UMD FUNDING ALERT

Notes

1. Weekly opt-in funding alert provided by the UMD-College Park Division of Research and SSTI. 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: http://go.umd.edu/fundingalert.

SSTI (May 11)

New Funding Opportunities for TBED

Genentech Foundation

Health equity, diversity in STEM

Genentech and Genentech Foundation are inviting proposals for the 2022 Health Equity and Diversity in STEM Innovation Fund, a biennial, competitive process focused on funding organizations and initiatives led by people of color.

The fund seeks proposals to support the major priorities of health equity and workforce diversity through three main aims.

Aim 1—Advancing Health Equity: Genentech is inviting initial applications from prospective partners to pioneer new approaches to engage patients of color across the research to care continuum.

Aim 2—Promoting Diversity in STEM: Genentech is inviting initial applications from prospective partners working to build a more diverse and inclusive future of health care and science. It seeks proposals that address structural and systemic inequity from kindergarten to careers and partners with organizations that support the training, recruitment, retainment, and advancement of students and researchers from communities of color.

Aim 3—Promoting Diversity in Undergraduate STEM Pathways: The Genentech Foundation invites initial applications from prospective partners working to build a more diverse and inclusive future of health care and science.

Grants may be used to develop and test novel ideas or tools, implement demonstration projects, resource collaboration and partnership, and support research that goes beyond "studying the problem."

Awards:

Multiple grants ranging between $100,000 and $750,000

Eligibility:

501(c)(3) and 501(c)(6) nonprofits or be a U.S. governmental organization such as public schools, public colleges, and universities, public hospitals, and federally recognized Indian tribal governments.

Deadline:

06/02/2022

Links:

https://philanthropynewsdigest.org/rfps/rfp13748-genentech-genentech-foundation-invite-proposals-for-health-equity-diversity-in-stem

New Federal R&D Funding Opportunities

Department of Defense

DOD Bone Marrow Failure Idea Development Award

supports innovative ideas and high-impact approaches based on scientifically sound evidence to move toward understanding and curing Bone Marrow Failure (BMF) diseases. This award mechanism is designed to support new ideas. Proposed research studies should have a high probability of revealing new avenues of investigation. The research project should include a well-formulated, testable hypothesis based on strong scientific rationale and a well-developed and articulated research approach. Personnel on the proposed team should have a strong background in BMF disease research. Both Established Investigators and Early-Career Investigators are eligible to apply.

Awards:

Total program funding of $4.32 million is anticipated to support up to six awards.

Eligibility:

Unrestricted

Deadline:

09/23/2022

Links:

https://www.grants.gov/web/grants/view-opportunity.html?oppId=340045

DOD Bone Marrow Failure Investigator-Initiated Research Award

Two different awards will likely be made. Funding level 1 will support studies that further develop ideas, expand upon key discoveries, and have the potential to make significant advances in research, patient care, and/or quality of life in the Bone Marrow Failiure program focus areas. Applications may involve basic, translational, and clinically oriented research,

including studies in animal models, research with human anatomical substances, and research with human subjects, as well as correlative studies associated with an existing clinical trial; however, FL1 awards may not be used to support a clinical trial.
Funding level 2 will support Investigational New Drug (IND)-enabling efforts; proposals are expected to be empirical in nature, product-driven, and focused on the accumulation of data for a lead therapeutic candidate(s). At least one, and no more than three, lead therapeutic candidates must be named at the time of application submission to meet the intent of the award mechanism

Awards:

Funding Level 1 awards may not exceed $600,000. Funding Level 2 awards may not exceed $800,000. A total of $2.24 million is available for all awards.

Eligibility:

Unrestricted

Deadline:

09/23/2022

Links:

https://www.grants.gov/web/grants/view-opportunity.html?oppId=340031

DoD Combat Readiness Medical, Rapid Development and Translational Research Award

supports advanced and preclinical research to enhance medical capabilities and Force readiness at the point of greatest need in order to save the most lives in trauma care scenarios, which may be complicated by combat operations, limited resources, austere conditions, and/or mass casualty events. The goal is to move promising "leap ahead" ideas into clinical applications, including healthcare products, technologies, and/or practice guidelines. Research of interest may include knowledge products, “knowledge resulting from research with the potential to improve individual or public health and solutions that can accelerate the introduction of military-relevant health products or technologies into clinical and/or operational use. Projects should take into consideration the varied expertise levels of targeted medical providers, available resources, and the possible diverse environmental conditions in combat situations.

Awards:

Total of $8.71 million for four awards that may last 2-3 years.

