems to tackle pressing societal concerns. These concerns include but are not limited to: climate change and associated risks, including geohazards, extreme events, and loss of biodiversity; environmental degradation, including impacts on land and water resources; inequalities in availability of and access to essential natural assets; lack of sustainability, including for food, energy, and waste production; and threats from pandemic disease, among others.

This solicitation differs in several key respects from previous solicitations associated with the Understanding the Rules of Life Big Idea.

- First, rather than a focus on discovering rules of life, here we seek ideas about how such rules might be used for societal benefit.
- Second, underscoring this shift in focus, proposals should begin with a description of the expected outcomes of the research, e.g., the broader impacts, followed by details on the intellectual underpinnings of the convergent research plan.
- Third, proposers must adopt a co-production strategy that involves both producers and users of the research outcomes in all phases of the research e.g., in the design, implementation, evaluation, and dissemination of the research impacts (see NSF Strategic Plan).
- Fourth, projects must integrate innovative education and training activities aimed at fostering convergent research.
- Fifth, projects should actively promote diversity, equity, inclusion, and accessibility in all activities by involving members of underrepresented groups and including women and members of groups who are underrepresented in science, technology, engineering, and mathematics (STEM), as PIs, co-PIs, postdoctoral researchers, students, and other personnel.

Awards:

Up to 15 awards from a total pool of \$28 million.

Eligibility:

Limited to nonprofit organizations and institutions of higher education

Deadline:

02/15/2023

AwardsID(s):

NSF 23-512

Links:

https://www.grants.gov/web/grants/view-opportunity.html?oppId=344222

New SBIR/STTR Funding Opportunities

Department of Health and Human Services

Late-Stage Translation of Biomedical and Behavioral Research Results in Arthritis and Musculoskeletal and Skin Diseases from Academic/Non-profit Lab to Marketplace

The National Institute of Arthritis and Musculoskeletal and Skin Diseases solicits Small Business Innovation Research grant applications from small business concerns that translate technology and therapeutic innovations from academic and other non-profit research sectors to the marketplace to advance the development of diagnostic and prevention tools or treatments for musculoskeletal, rheumatic, or skin diseases. This initiative will support latestage pre-clinical studies on technology or therapy feasibility, and studies that are required for regulatory approval before clinical testing and making new lab technologies more practical for clinical use. Applications may include human subjects research; however, clinical trials are excluded. Applicants could propose to analyze samples from affected subjects and controls, conduct subject interviews, or other procedures of clinical research. Awards: Multiple Awards are anticipated Eligibility: Unrestricted Domestically Deadline: 01/05/2023 AwardsID(s): PAR-23-032 Links: https://grants.nih.gov/grants/guide/pa-files/PAR-23-032.html

New Funding Opportunities for TBED

Department of Education

Digital Learning Infrastructure and IT Modernization Pilot

The Digital Learning Infrastructure and IT Modernization Pilot provides grants to Historically Black Colleges and Universities (HBCUs), Tribal Colleges or Universities (TCUs), and other eligible minority-serving institutions (MSIs) to support IT modernization, and to enable them to provide support and technical assistance to expand their digital learning infrastructure. Digital infrastructure brings together and interconnects multiple resources, including physical, virtual, human, and social. Physical and virtual resources include technologies, such as computer, storage, network, application, and various platforms, to build the foundation for an institution of higher education's digital operation. Human and social resources include the human knowledge and skills, professional development, and ongoing technical assistance needed to sustain an institution's digital operation.

In this competition the department is requiring applicants to develop or enhance and implement digital learning infrastructure plans that address the leadership, human capital, instruction, and IT strategies that will improve the institution's capacity to seamlessly expand learning and promote innovation that improves student outcomes. Additionally, applicants are required to include dissemination plans of their digital learning infrastructure plans to other institutions.

