Strategic Resources
University of Puerto Rico
YEAR 2020 - VOLUME V
AUTORIZADO POR LA COMISIÓN ESTATAL DE ELECCIONES
May 22, 2020
CEE-SA-2020-7751

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

SELECTED FUNDING OPPORTUNITIES

This is a selection of identified funding opportunities for the period ending 05/19/2020 and is in no way all-inclusive of funding opportunities available. Further information has been shared with External Resource Coordinators and Research Coordinators at each UPR campus by e-mail or MS Teams.

1. ROSES 2020: The New (Early Career) Investigator Program in Earth Science, National Aeronautics and Space Administration (NASA)

Notice of Intent (Required): August 18, 2020 **Application Deadline: September 15, 2020**

The National Aeronautics and Space Administration (NASA) Science Mission Directorate (SMD) released its annual omnibus Research Announcement (NRA), Research Opportunities in Space and Earth Sciences (ROSES) – 2020 (OMB Approval Number 2700-0092, CFDA Number 43.001) on February 14, 2020. In this case "omnibus" means that this NRA has many individual program elements, each with its own due dates and topics. All together these cover the wide range of basic and applied supporting research and technology in space and Earth sciences supported by SMD. Awards will be made as grants, cooperative agreements, contracts, and inter- or intra-agency transfers, depending on the nature of the work proposed, the proposing organization, and/or program requirements. However, most extramural research awards deriving from ROSES will be grants, and many program elements of ROSES specifically exclude contracts, because contracts would not be appropriate for the nature of the work solicited. The typical period of performance for an award is three years, but some programs may allow up to five years and others specify shorter periods. In most cases, organizations of every type, Government and private, for profit and not-for-profit, domestic and foreign (with some caveats), may submit proposals without restriction on teaming arrangements. Tables listing the program elements and due dates, the full text of the ROSES-2020 solicitation, and the "Summary of Solicitation" as a stand-alone document, may all be found NSPIRES at http://solicitation.nasaprs.com/ROSES2020.

This synopsis is associated with one of the individual program elements within ROSES, but this is a generic summary that is posted for all ROSES elements. For specific information on this particular program element download and read the PDF of the text of this program element by going to Tables 2 or 3 of this NRA at http://solicitation.nasaprs.com/ROSES2020table2 and http://solicitation.nasaprs.com/ROSES2020table3, respectively, click the title of the program element of interest, a hypertext link will take you to a page for that particular program element. On that page, on the right side under "Announcement Documents" the link on the bottom will be to the PDF of the text of the call for proposals. For example, if one were interested in The Lunar Data Analysis Program (NNH20ZDA001N-LDAP) one would follow the link to the NSPIRES page for that program element and then to read the text of the call one would click on “C.8 Lunar Data Analysis (.PDF)” to download the text of the call. If one wanted to set it into the context of the goals, objectives and know the default rules for all elements within Appendix C, the planetary science division, one might download and read “C.1 Planetary Science Research Program Overview (.PDF)” from that same page. While the letters and numbers are different for each element within ROSES (A.12, B.7, etc.) the basic configuration is always the same, e.g., the letter indicates the Science Division (A is Earth Science, B is Heliophysics, etc.) and whatever the letter, #1 is always the overview.

Frequently asked questions for ROSES are posted at http://science.nasa.gov/researchers/sara/faqs. Questions concerning general ROSES-2020 policies and procedures may be directed to Max Bernstein, Lead for Research, Science Mission Directorate, at sara@nasa.gov, but technical questions concerning specific program elements should be directed to the point(s) of contact for that particular element, who may be found either at the end of the individual program element in the summary table of key information or on the web list of topics and points of contact at: http://science.nasa.gov/researchers/sara/program-officers-list.

Not all program elements are known at the time of the release of ROSES. To be informed of new program elements or amendments to this NRA, proposers may subscribe to: (1) The SMD mailing lists (by logging in at http://nspires.nasaprs.com and checking the appropriate boxes under "Account Management" and "Email Subscriptions"), (2) The ROSES-2020 RSS feed for amendments, clarifications, and corrections to at http://science.nasa.gov/researchers/sara/grant-solicitations/ROSES-2020, and (3) The ROSES-2020 due date Google calendar. Instructions are at https://science.nasa.gov/researchers/sara/library-and-useful-links (link from the words due date calendar).

Link to additional information: https://solicitation.nasaprs.com/ROSES2020

2. Closing the Health Disparity Gap for People with Intellectual and Developmental Disabilities: Strengthening the U.S. Health Care Workforce, Department of Health and Human Services, Administration for Community Living

Application Deadline: June 29, 2020

The Administration on Disabilities (AoD) seeks to fund one five-year cooperative agreement that will increase and accelerate current efforts to embed ID/DD content into medical and allied health school education programs. The goal of the project is to expand access to quality healthcare for individuals with ID/DD by increasing the ID/DD-specific knowledge, skills, attitudes, and competence of the health care workforce. By funding this project, AoD seeks to create greater health equity and increase life expectancy of the ID/DD population.

The Administration for Community Living, Administration on Disabilities (AoD) seeks to fill this gap and improve health outcomes for the ID/DD population by funding a national consortium that will build on existing efforts to collaborate with medical and allied health schools to embed ID/DD content into their curriculum. This project will be a critical activity as part of AoD's strategic priority to decrease health disparities of individuals with ID/DD. In 2019, AoD established two key, long-term strategic priorities and has aligned resources to decrease the health disparities of individuals with disabilities (AoD's second strategic priority is to increase opportunities for competitive, integrated employment). AoD recognizes that a leading contributor to these health disparities is the denial of routine, preventative, and life-saving care as well as limited access to qualified healthcare providers.

This project will complement the AoD funded Center for Dignity in Healthcare for People with Disabilities (CDHPD) at the University of Cincinnati Center for Excellence in Developmental Disabilities (UCCEDD), which is part of AoD's strategic priority to reduce health disparities. In 2019, AoD funded this first of its kind Center to lead a national coalition that will develop resources for healthcare professionals to understand the civil rights and support the needs of Americans with disabilities as they access routine and lifesaving care throughout the lifespan. The Center will also engage people with ID/DD and their families to learn more about advocacy related to healthcare discrimination. It is anticipated that resources from this Center will be utilized in this project and embedded into medical education training curriculum.

Link to Additional Information: https://acl.gov/grants/health-equity-developmental-disabilities

3. Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science, National Science Foundation

Application Deadline: June 29, 2020

In 2016, the National Science Foundation (NSF) unveiled a set of "Big Ideas," 10 bold, long-term research and process ideas that identify areas for future investment at the frontiers of science and engineering (see https://www.nsf.gov/news/special_reports/big_ideas/index.jsp). The Big Ideas represent unique opportunities to position our Nation at the cutting edge of global science and engineering leadership by bringing together diverse disciplinary perspectives to support convergence research. As such, when responding to this solicitation, even though proposals must be submitted to the Education and Human Resources (EHR) Directorate/Division of Human Resource Development (HRD), once received, the proposals will be managed by a cross-disciplinary team of NSF Program Directors. The NSF INCLUDES Big Idea is a comprehensive national initiative to enhance U.S. leadership in science, technology, engineering, and mathematics (STEM) discoveries and innovations focused on NSF's commitment to diversity, inclusion, and broadening participation in these fields. The vision of NSF INCLUDES is

to catalyze the STEM enterprise to work collaboratively for inclusive change, resulting in a STEM workforce that reflects the population of the Nation. More specifically, NSF INCLUDES seeks to improve collaborative efforts aimed at enhancing the preparation, increasing the participation, and ensuring the contributions of individuals from groups that have been historically underrepresented and underserved in the STEM enterprise such as African Americans, Alaska Natives, Hispanics, Native Americans, Native Hawaiians, Native Pacific Islanders, persons with disabilities, persons from economically disadvantaged backgrounds, and women and girls. Significant advancement in the inclusion of underrepresented groups in STEM will result in a new generation of STEM talent and leadership to secure our nation's future and long-term economic competitiveness. The NSF INCLUDES National Network is composed of:

- Alliances,
- Design and Development Launch Pilots,
- Coordination Hub,
- Other NSF funded projects,
- Federal Coordination in STEM (FC-STEM) agencies,
- Scholars engaged in broadening participation research, and
- Organizations that support the development of talent from all sectors of society to build an inclusive STEM workforce.

A hallmark of NSF INCLUDES is the focus on the five design elements of collaborative infrastructure to achieve systemic change. Collaborative infrastructure refers to the process by which partnering organizations come together to map out mutually reinforcing activities through: (1) shared vision, (2) partnerships, (3) goals and metrics, (4) leadership and communication, and (5) expansion, sustainability and scale. Through these five design elements of collaborative infrastructure, the successful implementation of NSF INCLUDES will result in substantial advances toward a diverse, innovative, and well-prepared STEM workforce to support our Nation's economy and continued U.S. leadership in the global STEM enterprise. It is anticipated that NSF's investment will contribute to new and improved STEM career pathways, policies, opportunities to learn, and practices for equity and inclusion. The initiative is supported by the NSF INCLUDES Coordination Hub (www.includesnetwork.org) that provides a framework for communication and networking, network assistance and reinforcement, and visibility and expansion for the NSF INCLUDES National Network as a whole. Through this solicitation, NSF INCLUDES will support the establishment and growth of new Alliances that employ a collaborative infrastructure approach to address a critical broadening participation challenge in STEM at scale.

Link to Additional Information: NSF Publication 20-569

4. Identifying Innovative Mechanisms or Interventions that Target Multimorbidity and Its Consequences, Department of Health and Human Services, National Institutes of Health

Application Deadline: Standard NIH R01 Deadlines Apply

This Funding Opportunity Announcement (FOA) invites applications that seek to support the identification of shared mechanisms and development of innovative interventions to address multimorbidity (or multiple chronic conditions (MCCs)) and its consequences. Intervention research supported by this initiative should be designed to study: (1) mechanisms or pathways that prevent MCCs, including the identification of early biomarkers, behavioral pathways, and individual and contextual risk factors and interactions that contribute to the development of common MCCs; (2) targeted therapies and management, including self-management, of MCCs to delay progression and prevent onset of new diseases; and (3) innovative health care partnership models for managing or treating MCCs. Studies may include shared mechanisms, and assessments of interactions between risk factors and interventions that address MCCs at different periods of the lifespan in diverse populations. Use of innovative technologies to assess and intervene on risk factors and pathways are encouraged. Studies may also include those that make use of existing data and/or data linkages to explore new research questions that may be helpful in understanding the impact of mechanisms in isolation or in combination. Of particular interest are interventions that target prevention and treatment of multiple chronic health conditions, including study designs that address therapeutic targets for preventing co-occurring multiple chronic conditions. Prospective applicants whose research interests relate to developing improved measures and methods for understanding multimorbidity, including but not limited to measures/tools to support basic mechanistic discovery of shared MCC pathways and identification and initial evaluation of MCC shared signatures, should see PAR-XX-XXX.

General topics that are considered within scope of this opportunity include, but are not limited to:

- Identifying biological pathways for preventing or reducing risk factors for co-occurring MCCs.
- Identifying innovative interventions to prevent multimorbidity through addressing biological and behavioral risk factors and pathways of chronic conditions.
- Identifying interventions including biobehavioral or physiological processes that are designed to enhance capacity for self-management and consideration of non-pharmacologic approaches in the prevention and management of MCCs.

