

UNO FOCUS:

Fiscal Year 2021 NMFS-Sea Grant Fellowship in Population and Ecosystem Dynamics and Marine Resource Economics
National Oceanic and Atmospheric Administration (NOAA), Department of Commerce (Commerce)

Notice seeking fellowship applications to support federal and state partnerships that harness the intellectual capacity of the nation's universities and research institutions to solve problems and generate opportunities in coastal communities.

Applications are due February 17, 2021. Approximately \$800,000 is available for six awards.

LINKS: [Grants.gov](https://www.grants.gov)

Undergraduate Research Opportunities Program (UROP)
LA Sea Grant

The Undergraduate Research Opportunities Program (UROP) is soliciting applications from interested faculty mentors of undergraduate students and at all Louisiana universities and colleges. UROP, established in 1992 by the Louisiana Sea Grant College Program, offers the Louisiana undergraduate community funding to support hands-on research experiences in marine and coastal resource issues. Previously funded projects have dealt with topics such as coastal ecology, fisheries, aquaculture, environmental engineering, and genetics.

Application deadline for the year 2021 funding is December 11, 2020.

LINKS: [LASEAGrant.org](https://www.laseagrant.org)

Coastal Science Assistantship Program (CSAP)
LA Sea Grant

The Louisiana Coastal Protection and Restoration Authority (CPRA) continues its support of a graduate assistantship opportunity called the Coastal Science Assistantship Program (CSAP). This program provides graduate assistant stipends for up to three years to Master of Science students both enrolled full-time at Louisiana colleges/universities and involved in research relevant to Louisiana coastal protection and restoration efforts. The program will both expose students to CPRA activities and provide a potential avenue for recruitment of new CPRA personnel.

Application deadline for the year 2021 assistantships is December 4, 2020.

LINKS: [LASEAGrant.org](https://www.laseagrant.org)

ARTS, HUMANITIES, and INTERNATIONAL

Battlefield Preservation Planning Grants
Department of the Interior (Interior), National Park Service

Notice accepting applications for projects that relate to planning, interpreting, and protecting historic battlefields and sites associated with armed conflict on American soil.

Applications are due February 12, 2021. Awards are up to \$150,000.

LINKS: [Grants.gov](https://www.grants.gov), [Solicitation](#)

U.S. Ambassadors Fund for Cultural Preservation
Department of State (State), U.S. Mission to Zambia

Notice seeking proposals for preservation projects in Zambia three categories: Cultural Objects and Collections; Cultural Sites; and Forms of Traditional Cultural Expression.

Concept notes are due November 25, 2020. Invited full applications are due March 1, 2021. Multiple awards, ranging from \$10,000 to \$500,000, are available.

LINKS: [Grants.gov](#), [Agency Site](#)

Annual Program Statement for Statements of Interest for Human Rights, Accountability, and Access to Information in the Democratic People's Republic of Korea (DPRK)
Department of State (State), Bureau of Democracy Human Rights and Labor (DRL)

Notice seeking statements of interest for programs that support the policy objective to promote human rights and accountability in the DPRK.

Applications are due January 15, 2021; April 2, 2021; and September 17, 2021. Up to 15 awards ranging from \$50,000 to \$3 million each are available to support projects lasting 6 to 42 months.

Limited Submission: Organizations may submit no more than one statement of interest per category (for a total of two).

LINKS: [Grants.gov](#), [Agency Site](#)

Applied Research and Evaluation Innovation Fund: Round 1
Department of State (State), Bureau of Democracy Human Rights and Labor (DRL)

Notice seeking statements of interest (SOIs) for applied research and evaluation projects that support the following goal to build a portfolio of evidence to further identify democracy and human rights program strategies that are effective in order to improve program relevance and impact.

Applications are due December 21, 2020. Awards ranging from \$75,000 to \$450,000 each are available.

Limited Submission: An organization may submit no more than four SOIs.

LINKS: [Grant.gov](#), [Agency Site](#)

Higher Education and STEM Virtual Grant Program (and other programs)
Department of State (State), U.S. Mission to Canada

Notice seeking applications to carry out virtual programs to strengthen bilateral ties between the United States and Canada on Higher Education and STEM. Additional notices are also available seeking applications to fund virtual programs that strengthen bilateral ties between the United States and Canada in a wide range of other topic areas. See the Agency Site and related Grants.gov notices for November 20, 2020 for details.

Applications for Higher Education and STEM program are due August 9, 2021. Approximately \$100,000 is available for awards ranging from \$500 to \$25,000 each. See related announcements and the Agency Site for details on other virtual bilateral programs.

LINKS: [Grants.gov](#), [Agency Site](#)

U.S. Embassy Singapore - Annual Program Statement
Department of State (State), U.S. Mission to Singapore

Notice announcing funding opportunities through public diplomacy grants program. Each year, the U.S. Embassy awards a limited number of grants to support activities and exchanges linking the United States and Singapore with the aim of strengthening the bilateral relationship and people-to-people connections.

Proposals are accepted on an ongoing basis and will be considered pending the availability of funds. A few times a year, U.S. Embassy Singapore convenes grant panels to make priority funding decisions, and the next submission deadline for priority review is January 31, 2021. This notice of funding opportunity is valid for funding through September 30, 2021.

LINKS: [Grants.gov](https://www.grants.gov)

America Works in Russia
Department of State (State), U.S. Mission to Russia

Notice seeking proposals that supports American and Russian engagement in the area of business, entrepreneurship, and higher education.

Proposals are due June 1, 2021. Approximately \$800,000 is available to support 20 awards.

LINKS: [Grants.gov](https://www.grants.gov)

FY2020 Historic Preservation Fund- Save America's Treasures (Preservation and Collection Grants)
Department of the Interior (Interior), National Park Service (NPS)

Notice seeking applications for preservation and/or conservation assistance to nationally significant historic properties and collections. The grant program is administered by the National Park Service (NPS) in partnership with the National Endowment for the Arts (NEA), the National Endowment for the Humanities (NEH), and the Institute of Museum and Library Services (IMLS).

Applications are due January 26, 2021. Approximately \$16 million is available for multiple awards. Grants are awarded through a competitive process and require a dollar-for-dollar, non-Federal match, which can be cash or documented in-kind.

LINKS: [Grants.gov \(Preservation Grants\)](https://www.grants.gov), [Grants.gov \(Collection Grants\)](https://www.grants.gov), [Agency Site](#)

U.S. Embassy Santo Domingo – Public Diplomacy Annual Program Statement
Department of State (State), U.S. Mission to the Dominican Republic

Notice seeking applications for programs that strengthen cultural, educational, professional, and scientific ties between the U.S. and the Dominican Republic through programming that highlights shared values and promotes bilateral cooperation. All PD programs must include an American element, a nexus or connection with American expert/s, organization/s, or institution/s in a specific field that will promote increased understanding of U.S. policy and perspectives.

Applications are due April 30, 2021. Multiple awards expected.