Awards:

4 awards up to \$3,895,200 each Eligibility: Minority Serving Institutions Deadline: 11/25/2022 AwardsID(s): ED-GRANTS-102522-001 Links: https://www.grants.gov/web/grants/view-opportunity.html?oppId=344162

Department of Energy

Cluster Organization: Stakeholder Insight into Hydropower R&D Issues

The DOE Water Power Technologies Office seeks to support the efforts of a diverse group of hydropower stakeholders to work together to discuss and address issues regarding the modernization of the U.S. hydropower fleet, the sustainability of hydropower systems, and the impact of hydropower facilities on the environment. These efforts will enhance and inform the current and future needs of R&D for hydropower technologies and environmental mitigation efforts at DOE and in industry. The selected recipient will actively convene, engage, and facilitate discussions among a diverse group of hydropower stakeholders including but not limited to representatives from Tribal nations, hydropower developers, owners/operators of hydropower facilities, research institutions, hydropower industry representatives, NGOs, non-profit organizations, resource agencies, other interested parties, etc.

Awards:

A single multi-year award of up to \$4 million. Eligibility: Unrestricted Deadline: 11/18/2022 AwardsID(s): DE-FOA-0002800 Links: https://www.grants.gov/web/grants/view-opportunity.html?oppId=344117

National Science Foundation

Improving Undergraduate STEM Education

The newly rebranded Directorate for STEM Education invites proposals t o promote novel, creative, and transformative approaches to generating and using new knowledge about STEM teaching and learning to improve STEM education for undergraduate students. IUSE: EDU supports projects that seek to bring recent advances in STEM knowledge into undergraduate education, that adapt, improve, and incorporate evidence-based practices into STEM teaching and learning, and that lay the groundwork for institutional improvement in STEM education. In addition to innovative work at the frontier of STEM education, this program also encourages replication of research studies at different types of institutions and with different student bodies to produce deeper knowledge about the effectiveness and transferability of findings.

Awards:

135 awards are possible from a pool of \$61 million.

Eligibility:

Institutions of higher education and associated organizations

Deadline: 01/18/2023 AwardsID(s): NSF 23-510 Links: https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf23510

New Foundation R&D Funding Opportunities

ACVO Vision for Animals Foundation

Veterinary ophthalmology research

Each year the ACVO Vision for Animals Foundation offers research grants to ABVO-approved residents in areas of veterinary ophthalmology. Residents must be sponsored by their ABVO mentor(s). The ACVO-VAF will support research supplies, materials, limited equipment, publication, and limited salary for technical support. The ACVO-VAF does not support the salary of the resident, salary of the faculty mentor, tuition, major equipment, or institutional indirect costs. Results of funded research must be presented at the Annual ACVO Conference. **Awards:**

Awards up to \$5,000. Eligibility: Unspecified Deadline: 12/01/2022 Links: https://www.visionforanimals.org/grant-programs/vaf-resident-grant-program/

American Kidney Fund

Clinical research in nephrology

The Clinical Scientist in Nephrology program strives to improve the quality of care provided to kidney patients and promotes clinical research in nephrology. The program enhances the training of nephrologists who want to pursue an academic career and whose primary professional commitment is to scholarship in the provision of patient care. The Clinical Scientist in Nephrology Fellowship is not intended as a fellowship-to-faculty transitional award. Preference will be given to applicants in their first or second year of fellowship.

Awards:

Multiple awards of \$80,000/year for up to two years.

Eligibility:

Candidates must have completed a residency in internal medicine or pediatrics and are qualified to sit for the American Board of Internal Medicine or Pediatrics.

Deadline:

12/19/2022

Links:

https://www.kidneyfund.org/professionals-and-research/clinical-scientist-nephrologyprogram

American Psychological Foundation

Clinical psychology award

The foundation invites nominations for the Theodore Blau Early Career Award for Outstanding Contribution to Professional Clinical Psychology, which presents an award to clinical psychologists in recognition of their accomplishments and promise in clinical psychology. Accomplishments such as promoting the practice of clinical psychology through professional service, innovation in service delivery, a novel application of applied research methodologies to professional practice, positive impact on health delivery systems, development of creative educational programs for practice, or other novel or creative activities that advance the profession will be included.

Awards:

A single \$4,000 award is made annually.