- Discovering interventions and/or cellular, molecular, or physiological mechanisms that prevent multiple and comorbid conditions and their consequences.
- Identifying cellular, molecular, or physiological mechanisms that drive and interventions to prevent multimorbidity in diverse, underserved and vulnerable populations.
- Identifying interactions between biologic and behavioral pathways that can maintain health status and/or prevent progression of risk factors for development of MCCs, with particular emphasis on diseases which are known to have shared biologic, social and behavioral components.
- Studies, including interventions, that utilize partnership models across healthcare and community settings and engage the multiple health care providers and other care givers involved in addressing MCCs.
- Studies, including interventions, that utilize innovative mHealth technologies to capture information on multimorbidity within electronic health records or to deliver interventions addressing MCCs.

In addition, studies are considered within scope of the opportunity that make use of existing data and/or data linkages to explore new research questions that may be helpful in understanding the impact of interventions targeting prevention of one chronic health condition on related chronic conditions, or in designing future interventions to prevent co-occurring MCCs. Topics that are considered within scope of this opportunity include, but are not limited to:

- Longitudinal studies that examine MCC onset and trajectory, as well as risk factors and underlying biology.
- Comparative studies of multimorbidity in diverse, underserved and vulnerable populations.
- Studies of a variety of rare disease combinations in children.
- Multimorbidity studies that examine factors related to constructs such as: adverse childhood experiences, functional status, and geriatric symptoms (such as falls, polypharmacy, urinary incontinence, dementia, frailty, and malnutrition).
- Epidemiological or mechanistic studies that seek to identify MCC biomarkers and/or common etiologies, or to understand MCC groupings, with the ultimate goal of preventing MCCs.

Prospective applicants whose research interests relate to developing improved measures and methods for understanding multimorbidity, including but not limited to measures/tools to support basic mechanistic discovery of shared MCC pathways and identification and initial evaluation of MCC shared signatures, should see PAR-20-179.

Link to Additional Information: http://grants.nih.gov/grants/guide/pa-files/PAR-20-180.html

5. Advancing Research to Develop Improved Measures and Methods for Understanding Multimorbidity, Department of Health and Human Services, National Institutes of Health

Application Deadline: Standard NIH R01 Deadlines Apply

This Funding Opportunity Announcement (FOA) invites applications that seek to improve the availability, quality, and utility of data and measures that capture multimorbidity or multiple chronic conditions (MCCs) and the methods for analyzing multimorbidity data. Research supported by this initiative should be designed to discover, develop, and/or evaluate MCC measures/tools that reflect the longitudinality and life course diversity of multimorbidity. This includes but is not limited to measures/tools to support basic mechanistic discovery of shared MCC pathways using animal models of MCCs, and identification and initial biological, analytical, and clinical evaluation of MCC shared signatures. Also sought are patient-focused studies that capture patient reports and related constructs such as functional limitations and quality of life; analytic approaches best suited for use with multimorbidity data and matched to target populations; and approaches that fully harness the wealth of multimorbidity data available in EHR systems. Studies may make use of existing data and data linkages to explore new research questions related to co-occurring MCCs. Prospective applicants whose research interests relate to studies that identify shared mechanisms or development of innovative interventions to address MCCs should see PAR-XX-XXX.

General topics that are considered within scope of this opportunity include, but are not limited to:

- Identification and/or initial biological, analytical and clinical evaluation of basic mechanisms or pathways shared by MCCs.
- Proof of concept studies using animal models of MCCs, human tissue, biofluids or imaging samples to confirm MCC biomarker signatures.
- Development and/or evaluation of measures and methods appropriate for longitudinal studies that examine onset and/or fluctuation in multimorbidity, its risk factors, and underlying biology.
- Development and/or evaluation of multimorbidity measures and methods that are appropriate for various stages of the life course and racial/ethnic minority groups.
- Rigorous measurement of multiple diseases in epidemiological or mechanistic studies, with a focus on understanding disease groupings and etiology. Network and cluster analyses are among the analytic approaches that might be considered here.
- Development of multimorbidity measures that more comprehensively capture illness severity.

- Development and/or evaluation of person-centered measures of multimorbidity, its progression, and its impact.
- Assessment of multiple measures of multimorbidity and related constructs, using the most comprehensive and appropriate data sources, so that MCCs, functional limitations, geriatric syndromes (e.g., falls, frailty, polypharmacy, urinary incontinence, etc.), and quality of life are captured in unified analyses. Data linkage studies may be relevant here.
- Advancing universal outcome measurement and matching outcome measurement to the purpose of measuring multimorbidity.
- Use of modeling and simulations to improve multimorbidity measurement in systems of care.
- Developing approaches to measuring and analyzing multimorbidity that take full advantage of the wealth of data on multimorbidity and its impact/outcomes available in EHR systems.

Prospective applicants whose research interests relate to studies that identify shared mechanisms or development of innovative interventions to address MCCs should see PAR-20-180.

Link to Additional Information: http://grants.nih.gov/grants/guide/pa-files/PAR-20-179.html

6. Equipment Grant Program (EGP), Department of Agriculture, National Institute of Food and Agriculture

Application Deadline: June 23, 2020

The Equipment Grant Program (EGP) serves to increase access to shared-use special purpose equipment/instruments for fundamental and applied research for use in the food and agricultural sciences programs at institutions of higher education, including State Cooperative Extension Systems. The program seeks to strengthen the quality and expand the scope of fundamental and applied research at eligible institutions, by providing them with opportunities to acquire one major piece of equipment/instruments that support their research, training, and extension goals and may be too costly and/or not appropriate for support through other NIFA grant programs. EGP grants are not intended to replace requests for equipment in individual project applications. The program emphasizes shared-use instrumentation that will enhance the capabilities of researchers, educators, and extension agents both within and outside the proposing organization.

Proposals to the EGP must involve acquisition of only a single, well-integrated piece of equipment/instrument. Well-integrated means that the ensemble of equipment that defines the instrument enables specific fundamental or applied research experiments in the food and agricultural sciences, including data science and data systems, programs to be undertaken; separating or removing an element or component of such an integrated instrument would preclude that research from occurring or succeeding. An instrument acquired with support from the EGP program is expected to be fully operational by the end of the award period.

The EGP does not support the acquisition of suites of equipment to outfit research laboratories /facilities or to conduct independent experiments simultaneously. Similarly, the EGP does not fund common, general purpose ancillary equipment that would normally be found in a laboratory and/or is relatively easily procured by the organization or through other NIFA grant programs. Rather, it is intended to help fund items of equipment that will upgrade infrastructure. Moreover, EGP does not fund research projects, including research that uses the equipment acquired with support from the program nor does it support the operation and maintenance of facilities.

Link to Additional Information: https://nifa.usda.gov/funding-opportunity/equipment-grant-program-egp

7. URGENT!!! EDA Public Works and Economic Adjustment Assistance Programs including CARES Act Funding, Department of Commerce/Economic Development Administration

Application Deadline: There are no submission deadlines under this opportunity. Applications will be accepted on an ongoing basis until the publication of a new PWEAA NOFO.

The Economic Development Administration's (EDA's) mission is to lead the Federal economic development agenda by promoting innovation and competitiveness, preparing American regions for economic growth and success in the worldwide economy. EDA fulfills this mission through strategic investments and partnerships that create the regional economic ecosystems required to foster globally competitive regions throughout the United States. EDA supports development in economically distressed areas of the United States by fostering job creation and attracting private investment. Under this NOFO, EDA solicits applications from applicants in order to provide investments that support construction, non-construction, planning, technical assistance, and revolving loan fund projects under EDA's Public Works program and EAA program (which includes Assistance to Coal Communities and Nuclear Closure Communities). Grants and cooperative agreements made under these programs are designed to leverage existing regional assets and support the implementation of economic development strategies that advance new ideas and creative approaches to advance economic prosperity in distressed communities, including those negatively impacted by changes to the coal economy and nuclear

power plant closures. Details about financial assistance for CARES Act Recovery Assistance Projects are located in the addendum released 05/07/2020.

Under this NOFO, EDA solicits applications from applicants in rural and urban areas to provide investments that support construction, non-construction, technical assistance, and revolving loan fund projects under EDA's Public Works and EAA programs. Grants and cooperative agreements made under these programs are designed to leverage existing regional assets and support the implementation of economic development strategies that advance new ideas and creative approaches to advance economic prosperity in distressed communities. EDA provides strategic investments on a competitive- merit-basis to support economic development, foster job creation, and attract private investment in economically distressed areas of the United States. If you are interested in applying for a project of national impact/scope under the CARES Act; please inquire at RNTA@eda.gov.

Link to Additional Information: https://www.eda.gov/

8. Industry-University Cooperative Research Centers Program, National Science Foundation

Application Deadline: September 8, 2020

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

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

Program Overview: The IUCRC program provides a structure for academic researchers to conduct fundamental, pre-competitive research of shared interest to industry and government organizations. These organizations pay membership fees to a consortium so that they can collectively envision and fund research, with at least 90% of Member funds allocated to the direct costs of these shared research projects. IUCRCs are formed around research areas of strategic interest to U.S. industry. Industry is defined very broadly to include companies (large and small), startups and non-profit organizations. Principal Investigators form a Center around emerging research topics of current research interest, in a pre-competitive space but with clear pathways to applied research and commercial development. Industry partners join at inception, as an existing Center grows or they inspire the creation of a new Center by recruiting university partners to leverage NSF support. Government agencies participate in IUCRCs as Members or by partnering directly with NSF at the strategic level. Universities, academic researchers, and students benefit from IUCRC participation through the research funding, the establishment and growth of industry partnerships, and educational and career placement opportunities for students. Industry Members benefit by accessing knowledge, facilities, equipment, and intellectual property in a highly cost-efficient model; leveraging Center research outcomes in their future proprietary projects; interacting in an informal, collaborative way with other private sector and government entities with shared interests; and identifying and recruiting talent. NSF provides funding to support Center administrative costs and a governance framework to manage membership, operations, and evaluation.

Successful IUCRCs require:

- A capable research/management team with an entrepreneurial mindset;
- Universities, faculty, and students interested in engaging in research of interest to industry;
- A community of industry partners seeking pre-competitive, use-inspired research projects.

Each IUCRC is expected to grow and become independently sustainable by the end of the NSF support.

Link to Additional Information: NSF Publication 20-570

9. Institute of Education Sciences (IES): Education Research and Special Education Research Grant Programs CFDA Numbers 84.305 and 84.324 (8 Different Programs)

Application Deadline: August 20, 2020

Each funding opportunity description is a synopsis of information in the Federal Register application notice. For specific information about eligibility, please see the official application notice. The official version of this document is the document published in the Federal Register. Free Internet access to the official edition of the Federal Register and the Code of Federal Regulations is available on GPO Access at: http://www.access.gpo.gov/nara/index.html. Please review the official application notice for pre-application and application requirements, application submission information, performance measures, priorities and program contact information.

For the addresses for obtaining and submitting an application, please refer to our Common Instructions for Applicants to Department of Education Discretionary Grant Programs, published in the Federal Register on February 13, 2019 (84 FR 3768), or at www.govinfo.gov/content/pkg/FR-2019-02-13/pdf/2019-02206.pdf.

Purpose of Program: In awarding these grants, the Institute of Education Sciences (IES) intends to provide national leadership in expanding knowledge and understanding of:

(1) developmental and school readiness outcomes for infants and toddlers with or at risk for a disability,
(2) education outcomes for all learners from early childhood education through postsecondary and adult education, and
(3) employment and wage outcomes when relevant (such as for those engaged in career and technical, postsecondary, or adult education).

The IES research grant programs are designed to provide interested individuals and the general public with reliable and valid information about education practices that support learning and improve academic achievement and access to education opportunities for all learners. These interested individuals include parents, educators, learners, researchers, and policymakers. In carrying out its grant programs, IES provides support for programs of research in areas of demonstrated national need.