LINKS: [Grants.gov](https://www.grants.gov)

EDUCATION and ECONOMIC & COMMUNITY DEVELOPMENT

18th Annual P3 Awards: A National Student Design Competition Focusing on People, Prosperity and the Planet

Environmental Protection Agency (EPA)

Notice seeking applications proposing to research, develop, design, and demonstrate solutions to real world challenges. The P3 competition highlights the use of scientific principles in creating innovative technology-based projects that achieve the mutual goals of improved quality of life, economic prosperity and protection of the planet – people, prosperity, and the planet. The EPA offers the P3 competition to respond to the environmental and human health protection needs of people in the United States, including those in small, rural, tribal and/or disadvantaged communities.

Applications are due February 9, 2021. Awards are up to \$25,000.

LINKS: [Grants.gov EPA-G2021-P3-Q1 \(Air Quality\)](#), [Solicitation](#)

2021 Marine Education and Training Mini Grant Program

National Oceanic and Atmospheric Administration (NOAA), Department of Commerce (Commerce)

Notice seeking applications to improve communication, education, and training on marine resource issues throughout the Pacific islands region and increase scientific education for marine-related professions among coastal community residents, including indigenous Pacific islanders, Native Hawaiians, and other underrepresented groups in the region. Projects must be conducted within Hawaii, Guam, the Commonwealth of the Northern Mariana Islands, or American Samoa.

Applications are due February 10, 2021. Approximately 13 awards of up to \$15,000 each are available to support projects lasting a recommended 12 months.

LINKS: [Grants.gov](#), [Agency Site](#)

Forest Service Wildfire Risk Reduction - Wildfire Response RFA 2021

United States Department of Agriculture (USDA), Forest Service (FS)

Notice seeking applications to Restore and Maintain Landscapes; Create Fire Adapted Communities and Improve Wildfire Response.

Applications are due January 15, 2021.

LINKS: [Grants.gov](#)

STEM Education Advisory Panel; Notice of Meeting

Directorate for Education & Human Resources (EHR), National Science Foundation (NSF)

Notice announcing a meeting scheduled to provide advice to the Committee on Science, Technology, Engineering, and Mathematics Education (CoSTEM) and to assess CoSTEM's progress.

The meeting will be held December 11, 2020, online. Register to attend by sending an email to stemedadvisory@nsf.gov up to 48 hours before the meeting.

LINKS: [Federal Register](#), [Agency Site](#)

2021 Norman E. Borlaug International Agricultural Science and Technology Fellowship, Fall Release
United States Department of Agriculture (USDA)

Notice seeking applications for collaborative programs among agricultural professionals of eligible countries, agricultural professionals of the United States, the international agricultural research system, and United States entities conducting research by providing Fellowships to individuals from eligible countries who specialize or have experience in agricultural education, research, extension, or other related fields. Fellowships promote food security and economic growth in eligible countries by educating a new generation of agricultural scientists, increasing scientific knowledge and collaborative research to improve agricultural productivity, and extending that knowledge to users and intermediaries in the marketplace.

Applications are due February 1, 2021. Nine awards are available for \$60,000 each.

LINKS: [Grants.gov](https://www.grants.gov)

College Assistance Migrant Program (CAMP) Assistance Listing Number 84.149A
Department of Education (Education), Office of Elementary and Secondary Education (OESE)

Notice seeking applications to assist migratory or seasonal farmworkers (or immediate family members of such workers) who are enrolled or are admitted for enrollment on a full-time basis at an institution of higher education (IHE) to complete their first academic year.

Applications are due January 22, 2021. The Department will hold pre- application workshops via webinar for prospective applicants on Monday, November 30, 1:30 p.m. ET. Award amounts range from \$180,000 to \$475,000. 14 awards are anticipated.

LINKS: [Grants.gov](https://www.grants.gov), [Federal Register](https://www.federalregister.gov)

Education Research: Research Networks Focused on Critical Problems of Education Policy and Practice Assistance Listing Number 84.305N
Department of Education (Education), Institute of Education Sciences (IES)

Notice seeking applications that focuses resources and attention on specific education problems or issues that are a high priority for the Nation, and establishes both a structure and process for researchers who are working on these issues to share ideas, build new knowledge, and strengthen their research and dissemination capacity.

Applications are due February 25, 2021. Grant award amount range from \$1 to \$3 million.

LINKS: [Grants.gov](https://www.grants.gov)

Education Research: Transformative Research in The Education Sciences Assistance Listing Number 84.305T
Department of Education (Education), Institute of Education Sciences (IES)

Notice seeking applications to support innovative or unconventional research that has the potential to lead to new scientific paradigms, new and more effective approaches to education practice or policy, or transformative technologies that substantially increase learner outcomes.

Applications are due February 25, 2021. Grant amounts range from \$500,000 to \$3 million.

LINKS: [Grants.gov](https://www.grants.gov)

Fiscal Year 2021 Chesapeake Bay Watershed Education and Training Program
National Oceanic and Atmospheric Administration (NOAA), Department of Commerce (Commerce)

Notice seeking applications to increase understanding and stewardship of the Chesapeake Bay and its

local watersheds, including the rivers, upland streams, and natural habitats found throughout the region. Projects advance the environmental literacy goal of the Chesapeake Bay Watershed Agreement and the NOAA Education Strategic Plan.

Applications are due March 1, 2020. Approximately \$1.6 million is available to support 10 to 15 awards.

LINKS: [Grants.gov](https://www.grants.gov)

High School Equivalency Program (HEP) Assistance Listing Number 84.141A
Department of Education (Education), Office of Elementary and Secondary Education (OESE)

Notice seeking applications to assist migratory or seasonal farmworkers (or immediate family members of such workers) to obtain the equivalent of a secondary school diploma and subsequently to gain improved employment, enter into military service, or be placed in an institution of higher education (IHE) or other postsecondary education or training.

Applications are due January 22, 2021. Pre-application workshops via webinar for prospective applicants will be on Monday, November 30, 1:30 p.m.

LINKS: [Grants.gov](https://www.grants.gov), [Federal Register](https://www.federalregister.gov)

Request for Nominations for the National Park System Advisory Board
Department of the Interior (Interior), National Park Service (NPS)

Notice seeking nominations for individuals to be considered for appointment to the National Park System Advisory Board (Board). The Board advises the Secretary of the Interior (Secretary) and the Director of the National Park Service (Director) on matters relating to the National Park Service (NPS), the National Park System, and programs administered by the NPS; the designation of National Historic Landmarks and National Natural Landmarks; and the national historic significance of proposed National Historic Trails.

Nominations must be postmarked by December 7.

LINKS: [Federal Register](https://www.federalregister.gov)

HEALTH and MENTAL HEALTH

Addressing the Etiology of Health Disparities and Health Advantages Among Immigrant Populations (R01 Clinical trial not allowed)
National Institutes of Health (NIH), Department of Health and Human Services (HHS)

Notice seeking applications to support innovative research to understand factors uniquely associated with the immigration experience that contribute to health disparities or health advantages among U.S. immigrant populations.

Applications are due March 5, July 5, and November 5 annually. Standard AIDS dates apply. The expiration date is January 8, 2023.