Eligibility:

Nominees should be no more than 10 years post doctoral degree and should be psychologists with an EdD, PsyD, or PhD from accredited universities.

Deadline:

11/30/2022

Links:

https://www.apa.org/apf/funding/blau?tab=2

American Society of Nephrology

Innovation in kidney medicine

The society offers the Ben J. Lipps Research Fellowship to fund nephrology fellows to conduct original, meritorious research projects. This program fosters the training of fellows, under the direction of a sponsor, who are highly motivated to make contributions to the understanding of kidney biology and disease. This Fellowship serves to establish the beginnings of an independent career for ASN members. Exclusions for PI candidates include anyone holding a faculty position now or in the past in nephrology-related or basic science faculty position at any academic institution.

Eligibility:

Candidates must hold a MD, DO, PhD, or equivalent degree and less than 5 years of research training post-degree.

Deadline:

12/07/2022 Links: https://www.asn-online.org/grants/fellowships/details.aspx?app=LIPPS

Autism Science Foundation

Basic & clinical research relevant to autism spectrum disorders

The foundation invites applications for its Pre- and Postdoctoral Training Awards from graduate students, medical students, and postdoctoral fellows interested in pursuing careers in basic and clinical research relevant to autism spectrum disorders. The proposed training should be scientifically linked to autism but may be broadened to include training in a closely related area of scientific research. Applicants for predoctoral awards must be enrolled students in good standing in a program leading to a research doctorate, such as a PhD or ScD, or a dual degree, such as an M.D./Ph.D., in an academic department at an accredited university or health/medical institution. Medical school students are also eligible. Applicants for postdoctoral awards must have completed their doctoral or medical degree and have been accepted as a postdoctoral fellow.

Awards:

Multiple one-year awards of \$35,000 for predoctoral students and \$50,000 for postdoctoral students.

Eligibility:

See description above.

Deadline:

12/09/2022

Links:

https://philanthropynewsdigest.org/rfps/rfp14380-autism-science-foundation-invitesapplications-for-2023-pre-and-postdoctoral-training-awards

Dermatology Foundation

Dermatological Research

The Foundation's Research Grants provide financial support for research projects in dermatology and cutaneous biology that benefit the dermatology community at large. The Foundation is currently accepting applications for career development awards, fellowships, and research grants via its CDAFG Research Award Application Portal. All Foundation-funded research must be conducted in the U.S. under the sponsorship of a department/division of dermatology that is ACGME-approved for training in dermatology.

Awards:

Multiple awards are anticipated.

Eligibility:

Individuals with M.D.; M.D., Ph.D.; Ph.D.; or D.O. degree and must be recognized as junior investigators in the early stages of academic career

Deadline:

10/05/2022

Links:

https://dermatologyfoundation.org/rap/grants/research-grants/

Horowitz Foundation for Social Policy

Social science research fellowships

The foundation will award grants to individuals at the dissertation level in support of research projects with a social policy application on either a global or local level. Supplemental awards are available to projects within certain disciplines or achieving specific recognition among the cohort of fellows. Applications are evaluated based on the Trustees' assessment of criteria such as: feasibility, applicability, originality, methodology, theoretically informed or empirically rich research, and letters of recommendation. No specific weight is given to any one area. Proposals are evaluated based on overall merit of all aspects of the application. **Awards:**

Each is worth a total of \$7,500; \$5,000 is awarded initially and \$2,500 upon completion of the project.

Eligibility:

Open to domestic and international doctoral students.

Deadline:

12/01/2022

Links:

https://www.horowitz-foundation.org/grant-info

Orthopaedic Research and Education Foundation

Shoulder care and arthritis research

The Orthopaedic Research and Education Foundation invites applications for two research funding opportunities. Both share a December 15 deadline and one URL for more information.