CFDA No. and name	Application package available	Deadline for transmittal of applications	Estimated range of awards*	Project period	For further information contact
National Center for Education Research (NCER)					
84.305A Education Research ▪ Career and Technical Education. ▪ Civics Education and Social Studies. ▪ Cognition and Student Learning. ▪ Early Learning Programs and Policies. ▪ Effective Instruction. ▪ English Learners. ▪ Improving Education Systems. ▪ Postsecondary and Adult Education. ▪ Literacy. ▪ Science, Technology, Engineering, and Mathematics Education. ▪ Social and Behavioral Context for Academic Learning.	6/11/20	8/20/20	$100,000 to $760,000	Up to 5 years	Erin Higgins, *Erin.Higgins@ed.gov.*
84.305B Research Training Programs in the Education Sciences. ▪ Pathways to the Education Sciences Research Training Program. ▪ Postdoctoral Research Training Program in the Education Sciences. ▪ Methods Training for Education Researchers.	6/11/20	8/20/20	$100,000 to $312,000	Up to 5 years	Katina Stapleton, *Katina.Stapleton@ed.gov.*
84.305C Education Research and Development Centers. ▪ Improving Teaching and Learning in Postsecondary Institutions.	6/11/20	8/20/20	$1,000,000 to $2,000,000	Up to 5 years	Meredith Larson, *Meredith.Larson@ed.gov.*
84.305R Research Grants Focused on Systematic Replication.	6/11/20	8/20/20	$400,000 to $900,000	Up to 5 years	Christina Chhin, *Christina.Chhin@ed.gov.*
National Center for Special Education Research (NCSER)					
84.324A Special Education Research ▪ Cognition and Student Learning. ▪ Early Intervention and Early Learning. ▪ Educators and School-Based Service Providers. ▪ Families of Children with Disabilities. ▪ Reading, Writing, and Language. ▪ Science, Technology, Engineering, and Mathematics (STEM). ▪ Social, Emotional and Behavioral Competence. ▪ Systems, Policy, and Finance. ▪ Transition to Postsecondary Education, Career, and/or Independent Living.	6/11/20	8/20/20	$100,000 to $760,000	Up to 5 years	Jacquelyn Buckley, *Jacquelyn.Buckley@ed.gov.*
84.324B Research Training Programs in Special Education. ▪ Early Career Development and Mentoring. ▪ Methods Training for Special Education Research.	6/11/20	8/20/20	$100,000 to $266,000	Up to 4 years	Katherine Taylor, *Katherine.Taylor@ed.gov.*
84.324P Research Grants Focused on NAEP Process Data for Learners with Disabilities.	6/11/20	8/20/20	$100,000 to $280,000	Up to 2.5 years	Sarah Brasiel, *Sarah.Brasiel@ed.gov.*
84.324R Research Grants Focused on Systematic Replication.	6/11/20	8/20/20	$400,000 to $900,000	Up to 5 years	Katherine Taylor, *Katherine.Taylor@ed.gov.*

*These estimates are annual amounts.

Link to Additional Information: https://ies.ed.gov/funding/

10. URGENT!!! IMLS CARES Act Grants for Museums and Libraries, Institute of Museum and Library Services

Application Deadline: June 12, 2020

IMLS recognizes the challenges facing museums and libraries at this time, including the adaptations and adjustments that will be necessary to rebuild staffing, reopen facilities, and address the needs of communities affected by the impact of a global crisis.
The goal of this grant program is to support the role of museums and libraries in responding to the coronavirus pandemic in ways that meet the immediate and future COVID-19 needs of the communities and audiences they serve.

The Coronavirus Aid, Relief, and Economic Security (CARES) Act (Pub. L. 116-136 [March 27, 2020]) has provided funds to the Institute of Museum and Library Services "to prevent, prepare for, and respond to coronavirus…to expand digital network access, purchase internet accessible devices, and provide technical support services" for the benefit of communities impacted by the public health emergency.
The IMLS CARES Act Grants for Museums and Libraries grant program invites project proposals that focus on preserving jobs, training staff, addressing the digital divide, planning for reopening, and providing technical support and capacity building for digital inclusion and engagement while prioritizing services for high-need communities. We encourage efforts to develop programs, tools, models, partnerships, and other resources that will address immediate concerns and have the potential to inspire and benefit museums and libraries throughout the nation.

There are no project categories in the IMLS CARES Act Grants for Museums and Libraries grant program. You may apply for support of projects including, but not limited to, the following to address problems created or exacerbated by the COVID-19 public health emergency:

- Providing technical support services and staff salaries related to enhancing staff skills and digital literacy, or retraining staff to improve access to and use of digital learning resources
- Creating guidelines, procedures, and/or innovative adaptations relating to reopening closed facilities
- Building on the role of museums and libraries as trusted spaces to strengthen community connections and healing through exhibitions, programs, and events
- Developing short- or medium-term solutions relating to gaps in digital infrastructure such as broadband, local network solutions, and/or providing access to devices or training
- Designing and delivering formal and informal digital learning resources to support individual and community response and recovery efforts
- Creating, preserving, or delivering digital content that improves or expands access to materials and collections during and after the pandemic
- Developing tools and technologies that provide for the protection of community assets and enable people of all backgrounds and abilities to discover and use museum and library collections and resources
- Advancing shared systems, networks, and open-source technologies to enhance access, optimize adoption and use, and sustain the management of digital assets
- Leveraging new digital learning resources and new media communications tools to foster audience engagement, learning, and conversation within broader social networks
- Applying innovative methods for partnering with communities to identify and develop solutions for challenges and opportunities through analysis, modeling, and visualization of data
- Leading multi-stakeholder collaborations and partnerships that leverage assets to support response and recovery efforts

Link to Additional Information: https://www.imls.gov/grants/available/imls-cares-act-grants-museums-and-libraries

11. NRCS's Wetland Mitigation Banking Program for Federal fiscal year (FY) 2020, Department of Agriculture, Natural Resources Conservation Service

Application Deadline: June 12, 2020

U.S. Department of Agriculture - Natural Resources Conservation Service (NRCS is announcing the availability of up to $5 million in Wetland Mitigation Banking Program (WMBP) grant funds for the development and establishment of mitigation banks and banking opportunities solely for agricultural producers with wetlands subject to the Wetland Conservation Compliance provisions of the 1985 Food Security Act (as amended). WMBP is a competitive grants program accepting proposals from Federally recognized Native American tribal governments, State and local units of government, for-profit entities, nonprofits with or without a 501(c)(3) status with the IRS other than institutions of higher education, private institutions of higher education, and public and State controlled institutions of higher education. Applications will be accepted from eligible entities in any of the 50 States, the District of Columbia, the Caribbean Area (Puerto Rico and the U.S. Virgin Islands), and the Pacific Islands Area (Guam, American Samoa, and the

Commonwealth of the Northern Mariana Islands). Priority will be given to banks located in geographic areas with the largest numbers of wetland compliance producer requests. Based on NRCS data, proposals from the following States will receive priority consideration: Georgia, Illinois, Indiana, Iowa, Michigan, Minnesota, Nebraska, Ohio, South Dakota, and Wisconsin.

The WMBP supports the establishment and development of wetland mitigation banks to make credits available for agricultural producers. WMBP awardees work with the Natural Resources Conservation Service (NRCS) to develop a mitigation banking instrument that provides details for development, establishment, and operation of a mitigation banking program. Mitigation banking instruments are developed in conjunction with national and State NRCS staff technical oversight and are subject to NRCS approval. Awardees must ensure the following wetlands receive priority for mitigation under the NRCS WMBP (note that the wetland designation labels are those used by NRCS for implementation of the wetland compliance provisions of the Food Security Act of 1985):

- Farmed Wetland (FW).
- Farmed Wetland Pasture (FWP).
- Wetland (W) less than 5 acres in size that is predominantly bordered by land that has been cropped 8 of the past 10 years when the wetland is designated as degraded according to a functional assessment tool.
- Converted Wetland (CW) that, prior to conversion, qualified under one of the items of above, as determined by NRCS staff.

Link to Additional Information:
https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/programs/farmbill/?cid=nrcseprd362686

12. Defense Established Program to Stimulate Competitive Research (DEPSCoR), Department of Defense, Air Force Office of Scientific Research

Application Deadline: June 12, 2020

This funding opportunity aims to create basic research collaborations between a pair of researchers, namely 1) Applicant/Principal Investigator (PI), henceforth referred to as Applicant, a full-time faculty member who has never served as a PI on a prior DoD-funded award and 2) Collaborator/co-Principal Investigator (co-PI), henceforth referred to as Collaborator, an investigator who will provide mentorship to the Applicant and has served as a PI on a DoD-funded research award actively between 1 October 2013 and 30 September 2020. This structure is aimed at introducing potential applicants to the DoD's unique research challenges and its supportive research ecosystem. The website https://discover.dtic.mil/products-services/ is a non-comprehensive repository of government-funded scientific, technical, and engineering information for the DoD. Researchers new to DoD and Applicants are encouraged to visit the site as a starting point for identifying past and present DoD-funded researchers. While each member of the collaboration should be in a tenure-track appointment or tenured at IHE in DEPSCoR-eligible States/Territories, you do not need to be in the same state. Likewise, the Applicant and Collaborator can have appointments at the same IHE.

Though this is a collaboration between the Applicant and Collaborator, the Applicant's IHE will submit the proposal. The Applicant and Collaborator are eligible to apply to this announcement if both IHE are located in an eligible State/Territory. States/Territories are deemed eligible to submit proposals for DEPSCoR research grants based on meeting both of the following criteria:

1. Falls into a specific range of DoD R&D S&E funding to IHE in that State/Territory as defined in legislation -- AND –
2. Contains an advanced degree granting program in science, mathematics, and/or engineering.

IHEs in the following 37 States/Territories are eligible to receive awards under this announcement: Alabama, Alaska, Arizona, Arkansas, Connecticut, Delaware, District of Columbia, Guam, Hawaii, Idaho, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, North Dakota, Oklahoma, Oregon, **Puerto Rico**, Rhode Island, South Carolina, South Dakota, Tennessee, U.S. Virgin Islands, Vermont, West Virginia, Wisconsin, and Wyoming.

The aim of DEPSCoR is to improve the research capabilities at institutions of higher education (IHE) in eligible States/Territories to perform competitive basic research in science and engineering that is relevant to the DoD mission and reflect national security priorities.

The Basic Research Office anticipates approximately $7.2 million in total funding will be made available for this program to fund approximately twelve (12) awards up to $600,000 (total cost) each. Each award will be funded up to $200,000 (total cost) per year for three (3) years in the form of a grant.

The FY20 DEPSCoR competition seeks proposals addressing the following topic areas as detailed in the full announcement in the Related Documents folder:

- Cognitive and Computational Neurosciences
- Space Science
- Agile Science of Test and Evaluation
- Materials with Extreme Properties
- Propulsion and Energetics
- Computational Architectures and Visualization
- Optoelectronics
- Probability and Statistics
- Molecular Structure and Dynamics
- Social and Behavioral Science
- Biotronics
- Aerospace Structures and Materials
- Ocean Acoustics
- Machine Learning, Reasoning, and Intelligence
- Power Electronics & Electromagnetism, Adaptive & Machinery Controls and Advanced Machinery Systems

Link to Additional Information: https://basicresearch.defense.gov/Pilots/DEPSCoR-Defense-Established-Program-to-Stimulate-Competitive-Research/

13. NEA Grants for Arts Projects 2, FY2021, National Endowment for the Arts

Application Deadline: July 9, 2020

Grant applications previously submitted to the Art Works category will now be submitted to the Grants for Arts Projects category. An organization may submit only one application under these FY2021 Grants for Arts Projects guidelines. The Arts Endowment's support of a project may start on or after June 1, 2021. Generally, a period of performance of up to two years is allowed.

