

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 04/07/2020 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. Innovations in HIV Prevention, Testing, Adherence and Retention to Optimize HIV Prevention and Care Continuum Outcomes, NIH

Application Deadline: Standard R01 deadline dates apply

This FOA solicits innovative research to optimize HIV prevention and care which is aligned with NIMH Division of AIDS Research (DAR) priorities. Applications may include formative basic behavioral and social science to better understand a step or steps in the HIV prevention or care continuum, and/or the initial development and pilot testing of innovative intervention approaches, and intervention efficacy or effectiveness trials. Applicants are encouraged to read current Notices of Special Interests (NOSIs) from NIMH DAR for further information about the Divisions research priorities.

To address these research and service needs, formative research and pilot intervention efforts are encouraged. Examples of such studies include, but are not limited to:

- Identification of key gaps and targets in the prevention care continuum and associated determinants to inform intervention development
- Identification of innovative approaches for prevention delivery and engagement
- Approaches designed to understand and address the needs of key populations and age, gender, sexual orientation, racial/ethnic or geographic disparities in prevention strategy use
- Development, testing, and implementation of innovations in HIV testing, that could include advancements in approaches and technologies
- Development, implementation, and evaluative approaches to expedite earlier treatment initiation for persons diagnosed with HIV
- Improvement of HIV treatment outcomes through the development and testing of interventions that will enhance readiness to initiate antiretroviral medications
- Advancing adherence assessment and monitoring, and incorporating such measures into routine care to improve the identification of individuals in need of adherence support
- Development and testing of novel adherence interventions that impact on both behavioral adherence and biological outcomes such as viral suppression
- Understanding and addressing provider, clinic, and systems-level factors that may impact antiretroviral initiation, antiretroviral adherence, or patient retention, for the purpose of informing provider training, clinic practice, and healthcare policy
- Understanding and addressing individual and structural level factors that impact HIV prevention and treatment outcomes, such as stigma, mental health, and violence or trauma
- Assessing the impact of varying models of differentiated HIV care on retention in care
- Development of interventions to prevent discontinuation of HIV care, and/or to address significant barriers to retention in care

- Development and testing of alternative strategies to re-engage former patients into HIV care
- Development and testing of targeted interventions designed to reduce documented racial/ethnic, gender, and age-related disparities in HIV adherence, retention, and treatment outcomes
- Understanding how to best implement evidence-based interventions for HIV prevention and treatment

Link to Additional Information: <http://grants.nih.gov/grants/guide/pa-files/PA-20-144.html>

2. DoD Lung Cancer, Career Development Award

Application Deadline: July 29, 2020

The FY20 LCRP Career Development Award supports early-career, independent investigators to conduct impactful research under the mentorship of an experienced lung cancer researcher as an opportunity to obtain the funding, mentoring, and experience necessary for productive, independent careers at the forefront of lung cancer research. This award is intended to support impactful research projects with an emphasis on discovery. Submissions from and partnerships with investigators at Department of Defense (DoD) military treatment facilities and laboratories, and Department of Veterans Affairs (VA) medical centers and research laboratories are strongly encouraged.

Preliminary data are not required. However, logical reasoning and a sound scientific rationale for the proposed research must be demonstrated.

Key elements of this award are as follows:

- **Principal Investigator (PI):** PIs must be research- or physician-scientists at an early stage of their independent research careers. PIs must be within 5 years of their first faculty appointment (or equivalent) and exhibit a strong desire to pursue a career in lung cancer research.
- **Mentorship:** The Mentor must be an experienced lung cancer researcher as demonstrated by a strong record of funding and publications in lung cancer research. In addition, the Mentor must demonstrate a commitment to developing the PI's career in lung cancer research.
- **Career Development:** A Career Development Plan is required and should be prepared with appropriate guidance from the Mentor. A clearly articulated strategy for acquiring the necessary skills, competence, and expertise to have a career at the forefront of lung cancer research should be included. The plan should outline how the PI will gain experience in lung cancer research. Because career development is the focus of this award, the PI's institution must demonstrate a commitment to the PI through a minimum of 40% protected time for the lung cancer research, though more protected time is highly desirable.
- **Impact:** Research that has high potential impact may lead to major advancements and significantly accelerate progress toward eradicating deaths and suffering from lung cancer.
- **Relevance to Military Health System Beneficiaries:** The application should clearly articulate how the proposed research is relevant to Service members, Veterans, and their families.

