WICHITA STATE UNIVERSITY
RESEARCH AND TECHNOLOGY TRANSFER

Funding Bulletin

November 4th, 2016 (Vol. 4, No. 3)

Funding Information

To receive funding information, please contact funding@wichita.edu.

NOTICE – Notification for the current Funding Bulletin is sent via email. To be added to the electronic mailing list, send an email message to: *funding@wichita.edu.* Leave the subject line blank. In the message area, type: *sub funding bulletin.* To unsubscribe, type: *unsub funding bulletin.*

The selected compilation of funding opportunities is provided by RTT's Pre-Award Services as a resource for Wichita State University Researchers. We encourage you to utilize the campus subscription to PIVOT to find funding opportunities specifically tailored to your research area based on keywords you provide. PIVOT is easy to use and offers other valuable services that are helpful to researchers. Access is available at: *http://pivot.cos.com/home/index* or you may contact *funding@wichita.edu* to have a custom search ran.

Click on the links below to go directly to the named section included in this edition's bulletin

How to Apply

Proposal development requests should be sent to *proposals@wichita.edu.* Please click on the following link for information regarding proposal submission at WSU:

http://webs.wichita.edu/?u=WSURESEARCHADMIN&p=/Proposals/PreAwardServices/

WICHITA STATE UNIVERSITY
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OFFICE OF RESEARCH WORKSHOPS

For more information contact Jana Henderson at jana.henderson@wichita.edu or 978-3285.

For complete schedule go to: http://webs.wichita.edu/?u=wsuresearchadmin&p=/researchworkshops/

WORKSHOP TITLE	DATE	TIME	ROOM	DESCRIPTION
IRB Open Lab	Nov. 14	9:30 – 11:00 a.m.	405 Jardine	The IRB Administrator will be holding Open Labs this fall for Faculty, Staff or Students who have questions about the new forms or about their study in general. ***This is a come and go lab with no registration required.***
Research Compliance Open Lab	Nov. 16	9:00 – 11:00 a.m.	215 Devlin Hall Innovation hub	The Research Compliance Office will hold an open lab for questions regarding hiring foreign nationals; shipping or receiving items from outside the US; international travel; review of Research projects for export compliance; conflicts of interest & management plans. ***This is a come and go lab with no registration required.***
Pivot Open Lab	Nov. 17	2:30 – 4:00 p.m.	409E Jardine	The Office of Research will be holding Open Labs this fall for Faculty interested in using PIVOT as well as answering questions regarding their existing account. ***This is a come and go lab with no registration required.***
IP Disclosure Form Open Lab	Dec. 6	2:00 – 4:00 p.m.	215 Devlin Hall Innovation hub	Come with your questions and get assistance completing an IP disclosure form for your ideas, technology, curriculum, research and more. ***This is a come and go lab with no registration required.***
Improve Your Chances of Obtaining Internal Grants at WSU	Dec. 7	3:00 – 4:30 p.m.	RSC 142 Harvest Room	What are the internal grant opportunities at WSU? What is the role of the Faculty Support Committee with regards to internal grant funding? How can I apply? How do I improve my chances of being funded? Come hear from the reviewers in their own words about what they are looking for!

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NOTICES

NSF: Dear Colleague Letter: Life STEM *(NSF 16-143)*

The National Science Foundation (NSF) has established inclusiveness as one of its core values. The Foundation seeks and embraces contributions from all segments of the science, technology, engineering, and mathematics (STEM) community including underrepresented groups and minority serving institutions. This Dear Colleague Letter (DCL) describes another opportunity to build on the Agency's longstanding efforts of inclusiveness by providing a mechanism for researchers to create, implement, and evaluate innovative models of intervention in STEM (with particular attention to life science and bioscience), beginning in elementary school through undergraduate studies. NSF invites eligible organizations to submit research proposals that create, implement, and evaluate models of intervention that will advance the knowledge base for establishing and retaining underrepresented minorities in STEM fields with particular attention to life science and the biosciences. Proposals should partner eligible organizations with local elementary, middle or high schools to foster collaborative relationships between K-12 science educators and the research community. The activities may occur in formal and/or informal settings. Proposals may address science topics and activities related to curriculum development, teacher support, and student engagement. Proposals should describe effective methods to disseminate findings broadly to the K-16 science education community.

- **URL:***https://www.nsf.gov/pubs/2016/nsf16143/nsf16143.jsp?WT.mc_id=USNSF_25&WT.mc_ev=click*

NSF: Dear Colleague Letter: Advanced Measurement Systems for Experimental Determination of Complex Biomaterial Properties *(NSF 16-142)*

Through this Dear Colleague Letter (DCL), the Division of Civil, Mechanical and Manufacturing Innovation (CMMI), Directorate for Engineering (ENG), announces its intention to support research on advanced measurement systems for experimental determination of complex biomaterial properties through its Biomechanics and Mechanobiology (BMMB) and Mechanics of Materials and Structures (MoMS) core programs. BMMB and MoMS Programs of CMMI welcome proposals as part of their existing programs that advance developments at all levels for the experimental determination of complex biomaterial properties tested in situ. Proposals for these advances include (but are not limited to) research that specifically addresses determination of dynamic elastic and failure mechanical properties of the brain, bone, individual cells, tissue, and other biological material systems. Development and validation of mathematical and/or computational techniques for inverse identification of complex and/or novel material model property distributions are included in this call.

- **URL:***http://www.nsf.gov/pubs/2016/nsf16142/nsf16142.jsp?WT.mc_id=USNSF_25&WT.mc_ev=click*

WICHITA STATE UNIVERSITY
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INTERNAL OPPORTUNITIES

Excellence Awards
Wichita State University
Nominations Due: 12/4/2016

Wichita State University Excellence in Creative Activity Award:
This award will be made annually to a Wichita State University faculty member who has, in the judgment of his or her peers, established an exemplary and demonstrable record of creative activity which has not only increased the faculty member's reputation, but has also brought recognition to the University.

