

The Division of Science and Research distributes a weekly e-mail update regarding current grant opportunities from a variety of funders, including the National Science Foundation, NASA, National Institute of Health and others. To sign up for alerts, contact [Dr. Jan Taylor](#).

# GRANT OPPORTUNITIES

Division of Science and Research

The West Virginia Higher Education Policy Commission, West Virginia Community and Technical College System, and the West Virginia Department of Education are seeking proposals for the 2017 Student Success Summit, which will be held **July 26 and 27 at the Morgantown Marriott at Waterfront Place** in Morgantown, WV. The Student Success Summit is a collaborative event focusing on creating seamless and supportive, lifelong, learning systems for our state's students. Keynote presentations will help participants develop ways to work with other stakeholders to encourage student success.

To submit a proposal to present, complete the form available at <https://www.surveymonkey.com/r/SSSProposal2017>. **Proposals are due by February 20, 2017**. This year's conference theme is "Navigating Success: Setting a Course for Student Achievement."

NSF  
NIH  
DOE  
NIST  
DOD  
NASA

## National Science Foundation

**Software Infrastructure for Sustained Innovation (SI<sup>2</sup>)** is a bold and long-term investment that maintains a sustained focus on realizing the Cyberinfrastructure Framework for 21st Century Science and Engineering (CIF21, <http://www.nsf.gov/pubs/2010/nsf10015/nsf10015.jsp>), which envisions a highly reusable and interoperable cyberinfrastructure architecture that integrates large-scale computing, high-speed networks, massive data archives, instruments and major facilities, observatories, experiments, and embedded sensors and actuators, across the nation and the world, to help make great strides towards revolutionizing virtually every science and engineering discipline. The SI<sup>2</sup> program focuses on supporting robust, reliable and sustainable software that will support and advance sustained scientific innovation and discovery. Thus, proposals are strongly encouraged to describe their approach to quality software development through a defined software engineering process that includes software testing, the appropriate use of analysis tools and capabilities such as those made available through the Software Assurance Marketplace (SWAMP, <https://continuousassurance.org/>), and collaborations with resources such as Software Carpentry (<http://software-carpentry.org/>) and the Center for Trustworthy Scientific Cyberinfrastructure (CTSC, <http://trustedci.org/>), in order to gain access to expertise where needed, such as in software design and engineering, as well as in cybersecurity. SI<sup>2</sup> includes three classes of awards: Scientific Software Elements (SSE); Scientific Software Integration (SSI); and Scientific Software Innovation Institutes (S2I2). Full Proposal Deadline Date(s): March 7, 2017 for SSE Proposals; April 11, 2017 for S2I2 Conceptualization Proposals; and September 19, 2017 for SSI Proposals.

**Antarctic Research** - Scientific research, along with operational support of that research, is the principal activity of the U.S. Antarctic Program in Antarctica. The National Science Foundation's Antarctic Sciences Section (ANT), Division of Polar Programs (PLR), fosters research on globally and regionally important scientific problems. In particular, the Antarctic Sciences Section supports research that expands fundamental knowledge of the region as well as research that relies on the unique characteristics of the Antarctic continent as a platform from which to support research. Antarctic fieldwork will be supported for research that can only be performed or is best performed in Antarctica. The Antarctic Sciences Section strongly encourages research using existing samples, models, and data as well as research at the intersection between disciplines. Full Proposal Deadline Date: April 17, 2017.

The **Industry-University Cooperative Research Centers (IUCRC)** program develops long-term partnerships among industry, academe, and government. The Centers are catalyzed by an investment from the National Science

Foundation (NSF) and are primarily supported by industry Center members, with NSF taking a supporting role in the development and evolution of the Center. Each Center is established to conduct research that is of interest to both the industry members and the Center faculty. An IUCRC contributes to the nation's research infrastructure base and enhances the intellectual capacity of the engineering and science workforce through the integration of research and education. As appropriate, an IUCRC uses international collaborations to advance these goals within the global context. Preliminary Proposal Deadline Date: April 19, 2017. Full Proposal Target Date: June 21, 2017.