Link to additional information: Access www.grants.gov and search for opportunity **W81XWH-20-LCRP-CDA**

3. DoD Peer Reviewed Cancer Research, Virtual Cancer Center Director Award

Application Deadline: August 20, 2020

The Virtual Cancer Center Director Award (VCCDA) mechanism is a unique, interactive virtual cancer center (VCC) focused on bringing together two established investigators (Director and Deputy Director) and up to nine early career investigators (Scholars) to interrogate the commonalities of cancer. Candidates for Scholars will apply to a separate funding opportunity (W81XWH-20-PRCRP-CDA). The Director and Deputy Director will catalyze the growth and professional development of the Scholars in collaboration with the Scholars' Career Guides, assess the progress of the Scholars, promote the cross pollination of different cancer disciplines, and facilitate communication and collaboration amongst all of the VCC members. The overarching goal of the VCC is to develop successful, highly productive Scholars in a collaborative research and career developmental environment. The VCC will provide intensive mentoring, national networking, collaborations, and a peer group for junior faculty. The VCC will give Scholars opportunities to operate in a collegial, highly dynamic, and cutting-edge center to lead cancer research to a new frontier. It is the intention that through the VCC, collaborations will foster new growth in different cancers and spur an integrated cancer center to ensure the research advancements across different cancers.

The Virtual Cancer Center Director Award is structured to support two Principal Investigators (PIs). The Director will be identified as the Initiating PI and will be responsible for the majority of the administrative tasks associated with application submission. The Deputy Director will be identified as the Partnering PI. Initiating and Partnering PIs each have different submission requirements, as described in Section II.D.2, Content and Form of the Application Submission; however, both PIs should contribute significantly to the

development of the proposed VCC. The application should clearly demonstrate that both PIs have equal levels of input on the proposed VCC Leadership and clearly define the components to be addressed by each to continue the success of Scholars. While it is up to the Director and Deputy Director to define their roles, both VCC Leaders should have interactions with the Scholars; acting as administrative support does not fulfill the intent of the Deputy Director. If recommended for funding, each PI will be named to an individual award within the recipient organization.

A Congressionally mandated Metastatic Cancer Task Force was formed with the purpose of identifying ways to help accelerate clinical and translational research aimed at extending the lives of advanced state and recurrent patients. As a member of the Metastatic Cancer Task Force, CDMRP encourages applicants to review the recommendations (<https://health.mil/Reference-Center/Congressional-Testimonies/2018/5/03/Metastatic-Cancer-Research>) and submit research ideas to address these recommendations provided they are within the limitations of this funding opportunity and fit within the FY20 PRCRP priorities. The FY20 PRCRP Topic Areas are listed below.

- Bladder cancer
- Blood cancers
- Brain cancer
- Colorectal cancer
- New for FY20: Esophageal cancer New for FY20: Head and Neck cancer
- Immunotherapy¹
- Liver cancer
- Mesothelioma
- New for FY20: Metastatic cancers Neuroblastoma
- Pediatric brain tumors
- Pediatric, adolescent, and young adult cancers²
- Stomach cancer

¹ As derived from the NCI Dictionary of Cancer Terms (<https://www.cancer.gov/publications/dictionaries/cancerterms?cdrid=45729>). Immunotherapy is a biological therapy that uses substances to stimulate or suppress the immune system to help the body fight cancer.

² The definition of adolescents and young adults is derived from the National Cancer Institute (NCI) (<https://www.cancer.gov/types/aya>). Research should be targeted toward children (ages 0-14 years), adolescents (ages 15-24 years), and/or young adults (ages 25-39 years).