- The OREF/Goldberg Arthritis Research Grant encourages new investigators by providing seed and start-up funding up to \$50,000 for promising research projects that address issues related to the treatment of arthritis with an emphasis on arthroplasty. The PI must be a new investigator who has not received an R01 National Institutes of Health grant or its equivalent (e.g., VA, DOD, NSF) in the role of PI.
- In partnership with American Shoulder and Elbow Surgeons (ASES) and Dr. Charles Rockwood, the \$50,000 Clinical Shoulder Research Grant encourages new investigators to conduct research in the area of shoulder care. The PI or Co-PI must be an orthopaedic surgeon. PhDs and DVMs are eligible if affiliated with an orthopaedic department. PI/Co-PI must be an ASES member.

Awards:

Multiple awards are anticipated.

Deadline:

12/15/2022

Links:

https://www.oref.org/grants-and-awards/grant-programs/grant-program-information

Plastic Surgery Foundation

Breast reconstruction & ascetic plastic surgery research

Serving as the research affiliate of the American Society of Plastic Surgeons, the foundation invites proposals for two grant opportunities. Both have December 1 deadlines.

- The Scott Spear Innovation in **Breast Reconstruction Research Fellowship** provides one grant annual up to \$72,500 to nurture and grow the training and expertise of young academicians considering a career in breast reconstruction and patient care. This grant opportunity is available to residents and fellows and provides salary support to undertake a research project under the guidance of an experienced mentor. The application must describe a structured research training plan and a research project focused on breast cancer or breast reconstruction.
- The Aesthetic Plastic Surgery Research Grant is intended to support plastic surgeons in pursuing research in aesthetic/cosmetic plastic surgery. Eligible applicants include surgeons at all stages of their careers including residents, fellows, junior faculty and advanced academicians, as well as early career to advanced practitioners in a variety of settings including private, employed, group and academic practice physicians. Awards will be up to \$25,000 for projects lasting up to one-year.

Eligibility:

PIs must be ASPS members at time of award (but not necessarily by deadlines).

Deadline:

12/01/2022

Links:

https://www.thepsf.org/research/grants-program/psf-aesthetic-plastic-surgery-researchgrant, https://www.thepsf.org/research/grants-program/scott-spear-research-fellowship

Sigma Theta Tau International Honor Society of Nursing

Women's health, nursing, oncology, and pediatrics research

Sigma invites proposals for two research funding opportunities; both have a December 1 deadline. Allocation of funds is based on the quality of the proposed research, the future promise of the applicant, and the applicant's research budget. Applications from novice researchers who have received no other national research funds are encouraged. Preference will be given to Sigma members, other qualifications being equal. Eligibility is limited to registered nurses who have obtained at least a masters degree.

- The Sigma Small Grants provides grants up to \$5,000 to encourage registered nurses to contribute to the **advancement of nursing through research**. Up to 15 one-year awards are made annually.
- The Sigma/Rosemary Berkel Crisp Research Award supports nursing research in the critical areas of **women's health, oncology, and pediatrics** through a single \$5,000 grant a one-year project. Because of the funding source, some preference will be given to applicants residing in Illinois, Missouri, Arkansas, Kentucky, or Tennessee.

Deadline:

12/01/2022 Links: https://www.sigmanursing.org/advance-elevate/research/research-grants/sigmagrants, https://www.sigmanursing.org/advance-elevate/research/researchgrants/rosemary-berkel-crisp-research-award

Spencer Foundation

Education research

The Small Research Grants Program supports education research projects that will contribute to the improvement of education, broadly conceived, with budgets up to \$50,000 for projects ranging from one to five years. We accept applications three times per year. This program is "field-initiated" in that proposal submissions are not in response to a specific request for a particular research topic, discipline, design, method, or location. The goal is to support rigorous, intellectually ambitious and technically sound research that is relevant to the most pressing questions and compelling opportunities in education. Proposals for activities other than research are not eligible (e.g., program evaluations, professional development, curriculum development, scholarships, capital projects).

Awards:

Multiple awards of up to \$50,000 are anticipated.

Eligibility:

Ph.Ds affiliated with a non-profit organization or public/governmental institution that is willing to serve as the administering organization if the grant is awarded.

Deadline:

12/05/2022 Links: https://www.spencer.org/grant_types/small-research-grant

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