Wichita State University Award for Community Research:
This award will be made annually to a Wichita State University faculty member who has established an exemplary and demonstrable record of scholarship extended to external constituents resulting in a significant outcome for individuals, organizations, or communities in problem solving or development.

Wichita State University Excellence in Research Award:
This award is made annually to a Wichita State University faculty member who has, in the judgment of his or her peers, established an exemplary and demonstrable record of research which has not only enhanced the faculty member's career, but has also advanced the University's research mission.

For more information, visit:
http://webs.wichita.edu/?u=wsuresearchadmin&p=/excellenceawards/excellenceawards/

WICHITA STATE UNIVERSITY
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LIMITED SUBMISSIONS

Limited submission programs have sponsor restrictions on the number of proposals that may be submitted by a single institution and will require institutional screening to determine which applications will be submitted. Karen Davis, Director of Pre-Award Services, is the internal coordinator for limited submission programs. Please notify *proposals@wichita.edu*, by the internal Notice of Intent (NOI) due date listed in the Funding Bulletin if you wish to submit a limited submission program. **Because many limited submission programs often have short turnaround times, it is important that researchers also periodically check the Office of Research's *Limited Submission Opportunities* webpage for additional opportunities that may not have made it into the bulletin. There are currently *eight* open limited submission competitions:**

(1) IUSE / Professional Formation of Engineers: Revolutionizing Engineering and Computer Science Departments (RED)

National Science Foundation (NSF)

Due Date: Internal NOI 11/4/2016; Letters of Intent 12/9/2016; Full Proposals 1/18/2017

This funding opportunity enables engineering and computer science departments to lead the nation by successfully achieving significant sustainable changes necessary to overcome longstanding issues in their undergraduate programs and educate inclusive communities of engineering and computer science students prepared to solve 21st-century challenges. In 2014, ENG launched an initiative, the Professional Formation of Engineers (PFE), to create and support an innovative and inclusive engineering profession for the 21st century. At the same time, in 2014, NSF launched the agency-wide Improving Undergraduate STEM Education (IUSE) framework, which is a comprehensive effort to accelerate improvements in the quality and effectiveness of undergraduate education in all STEM fields. The RED program was first offered in FY 2015 as a PFE initiative aligned with the IUSE framework. Additional programs have been created within the IUSE framework across NSF, such as the IUSE: EHR program within EHR. Even as demographic and regional socio-economic factors affect engineering and computer science departments in unique ways, there are certain tenets of sustainable change that are common across institutions. For instance, the development and engagement of the entire faculty within a department are paramount to the process, and faculty must be incentivized. Departmental cultural barriers to change and to inclusion of students and faculty from different backgrounds must be identified and addressed. Finally, coherent technical and professional threads must be developed and woven across the four years, especially (1) in the core technical courses of the middle two years, (2) in internship opportunities in the private and public sectors, and (3) in research opportunities with faculty. These and other threads aim to ensure that students develop deep knowledge in their discipline more effectively and meaningfully, while at the same time building their capacities for 21st- century and "T-shaped" professional skills, including design, leadership, communication, understanding historical and contemporary social contexts, lifelong learning, professional ethical responsibility, creativity, entrepreneurship, and multidisciplinary teamwork. It is expected that, over time, the

awardees of this program will create knowledge concerning sustainable change in engineering and computer science education that can be scaled and adopted nationally across a wide variety of academic institutions. The research on departmental change that results from these projects should inform change more broadly across the STEM disciplines. **NSF 17-501** ***An organization is allowed up to two submissions per competition.***

- **URL:** *https://www.nsf.gov/pubs/2017/nsf17501/nsf17501.htm*

(2) Poetry Out Loud: 2018 National Finals Competition

National Endowment for the Arts (NEA)

Due Date: Internal NOI 11/4/2016; Application 1/5/2017

The purpose of this Program Solicitation is to select an organization (Cooperator) to produce and coordinate the three-day 2018 POL National Finals competition of state and jurisdictional champions of the POL program, in conjunction with the National Endowment for the Arts and its partners. That National Finals will take place April 23-25, 2018 in Washington, DC. The National Finals competition venue and hotel have already been reserved to ensure the availability of space. **NEAPS1604** ***An organization may submit only one proposal under this program solicitation.***

In brief, the Cooperator will:
- Produce the semi-final and final student competitions (the "National Finals"), including the production of a live webcast of the National Finals.
- Coordinate program components such as participant registration, travel, lodging, local transportation, and other events for program participants.

- **URL:** *https://www.arts.gov/program-solicitation-poetry-out-loud-2018-national-finals-competition*

(3) EPSCoR Research Infrastructure Improvement Program: Track-2 Focused EPSCoR Collaborations (RII Track-2 FEC)

National Science Foundation (NSF) - Office of Experimental Program to Stimulate Competitive Research (EPSCoR)

Due Date: Internal NOI 11/18/2016; Letter of Intent 1/10/2017; Full Proposal 2/10/2017

The Experimental Program to Stimulate Competitive Research (EPSCoR) is designed to fulfill the mandate of the National Science Foundation (NSF) to promote scientific progress nationwide. A jurisdiction is eligible to participate in EPSCoR programs if its level of NSF research support is equal to or less than 0.75 percent of the total NSF research and related activities budget for the most recent

three-year period. Through this program, NSF establishes partnerships with government, higher education, and industry that are designed to effect sustainable improvements in a jurisdiction's research infrastructure, Research and Development (R&D) capacity, and hence, its R&D competitiveness. RII Track-2 FEC builds interjurisdictional collaborative teams of EPSCoR investigators in scientific focus areas consistent with NSF priorities. Projects are investigator-driven and must include researchers from at least two RII-eligible jurisdictions. The Science, Technology, Engineering, and Mathematics (STEM) research and education activities should seek to broaden participation through the strategic inclusion and integration of different types of individuals, institutions, and sectors throughout the project. Proposals must describe a comprehensive and integrated vision to drive discovery and build sustainable STEM capacity that exemplifies diversity of all types (individual, institutional, geographic, and disciplinary). The development of diverse early-career faculty is a critical component of this sustainable STEM capacity. For FY 2017, RII Track-2 FEC proposals are invited on a single topic: Genomes to Phenomes. A single proposal is submitted for a project. Support for non-lead collaborating institutions should be requested as subawards. Separately submitted collaborative proposals are not allowed. Each participating EPSCoR jurisdiction must have at least one co-PI on the project. **NSF 17-503** ***Only one RII Track-2 FEC proposal may be submitted in response to this solicitation by an organization in a RII-eligible jurisdiction.***