Eligibility:

Unrestricted domestically

Deadline:

09/14/2022

Links:

https://www.grants.gov/web/grants/view-opportunity.html?oppId=340130

DoD Multiple Sclerosis, Clinical Trial Award

supports the rapid implementation of clinical trials with the potential to have a significant impact on the treatment or management of multiple sclerosis. Clinical trials may be designed to evaluate promising new products, pharmacologic agents (drugs or biologics), devices, clinical guidance, and/or emerging approaches and technologies. Proposed projects may range from small proof-of-concept trials (e.g., pilot, first in human, or other early phase trials) to demonstrate the feasibility or inform the design of more advanced trials through large-scale trials to determine efficacy in relevant patient populations.

There are two funding levels:

Funding Level 1 (FL1) supports small-scale, early-phase, proof-of-principle clinical trials to demonstrate feasibility or inform the design of more advanced trials, or other clinical trials that are appropriate for this funding level. *Preliminary data relevant to the proposed clinical trial are required.*

Funding Level 2 (FL2) supports larger-scale clinical trials at phase 1 or phase 2 that seek to show preliminary evidence of safety or efficacy (benefit of clinical or paraclinical outcomes) in relevant patient populations. Strong justification should be provided, which could include but is not limited to intervention type, trial duration, sample size, outcome measures, assessment tools, and frequency of assessment. *Preliminary data relevant to the proposed clinical trial are required.*

Awards:

3 awards from estimated total funding of $7.7 million

Eligibility:

Unrestricted

Deadline:

10/03/2022

Links:

https://www.grants.gov/web/grants/view-opportunity.html?oppId=339929

DoD Multiple Sclerosis, Early Investigator Research Award

supports MS-focused research opportunities for individuals in the early stages of their careers, under the guidance of one or more designated Mentors. This opportunity allows for early-stage investigators to develop a research project, investigate a problem or question in Multiple Sclerosis research, and further their intellectual development as an MS researcher of the future. All application components for the Early Investigator Research Award are expected to be written by the Principal Investigator, with appropriate direction from the Mentor(s).

Awards:

Up to six awards from total program funding of $1.9 million

Eligibility:

Unrestricted

Deadline:

10/03/2022

Links:
https://www.grants.gov/web/grants/view-opportunity.html?oppId=339912

DoD Multiple Sclerosis, Exploration-Hypothesis Development Award

supports the initial exploration of innovative, high-risk, high-gain, and potentially groundbreaking concepts in the MS research field. The studies supported by this award mechanism are expected to lay the groundwork for future avenues of scientific investigation. The proposed research project should include a well-formulated, testable hypothesis based on strong scientific rationale and study design. The presentation of preliminary and/or published data is not required.

The proposed research project must be innovative. Innovative research may examine a novel paradigm, challenge current paradigms, look at existing problems from novel perspectives, or exhibit other highly creative qualities. Research that is an incremental advance beyond ongoing research and published data is not considered innovative and is not consistent with the intent of this award mechanism. It is the responsibility of the Principal Investigator to clearly and explicitly articulate how the proposed research project is innovative in the field of Multiple Sclerosis research.

Awards:

Up to 8 awards from total program funding of $2 million

Eligibility:

Unrestricted

Deadline:

10/03/2022

Links:

https://www.grants.gov/web/grants/view-opportunity.html?oppId=339930

DoD Multiple Sclerosis, Investigator-Initiated Research Award

supports highly rigorous, high-impact research projects that have the potential to make an important contribution to MS research and/or patient care. Research projects may focus on any phase of research, excluding clinical trials. The rationale for a research idea may be derived from laboratory discovery, clinical trial results, population-based studies, a clinician's firsthand knowledge of patients, or anecdotal data. Applications must include preliminary and/or published data that are relevant to Multiple Sclerosis and the proposed research project.

Awards:

Up to six awards from total program funding of $6 million

Eligibility:

Unrestricted

Deadline:

10/03/2022

Links:
https://www.grants.gov/web/grants/view-opportunity.html?oppId=339931

Department of Energy

Electric Vehicles for American Low-Carbon Living (EVs4ALL)

The United States alone is responsible for generating approximately 15% of global CO2 emissions despite being inhabited by only 5% of the Earth's population. At present, the transportation sector is responsible for 28% of total domestic emissions, with road-based passenger vehicles accounting for 57% of that segment. Domestically, passenger vehicles [i.e., cars, sport utility vehicles, minivans and pick-up trucks] collectively emit more than one billion tons of CO2 per year.

ARPA-E's Electric Vehicles for American Low-carbon Living (EVs4ALL) program will focus on advancing next-generation battery technologies that have the potential to significantly improve affordability, convenience, reliability, and safety of EVs compared to those available today, to directly address the following key market needs:

- Approximately 37% of Americans live in residences without garages or carports and therefore do not have access to the convenience of charging at home. Thus, EV batteries capable of safe, rapid charging are necessary to appeal to this market.
- Many Americans live in northern states where EV battery performance can be experienced as unsatisfactory at low temperatures, due to reductions in capacity and power. Consequently, EV batteries that are more resilient at low temperatures are critical to motivate greater adoption in colder climates.
- The median U.S. household income is approximately $70,000 and although a subset of used EV models may be available to purchase for less than $20,000, their maximum range (miles) may be perceived as unacceptably low. Since two thirds of Americans purchase used vehicles rather than new, more durable ("longer-lasting") EV batteries are required to stimulate and assure the used EV market.