Link to additional information: Access www.grants.gov and search for opportunity **W81XWH-20-PRCRP-VCCDA**

4. DoD Peer Reviewed Cancer Research, Behavioral Health Science Award

Application Deadline: August 27, 2020

The BHSA supports innovative research and high-reward studies that span the spectrum of behavioral health science including prevention, quality of life, symptom management, resilience, and psychosocial issues related to cancer diagnosis, treatment, and survivorship. Studies are expected to address one or more of these critical issues in at least one of the FY20 PRCRP Topic Areas. Proposed research should focus on at least one of the stages of survivorship as characterized by the American Society for Clinical Oncology: acute, extended, and/or permanent (<https://www.cancer.net/survivorship/what-survivorship>, <https://www.asco.org/sites/new-www.asco.org/files/content-files/practice-and-guidelines/documents/ASCO-guidelines-summary-of-recommendations-tables.pdf>).

The overall goal of the BHSA is to advance behavioral health cancer science and fill gaps in the understanding of survivorship, including investigations into the psychological health and well-being of those affected by cancer (e.g., patients, family members). This may include investigations into studies that improve mental health and/or cancer related outcomes in defined populations. Studies also may assess the relationship(s) between behavioral and social functioning in relation to cancer initiation, progression, detection, treatment, and rehabilitation. Applications may propose behavioral science that examines quality of life studies, decision making and/or cognitive function research, development and testing of educational interventions, and symptom management (e.g., toxicity of treatment, palliative care, psychological distress and anxiety). Applications may target development of evidence-based practices, behavioral health science interventions and surveillance, and identification of psychosocial patient outcomes.

A Congressionally mandated Metastatic Cancer Task Force was formed with the purpose of identifying ways to help accelerate clinical and translational research aimed at extending the lives of advanced state and recurrent patients. As a member of the Metastatic Cancer Task Force, CDMRP encourages applicants to review the recommendations (<https://health.mil/Reference-Center/Congressional-Testimonies/2018/05/03/Metastatic-Cancer-Research>) and submit research ideas to address these recommendations provided they are within the limitations of this funding opportunity and fit within the FY20 PRCRP priorities.

5. Polygenic Risk Score (PRS) Methods and Analysis for Populations of Diverse Ancestry Centers, NIH

Application Deadline: June 23, 2020

The goal of the intended FOA is to establish Centers for PRS Methods and Analysis for Populations of Diverse Ancestry to collaboratively generate and refine PRS for populations of diverse ancestry by integrating existing datasets with genomic and phenotype data for a range of complex diseases and traits. Together with a Coordinating Center (described in a separate FOA), grantees funded under the intended FOA will form a Consortium with the primary objectives of:

1. leveraging genetic diversity to develop methods and improve the applicability of PRS to predict health and disease risk across diverse populations, and for a broad range of health and disease measures; and
2. optimizing the integration of large-scale, harmonized genomic and phenotype data to facilitate collaborative analysis, dissemination of PRS-related data, and development of related methods and resources.

PRS developed using large-scale genomic data from epidemiological studies are rapidly becoming linked to clinical implications, such as identifying individuals who would particularly benefit from modification of coronary heart disease risk factors. In May, 2019, NHGRI convened leaders in genomic medicine, healthcare, and research to discuss the role of genomics in risk prediction (<https://www.genome.gov/event-calendar/genomic-medicine-xii-genomics-and-risk-prediction>). Several gaps in PRS development and validation were noted in the recommendations from this meeting (https://www.genome.gov/sites/default/files/media/files/2019-07/GMXII_Executive_Summary.pdf) First, there was a need to determine whether ancestry-specific PRS are needed for every ethnic group or every condition or whether different weightings or pan-ethnic scores may be possible for some conditions. Next, development of PRS for specific disease subtypes may be needed; a “one size fits all” approach does not always work when predicting disease risk, especially in non-EA populations. Also, the need to increase transparency and standardize methods of risk score characterization, development, and validation to facilitate comparison was noted. Meeting participants also recommended prioritizing investigation of diseases with existing data, longitudinal cohorts, and availability of well-defined clinical endpoints.