LINKS: [Grants.gov \(PAR-21-080\)](https://www.grants.gov), [Grants.gov \(PAR-21-081\)](https://www.grants.gov), [Solicitation](#)

Advanced Nursing Education - Sexual Assault Nurse Examiners (ANE-SANE) Program
Health Resources and Services Administration (HRSA), Department of Health and Human Services (HHS)

Notice seeking ap fund advanced nursing education to train and certify registered nurses, advanced practice registered nurses, and forensic nurses to practice as sexual assault nurse examiners.

Applications are due February 17, 2021. Approximately 16 awards of up to \$500,000 each are available to support projects lasting up to three years. Eligible applicants include accredited schools of nursing, nursing centers, nurse-managed health clinics, academic health centers, State or local health departments (including territories), HRSA-supported Health Centers, Rural Health Clinics, public or non-profit Hospitals, other emergency health care service providers, Federally Qualified Health Centers, Clinics receiving funding under Title X, and other similar public or private non-profit entities.

LINKS: [Grants.gov](#), [Solicitation](#)

Detection of HIV for Self-Testing (R61-R33 Clinical Trial Not Allowed)
National Institutes of Health (NIH), Department of Health and Human Services (HHS)

Notice supporting collaborative, interdisciplinary early-stage research to inform the development of innovative rapid, sensitive, simple, and cost-effective diagnostic technologies that will enable HIV self-testing during the earliest phases of acute infection or during viral rebound.

Optional letters of intent are due 30 days prior to the application due date. Applications are due March 17 annually through 2023. Approximately \$2.8 million is available for awards.

LINKS: [Grants.gov](#), [Solicitation](#)

Exploratory Centers for Interdisciplinary Research in Benign Urology (P20 Clinical Trial Optional)
National Institutes of Health (NIH), Department of Health and Human Services (HHS)

Notice seeking applications to build interdisciplinary research teams. The program seeks innovative, high-risk–high-reward Research Projects that utilize integrative approaches to address questions relevant to benign genitourinary diseases or disorders bringing together investigators with complementary expertise. Studies involving human subjects or tissues and small, innovative, pilot and feasibility clinical studies are encouraged.

Applications are due March 18, 2021. Optional letters of intent are due February 18, 2021. Approximately \$1 million is available to support up to three awards.

LINKS: [Grants.gov](#), [Solicitation](#)

Exploring the Scientific Value of Existing or New Sepsis Human Biospecimen Collections (R21-R33 - Clinical Trial Not Allowed)
National Institutes of Health (NIH), Department of Health and Human Services (HHS), National Institute of General Medical Sciences (NIGMS)

Notice inviting applicants to submit proof of concept and scale-up studies to determine the scientific value of existing or new collections of human sepsis biospecimens with associated patient health record data. The biospecimens used in this study must be linked to clinical datasets useful for sepsis endotyping/stratification and characterization of disease trajectory, and the use of contemporary cutting-edge technologies in the analysis of these biospecimens is highly encouraged.

Applications are due February 16, June 16, and October 16 through November 17, 2022.

LINKS: [Grants.gov](#), [Solicitation](#)

Leadership Education in Neurodevelopmental and Other Related Disabilities (LEND)
Health Resources and Services Administration (HRSA), Department of Health and Human Services (HHS), Maternal and Child Health Bureau (MCHB)

Notice seeking applications to improve the health of individuals who have, or are at risk for developing,

autism spectrum disorder and other developmental disabilities by providing graduate-level training in maternal and child health interdisciplinary leadership education in neurodevelopmental and related disabilities programs.

Applications are due February 16, 2021. Approximately \$35.25 million is available to support 55 awards.

LINKS: [Grants.gov](#)

Mood and Psychosis Symptoms during the Menopause Transition (R01 and R21 Clinical Trial Optional)
National Institutes of Health (NIH), Department of Health and Human Services (HHS)

Notice seeking applications that will advance mechanistic and translational research on the onset and worsening of mood and psychotic disorders during the menopausal transition (or perimenopause).

Optional letters of intent are due January 9, 2021. Applications are due February 9, 2021. Approximately \$2 million is available to support four to six awards.

LINKS: [Grants.gov \(R01\)](#), [Grants.gov \(R21\)](#), [Solicitation](#)

Multi-Site Studies for System-Level Implementation of Substance Use Prevention and Treatment Services (R34 and R01 Clinical Trial Optional)

National Institutes of Health (NIH), Department of Health and Human Services (HHS), National Institute on Drug Abuse (NIDA); National Institute on Alcohol Abuse and Alcoholism (NIAAA)

Notice seeking applications to support the development, adaptation, and pilot testing of implementation strategies to achieve system-level adoption of evidence-based interventions, guidelines, or practices to improve the delivery, quality, and sustainability of prevention or treatment services for substance use disorders.

Applications are due July 19, 2021; November 15, 2021; July 19, 2022; November 15, 2022; July 19, 2023; and November 15, 2023. Optional letters of intent are due 30 days prior to the application due date.

LINKS: [Grants.gov \(R34\)](#), [Grants.gov \(R01\)](#), [Solicitation](#)

National Maternal and Child Health Consortium for Oral Health Systems Integration and Improvement
Health Resources and Services Administration (HRSA), Department of Health and Human Services (HHS),
Maternal and Child Health Bureau (MCHB)

Notice seeking applications to develop and expand accessible, high-quality integrated preventive oral health care for maternal and child health (MCH) populations, with an emphasis on supporting MCH safety net services.

Applications are February 17, 2021. Approximately \$1.325 million is available.

LINKS: [Grants.gov](#)

NIAAA Resource-Related Research Projects (R24 Clinical Trial Not Allowed)
National Institutes of Health (NIH), Department of Health and Human Services (HHS)

Notice seeking applications for investigator-initiated resources designed to provide materials and services to support and advance biomedical research on a national basis. An R24 resource grant mechanism is a non-hypothesis-driven activity to provide data, materials, tools, or services that are essential to making timely, high quality, and cost-efficient progress in a field.

Optional letters of intent are due 30 days prior to the application due dates. Applications are due January 25, May 25, and September 25 annually through September 26, 2023.

LINKS: [Grants.gov](#), [Solicitation](#)

Service-Ready Tools for Identification, Prevention, and Treatment of Individuals at Risk for Suicide (Clinical Trial Optional)

National Institutes of Health (NIH), Department of Health and Human Services (HHS), National Institute on Mental Health (NIMH)

Notice seeking applications for research projects (R01), pilot effectiveness projects (R34), and small business projects (R43/R44) to ultimately improve the availability of evidence-based suicide prevention services.

Optional letters of intent are due 30 days prior to the application due date. Applications are due February 18, 2021; October 15, 2021; and June 15, 2022. Multiple awards expected.

LINKS: [Grants.gov \(R01\)](#), [Solicitation \(R01\)](#)

Strengthening HIV Prevention Efforts for Women in the Southern U.S. (R34 Clinical Trial Optional)

National Institutes of Health (NIH), Department of Health and Human Services (HHS), National Institute on Drug Abuse (NIDA); National Institute of Mental Health (NIMH)

Notices seeking Planning Grant and Research Project Grant applications to increase the use of HIV prevention strategies among women in the southern U.S. by elucidating barriers and facilitators to their utilization and developing and testing interventions to enhance uptake, adherence, and persistence. Research should focus on strategies within the following three potentially overlapping areas: implementation science, health communication research, and services research.