Grant Program Description

"The Arts . . . belong to all the people of the United States"

Grants for Arts Projects is the National Endowment for the Arts' principal grants program. Through project-based funding, we support public engagement with, and access to, various forms of excellent art across the nation, the creation of art that meets the highest standards of excellence, learning in the arts at all stages of life, and the integration of the arts into the fabric of community life. Projects may be large or small, existing or new, and may take place in any part of the nation's 50 states, the District of Columbia, and U.S. territories. The National Endowment for the Arts is committed to diversity, equity, inclusion, and fostering mutual respect for the diverse beliefs and values of all individuals and groups.

While we welcome applications for a variety of artistically excellent projects, we encourage projects that address any of the following activities below:

- Celebrate America's creativity and/or cultural heritage.
- Invite a dialogue that fosters a mutual respect for the diverse beliefs and values of all persons and groups.
- Enrich our humanity by broadening our understanding of ourselves as individuals and as a society.

In the spirit of White House Executive Orders that encourage federal agencies to engage with typically underserved constituencies, the National Endowment for the Arts encourages applications from:

- Historically Black Colleges and Universities,
- Tribal Colleges and Universities,
- American Indian and Alaska Native tribes,
- African American Serving Institutions,
- Hispanic Serving Institutions,
- Asian American and Pacific Islander communities, and
- Organizations that support the independence and lifelong inclusion of people with disabilities.

Cost share/matching grants generally will range from $10,000 to $100,000. No grants will be made below $10,000. Grants of $100,000 or more will be made only in rare instances, and only for projects that we determine demonstrate exceptional national or regional significance and impact. In the past few years, well over half of the agency's grants have been for amounts less than $25,000.

Link to Additional Information: https://www.arts.gov/grants-organizations/gap

14. Discovery Research PreK-12, National Science Foundation

Application Deadline: October 7, 2020

The Discovery Research PreK-12 program (DRK-12) seeks to significantly enhance the learning and teaching of science, technology, engineering, mathematics and computer science (STEM) by preK-12 students and teachers, through research and development of STEM education innovations and approaches. Projects in the DRK-12 program build on fundamental research in STEM education and prior research and development efforts that provide theoretical and empirical justification for proposed projects. Projects should result in research-informed and field-tested outcomes and products that inform teaching and learning. Teachers and students who participate in DRK-12 studies are expected to enhance their understanding and use of STEM content, practices and skills. The DRK-12 program invites proposals that address immediate challenges that are facing preK-12 STEM education as well as those that anticipate radically different structures and functions of preK-12 teaching and learning. The DRK-12 program has three major research and development strands: (1) Assessment; (2) Learning; and (3) Teaching.

The program recognizes the synergy among the three strands and that there is some overlap and interdependence among them. However, proposals should identify a clear focus of the proposed research efforts (i.e., assessment, learning, or teaching) consistent with the proposal's main objectives and research questions. The program supports six types of projects: (1) Exploratory, (2) Design and Development, (3) Impact, (4) Implementation and Improvement, (5) Syntheses, and (6) Conferences. All six types of projects apply to each of the three DRK-12 program strands.

Link to Additional Information: http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf20572

15. Assessment Tools for Biotechnology Products, Environmental Protection Agency

Application Deadline: July 15, 2020

The United States Environmental Protection Agency (EPA), as part of its Science to Achieve Results (STAR) program, is seeking applications proposing research to support the development of improved science-based human health and environmental risk assessments of new biotechnology products, including those developed through synthetic biology, genome editing, and metabolic engineering.

Research solicited in this RFA will support the development of improved science-based human health and environmental risk assessments of novel biotechnology products. Recent advances in synthetic biology methods can be used to create substances and life forms not found in nature, which may in turn be used to make biotechnology products. Oversight of biotechnology products is shared between the EPA, the U.S. Department of Agriculture (USDA), and the U.S. Food and Drug Administration (FDA). Research solicited in this RFA will support the development of improved science-based human health and environmental risk assessments of novel synthetic biology products. For the purposes of this RFA, biotechnology products of interest include: industrial or consumer chemicals; pesticides (including pesticide intermediates); and new microbes used in biomass conversion for chemical production, microbial fuel cells, mining and resource extraction, building materials, waste remediation and pollution control, and non-pesticidal agriculture applications (e.g., biofertilizers, weather and climate modification). Robust and efficient evaluation and monitoring tools are needed to ensure these biotechnology products' safety and to assure public trust (Morton et al., 2019). Some examples of appropriate risk assessment tools include models, bioinformatic systems, and field-based and *in vitro* methods (SCENIHR, 2015). This research will help inform high-priority research areas identified by the EPA Office of Research and Development (ORD) and included in the Chemical Safety for Sustainability (CSS) National Research Program. The EPA currently supports CSS-related research grants resulting from previous solicitations. Information regarding current research can be found on EPA's Research Grants website at https://www.epa.gov/research-grants/.

EPA recognizes that it is important to engage all available minds to address the environmental challenges the Nation faces. At the same time, EPA seeks to expand the environmental conversation by including members of communities which may have not previously participated in such dialogues to participate in EPA programs. For this reason, EPA strongly encourages all eligible applicants identified in Section III, including minority serving institutions (MSIs), to apply under this opportunity.

Link to Additional Information: https://www.epa.gov/research-grants/assessment-tools-biotechnology-products

16. Pregnancy Risk Assessment Monitoring System (PRAMS), Department of Health and Human Services, Centers for Disease Control and Prevention - ERA

Application Deadline: July 15, 2020

The Pregnancy Risk Assessment Monitoring System (PRAMS), initiated in 1987 due to stagnant infant mortality rates, collects jurisdiction-specific, population-based data on maternal attitudes and experiences before, during, and shortly after pregnancy. The survey asks new mothers questions about their pregnancy and their new baby and the data are used to monitor the prevalence of maternal behaviors and experiences to inform programs and systems changes that influence maternal and infant health, as well as conduct research. PRAMS provides jurisdiction-specific and population-based data on the population of women recently delivering a live birth or stillborn infant. Because less than 5% of the general population is pregnant at any time, there is a need for data that purposely samples from this population to provide stable estimates that can be stratified by population subgroup, as well as to provide jurisdiction-specific estimates of maternal experiences and behaviors that occur before, during, and shortly after pregnancy. PRAMS data are used to examine the associations between risk factors and outcomes, explore disparities by subpopulations, and compare health indicators across jurisdictions. For example, PRAMS data have been used to monitor progress over time for safe infant sleep practices, unintended births, and patterns of health insurance coverage. PRAMS data are used to conduct research at the state and federal level and are used to investigate emerging issues in the field of reproductive health. This NOFO solicits applications to: 1) implement standardized surveillance of postpartum women with a recent live birth or stillbirth on selected maternal behaviors and experiences that occur prior to, during, and shortly after pregnancy; 2) implement surveillance on emerging issues related to maternal and child health that arise during the data collection cycle including post-disaster or emergency surveillance; and 3) ensure collection of timely, high quality data for ongoing monitoring of maternal and infant health to inform programs, research, and system changes. The activities in the NOFO will be conducted under three separate Components of funding: Component A: Core Surveillance - To implement population-based surveillance on selected maternal behaviors and experiences that occur prior to, during, and shortly after pregnancy, including emerging issues, among women with a recent live birth in up to 53 vital records jurisdictions. Component B: Point-in-time Tribal Surveillance - To implement a point-in-time (one time, one birth year) surveillance on selected maternal behaviors and experiences that occur prior to, during, and shortly after pregnancy among women with a recent live birth in up to 2 federally recognized American Indian Tribes, Alaska Native Villages, or Urban Indian Organizations (UIOs) with at least 1,000 live births annually or tribal organizations that support American Indian Tribes, Alaska Native Villages or Urban Indian Organizations with a service area that covers at least 1,000 live births annually. Component C: Stillbirth Surveillance - To implement population-based surveillance on selected maternal behaviors and experiences that occur prior to, during, and shortly after pregnancy among women who recently experienced a stillbirth in up to 2 vital records jurisdictions.

The current program contact in PR is:

Coordinator: Wanda Hernández
Maternal, Child and Adolescent Health Division
Puerto Rico Department of Health
P.O. Box 70184
San Juan, Puerto Rico 00936
Phone #: (787) 765-2929, ext. 4671
Email address: whernandez@salud.pr.gov

Link to Additional Information: https://www.cdc.gov/prams/index.htm

17. Science, Technology, Engineering & Mathematics (STEM), Education and Workforce Program administered by the Office of Naval Research (ONR), Department of Defense

White Paper Submission: June 12, 2020 **Application Deadline: July 15, 2020**

ONR seeks a broad range of applications for augmenting existing or developing innovative solutions that directly maintain, or cultivate a diverse, world-class STEM workforce in order to maintain the U.S. Navy and Marine Corps' technological superiority. The goal of any proposed effort must provide solutions that will establish and maintain pathways of diverse U.S. citizens who are interested in uniformed or civilian DoN STEM workforce opportunities.

As the capacity of the DoN Science and Technology (S&T) workforce is interconnected with the basic research enterprise and STEM education system, ONR recognizes the need to support efforts that can jointly improve STEM student outcomes and align educational efforts with Naval S&T current and future workforce needs. This announcement explicitly encourages projects that improve the capacity of education systems and communities to create impactful STEM educational experiences for students and workers. Submissions are encouraged to consider including active learning approaches and incorporating 21st century skill development. Projects must aim to increase student and worker engagement in STEM and enhance people with needed Naval STEM capabilities.

ONR encourages applications to utilize current STEM educational research for informing project design and advancing our understanding of how and why people choose STEM careers and opportunities of Naval relevance.

While this announcement is relevant for any stage of the STEM educational system, funding efforts will be targeted primarily toward projects addressing the below communities or any combination of these communities:

- Secondary education communities;
- Post-Secondary communities;
- Informal science communities;
- Current Naval STEM workforce communities.

Project scope may range in size and complexity. Projects that are already established with prior funding sources or have established stakeholder partnerships are especially encouraged to consider the following scope areas:

- Develop and implement exploratory pilot projects that seek to create new educational experiences within educational and training communities.
- Develop larger cohesive STEM education and training activities that strengthen the capacity of regional communities and stakeholders to improve STEM education and training.
- Establish meetings of stakeholders that must seek to connect relevant people and organizations to explicitly develop broader projects for affecting entire communities.

Link to Additional Information: https://www.onr.navy.mil/en/work-with-us/funding-opportunities and search for opportunity **N00014-20-S-F005**

18. Food and Agricultural Sciences National Needs Graduate and Postgraduate Fellowship (NNF) Grants Program, Department of Agriculture, National Institute of Food and Agriculture

Application Deadline: June 22, 2020

Eligible Applicants - Pursuant to section 1417 of the NARETPA of 1977 (7 U.S.C. 3152), and administrative provisions that can be found in 7 CFR 3402 applications may only be submitted by:

1. Land-grant institutions (1862, 1890 and 1994 Institutions);
2. Colleges and universities having significant minority enrollments and a demonstrable capacity to carry out the teaching of food and agricultural sciences; and
3. Other colleges and universities having a demonstrable capacity to carry out the teaching of food, and agricultural sciences.