Awards:
up to ten awards of $6 million from a total pool of $45 million
Eligibility:
unrestricted
Deadline:
06/19/2022
Links:
https://www.grants.gov/web/grants/view-opportunity.html?oppId=339990

Carbon Management

support for R&D projects in the programmatic areas of Carbon Conversion, Carbon Dioxide Removal, and Carbon Storage. Each of the four broad topics have one or more areas of interest. Proposals in carbon conversion technology should address Lab-Scale Testing of

Mineralization Systems to Generate Commercial. Researchers interested in cabon dioxide removal must address one of five areas of interest:

1. Bench-Scale Testing of Structured Material Systems, or Components Designs for Optimized Direct Air Capture;
2. Bench-Scale Testing of Optimized Direct Air Capture Integrated Processes;
3. Initial Engineering Design Studies for Advanced Carbon Capture Systems at Existing Power Plant Facilities Utilizing Sustainably-Sourced Biomass;
4. Initial Engineering Design Studies for Advanced Carbon Capture Systems at Existing Industrial Facilities Producing Net Greenhouse Gas-Negative Fuels Utilizing Sustainably-Sourced Biomass; and
5. Initial Engineering Design Studies for Advanced Carbon Capture Systems at Existing Iron and Steel, Cement and Lime, or Pulp and Paper Plants Utilizing Sustainably-Sourced Biomass. Carbon Storage proposals must support resource assessments of natural materials and industrial wastes that could be used to store large amounts of CO2 via mineralization, in-situ or ex-situ.

Point source carbon capture proposals, usually requested in this funding opportunity, will be sought in a forthcoming, separate funding announcement.

Awards:

Funding levels, award sizes, match requiresments and number of awards vary by area of interest. DOE award shares range from $1 million to $3 million.

Eligibility:

Unrestricted

Deadline:

07/05/2022

Links:

https://www.grants.gov/web/grants/view-opportunity.html?oppId=340072

DOE Traineeship in Computational High Energy Physics

supports training the next generation of scientists and researchers in this field. Up to two cooperative agreements may be awarded to provide funding to universities or teams of universities to support tuition, stipend, and travel costs for students enrolled in specific academic programs aimed at training graduate students in software and computing for particle physics and related fields, and to provide modest support for curriculum development and program administration. Award terms are expected to be up to five years, with the possibility of renewal for a second term. This program does not support dedicated research efforts to develop new software or computing technologies related to HEP-supported research.

Awards:

Two awards from a total pool of $10 million

Eligibility:

public and private institutions of higher education

Deadline:
06/30/2022
Links:
https://www.grants.gov/web/grants/view-opportunity.html?oppId=339870

Department of Health and Human Services

Coordinating Center for the HIV/AIDS and Substance Use Cohorts Program
to support a coordinating center, which will coordinate research efforts across the National Institute on Drug Abuse (NIDA) funded longitudinal cohorts that address emerging and high priority research on HIV/AIDS in the context of substance use and substance use disorders (SUD). The center will serve as:

1. a national data and specimen resource that harmonizes and collects data and biological samples from the NIDA cohorts and affiliated studies, and enables additional research efforts through virtual repositories;
2. a facilitator of current and future research at the intersection of HIV and substance use and SUD; and
3. the central hub for organizing and enabling communication within and outside the NIDA cohort studies program, including annual meetings, advisory and scientific oversight committees.

Awards:
A single, five-year award of up to $1 million
Eligibility:
Unrestricted domestically
Deadline:
07/10/2022
Links:
https://grants.nih.gov/grants/guide/rfa-files/RFA-DA-23-040.html

Grants to Early Medical/Surgical Specialists' Transition to Aging Research
GEMSTAR provides support for early-career physician-scientists trained in medical or surgical specialties and early-career dentist-scientists to launch careers as future leaders in aging- or geriatric-focused research. In support of the program's goal, this GEMSSTAR Funding Opportunity Announcement (FOA) provides small grants to conduct transdisciplinary aging research that will yield pilot data and experience for subsequent aging research projects. The GEMSSTAR program also encourages candidates to seek out a supportive research environment to achieve the program's goal of fostering the development of early-career physician- and dentist-scientists in aging- or geriatric-focused research, particularly as it applies to their clinical specialty/discipline.
Awards:
Approximately 19 awards of up to $100,000 from a total pool of $3 million

Eligibility:
Unrestricted domestically
Deadline:
09/17/2022
Links:
https://grants.nih.gov/grants/guide/rfa-files/RFA-AG-23-031.html