Letters of intent are due December 11, 2020. Applications are due January 11, 2021. Approximately \$3 million is available for six to nine awards.

LINKS: [Grants.gov \(RFA-MH-21-150\)](#), [Grants.gov \(RFA-MH-21-151\)](#), [Solicitation](#)

Strengthening Public Health Research and Implementation Science (Operations Research) to Control and Eliminate Infectious Diseases Globally

Centers for Disease Control and Prevention (CDC), Department of Health and Human Services (HHS), Center for Global Health Extramural Research Program Office

Notice seeking applications to Conduct and monitor epidemiologic and laboratory-based science, surveillance, and research related to COVID-19 and other global public health threats in Africa, Southeast Asia, Eastern Europe and Central Asia, and the Middle East and North Africa (MENA), including, but not limited to, assessments of the extent of pathogen exposures or transmission based on serologic testing, improved understanding of immune responses to infectious pathogens, and assessments of various approaches to collecting and analyzing the results of serologic testing; and, Incorporate the results of these public health activities into operational disease detection, prevention, and response or control programs in regions noted above, strengthen public health capacity as outlined in the Global Health Security Agenda, and disseminate findings across the region, with partners, and globally.

Applications are due February 22, 2021. Optional letters of intent are due January 20, 2021. Approximately \$60 million is available to support six awards over five years.

Limited Submission: Only one application per institution

LINKS: [Grants.gov](#)

US Enhanced Surveillance Network to Assess Burden, Natural History, and Effectiveness of Vaccines to Prevent Enteric and Respiratory Viruses in Children
Centers for Disease Control and Prevention (CDC), Department of Health and Human Services (HHS), National Center for Immunization and Respiratory Diseases (NCIRD)

Notice seeking applications to support a network of U.S. institutions to develop and implement standard research protocols to conduct prospective active surveillance for: a) acute gastroenteritis due to norovirus, rotavirus and other enteric viruses; b) acute respiratory illnesses due to respiratory viruses including, but not limited to, influenza, respiratory syncytial virus, parainfluenza viruses, human metapneumovirus, rhinoviruses, enteroviruses (including EV-D68), adenoviruses, and coronaviruses (including SARS-CoV-2); and c) acute flaccid myelitis syndrome and multisystem inflammatory syndrome in children among pediatric patients seeking healthcare at medical institutions.

Applications are due February 8, 2021. Optional letters of intent are due January 7, 2021. Approximately \$68.25 million is available for an estimated seven awards to support projects that last up to five years.

Limited Submission: Only one application per institution is allowed.

LINKS: [Grants.gov](#), [Agency Site](#)

Eunice Kennedy Shriver National Institute of Child Health & Human Development; Notice of Meeting
National Institutes of Health (NIH), Department of Health and Human Services (HHS)

Notice announcing a meeting scheduled to discuss the following agenda items: reports from NICHD and the National Center for Medical Rehabilitation Research; Updates on the NIH Rehabilitation Research Conference and NIH rehabilitation research funding; and lessons learned from the pandemic (supporting research activities and the needs of people with disabilities).

The meeting will be held December 7, 2020, from 10:00 am to 2:30 pm, ET, online at <https://videocast.nih.gov/default.asp>.

LINKS: [Federal Register](#), [Agency Site](#)

National Cancer Institute; Notice of Meeting
National Institutes of Health (NIH), Department of Health and Human Services (HHS), 2020-25281

Notice announcing a meeting scheduled to discuss research and activities of the National Cancer Institute.

The open portions of the meeting will be held November 30, 2020, from 1:15 pm to 4:45 pm, and December 1 and 2, 2020, from 1:00 pm to 5:00 pm, ET, online at <http://videocast.nih.gov/>

LINKS: [Federal Register](#), [Agency Site](#), [Agency Site](#)

Request for Information-Landscape Analysis To Leverage Novel Technologies for Chronic Disease Management for Aging Underserved Populations
Department of Health and Human Services (HHS)

Notice seeking information from academic institutions and other stakeholders on innovative solutions to chronic disease management leveraging novel technologies (e.g., artificial intelligence, biosensors, apps, remote monitoring, 5G) to optimize compliance with evidence-based standards of care in disease states that cause significant morbidity and mortality in aging populations in underserved areas.

Email responses to OASHcomments@hhs.gov by December 22, 2020.

LINKS: [Federal Register](#), [Agency Site](#)

Analytical Validation of a Candidate Biomarker for Neurological or Neuromuscular Disorders(U01 Clinical Trial Optional)

National Institutes of Health (NIH), Department of Health and Human Services (HHS), National Institute of Neurological Disorders and Stroke (NINDS)

Notices seeking applications for research to enable the rigorous validation of analytical methods for biomarker measurements, which should include evaluation of the detection method, its performance characteristics, and the optimal conditions that will generate reproducibility and accuracy consistent with FDA guidelines.

Applications are due February 22, 2021; June 22, 2021; February 22, 2022; June 22, 2022; February 22, 2023, and June 22, 2023. AIDS applications are due May 4, 2021; September 7, 2021; May 7, 2022; September 7, 2022; May 7, 2023; and September 7, 2023. Optional letters of intent are due 30 days before the application deadline. The expiration date is September 8, 2023. Number of awards and their size and duration vary according to the funding mechanism. See the solicitation for each FON above for details.

LINKS: [Solicitation \(PAR-21-056\)](#), [Grants.gov \(PAR-21-056\)](#)

Clinical Observational (CO) Studies in Musculoskeletal, Rheumatic, and Skin Diseases (R01 Clinical Trial Not Allowed)

National Institutes of Health (NIH), Department of Health and Human Services (HHS), National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)

Notice seeking applications to pursue clinical observational (CO) studies to obtain data necessary for designing clinical studies for musculoskeletal, rheumatic, or skin diseases or conditions. A future clinical study may include a clinical trial or an observational study.

Applications are due March 4, 2021; July 2, 2021; November 2, 2021; March 4, 2022; July 1, 2022; November 4, 2022; March 3, 2023; July 2, 2023; and November 3, 2023.

LINKS: [Grants.gov](#), [Solicitation](#)

Diabetes Research Centers (P30 Clinical Trial Optional)

National Institutes of Health (NIH), Department of Health and Human Services (HHS), National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)

Notice seeking applications for Diabetes Research Centers that are designed to support and enhance the national research effort in diabetes, its complications, and related endocrine and metabolic diseases.

Applications are due May 20, 2021. Optional letters of intent are due April 20, 2021. Approximately \$6.5 million is available for up to four awards to support projects lasting up to five years.

Limited Submission: Only one application per institution is allowed.

LINKS: [Solicitation](#), [Grants.gov](#)

Exploratory Clinical Trial Grants in Arthritis and Musculoskeletal and Skin Diseases (R21 Clinical Trial Required)

National Institutes of Health (NIH), Department of Health and Human Services (HHS), National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)

Notice seeking applications to facilitate clinical trials that can be completed within a limited timeframe and budget. A broad range of types of exploratory studies may be submitted to this FOA. The trials must

address research questions related to the mission and goals of the NIAMS and may evaluate interventions with drugs, biologics, devices, or surgical, dietary, behavioral or rehabilitation therapies.