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## National Institutes of Health

[Perception and Cognition Research to Inform Cancer Image Interpretation \(R21\)](#) - The purpose of this Funding Opportunity Announcement (FOA) is to facilitate research on the perceptual and cognitive processes underlying the performance of cancer image observers in radiology and pathology, in order to improve the accuracy of cancer detection and diagnosis. This FOA utilizes the Exploratory/Developmental Grant (R21) mechanism, which supports investigation of novel scientific ideas or new model systems, tools, or technologies that have the potential for significant impact on biomedical or bio-behavioral research. An R21 grant application need not have extensive background material or preliminary information. Companion Funding Opportunity is [PAR-17-125, R01](#) Research Grant. Letter of Intent Due Date(s): 30 days before the due date. Application Due Date(s): May 30, 2017; September 26, 2017; May 30, 2018; September 26, 2018; May 30, 2019; September 26, 2019.

[Juvenile Protective Factors and Their Effects on Aging \(R01\)](#) - The purpose of this FOA is to invite: 1) descriptive studies to identify putative juvenile protective factors, 2) experimental studies to test hypotheses about their effects on aging and 3) translational studies to characterize potential beneficial and adverse effects of maintaining or modulating the level of juvenile protective factors in adult life. Juvenile protective factors (JPFs), intrinsic to an immature organism, help to maintain or enhance certain physiological functions across all or some stages of postnatal development (i.e., segment of the life span between birth and sexual maturity), but diminish or disappear as the organism transitions from one maturational stage to the next. The loss or diminution of JPFs after a given stage of postnatal development or at time of sexual maturity may contribute to the onset of deleterious aging changes (e.g., compromised stem cell function and reparative capacity) across adulthood. This FOA is uniquely focused on animal and clinical studies which involve comparisons between juvenile versus adult states or between stages of postnatal development to identify putative JPFs and their effects on aging. Studies which involve comparisons between young and old adults will not be supported by this FOA. Companion Funding Opportunity is [PAR-17-127 R03](#) Small Grant Program. Letter of Intent Due Date(s): 30 days before the application due date. Application Due Date(s): [Standard dates](#) apply.

[Identify and Characterize Potential Environmental Risk Factors for Amyotrophic Lateral Sclerosis \(ALS\) and Evaluate Their Impact on ALS Disease Incidence and Progression](#) (click on Related Documents tab) - The Agency for Toxic Substances and Disease Registry (ATSDR) is soliciting investigator-initiated research that will identify and characterize environmental toxicants in human biological samples that may be potential environmental risk factors for Amyotrophic Lateral Sclerosis (ALS). Applications are also sought that will evaluate the impact of environmental toxicants on the development and progression of ALS, including gene-environment interactions. Information gleaned from this investigator-initiated research will provide a greater understanding of the possible link between exposures to environmental toxicants and the etiology of ALS. Letters of Intent are requested by March 6, 2017. Letters of Intent are optional. Applications are due April 21, 2017.

[Lead Optimization and Preclinical Development of Therapeutic Candidates for Diseases of Interest to the NIDDK \(R41/R42\)](#) - The goal of this Funding Opportunity Announcement (FOA) is to support lead optimization and preclinical development of new therapies for diseases within the mission of the NIDDK with the STTR program. STTR Phase I projects under this FOA support preliminary steps in the process for lead optimization or preclinical development of therapeutics. STTR Phase II supports lead optimization and preclinical development of lead candidates, and projects must be sufficiently advanced such that an Investigational New Drug (IND) or Investigational Device Exemption (IDE) application to the Food and Drug Administration (FDA) can be submitted by the end of a STTR Phase II or IIB project. Applications are expected to have defined Milestones and Timelines detailing how the project will move forward with identified key Go / No Go decision points. Companion Funding Opportunity is [PA-17-130, SBIR R43/R44](#)- Phase I, Phase II, and Fast Track. Application Due Date(s): [Standard dates](#) apply.