This FOA follows up on these recommendations to specifically address the gap between the generation and use of PRS in EA and non-EA individuals by generating and refining PRS that are more applicable to diverse populations. Currently available scores show poorer risk prediction in non-European populations due to vast under-representation of non-European ancestry (EA) populations in the underlying GWAS data. Incomplete modeling of risk may be due to several factors, including differences in linkage disequilibrium among populations or omission of ancestry information, functional information on genetic variants, or multidimensional phenotype information. Methodological approaches cannot reliably eliminate the biases due to underrepresenting non-EA data, underscoring the importance of increasing the genetic diversity of the data on which PRS-based prediction is based. The focus of the Consortium will be on developing methods for integrating and analyzing extant GWAS datasets from genetically diverse populations to develop PRS that are more predictive of health and disease than PRS currently available in published scientific literature. Although the work funded by this FOA may impact the clinical utility and applicability of PRS in non-EA populations, this FOA is not intended to address the clinical implementation of PRS scores, nor will PRS scores be returned to study participants as part of this Program. Clinical implementation of PRS as part of genomic risk assessment will be part of a separate FOA for the Electronic Medical Records and Genomics (eMERGE) Genomic Risk Assessment and Management Network (<https://grants.nih.gov/grants/guide/rfa-files/rfa-hg-19-013.html>).

Link to Additional Information: <http://grants.nih.gov/grants/guide/rfa-files/RFA-HG-20-001.html>

6. Asthma and Allergic Diseases Cooperative Research Centers, NIH

Application Deadline: August 28, 2020

The purpose of this Funding Opportunity Announcement (FOA) is to invite applications from single institutions or consortia of institutions to participate in the Asthma and Allergic Diseases Cooperative Research Centers (AADCRC) program. The program will support centers that integrate clinical and translational research to conduct studies on the mechanisms underlying the onset and progression of diseases of interest, including asthma, rhinitis (allergic and non-allergic), chronic rhinosinusitis, atopic dermatitis, food allergy, and drug allergy. The overarching goal of the program is to improve the understanding of the pathogenesis of these conditions and to provide a rational foundation for new, effective treatments and prevention strategies.

NIAID programmatic priorities for this FOA are:

- The role of innate and adaptive immune functions in the development and pathogenesis of asthma and allergic diseases with a focus on severe asthma, chronic rhinosinusitis, atopic dermatitis, and drug allergy;

- The impact of the microbiome and pollution on immune responses as they pertain to the development, prevention and management of asthma, allergic rhinitis, food allergy and atopic dermatitis;
- The interaction between infections and atopy and the role of immune responses to infections in the development and exacerbations of asthma, allergic rhinitis, chronic rhinosinusitis, and atopic dermatitis;
- Induction of and understanding of the mechanisms of desensitization and sustained tolerance for the treatment and prevention of asthma, allergic rhinitis, food allergy, and drug allergy;
- Genetic variations and epigenetic alterations affecting host immune responses to aeroallergens, food allergens and drug allergens and host response to therapeutic interventions;
- Clinical, immunologic and physiologic phenotyping and endotyping of drug allergy, atopic dermatitis, chronic rhinosinusitis and non-allergic rhinitis syndromes that provide mechanistic insights for disease etiology or management.

Link to Additional Information: <http://grants.nih.gov/grants/guide/rfa-files/RFA-AI-20-007.html>

7. National Sea Grant College Program 2020-2021 Special Projects, NOAA, Department of Commerce

Application Deadline: September 30, 2021

The National Sea Grant College Program was enacted by U.S. Congress in 1966 amended in 2008, Public Law 110-394) to support leveraged federal and state partnership that harness the intellectual capacity of the nation's universities and research institutions to solve problems and generate opportunities in coastal communities.

The purpose of this notice is to request proposals for special projects consistent with the focus areas outlined in the National Sea Grant College Program's (Sea Grant) strategic plan, and to provide the general public with information and guidelines on how Sea Grant will select proposals and administer Federal assistance under this announcement. This announcement is a mechanism to encourage research or other projects that are not normally funded through Sea Grant national competitions. This opportunity is open only to Sea Grant Programs. Section III of this announcement describes eligibility requirements in more detail.

Funding has not yet been made available to support applications submitted to this Notice of Funding Opportunity (NOFO), but such funding may become available during the year. Section II.A. below describes individual competition announcements that will be used to announce when funding is available, any restrictions or requirements such as cost share, and other funding details. Awards will be made under this NOFO only to applications that are responsive to individual competition announcements; unsolicited applications will not be reviewed.