Applications are due March 4, 2021; July 2, 2021; November 2, 2021; March 4, 2022; July 1, 2022; November 4, 2022; March 3, 2023; July 2, 2023; and November 3, 2023.

LINKS: [Grants.gov](#), [Solicitation](#)

Graduate Research Training Initiative for Student Enhancement (G-RISE) (T32 - Clinical Trial Not Allowed)
National Institutes of Health (NIH), Department of Health and Human Services (HHS), National Institute of General Medical Sciences (NIGMS)

Notice seeking applications to develop a diverse pool of scientists earning a Ph.D., who have the skills to successfully transition into careers in the biomedical research workforce. This funding opportunity announcement (FOA) provides support to eligible, domestic institutions to develop and implement effective, evidence-informed approaches to biomedical graduate training and mentoring that will keep pace with the rapid evolution of the biomedical research enterprise. NIGMS expects that the proposed research training programs will incorporate didactic, research, mentoring, and career development elements to prepare trainees for careers that will have a significant impact on the health-related research needs of the Nation.

Applications are due February 26, 2021; January 28, 2022; January 30, 2023. This program is limited to applications from training programs at research-active institutions (i.e., those with NIH Research Project Grant funding averaging less than \$7.5 million in total costs (direct and F&A/indirect) per year over the last three fiscal years).

LINKS: [Grants.gov](#), [Solicitation](#)

Initiative for Maximizing Student Development (IMSD) (T32 - Clinical Trial Not Allowed)
National Institutes of Health (NIH), Department of Health and Human Services (HHS), National Institute of General Medical Sciences (NIGMS)

Notice seeking applications to develop a diverse pool of scientists earning a Ph.D., who have the skills to successfully transition into careers in the biomedical research workforce. This funding opportunity announcement (FOA) provides support to eligible, domestic institutions to develop and implement effective, evidence-informed approaches to biomedical graduate training and mentoring that will keep pace with the rapid evolution of the biomedical research enterprise.

Applications are due February 26, 2021; January 28, 2022; and January 30, 2023. Multiple awards expected.

LINKS: [Grants.gov](#), [Solicitation](#)

Innovative Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (R21
Clinical Trial Not Allowed)
National Institutes of Health (NIH), Department of Health and Human Services (HHS), National Cancer Institute (NCI)

Notice soliciting grant applications proposing exploratory research projects focused on the early-stage development of highly innovative technologies offering novel molecular or cellular analysis capabilities for basic or clinical cancer research. The emphasis of this FOA is on supporting the development of novel capabilities involving a high degree of technical innovation for targeting, probing, or assessing molecular and cellular features of cancer biology.

Optional letters of intent are due 30 days prior to the application due date. Applications due date February 22, 2021; May 27, 2021; and September 29, 2021. NCI intends to fund an estimate of 17 awards, corresponding to a total of \$4.2 million.

LINKS: [Grants.gov](#), [Solicitation](#)

Nursing Workforce Diversity (NWD) Program
Health Resources and Services Administration (HRSA), Department of Health and Human Services (HHS)

Notice seeking applications to increase nursing education opportunities for individuals who are from disadvantaged backgrounds (including racial and ethnic minorities underrepresented among registered nurses).

Applications are due January 19, 2021. Approximately \$16.1 million is available for 32 awards.

LINKS: [Grants.gov](#)

Outstanding New Environmental Scientist (ONES) Award (R01 Clinical Trial Optional)
National Institutes of Health (NIH), Department of Health and Human Services (HHS), National Institute of Environmental Health Sciences (NIEHS)

Notice seeking applications from schools of colleges and universities to support early stage investigators who intend to make a long-term commitment to research in the Environmental Health Sciences and assist them in launching an innovative research program focused on understanding the effects of environmental exposure on people's health.

Applications are due February 26, 2021; February 24, 2022; February 24, 2023. Optional letters of intent are due 30 days before the application deadline. The expiration date is February 25, 2023. approximately \$3 million is available per year in FY 21, FY 22, and FY 23 to fund five to six awards.

LINKS: [Solicitation](#), [Grants.gov](#)

Biological Testing Facility (X01 Clinical Trial Not Allowed)
National Institutes of Health (NIH), Department of Health and Human Services (HHS), National Institute of Child Health and Human Development (NICHD)

Notice announcing a mechanism for investigators to request services from this facility that would advance their contraceptive development program. Applicants do not need to have current NIH funding to apply, but priority may be given to programs receiving NIH support at the time of application submission.

Applications are due January 15, 2021; July 15, 2021; January 14, 2022; and July 15, 2022.

LINKS: [Solicitation](#), [Grants.gov](#)

Advanced Development and Validation of Emerging Biospecimen Science Technologies for Basic and Clinical Cancer Research (R33 Clinical Trial Not Allowed)
National Institutes of Health (NIH), Department of Health and Human Services (HHS), National Cancer Institute (NCI)

Notice soliciting grant applications proposing exploratory research projects focused on further development and validation of emerging technologies that improve the quality of the samples used for cancer research or clinical care. This includes new capabilities to address issues related to pre-analytical degradation of targeted analytes during the collection, processing, handling, and/or storage of cancer-relevant biospecimens.

Optional letters of intent are due 30 days prior to the application due date. Applications are due February 22, 2021; May 27, 2021; and September 29, 2021.

LINKS: [Grants.gov](#), [Solicitation](#)

Advanced Development and Validation of Emerging Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (R33 Clinical Trial Not Allowed)

National Institutes of Health (NIH), Department of Health and Human Services (HHS), National Cancer Institute (NCI)

Notice inviting grant applications proposing exploratory research projects focused on further development and validation of emerging technologies offering novel capabilities for targeting, probing, or assessing molecular and cellular features of cancer biology for basic or clinical cancer research. This FOA solicits R33 applications where major feasibility gaps for the technology or methodology have been overcome, as demonstrated with supportive preliminary data, but still requires further development and rigorous validation to encourage adoption by the research community.

Optional letters of intent are due 30 days prior to the application due date. Applications are due February 22, 2021; May 27, 2021; and September 29, 2021.

LINKS: [Grants.gov](#), [Solicitation](#)

GenitoUrinary Development Molecular Anatomy Project (GUDMAP) - Atlas Projects (U01 Clinical Trial Not Allowed)

National Institutes of Health (NIH), Department of Health and Human Services (HHS)

Notice seeking applications for GUDMAP Atlas Projects to generate data for the GUDMAP database. The scope of Atlas Projects is limited to molecular and anatomical development of human and mouse (1) lower urinary tract, including ureters, bladder, urethra, prostate, and external male genitalia; and (2) kidney and lower urinary tract vasculature, nerves, and lymphatics.

Applications are due February 18, 2021. Optional letters of intent are due January 18, 2021. Approximately \$2.3 million is available to support four to five awards.