- **URL:** *https://www.nsf.gov/pubs/2017/nsf17503/nsf17503.htm*

(4) EPSCoR Research Infrastructure Improvement Track 4: EPSCoR Research Fellows - RII Track-4

National Science Foundation (NSF)

Due Date: Internal NOI 11/18/2016; Full Proposals 2/28/2017

The Experimental Program to Stimulate Competitive Research (EPSCoR) is designed to fulfill the mandate of the National Science Foundation (NSF) to promote scientific progress nationwide. A jurisdiction is eligible to participate in EPSCoR programs if its level of NSF research support is equal to or less than 0.75 percent of the total NSF research and related activities budget for the most recent three-year period (FY 2016 Eligibility Table). Through this program, NSF establishes partnerships with government, higher education, and industry that are designed to effect sustainable improvements in a jurisdiction's research infrastructure, Research and Development (R&D) capacity, and hence, its R&D competitiveness. RII Track-4 provides opportunities for non-tenured investigators to further develop their individual research potential through extended collaborative visits to the nation's premier private, governmental, or academic research centers. Through these visits, the EPSCoR Research Fellows will be able to learn new techniques, benefit from access to unique equipment and facilities, and shift their research toward transformative new directions. The experience gained through the fellowship is intended to provide a foundation for research collaborations that span the recipient's entire career. These benefits to the Fellows are also expected to in turn enhance the research capacity of their

institutions and jurisdictions. PIs must hold a non-tenured faculty appointment or its close equivalent, either in the form of a pre-tenure tenure-track position or a long-term non-tenure-track position. **NSF 17-509** ***Only three RII Track-4 proposals may be submitted in response to this solicitation by any single organization in a RII-eligible jurisdiction. If more than three proposals are received from any single institution for the RII Track-4 competition, all proposals from that institution are subject to Return Without Review.***

- ***URL:****https://www.nsf.gov/pubs/2017/nsf17509/nsf17509.htm?WT.mc_id=USNSF_25&WT.mc_ev=click*

(5) Maternal and Child Environmental Health Network

United States Department of Health and Human Services (HHS) - Health Resources and Services Administration (HRSA)

Due Date: Internal NOI 11/18/2016; Application 1/20/2017

This announcement solicits applications for the Maternal and Child Environmental Health Network. The purpose of this program is to decrease maternal and child morbidity and mortality associated with pre- and post-natal environmental exposures. One organization will be funded that will implement and support a network of national and regional teratogen information service (TIS) counseling centers. A teratogen is defined as an agent that may induce abnormal embryo or fetal development when administered during pregnancy. This program is intended to be a resource for women of reproductive age, their partners and healthcare providers, with an emphasis on vulnerable and hard-to-reach populations. For the purpose of this program, "post-natal exposure" refers to infants who are receiving breast milk. **HRSA-17-081** ***Multiple applications from an organization are not allowable.***

Program Goals:

- Develop and support a network that will increase awareness of and access to information about potential environmental risks during pregnancy and lactation.
- Provide teratogen information services to women, their partners, and health care providers, with an emphasis on vulnerable and hard-to-reach populations, through one-on-one risk assessment and counseling.
- Synthesize research and develop resources and strategies to advance the teratogen knowledge base.
- Coordinate systems to identify and quickly respond to emerging maternal and child environmental risk through education and outreach.
- Support state public health infrastructure to respond to environmental issues (current and emerging) and reduce morbidity and mortality associated with maternal and child environmental exposures.

- **URL:** *http://www.grants.gov/web/grants/view-opportunity.html?oppId=289618*

(6) Advanced Nursing Education Workforce (ANEW) Program

Health Resources and Services Administration (HRSA) - Bureau of Health Workforce (BHW)

Due Date: Internal NOI 11/18/2016; Application 1/25/2017

The ANEW Program supports innovative academic-practice partnerships to prepare primary care advanced practice registered nursing students to practice in rural and underserved settings through academic and clinical training. The partnerships support traineeships as well as infrastructure funds to schools of nursing and their practice partners who deliver longitudinal primary care clinical training experiences with rural and/or underserved populations for selected advanced nursing education students in primary care nurse practitioner (NP), primary care clinical nurse specialist (CNS), and/or nurse-midwife (NMW) programs, and facilitate program graduates' employment in those settings. **HRSA-17-067** ***Multiple applications from a single campus or clinical facility are not allowable.***

- **URL:** *http://www.grants.gov/web/grants/view-opportunity.html?oppId=289064*

(7) NSF Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM)

National Science Foundation (NSF)