This document sets out requirements for submitting to NOAA-OAR-SG-2020-2006435. Additional guidance and tips on how best to prepare an application are provided in the Sea Grant General Application Guide available at (<https://seagrants.noaa.gov/Portals/1/Guidance/SeaGrantGeneralApplicationGuide.pdf>)

Link to additional information: Access www.grants.gov and search for opportunity **NOAA-OAR-SG-2020-2006435**

8. NIDA Small Research Grant Program, Department of Health and Human Services, National Institutes of Health

Application Deadline: Standard NIH R03 Deadlines apply

The NIDA Small Research Grant Program supports small research projects that can be carried out in a short period of time with limited resources. This program supports different types of projects including pilot, feasibility, or small clinical trials with medications, behavioral interventions, immunotherapies, therapeutic devices, therapeutic digital applications, health services, prevention interventions, biomarkers, and development of research methodology. This Funding Opportunity Announcement requires that a clinical trial be proposed. The proposed project must be related to the programmatic interests of NIDA.

This program supports different types of small clinical trials including, but not limited to, the following:

- Medications
- Immunotherapies
- Behavioral Therapies
- Therapeutic Devices
- Therapeutic Digital Applications
- Prevention Interventions
- Health Services Interventions Development of research methodology or technology

Link to additional information: <http://grants.nih.gov/grants/guide/pa-files/PA-20-146.html>

9. Academic-Industrial Partnerships (AIP) to Translate and Validate In Vivo Imaging Systems, NIH

Application Deadline: Standard R01 deadline dates apply

The purpose of this Funding Opportunity Announcement (FOA) is to stimulate translation of scientific discoveries and engineering developments in imaging, data science and/or spectroscopic technologies into methods or tools that address contemporary problems in understanding the fundamental biology, potential risk of development, diagnosis, treatment, and/or disease status for cancer or other disease. A distinguishing feature of each application to this FOA will be formation of an academic-industrial partnership: a strategic alliance of academic and industrial investigators who work together as partners to identify and translate a technological solution for mitigation of a cancer (or other disease-related) problem. In this sense, the FOA acts more as funding mechanism for driving translational research in imaging more than for a specific scientific or clinical research area. These partnerships are expected to solidify pre-existing collaborations or new ones that would drive the field of imaging, as a whole, further than if they had not been formed.

This FOA defines innovation as likelihood to deliver a new capability to end users. This FOA will support clinical trials that test functionality, or validate performance in the chosen setting. This FOA is not intended to support commercial production, basic research projects, or clinical trials that lack translation as the primary motivation.

The academic-industrial partnership application should propose a coherent translational research strategy for the proposed technology that addresses a cancer objective. Technology translation to solve cancer or other disease problem may focus on clinical research, clinical care delivery, or non-clinical research. Furthermore, imaging and imaging-related technology for non-human cancer or other disease research is supportable by this funding opportunity whether or not it appears to have future prospects of direct clinical use. Translational efforts are expected to enhance, adapt, optimize, validate, and transition a prior, currently existing, or next-generation prototype technology or method.

Overall objectives may be for clinical research, clinical care delivery, or non-clinical research. The focus within these objectives may include, but are not limited to:

1. Multimodal imaging platforms or spectroscopic tool(s)
2. Imaging platforms for anatomical, molecular, functional, or metabolic analysis
3. Contrast agent(s)
4. Image-guided interventions
5. Imaging tools to improve analysis, acquisition, lesion visualization, navigation guidance, or measurement of treatment response
6. Integration of modern computational or informatics methods (*e.g.*, machine learning/vision to ‘Machine/Artificial Intelligence’, integrated bioinformatics, predictive analytics, etc.) into preclinical and clinical imaging methods to enhance/optimize utility for detection, diagnosis, or treatment monitoring
7. Development, optimization, and/or implementation of methods to harmonize data collection across sites, quality assurance tools/methods, modeling methods, image data pre-/post-processing, data integration from other measurement modalities to aid diagnostic imaging validation, prospective data annotation dedicated to machine learning/deep learning/neural networks, structured reporting tools, and tools enhancing clinical workflow, or any combination of the above

Technological improvements may focus on reproducibility, reliability, rapidity, ease of use, and/or affordability. The improvements may also include but are not limited to:

- Calibration and software applications
- Quality assurance
- Quality control procedures and parameters
- Management of reproducibility and error propagation
- Methods for prospectively annotating imaging data to be ‘Artificial Intelligence’ ready and subsequent validation
- Quantification methods
- Validation and correlation studies
- Optimizations across different commercial imaging platforms and/or sites
- Use in high, middle, or low resource settings