LINKS: [Grants.gov](#), [Solicitation](#)

Innovative Biospecimen Science Technologies for Basic and Clinical Cancer Research (R21 Clinical Trial Not Allowed)

National Institutes of Health (NIH), Department of Health and Human Services (HHS), National Cancer Institute (NCI)

Notice soliciting grant applications proposing exploratory research projects focused on the early-stage development of highly innovative technologies that improve the quality of the samples used for cancer research or clinical care. This includes new capabilities to address issues related to pre-analytical degradation of targeted analytes during the collection, processing, handling, and/or storage of cancer-relevant biospecimens.

Optional letters of intent are due 30 days prior to the application due date. Applications are due February 22, 2021; May 27, 2021; and September 29, 2021.

LINKS: [Grants.gov](#), [Solicitation](#)

Multidisciplinary Studies of HIV-AIDS and Aging (R01 and R21 Clinical Trial Optional)

National Institutes of Health (NIH), Department of Health and Human Services (HHS)

Notice seeking applications at the intersection of HIV and aging by addressing two overarching objectives: 1) to improve understanding of biological, clinical, and socio-behavioral aspects of aging through the lens of

HIV infection and its treatment; and 2) to improve approaches for testing, prevention, and treatment of HIV infection, and management of HIV-related comorbidities, co-infections, and complications in different populations and cultural settings by applying our current understanding of aging science. Studies that move the science of HIV and aging into new directions with little or no preliminary data are appropriate for this activity code.

Applications are due May 7, 2021 and September 7, January 7, and May 7 annually thereafter.

LINKS: [Grants.gov \(R21\)](#), [Grants.gov \(R01\)](#), [Solicitation](#)

Reconfiguration of GenitoUrinary Development Molecular Anatomy Project (GUDMAP) (Re)Building A Kidney (RBK) Data Hub (U24 Clinical Trial Not Allowed)
National Institutes of Health (NIH), Department of Health and Human Services (HHS)

Notice seeking applications for a consolidated Data Hub for the GenitoUrinary Development Molecular Anatomy Project (GUDMAP) and the (Re)Building a Kidney (RBK) consortium.

Applications are due February 18, 2021. Optional letters of intent are due January 18, 2021. Approximately \$1.4 million is available.

LINKS: [Grants.gov](#), [Solicitation](#)

Small Business Transition Grant For Early Career Scientists (R42 Clinical Trial Not Allowed)
National Institutes of Health (NIH), Department of Health and Human Services (HHS), National Cancer Institute (NCI); National Human Genome Research Institute (NHGRI)

Notice seeking applications to support early career academic scientists interested in transitioning to entrepreneurship while also supporting the transfer of technology from academic laboratories into small businesses. Both small businesses and universities are drivers of technological innovation in the United States (U.S.), often working together to advance innovative ideas into products that can benefit the U.S. population.

Applications are due March 10, 2021. Optional letters of intent are due 30 days prior to the application due date. Approximately \$3.7 million is available.

LINKS: [Grants.gov](#), [Solicitation](#)

Small Vessel VCID Biomarker Validation Consortium Sites (U01) (Clinical Trials Not Allowed)
National Institutes of Health (NIH), Department of Health and Human Services (HHS), National Institute of Neurological Disorders and Stroke (NINDS); National Institute on Aging (NIA)

Notice seeking applications to an open competition to be one of up to 7 supported sites in the next phase of the NINDS small vessel vascular contributions to cognitive impairment and dementia (VCID) biomarkers consortium.

Applications are due March 9, 2021. Optional letters of intent are due February 9, 2021. Approximately \$8.4 million is available to support seven awards.

LINKS: [Grants.gov](#), [Solicitation](#)

National Heart, Lung, and Blood Institute; Notice of Meeting
National Institutes of Health (NIH), Department of Health and Human Services (HHS)

Notice announcing a meeting scheduled to share sleep and circadian research activities across NIH, other Federal agencies, and relevant research activities of professional societies and public stakeholders.

The meeting will be held December 3, 2020, from 1:00 pm to 5:00 pm, ET, online. See the announcement for connection information.

LINKS: [Federal Register](#), [Agency Site](#)

National Institute of Mental Health; Notice of Meeting
National Institutes of Health (NIH), Department of Health and Human Services (HHS)

Notice announcing the open portion of the meeting of the National Advisory Mental Health Council for the presentation of the NIMH Director's Report and discussion of NIMH program.

The meeting is February 2, 2021 from noon to 3:30 p.m. ET.

LINKS: [Federal Register](#), [Agency Site](#)

SCIENCE, TECHNOLOGY, ENGINEERING, and MATHEMATICS

Arctic Research Opportunities
Directorate for Geosciences (GEO), National Science Foundation (NSF)

Notice inviting research proposals that advance a fundamental, process, and/or systems-level understanding of the Arctic's rapidly changing natural environment, social and cultural systems, and, where appropriate, to improve our capacity to project future change.

Full proposals accepted anytime. Approximately \$40 million is available for 75 awards.

LINKS: [Grants.gov](#), [Solicitation](#)

Bioimaging Research to Develop Imaging Instrumentation and Approaches
Department of Energy (Energy), Office of Science

Notice supporting fundamental research to enable the development of novel and/or improved bioimaging instrumentation and sensing approaches for non-destructive, real-time, dynamic in situ imaging, measuring and modeling of key metabolic processes in and among living plant and microbial systems.

Pre-applications are due January 7, 2021. Invited applications are due March 25, 2021. Approximately \$15 million is available.

LINKS: [Grants.gov](#)

Campus Cyberinfrastructure
Directorate for Computer & Information Science & Engineering (CISE), National Science Foundation (NSF)

Notice seeking proposals for coordinated campus-level networking and cyberinfrastructure improvements, innovation, integration, and engineering for science applications and distributed research projects.

Proposals are due March 1, 2021 and October 11, 2021. Up to \$15 million is available for an estimated 24 to 46 awards to support projects lasting up to two years.

LINKS: [Solicitation](#), [Grants.gov](#)

Department of Army Center for Synthetic Biology
Department of Defense (Defense)

Notice focuses on areas of strategic importance to U.S. national security. It seeks to increase the Army's intellectual capital in synthetic biology and improve its ability to address future challenges. The Army Center for Synthetic Biology brings together universities, research institutions, companies, and individual scholars and supports multidisciplinary and cross-institutional projects addressing specific topic areas determined by the Department of the Army (DA).

White papers are due February 1, 2021. Invited proposals are due May 24, 2021. Proposers Day will be held December 14, 2020. Approximately \$1.5 million is available.

LINKS: [Grants.gov](#)

FY2021 Research Opportunities in High Energy Physics
Department of Energy (Energy), Office of Science

Notice seeking applications to fund high energy physics research in three experimental scientific frontiers (The Energy Frontier; The Intensity Frontier; and The Cosmic Frontier) and three cross-cutting research areas (Theoretical High Energy Physics; Accelerator Science and Technology Research and Development; and Detector Research and Development).

Applications are due January 26, 2021. Optional letters of intent are due December 15, 2020. Approximately 100 awards, ranging from \$50,000 to \$15 million, are available.