Due Date: Internal NOI 1/13/2017; Full Proposals 4/20/2017

The NSF Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM) program addresses the need for a high quality STEM workforce in STEM disciplines supported by the program and for the increased success of low-income academically talented students with demonstrated financial need who are pursuing associate, baccalaureate, or graduate degrees in science, technology, engineering, and mathematics (STEM). Recognizing that financial aid alone cannot increase retention and graduation in STEM, the program provides awards to Institutions of Higher Education (IHEs) to fund scholarships and to advance the adaptation, implementation, and study of effective evidence-based curricular and co-curricular activities that support recruitment, retention, transfer, student success, academic/career pathways, and graduation in STEM. The program encourages collaborations among different types of partners: Partnerships among different types of institutions; collaborations of STEM faculty and institutional, educational, and social science researchers; and partnerships among institutions of higher education and local business and industry. The program seeks: 1) to increase the number of low-income academically talented students obtaining degrees in STEM and entering the workforce or graduate programs in STEM; 2) to improve the education of future scientists, engineers, and technicians, with a focus on low-income students; and 3) to generate knowledge to advance understanding of how factors or evidence-based curricular and co-curricular activities affect the success, retention, transfer, academic/career pathways, and graduation in STEM of low-income students. ***An Institution may submit one proposal from each constituent school or college that awards degrees in an eligible field.*** **NSF 16-540**

- **URL:** *http://www.nsf.gov/pubs/2016/nsf16540/nsf16540.htm*

(8) ADVANCE: Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers (ADVANCE)
National Science Foundation (NSF)
Due Date: Deadlines vary by track (see below) *(Internal competition required for IT-Preliminary, Institutional Transformation (IT), or Adaptation tracks only – please contact proposals@wichita.edu for additional information)*

Despite significant increases in the proportion of women pursuing science, technology, engineering, and mathematics (STEM) doctoral degrees, women are significantly underrepresented as faculty, particularly in upper ranks, and in academic administrative positions, in almost all STEM fields. The problems of recruitment, retention, and advancement that are the causes of this underrepresentation vary by discipline and across groups of women faculty (e.g., by race/ethnicity, disability status, sexual orientation, foreign-born and foreign-trained status, and faculty appointment type). The ADVANCE program is designed to foster gender equity through a focus on the identification and elimination of organizational barriers that impede the full participation and advancement of all women faculty in academic institutions. Organizational barriers that inhibit equity may exist in areas such as policy, practice, culture, and organizational climate. For example, practices in academic departments that result in the inequitable allocation of service or teaching assignments may impede research productivity, delay advancement and create a culture of differential treatment and rewards. Policies and procedures that do not mitigate implicit bias in hiring, tenure, and promotion decisions could mean that women and underrepresented minorities are evaluated less favorably, perpetuating their underrepresentation and contributing to a climate that is not inclusive. The goals of the ADVANCE program are (1) to develop systemic approaches to increase the representation and advancement of women in academic STEM [1] careers; (2) to develop innovative and sustainable ways to promote gender equity that involve both men and women in the STEM academic workforce; and (3) to contribute to the research knowledge base on gender equity and the intersection of gender and other identities in STEM academic careers. The ADVANCE program contributes to the development of a more diverse science and engineering workforce because of the focus on equity for STEM academic faculty who are educating, training, and mentoring undergraduate and graduate students and postdoctoral scholars. There are three program tracks. All projects are expected to build on prior ADVANCE work and gender equity research and literature to broaden the implementation of organizational and systemic strategies to foster gender equity in STEM academic careers. All ADVANCE proposals are expected to recognize that gender does not exist in isolation from other characteristics, such as race/ethnicity, disability status, sexual orientation, foreign-born and foreign-trained status, faculty appointment type, etc., and should offer strategies to promote gender equity for all faculty:

- The ***Institutional Transformation (IT)*** track supports the development of*innovative* organizational change strategies to produce comprehensive change within one non-profit two-year or four-year

academic institution across all STEM disciplines. ***IT*** projects are also expected to contribute new research on gender equity in STEM academics. Projects that do not propose innovative strategies may be more appropriate for the ***Adaptation*** track.
- The ***Adaptation*** track supports the adaptation and implementation of evidence-based organizational change strategies, ideally from among those developed and implemented by ADVANCE projects. ***Adaptation*** awards may support the adaptation and implementation of proven organizational change strategies within a non-profit two-year or four-year academic institution that has not had an ADVANCE***IT*** award. ***Adaptation*** awards may also be made to a STEM organization to implement systemic change strategies focused across all STEM disciplines, several STEM disciplines, or within one STEM discipline.
- The ***Partnership*** track will support partnerships of two or more non-profit academic institutions and/or STEM organizations to increase gender equity in STEM academics. Projects should have national or regional impact and result in systemic change within one STEM discipline, several STEM disciplines, or all STEM disciplines. Partnering STEM organizations can include any entity eligible for NSF support. Partners may include professional societies, industry, non-profit organizations, publishers, policy and research entities, state systems of higher education, higher education organizations, as well as institutions of higher education. ***Partnership*** proposals must include a final year focused on sustainability and/or scale-up, communication, and evaluation.

For all proposals, ADVANCE is interested in supporting a range of non-profit academic institution types including: community colleges, primarily undergraduate institutions, minority-serving institutions (e.g. Tribal Colleges and Universities, Historically Black Colleges and Universities, Hispanic-Serving Institutions, Native Hawaiian Serving Institutions, Alaska Native Institutions, Predominantly Black Institutions and Non-tribal, Native American Serving Institutions), women's colleges, institutions primarily serving persons with disabilities, and master's and doctoral level institutions. **NSF16-594**

Track * Denotes limited submission	**Internal NOI Deadline**	**Letter of Intent**	**Preliminary Proposal**	**Full Proposal**
Partnership		12/14/2016		1/11/2017
Adaptation*	TBD	8/9/2017		9/13/2017
Institutional Transformation*	TBD		4/12/2017	1/17/2018
ADVANCE Resource and Coordination Network				3/15/2017

- **URL:***http://www.nsf.gov/pubs/2016/nsf16594/nsf16594.htm?WT.mc_id=USNSF_25&WT.mc_ev=click*

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GENERAL

Advanced Distributed Learning (ADL) Initiative
U.S. Department of Defense (DoD) – Army
Due Date: BAA is open through 7/15/2021