Link to Additional Information: <http://grants.nih.gov/grants/guide/pa-files/PAR-20-155.html>

10. Marine Energy Foundational Research and Testing Infrastructure, Department of Energy

Application Deadline: July 7, 2020

The Office of Energy Efficiency and Renewable Energy (EERE) is issuing, on behalf of the Water Power Technologies Office (WPTO), a Funding Opportunity Announcement (FOA) titled “Marine Energy Foundational Research and Testing Infrastructure.”

Marine energy technologies provide renewable sources of electricity that support EERE goals of increasing energy affordability, domestic economic prosperity, and energy security while enhancing the reliability and resiliency of the U.S. power grid. This FOA addresses priorities in the following areas: marine energy foundational Research and Development (R&D) at non-federal research institutions, collaborative R&D efforts among research organizations and the marine energy industry, and expansion of marine energy testing capabilities. Specifically, this FOA addresses priorities in the following Topic Areas:

- Topic Area 1: Foundational Research and Development (R&D)
- Topic Area 2: Atlantic Marine Energy Center (AMEC)
- Topic Area 3: Foundational Research Network Facilitator (FRNF)
- Topic Area 4: Current Energy Technology Testing Infrastructure

Continuous research, development, and testing infrastructure advances are needed to support long-term objectives for harnessing the power of the Nation’s oceans and rivers. Advancements of current energy technologies provide more options for developing the diverse set of riverine resources in the U.S.; river current energy applications of particular interest are devices that function well in remote communities with higher energy costs. The investments made through this FOA will increase energy affordability by improvements in design, prototyping, and testing of marine energy devices, ultimately leading to reduced costs and increased competitiveness of marine energy solutions.

Link to Additional Information: Access <https://eere-exchange.energy.gov> and search for opportunity **DE-FOA-0002234**

11. Innovation for HIV Vaccine Discovery, Department of Health and Human Services, NIH

Application Deadline: Standard R01 deadline dates apply

The purpose of this Funding Opportunity Announcement (FOA) is to support high risk, high impact, early discovery research on vaccine approaches to prevent acquisition of or ongoing infection by HIV. In keeping with the high risk, high impact nature of this research, this FOA supports a Go/No-Go approach to funding high risk research, which is significantly different from most R01 projects. Continued funding for the full award duration is dependent upon achieving negotiated Go/No-Go criteria by the end of Year 2.

Specific Areas of Research Interest

Proposed projects should have potential to significantly impact the design of immunogens or immunization strategies for HIV vaccine. The following list is not intended to emphasize or limit applications to any specific areas of research, but only to serve as a set of examples of high risk, high impact and novel research projects. Animal model evaluation of a proposed hypothesis; for example, assessing vaccine immunogenicity or efficacy using simian-tropic HIV, SIV or pathogenic SHIV challenge, is strongly encouraged. Research projects and studies may include, but are not limited to, the following topics listed below:

- Novel approaches to elicit durably protective cellular and/or humoral (e.g., broadly neutralizing antibody) responses against simian-tropic HIV and/or SIV or SHIV.
- Exploring the utility of synthetic vectors for HIV immunogen delivery.
- Novel approaches to direct protective adaptive and/or innate immune responses to relevant mucosal or systemic sites.
- Developing new animal models, vectors, assays, adjuvant and/or vaccine formulations and delivery modalities, but only if specifically linked to a novel vaccine intervention strategy for prevention of simian-tropic HIV/SIV/SHIV acquisition or clearance of virus-infected cells.
- Studies of novel antigen processing, presentation or priming mechanisms that generate broadly reactive antibodies, and/or effector cellular responses (e.g., T cells and NK cells).
- Exploring the feasibility/utility of novel vaccine delivery platforms to potentially better focus and improve immune responses, including but not limited to: micro-needles, nanoparticles, or other synthetic vectors delivered with molecular adjuvants or “targeting” molecules.
- Use of clinical specimens (e.g. serum, PBMC) from human HIV preventive vaccine trials or other clinical specimens to achieve novel insights into the human immune response to HIV vaccines and inform the design of new effective vaccine strategies and schemas. If interested, applicants may wish to contact the HIV Vaccine Trials Network (vtn.research@hvtm.org).
- Evaluating selective modulation of protective innate/anti-viral factors in HIV-1 vaccine strategies.
- Evaluating the potential of host or non-host (e.g., allogeneic) proteins to act as immunogens alone or together with HIV/SIV/SHIV immunogens.