LINKS: [Grants.gov](#), [Solicitation](#), [Agency Site](#)

MUREP SMD Research Ocean Biology and Biogeochemistry (OCEAN)
National Aeronautics and Space Administration (NASA)

Notice seeking applications to strengthen and develop the research capacity and infrastructure of Minority-Serving Institutions in areas of strategic importance and value to NASA's mission and national priorities. Overall, OCEAN awards seek to improve understanding of the structure and function of global aquatic ecosystems, their interactions with the atmosphere, terrestrial and cryospheric systems, and the ocean's role in the cycling of the major biogeochemical elements.

Step-1 proposals are due December 18, 2020. Invited Step-2 proposals are due April 15, 2021. An optional pre-proposal conference will be held December 1, 2020 at 4:00 pm, ET. Approximately four awards of up to \$250,000 each are available to support projects lasting up to three years. Applicants must be minority-serving U.S. colleges, universities, or community colleges as designated and listed by the U.S. Department of Education. Other colleges and universities may partner with eligible institutions.

LINKS: [Solicitation](#), [Grants.gov](#), [Agency Site](#)

Naval Research Laboratory Postdoctoral Fellowship Program
Navy (Navy), Department of Defense (Defense)

Notice seeking proposals to provide postdoctoral scientists and engineers of unusual promise and ability opportunities to engage in research on problems, largely of their own choice, that are compatible with the interests of the government and will potentially contribute to the general effort of NRL. NRL's PFP will further science and technology through fundamental research, with this research having potentially both civilian and military applications.

Applications are due December 14, 2020.

LINKS: [Grants.gov](#)

Planning Grants for Engineering Research Centers (ERC)
Directorate for Engineering (ENG), National Science Foundation (NSF)

Notice seeking proposals for planning activities leading to convergent research team formation and capacity-building within the engineering community.

Proposals are due February 16, 2021. Approximately 20 awards of up to \$100,000 each are anticipated to support projects lasting up to one year.

LINKS: [Solicitation](#), [Grants.gov](#)

ROSES 2020: Space Biology
National Aeronautics and Space Administration (NASA)

Notice seeking proposals for investigations that characterize how living systems respond and adapt to spaceflight or spaceflight-like conditions. Four project types are supported: Research Investigations, Expanded Integrative Investigations, Early Career Investigations, and GeneLab Analytical Investigations.

Required Step-1 proposals are due December 17, 2020. Step-2 proposals are due March 23, 2021. Approximately \$3 million is available for up to 9 awards of varying durations depending on project type.

LINKS: [Grants.gov](#), [Agency Site](#)

Strengthening American Infrastructure (SAI)
Directorate for Social, Behavioral & Economic Sciences (SBE), National Science Foundation (NSF)

Notice seeking to stimulate fundamental exploratory, potentially transformative research that strengthens America's infrastructure. Effective infrastructure, whether it be physical, cyber, or social, provides a strong foundation for socioeconomic vitality and broad quality of life improvement. Strong, reliable, and effective infrastructure spurs private-sector innovation, grows the economy, creates jobs, makes public-sector service provision more efficient, strengthens communities, promotes equal opportunity, protects the natural environment, enhances national security, and fuels American leadership.

Applications are due November 30, 2020 for Conference Proposals; December 11, 2020 for EAGER Proposal Concept Outlines and January 15, 2021 for EAGER Proposals (with authorization to submit)

LINKS: [Grants.gov](#), [Solicitation](#)

Transport Phenomena Research at the International Space Station to Benefit Life on Earth
Directorate for Engineering (ENG), National Science Foundation (NSF)

Notice seeking research projects in the general field of fluid dynamics, particulate and multiphase processes, combustion and fire systems, thermal transport processes, and nanoscale interactions that can utilize the International Space Station (ISS) National Lab to conduct research that will benefit life on Earth.

The proposal window is December 7, 2020 - March 02, 2021. Approximately \$3.6 million is available for nine awards.

LINKS: [Grants.gov](#), [Solicitation](#)

Request for Participation on Technical Language Processing Community of Interest
National Institute of Standards and Technology (NIST), Department of Commerce (Commerce)

Notice seeking participation in a community of interest to develop best practices guidelines on how to tailor

natural language processing tools to engineering text-based data - technical language processing. Developed guidelines will be technology and vendor agnostic and will address the current needs of industry to have independent guidelines based on user requirements and measurement science research.

Send an intent to participate to the contact by May 17, 2021.

LINKS: [Federal Register](#), [Agency Site](#)

Computer and Information Science and Engineering Minority-Serving Institutions Research Expansion Program
Directorate for Computer & Information Science & Engineering (CISE), National Science Foundation (NSF)

Notice seeking proposals to support CISE-related research expansion for MSIs in three Threads. Thread 1 proposals, Research Capacity-Building Planning Projects, will be focused on capacity building and research planning; and Thread 2 and Thread 3 proposals, Demonstration Projects and Research Partnerships Enhancement Projects, respectively, will focus on building integrated and sustained partnerships within a single MSI or across multiple MSIs, or with other research-intensive organizations.

Applications are due April 15, 2021 and April 15 annually thereafter. Approximately \$7 million is available for up to 16 awards.

LINKS: [Solicitation](#), [Grants.gov](#)

Designing Synthetic Cells Beyond the Bounds of Evolution
Directorate for Biological Sciences (BIO), Directorate for Engineering (ENG), Directorate for Social, Behavioral & Economic Sciences (SBE), National Science Foundation (NSF)

Notice seeking applications to support research that develops cell-like systems to identify the minimal requirements for the processes of life, designs synthetically-modified cells to address fundamental questions in the evolution of life or to explore biological diversity beyond that which currently exists in nature, and leverages basic research in cell design to build novel synthetic cell-like systems and cells for innovative biotechnology applications.

Applications are due February 16, 2021; then February 1 annually. Approximately \$10 million is available for up to 12 awards.

LINKS: [Grants.gov](#), [Solicitation](#)

Environmental Convergence Opportunities in Chemical, Bioengineering, Environmental, and Transport Systems
Directorate for Engineering (ENG), National Science Foundation (NSF)

Notice seeking applications to support fundamental research activities that confront vexing environmental engineering and sustainability problems by developing foundational knowledge underlying processes and mechanisms such that the design of innovative new materials, processes, and systems is possible. Projects should be compelling and reflect sustained, coordinated efforts from highly interdisciplinary research teams.

Required preliminary proposals are due February 11, 2021 and then January 12 annually. Full proposals are due May 7, 2021; May 2, 2022; and then April 30.

LINKS: [Grants.gov](#), [Solicitation](#)

Environmental System Science
Department of Energy (Energy), Office of Science

Notice seeking applications to fund research to advance an integrated, robust, and scale-aware predictive understanding of terrestrial systems and their interdependent biological, chemical, ecological, hydrological and physical processes.

Required pre-applications are due December 17, 2020. Applications are due March 4, 2021. Approximately \$8 million is available for awards ranging from \$100,000 to \$1 million each.

Limited Submission: Applicant institutions are limited to no more than one pre-application and associated application for each PI at the applicant institution (as lead PI).

LINKS: [Grants.gov](#), [Agency Site](#), [Agency Site](#)

Indiana Partners for Conservation Fiscal Year 2021 Announcement for Program Funding- INDIANA
United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS)

Notice seeking applications to fund projects in Indiana that leverage NRCS resources, address local natural resource issues, encourage collaboration and develop state-and-community-level conservation leadership.