Notice seeking applications for innovative research on a range of learning science and technology topics, designed to ultimately build a persistent capability for effective, personalized learning—presented anytime, anywhere, and via any device or platform. Focus areas include: e-Learning (web-based learning); Mobile learning (m-Learning) and mobile performance support; Learning analytics and performance modeling; Learning theory; Total Learning Architecture infrastructure. **W911QY-BAA-FY17**

- **URL:***https://www.fbo.gov/?s=opportunity&mode=form&tab=core&id=8d227a8c33af540df9c2e82a7fa39a54&_cview=0*

Training-based Workforce Development for Advanced Cyberinfrastructure (CyberTraining)
National Science Foundation (NSF)
Due Date: 1/18/2017, 10/9/2017

The overarching goal of this program is to prepare, nurture and grow the national scientific workforce for *creating, utilizing,* and *supporting* advanced cyberinfrastructure (CI) that enables cutting-edge science and engineering and contributes to the Nation's overall economic competiveness and security. For the purpose of this solicitation, advanced CI is broadly defined as the resources, tools, and services for advanced computation, data handling, networking and security. The need for such workforce development programs are highlighted by the (i) *National Strategic Computing Initiative* announced in 2015 (NSCI), which is co-led by NSF and aims to advance the high-performance computing ecosystem and develop workforce essential for scientific discovery; (ii) 2016 National Academies' report on *Future Directions for NSF Advanced Computing Infrastructure to Support U.S. Science and Engineering in 2017-2020;* and (iii) *Federal Big Data Research and Development Strategic Plan*, which seeks to expand the community of data-empowered experts across all domains. This solicitation calls for developing innovative, scalable training programs to address the emerging needs and unresolved bottlenecks in scientific and engineering workforce development of targeted, multidisciplinary communities, at the postsecondary level and beyond, leading to transformative changes in the state of workforce preparedness for advanced CI in the short and long terms. A primary goal is to broaden CI access and adoption by (i) increasing or deepening accessibility of methods and resources of advanced CI and of computational and data science and engineering by a wide range of*institutions* and *scientific*

communities with lower levels of CI adoption to date; and (ii) harnessing the capabilities of larger segments of diverse underrepresented groups. Proposals from and in partnership with the aforementioned communities are especially encouraged. For student training, a key concern is not to increase the time to degree; hence the emphasis shall be on out-of-class, informal training. **NSF 17-507**

- The Directorate for **Education and Human Resources**(EHR) supports the development of a diverse and well-prepared workforce of scientists, technicians, engineers, mathematicians and educators. EHR is interested in engaging the CI and education research communities to use advanced cyberinfrastructure and other approaches to analyze, visualize, and harness data to better understand issues of workforce development in science and engineering. Topics of particular interest include preparation of the workforce in areas of data security and privacy in connection with EHR's investment in the CyberCorps(R): Scholarships for Service (SFS) and Secure and Trustworthy Cyberspace (SaTC) programs, as well as the other aspects associated with preparation of the technical workforce for proficiency in using advanced cyberinfrastructure, which is supported by EHR's Advanced Technological Education (ATE) program. In this context, EHR is interested in supporting: (a) innovations in formal and informal educational settings that lead to the broadest participation by all learners; (b) advances in pedagogical curricular design, and introduction of research and internship opportunities; and (c) assessments of training, learning and program evaluation. Prospective PIs may wish to separately submit proposals to the EHR Core Research (ECR) program, which welcomes proposals seeking to advance basic research on the learning of challenging CI content in formal and informal settings, exploring the evaluation of models for broadening participation such as *collective impact,* and studying the development of the STEM professional workforce.

- The Directorate for **Engineering**(ENG) is interested in training students, postdocs and educators in the areas of reusable, sustainable high-performance computing software tools, models and algorithms; Big Data management and analytics tools to advance research across the domain areas of ENG; fluidic processes and materials; catalysis and biocatalysis; and those supported by the Innovations at the Nexus of Food, Energy, and Water Systems (INFEWS), Understanding the Brain (UtB), and Nanoscale Science and Engineering (NSE) programs. Proposals are also invited to address training and education needs in advanced multi-scale, multi-physics computational models and simulations for engineering for natural hazards mitigation suitable for community sharing on the Natural Hazards Engineering Research Infrastructure (NHERI) cyberinfrastructure (http://designsafe-ci.org/).In support of the broader goals of this solicitation, proposals for workshops and summer institutes are encouraged; lectures, problem sessions, and hands-on activities are expected to achieve the intended impact.

- The Directorate for **Mathematical and Physical Sciences**(MPS) is interested in supporting workshops and summer schools focused on training students and postdocs in computational methods on advanced computing architectures. High-performance computing and data analytics methods are to be introduced in the context of specific scientific applications relevant to the MPS

communities. Lectures must be accompanied by problem sessions and hands-on activities on the actual machines. Online sharing of workshop materials and recorded presentations on dedicated websites is strongly encouraged.

- The **Directorate of Geosciences** (GEO),and the Divisions of Advanced Cyberinfrastructure (ACI) and Computing and Communication Foundation (CCF) in the **Directorate for Computer and Information Science and Engineering** (CISE) are not highlighting specific areas in the context of this solicitation. Rather, they welcome proposals that broadly enhance the communities of CI Professionals, Contributors, and Users in consultation with the Cognizant POs.

- **URL:***https://www.nsf.gov/pubs/2017/nsf17507/nsf17507.htm?WT.mc_id=USNSF_25&WT.mc_ev=click*

ARTS & HUMANITIES

Fellowships for Arts Managers

John F. Kennedy Center for the Performing Arts - DeVos Institute of Arts Management

Due Date: 12/1/2016

The Institute provides training, consultation, and implementation support for arts managers and their boards. Fellowships include:
- Intensive academic training in nonprofit management, finance, planning, fundraising, evaluation, and marketing
- Access to leaders of cultural institutions from throughout the United States, including site visits to select institutions Intensive, collaborative group work
- Ongoing personalized mentoring, both during and between the month-long residencies

First-year, second-year, and third-year fellows attend residencies together and engage in activities tailored to their year in the program.