[Cancer Immune Monitoring and Analysis Centers \(CIMACs\) \(U24\)](#) - This National Cancer Institute (NCI) funding opportunity announcement (FOA) solicits applications for multidisciplinary Cancer Immune Monitoring and Analysis

Centers (CIMACs) that will serve as the main units of the Network for correlative studies in clinical trials involving immunotherapy. The Network will encompass two to three CIMACs (to be supported by this FOA) and a single Cancer Immunologic Data Commons (CIDC) (to be supported by the companion FOA, RFA-CA-17-006) forming a CIMACs-CIDC Network. The Network is established to address the critical importance of biomarkers in management of cancer patients receiving immunotherapy. Specifically, each CIMAC will encompass a multidisciplinary group with basic, translational, clinical, and computational research expertise. CIMACs are expected to provide a wide range of state-of-the-art analyses for genomic, phenotypic and functional characterization of responses of patients in the NCI-sponsored early phase clinical trials using analytically-validated and standardized platforms. The Network activities will be facilitated by the CIDC in the following main areas: optimization of data collection methodologies suitable for immune-related biomarkers, data integration and building a biomarker database for the secondary use by the large immuno-oncology community. The long term goal of the CIMACs-CIDC Network is to develop molecular signatures that define immune response categories to correlate with the clinical outcomes of immunotherapy in cancer. Collectively, the outcome of the Network research should lead to the identification of biomarkers with a translational potential for optimizing the therapeutic strategies for patients. Companion Funding Opportunity is [RFA-CA-17-006](#), U24 Resource-Related Research Projects – Cooperative Agreements. Letter of Intent Due Date(s): 30 days prior to the application due date. Application Due Date(s): New Date: March 17, 2017.

[Public Policy Effects on Alcohol-, Marijuana-, and Other Substance-Related Behaviors and Outcomes \(R21\)](#) - This Funding Opportunity Announcement (FOA) encourages applications to conduct research on the effects of public policies on health-related behaviors and outcomes associated with alcohol, marijuana, and other substances. The purpose of the FOA is to advance understanding of how public policy may serve as a tool for improving public health and welfare through its effects on behaviors and outcomes pertaining to alcohol and other drugs. This FOA is intended to support innovative research to examine policy effects that have the potential to lead to meaningful changes in public health. Research projects that may be supported by this FOA include, but are not necessarily limited to: causal analyses of the effects of one or multiple public policies; evaluations of the effectiveness of specific public policies as tools for improving public health through their effects on alcohol-, marijuana-, and other substance-related behaviors and outcomes; and research to advance methods and measurement used in studying relationships between public policies and alcohol-, marijuana-, and other substance-related behaviors and outcomes. Companion Funding Opportunities are [PA-17-135](#), R01 Research Project Grant and [PA-17-134](#), R03 Small Grant Program. Application Due Date(s): [Standard dates](#) apply.

[Innovations in Mechanisms and Interventions to Address Mental Health in HIV Prevention and Care Continuum \(R21\)](#) - This Funding Opportunity Announcement (FOA) encourages applications focused on 1) advancing understanding of mechanisms by which mental health affects HIV prevention and treatment in order to identify modifiable intervention targets; and 2) developing and pilot testing expanded interventions to improve both mental health and HIV outcomes along the entire HIV care continuum (from HIV testing to viral suppression). [PA-17-136](#) uses the R01 grant mechanism while [PA-17-137](#) uses the R21 mechanism. High risk/high payoff projects that lack preliminary data or utilize existing data may be most appropriate for the R21 mechanism, while applicants with preliminary data and/or include longitudinal analysis may wish to apply using the R01 mechanism. Application Due Date(s): [Standard dates](#) apply.

[NINR Clinical Trial Planning Grant \(R34\)](#) - This Funding Opportunity Announcement (FOA) encourages applications that propose the complete planning, design, and preparation of the documentation necessary for implementation of investigator-initiated clinical trials. The application should propose the developmental work to be performed that would enhance the probability of reaching definitive outcomes in a clinical trial. Letter of Intent Due Date(s): 30 days prior to the application due date. Application Due Date(s): March 24, 2017, July 24, 2017, November 24, 2017, March 23, 2018, July 24, 2018, November 26, 2018, March 25, 2019, July 24, 2019, November 25, 2019.