National Cooperative Drug/Device Discovery/Development Groups for the Treatment of Mental Disorders or Alcohol Use Disorder
to accelerate innovative drug and device therapies translation from discovery to early human studies. Appropriate studies will develop pharmacologic and neuromodulatory tools for basic and clinical research on mental health disorders or alcohol use disorder (AUD); develop and validate tools (pharmacologic or neurostimulation) in support of experimental therapeutic studies of innovative candidates for mental disorders or AUD; and support early-stage human studies to rapidly assess the safety, tolerability, and pharmacodynamics of promising drug candidates/devices and new indications for novel Investigational New Drug (IND)-ready agents or Investigational Device Exemption (IDE)-ready devices for the treatment of mental disorders or AUD.
This particular funding opportunity encourages applications to advance the discovery, preclinical development, and proof of concept testing of new, rationally based candidate agents and neurostimulation approaches to treat mental disorders or AUD, and to develop novel ligands and circuit-engagement devices as tools to further characterize existing or to validate new drug/device targets. Partnerships between academia and industry are strongly encouraged.
Awards:
Unspecified
Eligibility:
Unrestricted domestically
Deadline:
06/27/2022
Links:
https://grants.nih.gov/grants/guide/pa-files/PAR-22-143.html

NIAMS Rheumatic Diseases Research Resource-based Centers
The Resource-based Centers will provide critical research infrastructure, shared facilities, services, and/or resources to groups of investigators conducting research on rheumatic diseases, enabling them to conduct their independently-funded individual and/or collaborative research projects more efficiently and/or more effectively, with the broad overall goal of accelerating, enriching, and enhancing the effectiveness of ongoing basic, translational, and clinical research and promoting new research within the mission of the National Institute of Arthritis and Musculoskeletal and Skin Diseases.

Awards:
3 five-year awards of up to $500,000 in direct costs annually
Eligibility:
Unrestricted domestically
Deadline:
08/13/2022
Links:
https://grants.nih.gov/grants/guide/rfa-files/RFA-AR-23-002.html

NICHD Maternal-Fetal Medicine Units Network
The *Eunice Kennedy Shriver* National Institute of Child Health and Human Development invites institutions to submit applications to participate in the Maternal-Fetal Medicine Units (MFMU) Network. The purpose of the MFMU Network is to improve obstetric care, pregnancy health, and outcomes for pregnant and lactating people and their babies. This includes finding ways to: reduce maternal mortality, complications, and morbidities related to pregnancy, labor, and post-partum recovery; reduce prematurity, low-birth weight, infant mortality, and morbidities; and expand the evidence base about the safety and efficacy of therapeutic products used during pregnancy and lactation. NICHD expects the MFMU Network to be its primary and first-line infrastructure involved in implementing multi-site obstetric clinical trials.
Study designs may include, but are not limited to: investigational new drug or device, comparative effectiveness, and management trials; biomarker validation studies that are immediately preparatory to trials; and observational studies. Studies may assess both short-term (clinical) and long-term maternal and infant/child outcomes. The Network may conduct Phase 3 pharmacologic research to address gaps in knowledge for the use of drugs and therapeutics during pregnancy and lactation – both therapeutics designed to treat pregnancy and lactation complications and therapeutics for other health issues that people may need to use during pregnancy and post-partum. Phase 1 and 2 trials will generally be conducted outside of this Network, but may be considered on a case-by-case basis (e.g., for trials in rare conditions). When relevant and appropriate, NICHD encourages the inclusion of genomic and proteomic studies, sub-studies, and/or collection of related biospecimens for such research.
Two separate funding announcements have been issued, inviting proposals for multiple Clinical Centers (RFA-HD-23-016) and a single Data Coordinating Center (RFA-HD-23-017)
Awards:
$5.2 million to support multiple clinical center awards covering $220,000 in annual direct costs and a single $3.95 million data center award
Eligibility:
Unrestricted domestically
Deadline:
08/11/2022

Links:
https://grants.nih.gov/grants/guide/rfa-files/RFA-HD-23-016.html, https://grants.nih.gov/grants/guide/rfa-files/RFA-HD-23-017.html

NICHD Neonatal Research Network

The *Eunice Kennedy Shriver* National Institute of Child Health and Human Development (NICHD) invites institutions to submit applications to participate in the Neonatal Research Network (NRN). The purpose of the Neonatal Research Network (NRN) is to improve healthcare and outcomes for newborns. This includes finding ways to improve the chances for survival without neurodevelopmental impairment for infants born premature, low-birth weight, or with other serious conditions. NICHD expects the NRN to be its primary and first-line infrastructure involved in implementing multi-site neonatal clinical trials.

This Network of research institutions will work collaboratively to implement common protocols to enroll and follow-up enough patients to achieve statistical power to answer protocol hypotheses more rapidly and definitively than individual centers acting alone.