- **URL:** *http://www.devosinstitute.umd.edu/What-We-Do/Services-For-Individuals/Fellowship1*

History of Art Grants Program
Kress Foundation, Samuel H.
Due Date: 1/15/2017, 4/1/2017, 10/1/2017

The History of Art program supports scholarly projects that will enhance the appreciation and understanding of European art and architecture. Grants are awarded to projects that create and disseminate specialized knowledge, including archival projects, development and dissemination of scholarly databases, documentation projects, museum exhibitions and publications, photographic campaigns, scholarly catalogues and publications, and technical and scientific studies. Grants are also awarded for activities that permit art historians to share their expertise through international exchanges, professional meetings, conferences, symposia, consultations, the presentation of research, and other professional events.

- **URL:** *http://www.kressfoundation.org/grants/history_of_art/*

Linguistics
National Science Foundation (NSF)
Due Date: 1/17/2017, 7/17/2017

The Linguistics Program supports basic science in the domain of human language, encompassing investigations of the grammatical properties of individual human languages, and of natural language in general. Research areas include syntax, semantics, morphology, phonetics, and phonology. The Linguistics Program does not make awards to support clinical research projects, nor does it support work to develop or assess pedagogical methods or tools for language instruction. **PD 98-1311** Projects that are interdisciplinary in methodological or theoretical perspective, and that address questions that cross disciplinary boundaries are encouraged.

- What are the psychological processes involved in the production, perception, and comprehension of language?
- What are the computational properties of language and/or the language processor that make fluent production, incremental comprehension or rapid learning possible?
- How do the acoustic and physiological properties of speech inform our theories of language and/or language processing?
- What role does human neurobiology play in shaping the various components of our linguistic capacities?
- How does language develop in children?
- What social and cultural factors underlie language variation and change?

- **URL:***http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5408&WT.mc_id=USNSF_39&WT.mc_ev=click*

ACLS Digital Extension Grants
American Council of Learned Societies (ACLS)
Due Date: 1/25/2017

ACLS invites applications for the Grant program, made possible by the generous assistance of The Andrew W. Mellon Foundation. This program supports digitally based research projects in all disciplines of the humanities and related social sciences. It is hoped that these grants will help advance the digital transformation of humanities scholarship by extending the reach of existing digital projects to new communities of users. Grants will support teams of scholars as they enhance existing digital projects in ways that engage new audiences across a range of academic communities and institutions.

To this end, projects supported by these grants may:
- Extend existing digital projects and resources with content that adds diversity or interdisciplinary reach;
- Develop new systems of making existing digital resources available to broader audiences and/or scholars from diverse institutions;
- Foster new team-based work or collaborations that allow scholars from institutions with limited cyberinfrastructure to exploit digital resources;
- Create new forms and sites for scholarly engagement with the digital humanities.

Projects that document and recognize participant engagement are strongly encouraged. Projects must be hosted by an institution of higher education in the United States.

- **URL:** *http://www.acls.org/programs/digitalextension/*

EDUCATION

NSF: Dear Colleague Letter: Life STEM *(NSF 16-143)*

The National Science Foundation (NSF) has established inclusiveness as one of its core values. The Foundation seeks and embraces contributions from all segments of the science, technology, engineering, and mathematics (STEM) community including underrepresented groups and minority serving institutions. This Dear Colleague Letter (DCL) describes another opportunity to build on the Agency's longstanding efforts of inclusiveness by providing a mechanism for researchers to create, implement, and evaluate innovative models of intervention in STEM (with particular attention to life science and bioscience), beginning in elementary school through undergraduate studies. NSF invites eligible organizations to submit research proposals that create, implement, and evaluate models of intervention that will advance the knowledge base for establishing and retaining underrepresented minorities in STEM fields with particular attention to life science and the biosciences. Proposals should partner eligible organizations with local elementary, middle or high schools to foster collaborative relationships between K-12 science educators and the research community. The activities may occur in formal and/or informal settings. Proposals may address science topics and activities related to curriculum development, teacher support, and student engagement. Proposals should describe effective methods to disseminate findings broadly to the K-16 science education community.

- **URL:***https://www.nsf.gov/pubs/2016/nsf16143/nsf16143.jsp?WT.mc_id=USNSF_25&WT.mc_ev=click*

Pre-College Education Program

United States-Japan Foundation (USJF)

Due Date: Letters of Intent 12/15/2016; Full Proposals 1/31/2017

The US-JF supports innovative education projects that help young Americans and Japanese learn about each other's society, culture, and country as well as learn to work together on issues of common concern. The Foundation focuses on K-12 education and throughout its history has been at the forefront of supporting teacher professional development projects that train US teachers to teach about Japan and Japanese teachers to teach about the United States. In addition, the Foundation funds projects that work directly with students, that develop top quality curriculum materials on America or Japan for educational audiences in the other country, that connect schools and classrooms in the US and Japan, and that develop and improve instruction in Japanese language. The Foundation seeks to respond to needs at the pre-college level as identified by experts in US-Japan education and practitioners in the field. We are open to diverse methodologies for engaging teachers and students in the study of Japan and the United States that range from history, art, and music to science and society.