This Funding Opportunity Announcement (FOA) invites applications for [Myalgic Encephalomyelitis/Chronic Fatigue Syndrome \(ME/CFS\) Collaborative Research Centers \(CRC\) \(U54\)](#). The overarching goal of this initiative is to establish a network of Centers that will work collaboratively to define the cause(s) of and discover improved treatments for ME/CFS. A more immediate goal for each Center is to rapidly advance synergistic, interdisciplinary research programs while serving as local resources and national leaders in ME/CFS research. Successful CRC research programs will facilitate research in ME/CFS through conducting of 1) collaborative basic and/or clinical research on ME/CFS; 2) longitudinal studies of individuals with ME/CFS within each ME/CFS CRC and across CRCs within the network; 3) access to information related to ME/CFS for basic and clinical researchers, academic and practicing physicians, healthcare professionals, patients, and the lay public. Clinical data management for efficient data collection as well as data mining and data sharing will be addressed through the separate data management and coordinating center (DMCC). Institutions must be committed to the establishment and continuation of the proposed ME/CFS CRC. Funding decisions will focus on those applications most likely to make highly impactful contributions to ME/CFS research, as well as on those with the greatest potential to collaborate effectively across the ME/CFS CRC program. Companion Funding Opportunity is [RFA-NS-17-022](#), U24 Resource-Related Research Projects – Cooperative Agreements. Letter of Intent Due Date(s): 30 days prior to the application due date. Application Due Date(s): May 2, 2017.

Improving Outcomes for Disorders of Human Communication (R01) - The purpose of this Funding Opportunity Announcement (FOA) is to improve the health outcomes for individuals with deafness and other communication disorders through effectiveness and health services research in the NIDCD mission areas of hearing, balance, smell, taste, voice, speech and language. Companion Funding Opportunity is [PA-17-140 R21](#) Exploratory/Developmental Grant. Application Due Date(s): [Standard dates](#) apply.

[International Research in Infectious Diseases, including AIDS \(R01\)](#) - This Funding Opportunity Announcement (FOA) encourages applications from organizations/institutions in eligible foreign countries that propose research related to infectious diseases that are of interest/importance to that country. Letter of Intent Due Date(s): April 22, 2017. Application Due Date(s): May 22, 2017; May 22, 2018; May 22, 2019.

[NINDS Postdoctoral Mentored Career Development Award \(K01\)](#) - The purpose of the NINDS Postdoctoral Mentored Career Development Award is to support the ability of outstanding, mentored postdoctoral researchers to develop a potentially impactful research project with a comprehensive career development plan that will enable them to launch an independent research program. Candidates are encouraged to apply for support from this NINDS K01 any time between the second through fourth year of cumulative mentored postdoctoral research experience, and may be supported by this NINDS K01 within the first 6 years of cumulative postdoctoral research experience. Because the completion of a strong, well-planned, thorough career development plan, in addition to development of an impactful research project, is a critical aspect of this K01, applications are strongly encouraged early in the postdoctoral eligibility window. By the end of the proposed K01 award period, the candidate should be poised to begin an independent research career with a well-developed, impactful research project and the expertise required to become a leader in the field. Application Due Date(s): April 4, 2017, then [Standard dates](#) apply.

[Multilevel Interventions in Cancer Care Delivery: Building from the Problem of Follow-up to Abnormal Screening Tests \(U01\)](#) - This Funding Opportunity Announcement (FOA) encourages applications that develop and test multilevel interventions to improve follow-up to abnormal screening tests for breast, colorectal, cervical and lung cancers. Improving follow-up to abnormal screening tests is dependent on factors at the individual, team, health-care system or community setting levels. Appropriate applications for this FOA should propose to intervene at one or more levels, and must measure outcomes at three or more levels, while accounting for interactions that occur between levels. Letter of Intent Due Date(s): 30 days prior to the application due date. Application Due Date(s): May 26, 2017; September 21, 2017.