Study designs may include, but are not limited to: investigational new drug or device, comparative effectiveness, and management trials; biomarker validation studies that are immediately preparatory to trials; and observational studies. Studies may assess both short-term (clinical) and long-term infant and child outcomes (i.e., up to school age). The Network may conduct Phase 3 pharmacologic research to address gaps in knowledge for the use of drugs and therapeutics during pregnancy and lactation – both therapeutics designed to treat lactation complications and therapeutics for other health issues that people may need to use while lactating. Phase 1 and 2 trials will generally be conducted outside of this Network but may be considered on a case-by-case basis (e.g., for trials in rare conditions)

Two separate funding opportuities have been issued, separately soliciting proposals for NRN clinical centers (RFA-HD-23-002) and a single NRN Data Coordinating Center (RFA-HD-23-001).

Awards:

$5.2 million is available for clinical center awards covering $220,000 in annual direct costs. A single $3.1 million award is anticipated for the Data Center

Eligibility:

Unrestricted domestically

Deadline:

08/11/2022

Links:

https://grants.nih.gov/grants/guide/rfa-files/RFA-HD-23-001.html, https://grants.nih.gov/grants/guide/rfa-files/RFA-HD-23-002.html

NIH Director's Early Independence Awards

provides an opportunity for exceptional junior scientists to accelerate their entry into an independent research career by forgoing the traditional post-doctoral training period. Though most newly graduated doctoral-level researchers would benefit from post-doctoral training,

a small number of outstanding junior investigators are capable of directly launching an independent research career. The Early Independence Award is intended for these select junior investigators, who have already established a record of scientific innovation and research productivity and have demonstrated unusual scientific vision and maturity. Typical post-doctoral training would unnecessarily delay their entry into independent research. The NIH Director's Early Independence Award also provides an opportunity for institutions to invigorate their research programs by bringing in fresh scientific perspectives of the awardees they host.

To be eligible, investigators, at the time of application, must have received their most recent doctoral degree or completed clinical training within the previous fifteen months or expect to do so within the following twelve months.

Awards:

12-13 awards of up to $250,000 in direct costs from a total pool of $5 million

Eligibility:

Unrestricted domestically

Deadline:

08/02/2022

Links:

https://grants.nih.gov/grants/guide/rfa-files/RFA-RM-22-021.html

Pathogenic Mechanisms influencing Blood Brain Barrier function in HIV and Substance Use Disorders

supports research on the effects of HIV and addictive substances, acting independently or synergistically on blood brain barrier structure and function and the involvement of these effects in HIV associated neuropathology. Because BBB integrity regulates the passages of addictive substances, virus, and therapeutics in the brain, it is critical to establish the mechanisms by which HIV infection, in combination with addictive substances, affect BBB function and integrity and their consequences in neuropathology. In preparing the applications for this RFA, investigators are encouraged to use or reference the resources and data of postmortem human tissue from NeuroBioBank and National NeuroAIDS Tissue Consortium. This funding opportunity fosters the studies of the comorbidity of HIV and addictive substances. Therefore, for applications responding to this FOA, besides studies focused on HIV, at least one aim or sub-aim MUST involve either: 1) opioid, cannabinoid, cocaine, methamphetamine, nicotinic, dopaminergic or other signaling pathways relevant to addictive substance use, or 2) exposure to addictive substances. Addictive substances of interest include opioids, cannabinoids, cocaine, methamphetamine, nicotine, prescription neural stimulants, other prescription drugs, or combinations of these drugs.

Awards:

3-5 awards lasting up to 5 years each from a total pool of $2 million

Eligibility:

Unrestricted domestically

Deadline:
07/11/2022
Links:
https://grants.nih.gov/grants/guide/rfa-files/RFA-DA-23-012.html

Understanding the role of Gut Immune dysfunction and Gut Microbiome
support studies to investigate mechanisms by which the gut microbiome and gut immune system modulates the brain functions, circuits, neurotransmitters, signaling pathways and synaptic plasticity in the context of HIV and Anti-retroviral therapy. Exploratory and high-risk research projects are encouraged. Basic, preclinical, and clinical (e.g., pathophysiology or mechanisms) research in domestic and international settings are of interest. No clinical trials will be accepted.
Awards:
3-5 awards of up to $275,000 from a total pool of $1.5 million
Eligibility:
Unrestricted domestically
Deadline:
10/18/2022
Links:
https://grants.nih.gov/grants/guide/rfa-files/RFA-MH-22-230.html

Department of Homeland Security

Countering Weapons of Mass Destruction: Academic Research Initiative
seeks novel cross-cutting research that will enhance the nation's capabilities to detect and prevent the illicit entry, transport, assembly, or potential use of unauthorized chemical, biological, radiological, and nuclear (CBRN) materials, devices, or agents within the United States, and otherwise help protect against an attack using such materials, devices, or agents.
Awards:
Up to 14 awards from a total pool of $7 million
Eligibility:
Domestic, public and private institutions of higher education
Deadline:
06/02/2022
Links:
https://www.grants.gov/web/grants/view-opportunity.html?oppId=339987

NASA

Early Stage Innovations
NASA encourages submission of Early Stage Innovation proposals through its Space Technology Research Grant Program on behalf of tenure-track or tenured faculty members at all U.S. universities and especially encourages proposals submitted on behalf of women,

members of underrepresented minority groups, and persons with disabilities. Letters of Intent are strongly encouraged and may be submittd by May 25.