- Evaluating unexplored HIV-/SIV-/SHIV- encoded targets as immunogens.
- Evaluating vaccine induced/imprinted innate immune responses that can be recalled in response to subsequent vaccination or infection.
- The use of functional genomic approaches to dissect effective adaptive and/or innate mucosal/systemic immune responses to vaccines and host responses after viral challenge.
- Exploring the mechanisms by which the host microbiome impacts vaccine responses.

Link to Additional Information: <http://grants.nih.gov/grants/guide/pa-files/PAR-20-158.html>

12. Hydrologic Sciences (HS), National Science Foundation

Application Deadline: Proposals accepted anytime

The Hydrologic Sciences Program supports basic research on the fluxes of water in the terrestrial environment that constitute the water cycle as well as the mass and energy transport function of the water cycle. The Program supports the study of processes including (but not limited to): rainfall, runoff, infiltration and streamflow; evaporation and transpiration; the flow of water in soils and aquifers; and the transport of suspended, dissolved, and colloidal components. The Program is interested in how water interacts with the landscape and the ecosystem as well as how the water cycle and its coupled processes are altered by land use and climate. Studies may address physical, chemical, and/or biological processes that are coupled directly to water transport. Observational, experimental, theoretical, modeling, synthesis and field approaches are supported. Projects submitted to Hydrologic Sciences commonly involve expertise from physical and ecosystem sciences, engineering and/or mathematics; and proposals may require joint review with related programs.

The Hydrologic Sciences Program is committed to supporting the most meritorious research in any relevant area, including interdisciplinary and multidisciplinary research, and is especially interested in proposals in emerging fields, and those that are responsive to recent reports from the hydrologic sciences community. At this time, the Hydrologic Sciences Program is particularly (but not exclusively) interested in: how hydrologic processes are altered in human-impacted waterscapes; hydrologic response to global change; advancing our capabilities in integrated hydrologic systems modeling (from pore to continental scales); applications of data science to advance hydrologic sciences (e.g. data fusion and hydroinformatics; hydrologic data mining and machine learning); leveraging advances in remote sensing and hydrologic modeling to understand processes at continental to global scales; and interactions between hydrologic and ecologic systems. The Hydrologic Sciences Program is also interested in developing collaborative research with federal agency partners and leveraging capabilities of NSF-supported facilities. Additional information on current research needs in Hydrologic Sciences can be found in the following report: National Research Council. 2012. *Challenges and Opportunities in the Hydrologic Sciences*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/13293>.

Link to additional information: http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf20560

13. Civic Innovation Challenge, National Science Foundation

Application Deadline: July 1, 2020

The Civic Innovation Challenge (CIVIC) is a research and action competition in the Smart and Connected Communities (S&CC) domain designed to build a more cohesive research-to-innovation pipeline and foster a collaborative spirit. Building on the NSF S&CC program and the extensive S&CC ecosystem, CIVIC aims to accelerate the impact of S&CC research, and deepen cooperation and information sharing across sectors and regions. CIVIC will lay a foundation for a broader and more fluid exchange of research interests and civic priorities that will create new instances of collaboration and introduce new areas of technical and social scientific discovery. CIVIC will fund projects that can produce significant community impact within 12 months (following a four-month planning phase) - in contrast to many community-university partnerships that take years to provide tangible benefits to communities - and have the potential for lasting impact beyond the period of the CIVIC award. CIVIC introduces several unique features that differentiate it from the NSF S&CC program:

- (1) CIVIC flips the community-university dynamic, asking communities to identify civic priorities ripe for innovation and then to partner with researchers to address those priorities;
- (2) CIVIC focuses on research that is ready for piloting in and with communities on a short timescale, where real-world impact can be evaluated within 12 months;
- (3) CIVIC requires the inclusion of civic partners in the core project team, to emphasize civic engagement; and
- (4) CIVIC organizes and fosters “communities of practice” around high-need problem areas that allow for meaningful knowledge sharing and cross-site collaboration during both pre-development and piloting.