- **URL:** *http://us-jf.org/programs/grants/pre-college-education/*

ENGINEERING, MATHEMATICS & PHYSICAL SCIENCES

National Science Foundation: Dear Colleague Letter: Encouraging Reproducibility in Computing and Communications Research *(NSF 17-022)*

- **URL:***https://www.nsf.gov/pubs/2017/nsf17022/nsf17022.jsp?WT.mc_id=USNSF_25&WT.mc_ev=click*

Platform Subsystems Technologies (PST)
U.S. Department of Defense (DoD) – Army
Due Date: 12/5/2016

Notice seeking applications to support efforts to develop advanced subsystems and vulnerability reduction technologies supporting an integrated platform solution that exemplifies effective total aircraft and aircrew survivability and operational availability without loss of performance. Funds support efforts that address vulnerability reduction, electrical, actuation, and/or thermal management to maximize performance and achieve weight savings not otherwise obtainable.
W911W6-17-R-0001

- **URL:***https://www.fbo.gov/?s=opportunity&mode=form&id=14274d88d3f7c771b2f57234aeff1b2d&tab=core&_cview=0*

NIST Consortium for Semiconductor and Future Computing Research Grant Program
United States Department of Commerce (DOC) - National Institute of Standards and Technology (NIST)
Due Date: 1/13/2017

NIST is soliciting proposals for financial assistance from eligible applicants to support basic research, in a consortium-based setting, focused on the long-term research needs of industry in the area of future computing and information processing. There is a critical need for scientific and engineering advances in novel computing paradigms with long-term impact on the semiconductor, electronics, computing, and defense industries. The proposed activities should advance the physical and materials aspects of future computing technologies with a focus on alternatives that provide low latency, low energy per operation, improved data/communication bandwidth, and higher clock speed. Activities should include innovative research in devices, circuits, architectures, metrology or characterization to enable future

computing paradigms. Applicants should create mechanisms for extended collaboration with NIST researchers. **2017-NIST-CSFC-01**

- **URL:** *http://www.grants.gov/web/grants/view-opportunity.html?oppId=289744*

Spectrum Efficiency, Energy Efficiency, and Security (SpecEES): Enabling Spectrum for All
National Science Foundation (NSF)
Due Date: 1/19/2017

The National Science Foundation's Directorates for Engineering (ENG) and Computer and Information Science and Engineering (CISE) are coordinating efforts to identify bold new concepts to significantly improve the efficiency of radio spectrum utilization while addressing new challenges in energy efficiency and security, thus enabling spectrum access for all users and devices, and allowing traditionally underserved Americans to benefit from wireless-enabled goods and services. The SpecEES program solicitation (pronounced "SpecEase") seeks to fund innovative collaborative research that transcends the traditional boundaries of existing programs. **NSF 16-616**

- **URL***:https://www.nsf.gov/pubs/2016/nsf16616/nsf16616.htm?WT.mc_id=USNSF_25&WT.mc_ev=click*

Transdisciplinary Research in Principles of Data Science (TRIPODS)
National Science Foundation (NSF)
Due Date: Letters of Intent 1/19/2017; Full Proposals 3/15/2017

Transdisciplinary Research In Principles Of Data Science (TRIPODS) aims to bring together the statistics, mathematics, and theoretical computer science communities to develop the theoretical foundations of data science through integrated research and training activities. Phase I, described in this solicitation, will support the development of small collaborative Institutes. Phase II (to be described in an anticipated future solicitation, subject to availability of funds) will support a smaller number of larger Institutes, selected from the Phase I Institutes via a second competitive proposal process. All TRIPODS Institutes must involve significant and integral participation by all three of the aforementioned communities. **NSF 16-615**

- **URL:** *https://www.nsf.gov/pubs/2016/nsf16615/nsf16615.htm*

Critical Resilient Interdependent Infrastructure Systems and Processes (CRISP)
National Science Foundation (NSF)
Due Date: 2/8/2017

Critical infrastructures are the mainstay of our nation's economy, security and health. These infrastructures are interdependent. They are linked to individual preferences and community needs. For example, the electrical power system depends on the delivery of fuels to power generating stations through transportation services, the production of those fuels depends in turn on the use of electrical power, and those fuels are needed by the transportation services. Social networks, interactions, and policies can enable or hinder the successful creation of resilient complex adaptive systems. The goals of the Critical Resilient Interdependent Infrastructure Systems and Processes (CRISP) solicitation are to:
(1) foster an interdisciplinary research community of engineers, computer and computational scientists and social and behavioral scientists, that creates new approaches and engineering solutions for the design and operation of infrastructures as processes and services;
(2) enhance the understanding and design of interdependent critical infrastructure systems (ICIs) and processes that provide essential goods and services despite disruptions and failures from any cause, natural, technological, or malicious;
(3) create the knowledge for innovation in ICIs so that they safely, securely, and effectively expand the range of goods and services they enable; and
(4) improve the effectiveness and efficiency with which they deliver existing goods and services.

These goals lead to the following specific objectives for this solicitation:
1. To create new knowledge, approaches, and solutions to increase resilience, performance, and readiness in ICIs. The solutions may emerge primarily from advances in cyber (computing, information, computational, sensing and communication), engineering, or societal (behavioral, economic, organizational) elements of ICIs, although proposals must integrate research across all three elements.
2. To create theoretical frameworks and multidisciplinary models of ICIs, processes and services, capable of analytical prediction of complex behaviors, in response to system and policy changes.
3. To develop frameworks to understand interdependencies created by the interactions between the physical, the cyber (computing, information, computational, sensing and communication), and social, behavioral and economic elements of ICIs. These could include, but are not limited to, software frameworks for modeling and simulation using advanced cyber infrastructures, management, monitoring and real-time control of interdependent ICIs and novel software engineering methodologies.
4. To study socioeconomic, political, legal and psychological obstacles to improving ICIs and identifying strategies for overcoming those obstacles.
5. To undertake the creation, curation or use of publicly accessible data on infrastructure systems and processes, whether in the context of explanation, prediction or modeling.