The solicitation exclusively seeks proposals that are responsive to one of the five topics:

- Topic 1 – Development of Fusion Plasma Direct Energy Conversion Processes for Thrust and Electric Power Production
- Topic 2 – Development of Deterministic High Bandwidth Onboard Wireless Networks
- Topic 3 – Improved Methods for Characterization of Blunt-Body Dynamic Stability
- Topic 4 – Advancing Manufacturing Approaches for Scalable Functionally Graded Materials for Space Applications
- Topic 5 – Development of Materials and Manufacturing Processes for High-Temperature Radiators

Awards:

Up to 10 awards may be made

Eligibility:

Accredited U.S. universities

Deadline:

06/23/2022

Links:

https://www.grants.gov/web/grants/view-opportunity.html?oppId=339909

ROSES 2022: Theoretical and Computational Astrophysics Networks

To support project proposals up to three years addressing one or more of the following goals: 1) support coordinated efforts in fundamental theory and computational techniques in order to make groundbreaking advances in astrophysics; 2) strengthen theoretical and computational astrophysics in the U.S. by uniting researchers in collaborative networks that cross institutional and geographical divides; and, 3) advance the training of the future workforce of theoretical and computational scientists. Each proposal must involve three or more nodes at distinct institutions. Proposers are encouraged to use artificial intelligence/machine learning (AI/ML) for knowledge discovery, incorporate generation of large scale (multi-node) curated training datasets and benchmarking to advance AI algorithms to address important Astrophysics problems, and to adapt and build community around open-source AI tools for the Astrophysics domain. Notices of Intent are requested by July 8, 2022.

Awards:

Up to three awards, lasting up to three years each, may be made. First year funding for new awards is expected to be less than $1.5 million.

Eligibility:

U.S. institutions

Deadline:

08/04/2022

Links:
https://nspires.nasaprs.com/external/solicitations/summary.do?solId={833846F2-4535-ADEE-8CFF-746D141B0290}&path=&method=init

National Science Foundation

Disaster Resilience Research Grants

With this joint solicitation, the NSF and the U.S Department of Commerce National Institute for Standards and Technology (NIST) call for research proposals to advance fundamental knowledge related to disaster resilience. Advances in scientific and engineering methods and tools relevant to resilience are also of interest. Natural hazards that are of interest include, but are not limited to: 1) Windstorm events, including hurricanes and tornadoes; 2) Water events, including hurricanes, sustained rain, both coastal and inland flood, and tsunamis; 3) Wildland-urban interface fires; 4) Earthquakes. Terrorism, industrial accidents, and pandemics are **not** covered by this competition. Projects that aim to address multi-hazard resilience phenomena are welcome. Required letters of intent are due June 20, 2022.

Awards:

12 awards ranging between $200,000 to $400,000 from a total pool of $3.1 million

Eligibility:

Unrestricted

Deadline:

08/19/2022

Links:

https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf22593

Engineering Research Initiation

seeks to build engineering research capacity across the nation by investing in new academic investigators who have yet to receive research funding from federal agencies. The **Engineering Research Initiation** (ERI) program will support new investigators as they initiate their research programs and advance in their careers as researchers, educators, and innovators. This funding opportunity aims to broaden the base of investigators involved in engineering research and therefore is limited to investigators that are not affiliated with “very high research activity” R1 institutions (according to the Carnegie Classificationhttps://carnegieclassifications.iu.edu/).

Awards:

Total direct costs must not exceed $200,000 for a duration of 24 months.