For purposes of clarity, civic partners may include local, state, or tribal government officials; non-profit representatives; community organizers or advocates; community service providers; and/or others working to improve their communities. CIVIC is organized as a two-stage competition with two tracks centered around the following topic areas:

- Track A. Communities and Mobility: Offering Better Mobility Options to Solve the Spatial Mismatch Between Housing Affordability and Jobs; and,
- Track B. Resilience to Natural Disasters: Equipping Communities for Greater Preparedness and Resilience to Natural Disasters.

Link to Additional Information: <https://www.nsf.gov/pubs/2020/nsf20562/nsf20562.pdf>

14. Wenner-Gren Invites Applications for Anthropological Research Grants

Deadline: November 1, 2020

The [Wenner-Gren Foundation](#) is committed to playing a leadership role in anthropology and works to help anthropologists advance anthropological knowledge, help them build sustainable careers, and amplify the impact of anthropology within the wider world.

To that end, the foundation welcomes applications for its Post-PhD Research Grants program. Through the program, grants of up to \$20,000 will be awarded in support of research that demonstrates a clear link to anthropological theory and debates and promises to make a solid contribution to advancing these ideas. The foundation has no preference for any methodology, research location, or subfield. The foundation particularly welcomes proposals that employ a comparative perspective, can generate innovative approaches or ideas, and/or integrate two or more subfields. Applicants must hold a PhD or equivalent degree and are invited to apply regardless of institutional affiliation, country of residence, or nationality. There is no time limit on the duration of the grant and funding may be requested to cover distinct research phases (for example, two summers) if it is part of the research design.

Link to additional information: <http://www.wennergren.org/programs/post-phd-research-grants>

15. W.M. Keck Foundation Accepting Applications for Pioneering Research

Deadline: November 1, 2020

The W. M. Keck Foundation was established in 1954 by William Myron Keck, founder of the Superior Oil Company, with the goal of generating far-reaching benefits for humanity. To that end, the foundation welcomes applications for its Research Program, which supports pioneering discoveries in science, engineering, and medical research. Through the program, grants are awarded to research universities, medical colleges, and major private independent scientific and medical research institutions in support of projects that are focused on important and emerging areas of research; have the potential to develop breakthrough technologies, instrumentation, or methodologies; are innovative, distinctive and interdisciplinary; demonstrate a high level of risk due to unconventional approaches or by challenging a prevailing paradigm; and have the potential for transformative impact (e.g., the founding of a new field of research, the enabling of observations not previously possible, or the altered perception of a previously intractable problem). The program seeks to fund high-risk/high-impact work that lays the groundwork for new paradigms, technologies, and discoveries, save lives, and adds to our collective understanding of the world.

Grants ranging between \$500,000 and \$5 million (though typically \$2 million or less) will be awarded for periods of from one to five years. Both senior and early-career investigators are encouraged to apply.

To be eligible, applicants must be tax exempt under section 501(c)(3) of the Internal Revenue Code and be designated as a public charity (and not a private foundation) as defined by Section 509(a)(1) or 509(a)(2) or 170(b)(1)(A)(I-VI); or be an exempt operating foundation as defined by Section 4940(d)(2). If the institution is located in California, the organization must also be exempt from California state franchise or income tax under Section 23701(d) of the Revenue and Taxation Code.

If the organization is a government unit as defined by Section 170(b)(1)(A)(v) and (c)(1) and, therefore, does not receive a determination letter as to such organization's tax exempt classification from the Internal Revenue Service, such organization must submit a Declaration of Status signed by the organization's chief executive or president and by its chief legal officer. The declaration must specify:

- the federal, state or local laws pursuant to which the organization is created and governed;
- whether the organization also is a (a) school as defined by Section 170(b)(1)(A)(ii), (b) hospital or medical research institute as defined by Section 170(b)(1)(A)(iii) or (c) other organization described in Section 170(b);
- that the organization is legally and financially responsible for its debts; and
- that the organization is not a non-operating private foundation within the meaning of Section 509.

Link to additional information: <http://www.wmkeck.org/grant-programs/research>