Research foundations maintained by an eligible college or university are eligible to submit graduate training proposals under this RFA. Applicants should be institutions that confer a graduate degree in at least one of the TESAs. Award recipients may subcontract to organizations not eligible to apply provided such organizations are necessary for the conduct of the project. Failure to meet an eligibility criterion by the application deadline may result in the application being excluded from consideration or, even though an application may be reviewed, will preclude NIFA from making an award. Applicants should be institutions that confer a graduate degree in at least one of the TESAs listed in Part I of this RFA. Awards are made to eligible colleges and universities. Individuals are not eligible to apply for these grants to support their graduate education. Successful applications must select and identify Fellows and award Fellowships within eighteen (18) months of the start date of a grant. Post-doctoral Fellowships will not be awarded under this grant announcement.

- Institutions that fail to meet this deadline will be required to refund monies associated with unawarded Fellowships to NIFA.
- Graduate fellowship appointments must be awarded only to registered students who are pursuing full-time study in graduate programs in the TESA and at the degree level supported by the grant.
- Applicants may not request partial fellowships.

A USDA Fellow at the master's degree level who maintains satisfactory progress is eligible to receive grant support for a maximum of twenty-four (24) months during a thirty (30) month period. A USDA Fellow at the doctoral degree level who maintains satisfactory progress is eligible to receive grant support for a maximum of thirty-six (36) months within a forty-two (42) month period. It is the intent of this program that Graduate Fellows pursue full-time uninterrupted study or thesis/dissertation research, including time spent pursuing USDA-funded special international study or thesis/dissertation research activities. Graduate Fellows in academic institutions are not entitled to regular annual leave but are entitled to the normal student holidays observed by the institution. The time between academic semesters or quarters is to be utilized as an active part of the grant period. During the period of support, USDA Graduate Fellows, at the discretion of their institutions, may accept additional supplemental employment that would positively contribute to

their training or research and would make them eligible for tuition waivers (e.g., full or partial tuition waivers with research or teaching assignments).A Graduate Fellow who finds it necessary to interrupt his/her program of study because of health, personal, or other reasonable non-academic and non-disciplinary cause(s) must be allowed to resume funded study at any time within 6 months of the interruption, provided there is adequate time remaining before the award expires (i.e. within the 30-month total funding period for a master's Fellow, and 42-month total funding period for a Doctoral Fellow). A Graduate Fellow who finds it necessary to interrupt his/her program of study more than one time cannot exceed 6 total months of cumulative leave without forfeiting NNF eligibility.

Link to Additional Information: https://nifa.usda.gov/program/national-needs-graduate-and-postgraduate-fellowship-grants-program-funding-opportunity-nnf

19. 2020 International Agricultural Education Fellowship Program, Department of Agriculture

Application Deadline: June 22, 2020

USDA will provide opportunities to eligible U.S. citizens to assist developing countries in establishing school-based agricultural education and youth extension programs under the International Agricultural Education Fellowship Program (IAEFP) under the Agriculture Improvement Act of 2018, PL 115-334, Sec. 3307, 7 USC § 3295. The intention of the IAEFP is to develop globally minded United States agriculturalists with experience living abroad, focus on meeting the food and fiber needs of the domestic population of eligible countries, and strengthen and enhance trade linkages between eligible countries and the United States agricultural industry. Proposal submission should include, but not limited to, classroom instruction, field demonstrations, entrepreneurship projects, and leadership development. The proposal should address host country's receptiveness of the IAEFP. Host country's government, agriculture community, and local authorities should demonstrate support and commitment to collaborate on the implementation and execution of the IAEFP. The recipient should provide a suggested curriculum to all fellows that is tailored to the needs of the host country. Fellows training topics should align with USDA and the host country's agricultural policy, development, and extension goals. Topics should also promote bilateral agricultural trade between the host country and the United States. For additional recipient requirements, please see the performance expectations section. United States fellows participating under IAEFP must hold a minimum of a bachelor's degree in an agriculture-related field and understand U.S. school-based agricultural education and youth extension programs. In addition, the National Council must be consulted on U.S. fellow selections. Fellows do not need to be previously affiliated with the selected recipients.

Program Objective

USDA anticipates issuing up to two awards to improve developing countries ability to meeting food and fiber needs as well as strengthen trade linkages between the United States and selected countries. Each award is expected to support up to nine (9) fellows. Programs for fellows are expected to last 8-9 months in concurrence with the host country's academic year. After selection, recipients will be expected to identify fellows, proposing selections to USDA for final concurrence. Although each fellow should be assigned a specific country and site, USDA envisions fellows will participate as a cohesive cohort, rather than at individual times, and applicants should prepare their approach accordingly. Award recipients will be required to work with relevant FAS Posts, as well as appropriate U.S. Embassy personnel, on all programmatic issues including providing periodic updates on program implementation.

Link to Additional Information: www.grants.gov and search for opportunity **USDA-FAS-10619-0700-10-20-0002**

20. COVID-19 Related Research Grants on Education, Spencer Foundation

Application Deadline: June 22, 2020

Founded in 1971, the Spencer Foundation is the only national foundation focused exclusively on supporting education research.

In response to the COVID-19 pandemic, the foundation has issued a Research Grants on Education: COVID-19 Related Special Grant Cycle. Under the call, grants of up to $50,000 over up to three years will be awarded in support of education research projects that contribute to an understanding of the rapid shifts in education in this time of crisis and change. The foundation is especially interested in studies focused on understanding and disrupting the reproduction and deepening of educational inequality caused by the crisis, as well as research projects that are working to reimagine educational opportunities in these times.

The foundation is interested in proposals at all levels and in all settings of learning, including early childhood, higher education, and in schools, families, and communities, as well as studies that seek to understand the situated experiences of non-dominant groups, including English-language learners, immigrants, minoritized communities, Indigenous communities, students with disabilities, highly mobile and institutionalized youth (e.g., foster youth or those in youth prisons), and rural communities. The program will support proposals from multiple disciplinary and methodological perspectives, both domestically and internationally, as well as from scholars at various stages in their careers.

The COVID-19 Related Research Grants support education research projects that will contribute to understanding the rapid shifts in education in this time of crisis and change. We are especially interested in supporting two primary categories of projects. First, we are interested in supporting studies that aim to understand and disrupt the reproduction and deepening of educational inequality caused by the COVID-19 crisis. Second, we also recognize that in times of great disruption and change, there may be opportunities to remake and imagine new forms of equitable education. Thus, we are also interested in research projects that are working to reimagine educational opportunities in these times.

As with other Spencer grant programs, this program is "field-initiated" in that proposal submissions are not for a particular research topic, discipline, design, method, or location. We will be accepting applications on a rolling basis with budgets up to $50,000 for projects ranging from one to three years. We will review applications received by May 4th, again on May 18th, and again on June 8th. Our goal for this program is to support rigorous, intellectually ambitious, and technically sound research that is relevant to the most pressing questions and compelling opportunities in education in these times.

The program is "field-initiated" in that proposal submissions are not for a particular research topic, discipline, design, method, or location.

To be eligible, PIs and co-PIs must have an earned doctorate in an academic discipline or professional field or appropriate experience in an education research-related profession. Applicants must be affiliated with a nonprofit organization, including nonprofit colleges, universities, school districts, and research facilities, as well as other nonprofit organizations with a 501(c)(3) determination from the IRS.

Link to Additional Information: https://www.spencer.org/grant_types/research-grants-on-education-covid-19-related-special-grant-cycle

21. Novel, High-Impact Studies Evaluating Health System/Healthcare Professional Responsiveness to COVID-19, Department of Health and Human Services, Agency for Health Care Research & Quality

Application Deadline: June 15, 2020

This Funding Opportunity Announcement (FOA) invites R01 grant applications for funding to support novel, high-impact studies evaluating the responsiveness of healthcare delivery systems, healthcare professionals, and the overall U.S. healthcare system to the COVID-19 pandemic. AHRQ is interested in funding critical research focused on evaluating topics such as effects on quality, safety, and value of health system response to COVID-19; the role of primary care practices and professionals during the COVID-19 epidemic; understanding how the response to COVID-19 affected socially vulnerable populations and people with multiple chronic conditions; and digital healthcare including innovations and challenges encountered in the rapid expansion of telehealth response to COVID-19. AHRQ encourages multi-method, rapid-cycle research with the ability to: produce and disseminate initial findings (e.g. observations, lessons learned, or findings) within 6 months after award and then regularly throughout the remainder of the award period.

Objectives:

While AHRQ has identified the following areas of specific interest, these are not all inclusive and applicants may propose any health services research project related to the response to COVID-19 that may lead to improvement in US healthcare delivery.
This funding opportunity is open to relevant research in all healthcare settings, including hospitals, ambulatory care (especially primary care practices), pre-hospital care, long-term and nursing home care, home healthcare, pharmacy, and transitions of care between settings.

A. Research to Improve the Quality of Care Received and Patient Outcomes during and following the COVID-19 Pandemic

AHRQ is interested in research that evaluates how healthcare systems adjusted care delivery, management, decision-making, and operations in response to the COVID-19 pandemic. The focus is not on the clinical questions of medications for treatment or ventilator settings, but on issues such as workforce deployment, space reallocation, communications between settings, and how decisions affected patient and workforce experience and outcomes. In addition, there is interest in understanding how decisions and innovations made during the response can best inform operations in the future, both during normal times and in public health emergencies. While there is interest in all settings of care, there is particular interest in research on changes, innovations, and unintended consequences in primary care.

B. Research to Improve Healthcare Patient Safety during and following the COVID-19 Pandemic

The COVID-19 pandemic presents new challenges to patient and clinician safety, including antibiotic stewardship and prevention of healthcare-associated infections. AHRQ has supported and helped establish a strong foundation of scientific evidence regarding patient safety, and this FOA seeks to leverage and expand this foundation to address new threats. As with past patient safety research initiatives, relevant projects can be considered in three different stages:

1. Identification of risks, hazards, and harm to patients and clinicians.
2. Design, implementation, dissemination and spread, and evaluation of interventions to improve patient and clinician safety.
3. Establishment of strategies to sustain patient safety improvements such as culture, incident/event reporting, measurement, monitoring, and surveillance.

C. Research to Understand How the Response to COVID-19 Affected Socially Vulnerable Populations and People with Multiple Chronic Conditions during and following the COVID-19 Pandemic

An additional area of interest is applications that evaluate how the responsiveness of the U.S. healthcare system to the COVID-19 pandemic by healthcare professionals and healthcare systems impacted socially vulnerable populations. Socially vulnerable populations are those that, due to societal structures, face additional risk from the COVID-19 pandemic. These include, but are not limited to, racial and ethnic minorities other AHRQ Priority Populations (https://www.ahrq.gov/priority-populations/about/index.html), and people living with multiple chronic conditions. This FOA seeks applications that examine social vulnerability specifically in the context of the COVID-19 pandemic, as well as applications that examine how to improve outcomes for populations with high social vulnerability, either through improvement in care delivery (including integration of social and medical care) or policies. Examination of intersectional dimensions that highlights the combined influences of vulnerabilities is encouraged.

D. Research to Understand How Digital Healthcare Innovations Contributed to the Health System Response To COVID-19, Outcomes, and Unintended Consequences

The national response to COVID-19 involved an unprecedented expansion in the use of digital healthcare, including telehealth. This FOA invites applications that seek to understand how digital healthcare innovations impacted, in a positive or negative way, health system and healthcare professional innovation, as well as its role in identifying emerging best practices and answering questions such as how digital healthcare is best adapted to meet the needs of diverse patients, how policy and financing changes made telehealth more or less effective and sustainable, how telehealth solutions differed across settings, what type of workforce is needed to sustain digital healthcare innovations, and what types of training were needed for both patients and clinicians to allow digital solutions to be effective.