[Development of Highly Innovative Tools and Technology for Analysis of Single Cells \(STTR\) \(R41/R42\)](#) - This funding opportunity announcement (FOA) encourages Small Business Technology Transfer Research (STTR) grant applications from small business concerns (SBCs) to develop and validate next-generation single cell analysis technologies and tools. The purpose is to foster the commercialization of innovative single cell analysis technologies for their broad use in biomedical research. The novel single-cell analysis technologies will aid in obtaining a fine-grained and dynamic view of heterogeneous cellular states and intercellular interactions, thereby providing new mechanistic insight into biological processes in health and disease. Applications should define the current state of technologies and tools as a benchmark against which the new approach(es) will be measured. The new approach(es) should provide substantially improved performance in sensitivity, selectivity, spatiotemporal resolution, scalability, multiplexing capability, or non-destructive analysis of molecular or functional measures of single cells. A companion FOA to support SBIR Grants is also available see [PA-17-147](#). Letter of Intent Due Date(s): 30 days prior to the application due date. Application Due Date(s): [Standard dates](#) apply.

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## Department of Energy

The [Stewardship Science Academic Alliances \(SSAA\)](#) Program was established in 2002 to support state-of-the-art research at U.S. academic institutions in areas of fundamental physical science and technology of relevance to the SSP mission. The SSAA Program provides the research experience necessary to maintain a cadre of trained scientists at U.S. universities to meet the nation's current and future SSP needs, with a focus on those areas not supported by other federal agencies. It supports the DOE/NNSA's priorities both to address the workforce specific needs in science, technology, engineering, and mathematics and to support the next generation of professionals who will meet those needs. The research areas of interest in the SSAA Program are: properties of materials under extreme conditions and/or hydrodynamics (condensed matter physics and materials science, and fluid dynamics); low energy nuclear science; radiochemistry; and high energy density physics. Only applications for cooperative agreements awards will be accepted for this solicitation, no grant applications will be considered. Application Due Date: April 30, 2017, 11:59 PM EASTERN STANDARD TIME.

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## National Institute of Standards and Technology

[NIST Standards Services Curricula Development \(SSCD\) Cooperative Agreement Program](#) - The NIST SSCD Cooperative Agreement Program provides financial assistance and support for curricula development to integrate standards and standardization content into undergraduate and/or graduate courses, modules, seminars, and learning resources at U.S. colleges and universities. Recipients will work with NIST to strengthen education and learning about standards and standardization. Applications must be received electronically through Grants.gov no later than 11:59 p.m. Eastern Time, Monday, March 27, 2017.

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## Department of Defense

[Web-based GIS Tool for Natural Resources Management](#) (click on Related Documents tab) - The US Army Corps of Engineers (USACE), Baltimore District, intends to enter into a single cooperative agreement with a university/college or non-profit organization that will provide geographic information science expertise related to further enhance and expand two related a web-based geospatial systems in support of the Corps' Natural Resources Management program, including effort to support the modernization of Visitation Estimation and Reporting System (VERS), boundary management, and environmental stewardship risk framework. These systems must be custom-designed for the USACE to reliably and efficiently acquire, store, analyze, and display spatial/geographical data. Application Due Date: 27 February 2017.

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## NASA

[Dual Use Technology Development at NASA John C. Stennis Space Center](#) (click on Related Documents tab) - This notice is seeking responses from potential partners interested in entering into a Cooperative Agreement with NASA for the joint development of technologies to meet SSC needs. These technology development projects are managed by the Chief of the Advanced Technology & Technology Transfer branch at the John C. Stennis Space Center, Stennis Space Center, MS. All proposals must clearly identify a specific NASA technical need at John C. Stennis Space Center (SSC) or technologies that address the Space Technology Roadmap and could applied a SSC. NASA technology roadmap can be found at the following link: <http://www.nasa.gov/offices/oct/home/roadmaps/index.html>. This CAN is valid for one year from the date of issuance. The first step in the process is submission of a Notice of Intent (NOI). NOI submissions may be received at any time during the open period of this CAN. All Notices of Intent in response to this CAN shall be submitted electronically by completing the Notice of Intent (NOI) link at the following URL: <http://technology.ssc.nasa.gov/contact>.

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