Eligibility:

Institutions of Higher Education not currently classified as a Doctora University with Very High Research Activity (R1 insitutions)

Deadline:

10/11/2022

Links:
https://beta.nsf.gov/funding/opportunities/engineering-research-initiation-eri

Leading Engineering for America's Prosperity, Health, and Infrastructure (LEAP HI)
challenges the engineering research community to take a leadership role in addressing demanding, urgent, and consequential challenges for advancing America's prosperity, health and infrastructure. LEAP HI proposals confront engineering problems that are too complex to yield to the efforts of a single investigator --- problems that require sustained and coordinated effort from interdisciplinary research teams, with goals that are not achievable through a series of smaller, short-term projects. LEAP HI projects perform fundamental research for up to five years that may lead to disruptive technologies and methods, lay the foundation for new and strengthened industries, enable notable improvements in quality of life, or reimagine and revitalize the built environment.
Awards:
Six awards of up to $2 million from a total pool of $12 million
Eligibility:
Non-profit, non-academic organizations or two- and four-year U.S. institutions of higher education (including community colleges)
Deadline:
09/15/2022
Links:
www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf22594

Physics Frontiers Centers
supports university-based centers and institutes where the collective efforts of a larger group of individuals can enable transformational advances in the most promising research areas. The program is designed to foster major breakthroughs at the intellectual frontiers of physics by providing needed resources such as combinations of talents, skills, disciplines, and/or specialized infrastructure, not usually available to individual investigators or small groups, in an environment in which the collective efforts of the larger group can be shown to be seminal to promoting significant progress in the science and the education of students.Activities supported through the program are in all sub-fields of physics within the purview of the Division of Physics: atomic, molecular, optical, plasma, elementary particle, nuclear, particle astro-, gravitational, and biological physics.
Awards:
Up to 5 awards from a total pool of $8 million.
Eligibility:
Two- and four-year domestic institutions of higher ed (including community colleges)
Deadline:
01/27/2023

Links:
https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf22592

New SBIR/STTR Funding Opportunities

Department of Energy

Electric Vehicles for American Low-Carbon Living (EVs4ALL) - SBIR/STTR

As the U.S. works to decarbonize the transportation sector and produce an increasing amount of "clean" (zero emission) electricity, electric vehicles (EVs) become logical alternatives to internal combustion engines (ICEs). However, to accelerate and/or broaden EV adoption, consumer-centric considerations need to be more thoroughly addressed, including cost, convenience, reliability, and safety. While early adopters contributed to record EV sales in 2021, comprising 3.6% of total cars sold in the U.S., 42% of these EVs were sold in California, followed by other states with comparable climates and/or wealth. Furthermore, EV ownership is dominated by a minority demographic of the U.S. population based on age, gender, annual salary, level of education, and other factors. Although it is expected that EVs will continue to gain market share domestically, significantly more effort is required to address and remove key technology barriers to EV adoption among a greater percentage of the population. In response to these challenges, ARPA-E's Electric Vehicles for American Low-carbon Living (EVs4ALL) program will focus on advancing next-generation battery technologies that have the potential to significantly improve affordability, convenience, reliability, and safety of EVs compared to those available today, to directly address key market needs:

- Approximately 37% of Americans live in residences without garages or carports and therefore do not have access to the convenience of charging at home. Thus, EV batteries capable of safe, rapid charging are necessary to appeal to this market.
- Many Americans live in northern states where EV battery performance can be experienced as unsatisfactory at low temperatures, due to reductions in capacity and power. Consequently, EV batteries that are more resilient at low temperatures are critical to motivate greater adoption in colder climates.
- The median U.S. household income is approximately $70,000 and although a subset of used EV models may be available to purchase for less than $20,000, their maximum range (miles) may be perceived as unacceptably low. Since two thirds of Americans purchase used vehicles rather than new, more durable ("longer-lasting") EV batteries are required to stimulate and assure the used EV market.

Awards:
10 awards with a ceiling of nearly $4 million
Eligibility:
U.S. small business concerns
Deadline:
06/16/2022

Links:
https://www.grants.gov/web/grants/view-opportunity.html?oppId=339991

Department of Health and Human Services

SBIR E-Learning for HAZMAT and Emergency Response

support the development of e-Learning health and safety training products from a variety of delivery methods to assist both students and instructors in the training and education process. Note that all products must be directly related to the health and safety training of workers exposed to hazardous materials (HAZMAT). Workers that may be exposed to these hazards include, but are not limited to, workers cleaning up Superfund sites; waste treatment personnel; skilled support personnel associated with an emergency or disaster; emergency responders in infectious disease response and disasters; and environmental restoration, waste treatment, and emergency response workers at sites under the mission of the U.S. Department of Energy (DOE) Office of Environmental Management and other DOE sites. Products are encouraged that support proficiency and competency in distance learning, that complement face-to-face hands-on demonstration, and that support and allow training addressing literacy and cultural challenges.

Awards:

2-3 awards from a total pool of $310,400

Eligibility:

U.S. small business concerns

Deadline:

06/20/2022

Links:

https://grants.nih.gov/grants/guide/rfa-files/RFA-ES-22-004.html

New Foundation R&D Funding Opportunities

Eppendorf

Eppendorf & Science Prize for Neurobiology

Eppendorf, a leading life sciences company, invites applications for the Eppendorf & Science Prize for Neurobiology, which acknowledges the increasingly active and important role of neurobiology in advancing understanding the functioning of the brain and nervous system. The annual prize of $25,000 is awarded to a young scientist recognizing outstanding neurobiological research based on molecular and cell biology methods conducted by them during the past three years. Winners also have an essay published in *Science* and Science Online. Furthermore, the winner receives a complimentary five-year AAAS Membership, a five-year digital subscription to *Science*, and $1,000 in complimentary Eppendorf products.