Expanded use of digital healthcare may not be without unintended consequences, which may positively or negatively affect quality of care. An area of interest is understanding its implications, for example, rapidly expanded use of telehealth could result in changes in risks for patient safety, such as increasing diagnostic errors.

Link to Additional Information: http://grants.nih.gov/grants/guide/rfa-files/RFA-HS-20-003.html

22. UNITED STATES DEPARTMENT OF AGRICULTURE FOOD FOR PROGRESS PROGRAM

Application Deadline: July 14, 2020

The Food for Progress (FFPr) Program provides for the donation of U.S. agricultural commodities to developing countries and emerging democracies committed to introducing and expanding free enterprise in the agricultural sector. The commodities are generally sold on the local market and the proceeds are used to support agricultural development activities. When applying, reference the country's specific identification number as listed in the NOFO and below:

- USDA-FAS-10.606-0700-20-(388) – Bangladesh
- USDA-FAS-10.606-0700-20-(514) – Colombia
- **USDA-FAS-10.606-0700-20-(367) – Dominican Republic:** USDA seeks to support the Dominican Republic with implementing international and risked-based SPS measures that will facilitate local, regional, and international trade. The Government of the Dominican Republic's (GoDR) Strategic Development Strategy through 2030 calls for continued reforms to enhance the country's competitive position in the global economy, sustainably achieve high economic growth, and become the trade hub of the Caribbean.
- USDA-FAS-10.606-0700-20-(617) – Uganda
- USDA-FAS-10.606-0700-20-(681) – West Africa Regional

Please note, applications will only be reviewed against other applications received for the same priority country. Go to Related Documents to find the full announcement, details on how to apply, instructions on accessing the Food Aid Information System, weekly responses to questions, and other important information.

Please note, the Foreign Agricultural Service is monitoring the COVID-19 situation closely. If the situation merits a modification to the FY 20 FFPr NOFO, a modified NOFO will be published to Grants.gov and the FAIS website. Notifications on modifications will be posted on Grants.gov and FAIS, as well as distributed via FAS' listserv. Please email ppded@usda.gov to ensure your organization is included.

Link to Additional Information: go to www.grants.gov and search for opportunity number **USDA-FAS-10-606-0700-20-01**

23. Technical Assistance for Specialty Crops Program Notice of Funding Opportunity, U.S. Department of Agriculture

Application Deadline: July 26, 2020

The TASC program is designed to assist U.S. organizations by providing funding for projects that seek to remove, resolve, or mitigate existing or potential sanitary, phytosanitary, or technical barriers that prohibit or threaten the export of U.S. specialty crops. The TASC program is administered by personnel of the Foreign Agricultural Service (FAS) on behalf of the Commodity Credit Corporation.

1. Eligible Commodities: U.S. specialty crops. For the purposes of the TASC program, specialty crops are defined to include most cultivated plants, or the products thereof, produced in the U.S. except wheat, feed grains, oilseeds, cotton, rice, peanuts, sugar, and tobacco. Proposals that seek support for multiple U.S. specialty crops are also eligible.
2. Eligible Markets: Proposals may target any foreign market, including single countries or reasonable regional groupings of countries.
3. Eligible Activities: To be found eligible for consideration, TASC proposals must address the following criteria:

    - Projects should identify and address a clear sanitary, phytosanitary, or technical barrier, either existing or potential, that prohibits or threatens the export of U.S. specialty crops;
    - Projects should demonstrably benefit the represented industry rather than a specific company or brand;
    - Projects must address barriers, either existing or potential, to exports of commercially available U.S. specialty crops;
    - Projects should include an explanation as to what specifically could not be accomplished without Federal funding assistance and why the eligible organization(s) would be unlikely to carry out the project without such assistance; and
    - Projects should include performance measures for quantifying progress and demonstrating results.

Link to Additional Information: go to www.grants.gov and search for opportunity number **2021-03**

24. Centers for Chemical Innovation, National Science Foundation

Application Deadline: January 14, 2021

The Centers for Chemical Innovation (CCI) Program supports research centers focused on major, long-term fundamental chemical research challenges. CCIs that address these challenges will produce transformative research, lead to innovation, and attract broad scientific and public interest. CCIs are agile structures that can respond rapidly to emerging opportunities through enhanced collaborations. CCIs integrate research, innovation, education, broadening participation, and informal science communication. The CCI Program is a two-phase program. Both phases are described in this solicitation. Phase I CCIs receive significant resources to develop the science, management and broader impacts of a major research center before requesting Phase II funding. Satisfactory progress in Phase I is required for Phase II applications; Phase I proposals funded in FY 2021 will seek Phase II funding in FY 2024.

CCIs are expected to integrate their research with activities that broaden the impact of their research. A Phase I team will pilot activities in these areas. A Phase II CCI is expected to implement broad, strategic, center-scale activities in each of the areas below:

- Innovation - A center-wide plan for innovation will demonstrate that the team is capable of translating their research to key non-academic stakeholders via intellectual property protection, licensing, entrepreneurship, or other knowledge transfer paths.
- Higher Education and Professional Development - center-wide plan for the education and professional development of undergraduate and graduate students supported by the grant, including co-mentorship or other collaborative training and continued professional development and mentoring for postdoctoral research associates. This may also include education in

various aspects of innovation (intellectual property, entrepreneurship, etc.) and other higher education activities (i.e., new undergraduate- or graduate-level course materials or curricula).
- Broadening participation - center-wide plans for increasing engagement by underrepresented groups.
- Informal science communication - center-wide plans for communicating the CCI research to public audiences (outside the K-12 classroom).

The FY 2021 Phase I CCI competition is open to projects in all fields supported by the Division of Chemistry, and must have scientific focus and the potential for transformative impact in chemistry. NSF Chemistry particularly encourages fundamental chemistry projects related to one or more of NSF's Big Ideas, including Quantum Leap, Understanding the Rules of Life, and Harnessing the Data Revolution. Similarly, the Division of Chemistry encourages CCI projects aligned with chemistry aspects of other articulated budget priorities, including Advanced Manufacturing, Artificial Intelligence, Biotechnology, and Quantum Information Science. More information on all of these is available in Section IX of this Program Solicitation.

The FY 2021 Phase II CCI competition is open to projects funded as Phase I awards in FY 2018.

Link to Additional Information: https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf20574

25. Integrated University Program (IUP) Nuclear Engineering Consortium for Nonproliferation, Department of Energy

Application Deadline: July 29, 2020

Section 313 of the Omnibus Appropriations Act of 2009 (H.R. 1105, P.L. 111-8) created the Integrated University Program (IUP). DNN R&D is one of the three participants in this program and is continuing a nuclear science and engineering program to support multi-year research projects critical to maintaining the discipline of nuclear science and engineering. Throughout this document the term, DOE National Laboratories, is used to collectively refer to DOE and NNSA National Laboratories, Sites, and Complexes. For DNN R&D, the role of Institutions of Higher Education (IHE; as defined in Section III.A. below) is to innovate, develop, and prove some of the most challenging basic aspects of new technology and methods in coordination with the DOE National Laboratories which can in turn fulfill their unique role to perform mission-specific research and development that improves on capabilities until they are either adopted by operational enterprises or transitioned into private industry for commercialization. Transparently and effectively linking the roles of these IHE and DOE National Laboratory represents the core of how DNN R&D proposes to meet its objectives.

The intent of this Funding Opportunity Announcement (FOA) is to award ONE or TWO five-year cooperative agreement(s) to a consortium consisting of accredited IHE's to allow them to receive and administer funds for student and faculty research, fellowships, and scholarship funding awarded by DOE/NNSA, DNN R&D. The cooperative agreement will be awarded to a consortium of IHEs which will include the participation of DOE National Laboratories as a consortium-member(s). Individual consortium-member IHEs shall make specific contributions and shall receive specified portions of the funding. The consortium may include student and research fellows and must have a long-term objective of building expertise in nuclear science and engineering. Research results should be incorporated readily into IHE curricula. Students, faculty, and researchers must be able to work unencumbered while moving across organizational and bureaucratic boundaries of the academic and governmental facilities engaged in the consortium, while properly protecting critical information and materials. The consortium should establish reciprocal arrangements between the lead IHE and other IHEs as well as relationships with appropriate DOE National Laboratories.

The direct outcome of this program is the development of professionals with skill-sets to support foundational disciplines of nuclear physics, science and engineering, radiation detection, nuclear material science, radiochemistry, and mass spectrometry. These professionals will have careers as scientists, engineers, technicians, operational personnel, and intelligence professionals, among others, and will be leaders in active in nuclear nonproliferation, nuclear arms control, nuclear incident response, nuclear intelligence activities, nuclear energy, and other nuclear-related fields. These professionals are expected to benefit academia, private industry, and several US government agencies, including Energy, State, Defense, Homeland Security, Justice, and the Intelligence Community.

Link to Additional Information: https://www.fedconnect.net/FedConnect/PublicPages/LogIn.aspx or www.grants.gov and search for opportunity **DE-FOA-0002264**

26. Rural Communities Opioid Response Program – Planning, Department of Health and Human Services, Health Resources and Services Administration

Application Deadline: July 13, 2020

This notice announces the opportunity to apply for funding under the Rural Communities Opioid Response Program – Planning (RCORP-Planning). RCORP is a multi-year HRSA initiative with the goal of reducing morbidity and mortality resulting from substance use disorder (SUD), including opioid use disorder (OUD), in high risk rural communities. This funding opportunity, RCORP-Planning, will advance RCORP's overall goal by strengthening and expanding the capacity of rural communities to provide SUD/OUD prevention, treatment, and recovery services. The purpose of RCORP-Planning is to strengthen and expand the capacity of rural communities to engage high-risk populations and provide SUD/OUD prevention, treatment, and recovery services. Recipients will conduct planning activities, engage multi-sector consortiums (as defined in Section III.1, "Eligible Applicants"), and participate in the RCORP-Planning learning collaborative (see Section IV.2, "Program Specific Instructions" for additional details).

While the primary focus of RCORP-Planning is OUD, HRSA recognizes that many individuals with OUD are polysubstance users. Therefore, applicants may also choose to address an additional substance of concern in the target population. RCORP-Planning funds will support 18 months of planning activities. For the purposes of this grant, planning activities are those that prepare a community to provide direct prevention, treatment, and recovery services. In addition to the required core planning activities (see Section IV.2, "Program Specific Instructions" for additional details), examples include (but are not limited to):

- Distributing naloxone to individuals/organizations who may need it;
- Providing community-based naloxone trainings;
- Recruiting and training providers and support staff in medication assisted treatment (NOTE: These grant funds cannot be used to pay providers/support staff to deliver medication assisted treatment);
- Creating a strategy to reach and engage individuals at high risk of SUD/OUD;
- Working with law enforcement to develop a diversion program;
- Training providers, administrative staff, and other relevant stakeholders to optimize reimbursement for treatment encounters through proper coding and billing. Direct services may not be provided using these grant funds. Examples of direct services include (but are not limited to):

    - Providing Medication Assisted Treatment
    - Providing peer-based recovery services
    - Transporting individuals to receive treatment
    - Paying individuals to administer naloxone.

HRSA envisions that RCORP-Planning will establish the foundation for recipients to implement long-term, sustainable SUD/OUD services in the target rural area. HRSA also expects that planning activities will ensure that future OUD/SUD services are affordable and accessible. If awarded you are encouraged to explore multiple avenues for sustainability, including alternate funding sources and optimizing reimbursement for treatment encounters.