Applications are due January 25, 2021. Approximately \$1 million is available for up to 10 awards ranging from \$30,000 to \$500,000. A 50 percent cost share is required.

LINKS: [Grants.gov](#), [Agency Site](#)

NAVAL AIR SYSTEMS COMMAND DIGITAL DEPARTMENT OFFICE WIDE BAA
Navy (Navy), Department of Defense (Defense), Naval Air Systems Command (NAVAIR)

Notice seeking white paper proposals for science and technology projects that offer potential for advancements and improvements applicable to the digitization of NAVAIR/U.S. Naval operations.

White paper proposals are due November 18, 2021. Multiple awards are anticipated.

LINKS: [Contract Opportunities](#), [Agency Site](#)

Notice of Centennial Challenges Break the Ice Lunar Challenge Phase 1
National Aeronautics and Space Administration (NASA)

Notice seeking contest entries with new ideas and approaches to a system architecture for excavation and movement of icy regolith and water on the lunar surface. Teams are asked to design a system architecture for a hypothetical mission scenario addressing necessary hardware, concept of operations, lunar environmental conditions, and specific performance analyses, as well as supporting materials that address credibility and feasibility of the system architecture.

Registration closes June 18, 2021. Approximately \$500,000 is available for Phase I prizes: first place, \$125,000; second place, \$75,000; third place, \$50,000; and up to 10 runner up prizes of up to \$25,000 each. Up to \$4.5 million in prizes may be available in Phase 2.

LINKS: [Federal Register](#), [Agency Site](#), [Agency Site](#)

Reproducible Cells and Organoids via Directed- Differentiation Encoding
Directorate for Biological Sciences (BIO), Directorate for Engineering (ENG), National Science Foundation (NSF)

Notice seeking proposals that elucidate mechanisms of, and develop strategies to, direct the differentiation of undifferentiated cells into mature, functional cells or organoids.

Required preliminary proposals are due February 18, 2021. Full proposals are due May 18, 2021. Approximately \$10.6 million is available for up to seven awards.

LINKS: [Grants.gov](#), [Solicitation](#)

Smart Health and Biomedical Research in the Era of Artificial Intelligence and Advanced Data Science
Directorate for Computer & Information Science & Engineering (CISE), Directorate for Engineering (ENG),
Directorate for Mathematical & Physical Sciences (MPS), Directorate for Social, Behavioral & Economic
Sciences (SBE), National Science Foundation (NSF)

Notice seeking applications to support the development of transformative high-risk, high-reward advances in computer and information science, engineering, mathematics, statistics, behavioral and/or cognitive research to address pressing questions in the biomedical and public health communities. Transformations hinge on scientific and engineering innovations by interdisciplinary teams that develop novel methods to intuitively and intelligently collect, sense, connect, analyze and interpret data from individuals, devices and systems to enable discovery and optimize health.

Proposals are due February 16, 2021; November 10, 2021; and November 10, 2022. Up to \$20 million is available for up to 16 awards.

LINKS: [Grants.gov](#), [Solicitation](#)

Specialty Crop Research Initiative (SCRI) Pre-Applications
National Institute of Food and Agriculture (NIFA), United States Department of Agriculture (USDA)

Notice seeking pre-applications to support research and extension that address key challenges of national, regional, and multi-state importance in sustaining all components of food and agriculture, including conventional and organic food production systems.

Required pre-applications are due January 26, 2021. Approximately \$80 million is available for awards ranging from \$50,000 to \$8 million each.

LINKS: [Solicitation](#), [Grants.gov](#)

Combat Capabilities Development Command (CCDC) Data and Analysis Center (DAC)
Department of Defense (Defense)

Notice seeking applications soliciting white papers related to Human Systems Integration (HSI) applied research proposals in support of Maneuver Support Center of Excellence (MSCoE's) Desired Enabling Capabilities for Fiscal Year 2021 as described in the attached Memorandum for Record.

White papers are due December 21, 2020. Multiple awards are anticipated.

LINKS: [Grants.gov](#)

National Science Foundation Research Traineeship (NRT) Program
National Science Foundation (NSF)

Notice seeking proposals that explore ways for graduate students in research-based master's and doctoral degree programs to develop the skills, knowledge, and competencies needed to pursue a range of STEM careers. The program is dedicated to effective training of STEM graduate students in high priority interdisciplinary or convergent research areas, through a comprehensive traineeship model that is innovative, evidence-based, and aligned with changing workforce and research needs.

Proposals are due February 25, 2021; September 6, 2021, then September 6 annually.

LINKS: [Grants.gov](#), [Solicitation](#)

Refuel Integration and Testing Program
Department of Energy (Energy), Advanced Research Projects Agency Energy (ARPA-E)

Notice seeking applications to support the integration of technologies for the synthesis and use of ammonia developed under ARPA-E awards and elsewhere into a skid-mounted ammonia synthesis system powered by an intermittent renewable energy source at a production scale of 1 metric ton of ammonia per day. The system will enable evaluation of technologies under realistic use-case scenarios.

Applications are due January 4, 2021. Questions are due December 10, 2020 to ARPA-E-CO@hq.doe.gov. Approximately \$10 million is available.

LINKS: [Grants.gov](#)

Smart and Connected Communities
Directorate for Computer & Information Science & Engineering (CISE), Directorate for Education & Human Resources (EHR), Directorate for Engineering (ENG), Directorate for Social, Behavioral & Economic Sciences (SBE), National Science Foundation (NSF)

Notice seeking proposals to support integrative research that addresses fundamental technological and social science dimensions of smart and connected communities and pilots solutions together with communities. Proposals should consider the sustainability of the research outcomes beyond the life of the project, including the scalability and transferability of the proposed solutions.

Proposals are due February 24, 2021. Approximately \$23.5 million is available for 20 to 30 awards.

LINKS: [Solicitation](#), [Grants.gov](#)

Ultra-wide Bandgap RF Electronics Center Fiscal Year 2022
Army (Army), Department of Defense (Defense), Army Research Office (ARO)

Notice seeking applications to facilitate collaboration between extramural academic researchers and the Army in pursuit of a mutual goal: generating the foundational knowledge in solid-state physics, device structures, integrated circuit design, materials discovery and development, and physics-based machine learning needed to enable the next generation of RF electronics with unprecedented power, bandwidth, frequency agility, and size-weight-and-power (SWaP) requirements.

White papers are due February 15, 2021. Invited proposals are due June 1, 2021. Approximately \$4.5 million is available.

LINKS: [Grants.gov](#)

Understanding the Rules of Life: Microbiome Interactions and Mechanisms
National Science Foundation (NSF)

Notice seeking proposals to understand interactions and mechanisms that govern the structure and function of microbiomes. By integrating the wide range of accumulated data and information on microbiome structure and function, new causal models of interactions and interdependencies across scales and systems can be generated.

Proposals are due February 23, 2021. Up to \$15 million is available to support four to eight awards.

LINKS: [Grants.gov](#), [Solicitation](#)