Awards:

one prize of $25,000

Eligibility:
Entrants must be a neurobiologist with an advanced degree received in the last 10 years and not older than 35 years of age.
Deadline:
06/15/2022
Links:
https://philanthropynewsdigest.org/rfps/rfp13771-eppendorf-invites-applications-for-eppendorf-science-prize-for-neurobiology

Human Vaccines Project

Michelson Prizes: Next Generation Grants
Modeled after the Human Genome Project, which has transformed biomedical research, the Human Vaccines Project seeks to transform how to fight the most devastating diseases by unlocking the mechanisms of human immunity—accelerating the development of new vaccines, diagnostics, and treatments. The Michelson Prizes: Next Generation Grants support promising researchers applying disruptive concepts and inventive processes to advance human immunology, vaccine discovery, and immunotherapy research for major global diseases.
The committee seeks research to tackle the current roadblocks in human vaccine development and expand our limited understanding of key immune processes fundamental to the successful vaccine and immunotherapy development. The prize will support highly innovative and impactful research, with the potential to be applied across many diseases.
Awards:
Grants up to $150,000
Eligibility:
Early career (under 35 yrs old) independent investigators, postdoctoral fellows, clinical fellows (including residents and interns), and other researchers currently in training positions.
Deadline:
06/26/2022
Links:
https://philanthropynewsdigest.org/rfps/rfp13752-human-vaccines-project-invites-applications-for-michelson-prizes-next-generation-grants

Orthopaedic Research and Education Foundation

Research into soft-tissue injury recovery after trauma
The mission of the Orthopaedic Research and Education Foundation is to fund and facilitate outstanding research and mentor researchers to improve the lives of patients with musculoskeletal conditions. The foundation invites applications for its OREF/OTA Enhancing Recovery from Soft-Tissue Injury Occurring in Conjunction with Skeletal Trauma Research Grant program. Proposals that address recovery from muscle, tendon, and/or ligamentous

challenges associated with pilon fractures, proximal tibial fractures, or patella fractures are of particular interest to the foundation.

Awards:

Grants of up to $150,000 over two years

Eligibility:

Domestic, nonprofit, public, and private higher education institutions. An orthopedic surgeon principal investigator (PI) must be licensed to practice in the US or Canada.

Deadline:

06/15/2022

Links:

https://philanthropynewsdigest.org/rfps/rfp13768-orthopaedic-research-and-education-foundation-invites-proposals-for-soft-tissue-injury-recovery-after-trauma

TMCity

Investigating the gut-brain axis

TMCity is a venture-minded family foundation focused on transforming mental and neurological health care by providing catalytic funding for innovative research projects, programs, and companies working at the intersection of technology and mental health. The foundation has issued an RFP for research investigating the gut-brain axis for applications to brain and mental health. This RFP aims to address the gaps in knowledge of how the gut affects brain health to harness knowledge to bring about measurable improvements to our prevention and treatment of neuropsychiatric diseases.

While Alzheimer's disease/dementia and depression have been used as examples of application in this RFP, any area of brain health is welcome as a proposal's focus.

Awards:

Up to three grants of up to $250,000

Eligibility:

U.S. academic research organization, a not-for-profit or government body, or a private-sector organization

Deadline:

07/01/2022

Links:

https://philanthropynewsdigest.org/rfps/rfp13728-tmcity-issues-rfp-for-projects-investigating-the-gut-brain-axis-for-applications-to-brain-and-mental-health

Vilcek Foundation

2023 Prizes for Creative Promise

The Vilcek Foundation aims to raise awareness of immigrant contributions to the United States and foster appreciation of the arts and sciences. Through the 2023 Prizes for Creative Promise, the foundation aims to support emerging to mid-career immigrant professionals in

the biomedical sciences and the arts and humanities who have demonstrated outstanding achievement early in their careers. One category of potential interest:

Biomedical Science: Three unrestricted cash prizes of $50,000 each will be awarded to young foreign-born biomedical scientists who demonstrate outstanding early achievement in basic, applied, and/or translational biomedical science. Applicants must have earned a doctoral degree (MD, PhD, or equivalent) and should hold full-time positions at an academic institution or other organization, including assistant or associate professor positions or equivalent independent positions.

Awards:

Three unrestricted grants of $50,000 each

Eligibility:

young, foreign-born biomedical scientists less than 38 years old

Deadline:

06/10/2022

Links:

https://philanthropynewsdigest.org/rfps/rfp13767-vilcek-foundation-invites-applications-for-2023-prizes-for-creative-promise