Link to Additional Information:
https://grants.hrsa.gov/2010/Web2External/Interface/FundingCycle/ExternalView.aspx?fCycleID=840209b0-c1b6-4074-98ff-6dfb500015e2

27. Division of Integrative Organismal Systems Core Programs, National Science Foundation

Application Deadline: Proposals accepted anytime

The Division of Integrative Organismal Systems (IOS) Core Programs Track supports research aimed at understanding why organisms are structured the way they are and function as they do. Proposals are welcomed in all of the core scientific program areas supported by the Division of Integrative Organismal Systems (IOS). Areas of inquiry include, but are not limited to, developmental biology and the evolution of developmental processes, nervous system development, structure, modification, function, and evolution; biomechanics and functional morphology, physiological processes, symbioses and microbial interactions, interactions of organisms with biotic and abiotic environments, plant and animal genomics, and animal behavior. Proposals should focus on organisms as a fundamental unit of biological organization. Principal Investigators (PIs) are encouraged to apply systems approaches that will lead to conceptual and theoretical insights and predictions about emergent organismal properties. The Rules of Life Track supports integrative proposals that span the subcellular and cellular scales normally funded by MCB to the organ, tissue, organismal, and group scale typically funded by IOS, to population, species, community and ecosystem scales typically funded by DEB. Rules of Life proposals may also include enabling infrastructure through joint submission with DBI. Discovery of fundamental principles and enabling infrastructure will advance understanding and further predict how key properties of living systems emerge from the interaction of

genomes, phenotypes, and developmental, social and environmental context across space and time. This track provides opportunities to advance understanding of the Rules of Life by new mechanisms for review and funding of proposals that span two or more divisions in the Biological Sciences Directorate.

IOS supports research aimed at improving our understanding of organisms as integrated units of biological organization. The division welcomes diverse approaches to research addressing organismal questions, and especially encourages integrative and interdisciplinary perspectives on complex problems in organismal biology.

IOS continues to support projects that provide unique educational and training opportunities for the next generation of researchers, scientific educators and scientifically literate citizens. In order to address the Broader Impacts review criterion, proposals can contain the development of innovative educational, broadening participation, and outreach activities or substantive participation in existing institutional infrastructure for education, training and outreach. Successful proposals often demonstrate close integration of the scientific and educational goals.

The division will continue to support projects addressing any of these opportunities across the full range of conceptual scales, and durations (1-5 years) with associated budget requests commensurate with the scope, scale, and duration of the work. IOS recognizes the interest of the scientific community in projects that are smaller in scope, potentially shorter in duration, and that require relatively modest support compared to the present norm. Therefore, the division reminds proposers that there are no budget minimums and it will continue to support both small-scale projects and larger requests as appropriate for the work proposed.

Link to Additional Information: http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf20536

28. Plant Biotic Interactions, National Science Foundation

Application Deadline: Proposals accepted anytime

The Plant Biotic Interactions (PBI) program supports research on the processes that mediate beneficial and antagonistic interactions between plants and their viral, bacterial, oomycete, fungal, plant, and invertebrate symbionts, pathogens and pests. This joint NSF/NIFA program supports projects focused on current and emerging model and non-model systems, and agriculturally relevant plants. The program's scope extends from fundamental mechanisms to translational efforts, with the latter seeking to put into agricultural practice insights gained from basic research on the mechanisms that govern plant biotic interactions. Projects must be strongly justified in terms of fundamental biological processes and/or relevance to agriculture and may be purely fundamental or applied or include aspects of both perspectives. All types of symbiosis are appropriate, including commensalism, mutualism, parasitism, and host-pathogen interactions. Research may focus on the biology of the plant host, its pathogens, pests or symbionts, interactions among these, or on the function of plant-associated microbiomes. The program welcomes proposals on the dynamics of initiation, transmission, maintenance and outcome of these complex associations, including studies of metabolic interactions, immune recognition and signaling, host-symbiont regulation, reciprocal responses among interacting species and mechanisms associated with self/non-self-recognition such as those in pollen-pistil interactions. Explanatory frameworks should include molecular, genomic, metabolic, cellular, network and organismal processes, with projects guided by hypothesis and/or discovery driven experimental approaches. Strictly ecological projects that do not address underlying mechanisms are not appropriate for this program. Quantitative modeling in concert with experimental work is encouraged. Overall, the program seeks to support research that will deepen our understanding of the fundamental processes that mediate interactions between plants and the organisms with which they intimately associate and advance the application of that knowledge to benefit agriculture.

The PBI program seeks to support important fundamental and translational research on the mechanisms and principles that mediate the interaction of plants with their biotic partners. All types of symbiosis are considered, including pathogenic, commensal and mutualistic relationships. Modes of inquiry include genetic, genomic, biochemical, metabolic and imaging-based approaches at molecular, cellular, organismal, population and community levels. Synergies are sought between modeling and experimental approaches and between exploration of fundamental principles and the deployment of insights gained by these approaches in agricultural settings. Experimental systems should be employed as appropriate to the questions asked, with feasibility of the work an important consideration in merit review. Proposals that apply novel fundamental knowledge to agriculturally relevant systems should include information about the agricultural importance of the system (e.g. economic information) if available.

Central to the program's interests are the mechanisms involved in recognition between plants and their biotic partners and the downstream physiological consequences of that recognition. Approaches include inquiries into genetic and genomic responses, cellular signaling (and, more broadly, signaling architecture), and effects on nutritional, metabolic and developmental processes. In addition to classical systems such as the rhizobia-legume symbiosis, the program supports inquiries into recognition and signaling between pathogenic plants and their hosts, and also the recognition and downstream processes involved in pollen-pistil interactions. The PBI program supports research on immune function, including the role of pattern- and effector-driven immunity; the role of epigenetic processes in regulating immune responses and virulence strategies (including trans-generational

inheritance of immune states); circadian regulation of immunity; the role of reactive oxygen species; immune priming and systemic acquired resistance.

In addition to focused inquiries into particular host-microbe or host-invertebrate relationships, questions concerning complex symbioses such as multipartite interactions between viruses, bacteria, fungi and/or host plants, as well as community level processes such as the rules that govern the assembly and function of rhizosphere and phylosphere microbiomes are also relevant to this program.

Much remains to be learned about the components involved in recognition and signaling between plants and their biotic partners. Discovery-based efforts can be useful in this context. However, in order for a proposal to be competitive for funding it is essential that project aims calling for such efforts be thoroughly integrated into a larger project plan focused on gaining insights into mechanisms of general importance or to developing solutions to agriculturally important problems. Similarly, lateral expansion of knowledge gained in the study of model systems is also appropriate, but again, the rationale for such efforts must include an important biological question or a potential translational application in an agricultural setting.

Link to Additional Information: https://www.nsf.gov/pubs/2020/nsf20536/nsf20536.pdf

29. Eradication of HIV-1 from Central Nervous system Reservoirs, Department of Health and Human Services, National Institutes of Health

Application Deadline: Standard NIH R01 Deadlines Apply

There is considerable interest in the development of immunotherapy to optimize the recognition and killing of reservoir cells such as resting CD4 T-cells. These immunotherapy strategies include uses of therapeutic vaccines to enhance HIV-1-specific CTL (cytotoxic T-cell) response, broadly neutralizing antibodies, dual-affinity retargeting antibodies that not only bind to HIV-1 viral envelope antigen but also activate the CTL response, and immune modulators, such as anti-PD1 (programmed cell death protein-1) or anti-CTL4 antibodies, to relieve the immune dysfunction and exhaustion found in cART-treated individuals due to chronic inflammation. Another strategy is the development of chimeric antigen receptor T-cells (CAR-T cells) to target latently infected cells. Current immunotherapy-based HIV eradication strategies are focused primarily on peripheral sites and it is important to target CNS reservoirs as well. Further, it is also critical to understand the potential CNS toxicity of immunotherapy-based approaches currently being tested in clinical trials.

Research Objectives and Scope

Examples of the CNS-specific research focus areas that are pertinent to this Funding Opportunity Announcement (FOA) include, but are not limited to, the following:

- Identify all potential cellular reservoirs of latent HIV-1 within the CNS (e.g., macrophages, microglia, astrocytes, T-cells);
- Discover the molecular mechanisms involved in establishment, maintenance, and resurgence of CNS-based HIV-1 reservoirs in relationship to the effects and timing of ART;
- Elucidate how persistently infected cells of the CNS escape the immune response and persist despite ART;
- Examine the role of CNS inflammation in maintaining HIV persistence within this compartment;
- Design new assays and in vitro and in vivo model systems, including a non-human primate model as appropriate, to study HIV latency;
- Develop physiologically relevant CNS-cell based assays that recapitulate: HIV-1 persistence in the presence of effective antiretroviral therapy; latency; and viral resurgence upon removal of ART;
- Identify and develop assays to quantify levels of residual latent and replication-competent virus and residual viral replication in the CNS compartment in patients on suppressive anti-retroviral therapy;
- Develop innovative strategies to selectively identify (i.e., using biomarkers, cell surface antigens, molecular signatures) and eliminate latently infected CNS-derived myeloid cells (e.g., microglia) without reactivation of pro-virus;
- Refine neuroimaging or microscopic technologies to detect latent/persistent and reactivated virus in the CNS compartment;
- Determine new cell surface and intra-cellular markers that identify latently infected cells in the CNS using state-of-the-art proteomic or metabolomics approaches;
- Develop high throughput assays or refine physiologically relevant primary cells for use in identifying drug candidates for eradication of HIV-1 in the brain;
- Assess current HIV-1 eradication strategies for CNS toxicity, neuroinflammation, and neurocognitive outcomes;
- Develop novel eradication strategies with improved penetration through the blood-brain barrier to target and eliminate latent CNS reservoirs (e.g., gene therapy, nanotechnology, zinc finger technology);
- Develop a new class of delivery agents that can increase the bioavailability of drugs within the CNS and target HIV-1 infected cells;

- Identify novel strategies to prevent viral resurgence in the CNS upon cessation of ART;
- Develop innovative strategies including gene editing based approaches, to selectively identify and eliminate virus and the latently infected cells without reactivation of provirus;
- Develop unique classes of HIV drugs that inhibit viral production from stable reservoirs and reduce residual viral presence in the periphery and the CNS;
- Refine and adapt immunotherapy-based therapeutic strategies to target CNS reservoirs using by approaches such as CAR-T-cells, NK cells, check point inhibitors, therapeutic vaccines and broadly neutralizing antibodies;
- Studies of epigenetic factors regulating HIV latency in CNS derived cells and development of therapeutic strategies for deep silencing of HIV by targeting epigenetic pathways in CNS derived cells

Link to Additional Information: https://grants.nih.gov/grants/guide/pa-files/PA-20-151.html

30. Division of Chemistry: Disciplinary Research Programs, National Science Foundation

Deadline: September 30, 2020

This solicitation covers submission to the following nine CHE Disciplinary Research Programs (DRPs; these are also known as individual investigator award (IIA), core programs or disciplinary programs):

- Chemical Catalysis (CAT), [Program Description]
- Chemical Measurement and Imaging (CMI), [Program Description]
- Chemical Structure Dynamics and Mechanisms-A (CSDM-A), [Program Description]
- Chemical Structure Dynamics and Mechanisms-B (CSDM-B), [Program Description]
- Chemical Synthesis (SYN), [Program Description]
- Chemical Theory, Models and Computational Methods (CTMC), [Program Description]
- Chemistry of Life Processes (CLP), [Program Description]
- Environmental Chemical Sciences (ECS), [Program Description]
- Macromolecular, Supramolecular and Nanochemistry (MSN), [Program Description].

All proposals submitted to these nine CHE Disciplinary Research Programs (other than the following exceptions) must be submitted through this solicitation, otherwise they will be returned without review.

CHE supports a large and vibrant research community engaged in fundamental discovery, invention, and innovation in the chemical sciences. The projects supported by CHE explore the frontiers of chemical science, develop the foundations for future technologies and industries that meet changing societal needs, and prepare the next generation of chemical researchers. Some of the areas supported by CHE include:

- designing, synthesizing and characterizing new molecules, catalysts, surfaces, and nanostructures - especially those with a focus on sustainability;
- increasing our fundamental understanding of chemical specie, their structures, and their chemical transformations, kinetics, and thermodynamics;
- developing new tools and novel instrumentation for chemical discovery, including those in sensing, communication, and data discovery science where increasing volumes and varieties of data are harnessed to advance innovation;
- determining structure-function relationships in biological systems and contributing to our understanding of the fundamental rules of life; observing, manipulating, and controlling the behavior of matter and energy in nanometer dimensions such as the quantum regime; understanding chemical processes in the environment;
- expanding chemical understanding through data sharing, mining, and repurposing; and expanding state-of-the-art data analytics tools in service of artificial intelligence and robotics for molecular and materials synthesis and characterization;
- solving complex chemical problems by the development of new theories, computations, models, and tools, including the synergistic combination of multiple types of instruments.; and
- contributing to industries of the future as applied to the chemical sciences: quantum information systems, biotechnology, advanced manufacturing, artificial intelligence, and 5G.

Link to Additional Information: http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf20577

31. Access to Historical Records: Archival Projects, National Archives and Records Administration

Deadline: October 8, 2020

The NHPRC seeks projects that will significantly improve online public discovery and use of historical records collections. The Commission encourages projects centered on collections of America's early legal records, such as the records of colonial, territorial, county, and early statehood and tribal proceedings that document the evolution of the nation's legal history. Additionally, the Commission is especially interested in projects to commemorate the 250th anniversary of the Declaration of Independence. We encourage applications that use collections to examine the ideals behind the founding of the United States and the continual interpretation and debate over those ideals over the past 250 years. We welcome projects that engage the public, expand civic education, and promote understanding of the nation's history, democracy, and culture from the founding era to the present day.

Projects may preserve and process historical records to:

- Convert existing description for online access
- Create new online finding aids to collections
- Digitize historical records collections and make them freely available online. All types of historical records are eligible, including documents, photographs, born-digital records, and analog audio and moving images.

The successful application will demonstrate the value of the contents of the collections, will outline a project that addresses best practices for the work and that is appropriately staffed, will propose a budget that accomplishes the project in a cost-effective manner, and will outline activities that bring researchers to the collections included in the project as well as the rest of the repository's holdings. For a comprehensive list of Commission limitations on funding, please see: "What we do and do not fund" (http://www.archives.gov/nhprc/apply/eligibility.html).

Award Information

A grant is for one or two years and for up to $150,000. The Commission expects to make up to 10 grants in this category for a total of up to $1,000,000. The Commission requires that grant recipients acknowledge NHPRC grant assistance in all publicity, publications, and other products that result from its support.

Eligible applicants

- Nonprofit organizations or institutions
- Colleges, universities, and other academic institutions
- State or local government agencies
- Federally-recognized or -acknowledged or state-recognized Native American tribes or groups

Projects must include at least one of the eligible activities described for this program. Applications must include all required elements (SF424, Narrative, NHPRC Budget form, and Supplemental Materials). Applications that do not meet either of these criteria will not be considered. In order to ensure eligibility, applicants should first review the rules and regulations governing NHPRC grants under the Administering an NHPRC Grant section.

Cost Sharing

The total costs of a project are shared between the NHPRC and the applicant organization. Cost sharing is required. The applicant's financial contribution may include both direct and indirect expenses, in-kind contributions, non-Federal third-party contributions, and any income earned directly by the project. NHPRC grant recipients are not permitted to use grant funds for indirect costs (as indicated in 2 CFR 2600.101). Indirect costs must be listed under the applicant's cost sharing contribution if they are included in the budget. The Commission provides no more than 75 per cent of total project costs in the Access to Historical Records: Archival Projects category. For example, a request of $75,000 in NHPRC grant funds means the applicant institution must provide at least $25,000 in cost share.

Other Requirements

Applicant organizations must be registered in the System for Award Management (SAM) prior to submitting an application, maintain SAM registration throughout the application and award process, and include a valid DUNS number in their application. Details on SAM registration and requesting a DUNS number can be found at the System for Award Management website at https://sam.gov. Please refer to the User Guides section and the Grants Registrations PDF.

Link to Additional Information: http://www.archives.gov/nhprc/announcement/archival.html

32. Cooperative Research in Housing Technologies, Department of Housing and Urban Development

Deadline: June 18, 2020

HUD is funding co-operative agreements for pre-competitive research in homebuilding technologies that provide the homebuilding industry with new, innovative construction products or practices that lead to more affordable, energy efficient, resilient (in this sense, durable, disaster resistant, adaptable for future requirements, and maintainable), and healthier housing. HUD is specifically interested in receiving applications that focus on aspects of residential construction related to factory-built housing and components and/or resilience.

HUD is interested in developing and deploying knowledge that provides the homebuilding industry with new, innovative construction products or practices that may lead to more affordable, energy efficient, resilient (i.e., durable, disaster resistant, adaptable for future requirements, and maintainable), and healthier housing while at the same time reducing the cost of construction. Specifically, applications are encouraged to focus on aspects of residential construction related to factory-built housing and components and/or resilience. Both topics were central to the recent Innovative Housing Showcase event (https://www.hud.gov/Innovative_Housing) that HUD hosted on the National Mall, June 1-5, 2019, in which Secretary Carson remarked that there is a need for lowering the cost of production of American homes while increasing their resilience.

HUD is particularly interested in cooperative agreements where the results would be widely available for application in the industry, as opposed to being deployed in a proprietary manner. In that regard, HUD has had significant success in the past working with trade or industry associations to generate advances that are broadly available.

Link to Additional Information: https://www.hud.gov/program_offices/spm/gmomgmt/grantsinfo/fundingopps/fy20_crht

33. Supporting Anaerobic Digestion in Communities, Environmental Protection Agency

Deadline: July 14, 2020

This notice announces the availability of funds and solicits applications that will accelerate the development of new or enhance/increase existing anaerobic digestion capacity and infrastructure in the United States. Anaerobic digestion (AD) is the natural process in which microorganisms break down organic (plant and animal) materials. Food waste diverted from landfills and incinerators can be managed at AD facilities. The AD process generates renewable energy (biogas) and a product that can improve soil health (digestate).

EPA supports diversion of food waste and other organic materials from landfills. AD is an alternative to landfilling that results in environmental benefits. The goal of this funding opportunity is to increase use of AD to manage food waste. Another goal is to support the development of new AD infrastructure in the U.S.

AD is the natural process in which microorganisms break down organic materials. In this instance, “organic” means coming from or made of plants or animals. AD happens in closed spaces where there is no air (or oxygen). AD processes food waste feedstocks (e.g. food scraps, food residuals) into digestates, which may be used as soil amendments. Biogas is also produced throughout the AD process. Biogas is a renewable energy source that can be used to power engines, run alternative-fuel vehicles, and heat buildings. The initials “AD” may refer to the process of AD or the built system where AD takes place, also known as a digester. The main categories of anaerobic digesters are stand-alone digesters, on-farm digesters, and digesters at water resources recovery facilities. All AD systems adhere to the same basic principles whether the feedstock is food waste, animal manures, or wastewater sludge. The systems may have some differences in design, but the process is basically the same.

EPA is interested in funding projects that increase anaerobic digestion capacity in the United States. Such projects may include enhancements of existing infrastructure or acceleration of the development of new infrastructure. In September 2015, EPA, along with the U.S. Department of Agriculture (USDA), announced a domestic goal to reduce food loss and waste by 50% by the year 2030. In addition, in fiscal years 2019 and 2020, Congress provided EPA with funds to help public entities demonstrate community AD applications to municipal solid waste streams and farm needs, such as capturing excess phosphorus.

Anaerobic digestion converts food waste into useful products (biogas, fertilizer, soil amendments). As demonstrated on EPA’s Food Recovery Hierarchy, anaerobic digestion allows communities to divert food waste from landfilling/incineration and supports the goals of sustainable materials management. The term sustainable materials management refers to a systematic approach to using and reusing materials more productively over their entire life cycles. Sustainable materials management (SMM) represents a change in how our society thinks about the use of natural resources and environmental protection. By looking at a product's entire life cycle, we can find new opportunities to reduce environmental impacts, conserve resources and reduce costs.

Link to Additional Information: https://www.epa.gov/grants/supporting-anaerobic-digestion-communities

34. Critical Materials FOA: Next-Generation Technologies and Field Validation, Department of Energy

Deadline: August 11, 2020

This Funding Opportunity Announcement (FOA) is being issued by DOE's Office of Energy Efficiency and Renewable Energy (EERE) Advanced Manufacturing Office (AMO). The activities to be supported under this FOA are authorized under § 911 (a)(2)(C) of the Energy Policy Act of 2005, as codified at 42 U.S.C. § 16191(a)(2)(C). The mission of AMO is to catalyze research, development and adoption of energy-related advanced manufacturing technologies and practices to increase energy productivity and drive U.S. economic competitiveness. AMO strategic goals to achieve this mission include:

- Improve the productivity, competitiveness, energy efficiency and security of U.S manufacturing;
- Reduce lifecycle energy and resource impacts of manufacturing goods;
- Leverage diverse domestic energy resources and materials in U.S. manufacturing, while strengthening environmental stewardship;
- Transition DOE supported innovative technologies and practices into U.S. manufacturing capabilities; and
- Strengthen and advance the U.S. manufacturing workforce.

Through this FOA, AMO seeks to address gaps in domestic supply chains for key critical materials for energy technologies to:

- Enable domestic manufacturing of high energy efficiency and high energy density energy technologies;
- Diversify the domestic supply of critical materials; and
- Validate and demonstrate domestic innovative technologies to support the transition to U.S. manufacturing.

This will be accomplished through development of alternative next-generation technologies and field validation and demonstration of technologies that improve extraction, separation and processing. Key critical materials for energy technologies as defined in this FOA include: rare earth elements: neodymium (Nd), praseodymium (Pr), dysprosium (Dy), terbium (Tb), and samarium (Sm) used in permanent magnets for electric vehicle motors, wind turbine generators and high temperature applications; cobalt (Co) used in batteries used in electric vehicles (EVs) and grid storage and high temperature permanent magnets; and lithium (Li), manganese (Mn) and natural graphite used in batteries (see table below). This FOA seeks to leverage the technology and capabilities developed at the Critical Materials Institute (CMI), an Energy Innovation Hub led by Ames Laboratory and managed by DOE.

CMI's mission is to accelerate the development of technological options that assure supply chains of materials essential to energy technologies - enabling innovation in US manufacturing and enhancing energy security. CMI carries out early-stage applied research in three areas aligned with DOE's pillars: diversifying supply, developing substitutes, and reuse and recycling. These research areas are linked to industrial needs and are enabled with fundamental scientific research and cross-cutting analysis.

Link to Additional Information: https://eere-exchange.energy.gov/#FoaIdf92d9b97-2d02-4e2a-8b8a-76cba3a2e114

Strategic Resources

AUTORIZADO POR LA COMISIÓN ESTATAL DE ELECCIONES CEE-SA-2020-7751