The CRISP solicitation seeks to fund projects likely to produce new knowledge that can contribute to making ICI services more effective, efficient, dependable, adaptable, resilient, safe, and secure, taking into account the human systems in which they are embedded. Successful proposals are expected to study multiple infrastructures focusing on them as interdependent systems that deliver services, enabling a new interdisciplinary paradigm in infrastructure research. To meet the interdisciplinary criterion, proposals must broadly integrate across engineering, computer, information and computational science, and the social, behavioral and economic sciences. **NSF 16-618**

- **URL:** *https://www.nsf.gov/pubs/2016/nsf16618/nsf16618.htm*

Algorithms for Threat Detection (ATD)
National Science Foundation (NSF)
Due Date: 2/21/2017

The Algorithms for Threat Detection (ATD) program will support research projects to develop the next generation of mathematical and statistical algorithms for analysis of large spatiotemporal datasets with application to quantitative models of human dynamics. The program is a partnership between the Division of Mathematical Sciences (DMS) at the National Science Foundation (NSF) and the National Geospatial Intelligence Agency (NGA). **NSF 17-510**

- **URL:** *https://www.nsf.gov/pubs/2017/nsf17510/nsf17510.htm*

Professional Formation of Engineers (PFE: RIEF) - Research Initiation in Engineering Formation
National Science Foundation (NSF)
Due Date: 2/23/2017

The NSF Engineering (ENG) Directorate has launched a multi-year initiative, the Professional Formation of Engineers, to create and support an innovative and inclusive engineering profession for the 21st Century. Professional Formation of Engineers (PFE) refers to the formal and informal processes and value systems by which people become engineers. It also includes the ethical responsibility of practicing engineers to sustain and grow the profession. The engineering profession must be responsive to national priorities, grand challenges, and dynamic workforce needs; it must be equally open and accessible to all. Engineering faculty possess both deep technical expertise in their engineering discipline and the primary responsibility for the process of professional formation of future engineers. As such, engineering faculty are in a unique position to help address critical challenges in engineering formation. The Professional Formation of Engineers: Research Initiation in Engineering Formation (PFE: RIEF) program enables engineering faculty who are renowned for teaching, mentoring, or leading

educational reform efforts on their campus to initiate collaborations with colleagues in the social and/or learning sciences to address difficult, boundary-spanning problems in the professional formation of engineers. A wide range of research topics related to the Professional Formation of Engineers can be addressed in PFE: RIEF proposals; the emphasis of PFE: RIEF is on initiating research projects in professional formation of engineers rather than supporting research on any specific topic. Proposals are encouraged on any topic that explores engineering formation from an inter-disciplinary perspective. PFE: RIEF projects should combine engineering approaches with those from learning and cognitive sciences, engineering education, social sciences, and related fields in synergistic ways and enable engineering faculty to develop expertise in engineering education research. PFE: RIEF awards are intended to expand the community of engineering faculty conducting research related to professional formation of engineers. The intent of the PRE: RIEF program is to expand the community of engineering faculty conducting research related to engineering formation rather than create an additional funding channel for established researchers in this area. **NSF 17-514**

- **URL:** *https://www.nsf.gov/pubs/2017/nsf17514/nsf17514.htm*

Long Range Broad Agency Announcement (BAA) for Navy and Marine Corps Science and Technology

United States Department of Defense (DOD) - Department of the Navy (U.S. Navy) - Office of Naval Research (ONR)

Due Date: Continuous (BAA will remain open until 9/30/2017)

The Office of Naval Research is interested in receiving proposals for Long-Range Science and Technology Projects that offer potential for advancement and improvement of Navy and Marine Corps operations. **N00014-17-S-B001**

The areas under which proposals are sought include the following:

1. Expeditionary warfare and combating terrorism
2. Command, control communications, intelligence, surveillance, and reconnaissance
3. Ocean battlespace sensing
4. Sea warfare and weapons
5. Warfighter performance
6. Naval air warfare and weapons
7. The Marine Corps Warfighting Lab
8. Office of Naval Research Global (ONRG)

- **URL:** *http://www.grants.gov/web/grants/view-opportunity.html?oppId=289180*

Materials and Manufacturing Directorate, Functional Materials and Applications (AFRL/RXA) Two-Step Open BAA
United States Department of Defense (DOD) - Department of the Air Force (USAF) - Air Force Materiel Command - Air Force Research Laboratory (AFRL)
Due Date: White Papers accepted through 4/18/2021

Air Force Research Laboratory, Materials & Manufacturing Directorate is soliciting white papers and potentially technical and cost proposals under this announcement that support the needs of the Functional Materials and Applications mission. Functional Materials technologies range from materials and scientific discovery through technology development and transition are of interest. Descriptors of Materials and Manufacturing Directorate technology interests are presented in the context of functional materials core technical competencies and applications which focus on enabling innovative solutions, methods and understanding in the development and application of new materials devices and concepts to meet specific performance goals. ***BAA-AFRL-RQKMA-2016-0007***

- **URL:** *http://www.grants.gov/web/grants/view-opportunity.html?oppId=283134*

HEALTH, LIFE & EARTH SCIENCES

Research Opportunities in Space and Earth Sciences (ROSES) - Solar System Workings
National Aeronautics and Space Administration (NASA) - Science Mission Directorate (SMD)
Due Date: Step 1 Proposals 11/17/2016; Step 2 Proposals 2/23/2017

The Solar System Workings program element supports research into atmospheric, climatological, dynamical, geologic, geophysical, and geochemical processes occurring on planetary bodies, satellites, and other minor bodies (including rings) in the Solar System. This call seeks to address the physical and chemical processes that affect the surfaces, interiors, atmospheres, exospheres, and magnetospheres of planetary bodies. A wide range of investigations will be covered, including theoretical studies, analytical and numerical modeling, sample-based studies of extraterrestrial materials, field work, laboratory studies, and data synthesis relevant to the physical and chemical processes affecting planetary systems. The Solar System Workings (SSW) program solicits proposals for innovative scientific research related to understanding the atmospheric, climatological, dynamical, geologic, physical, and chemical processes occurring within the Solar System. This program is open to investigations relevant to surfaces and interiors of planetary bodies, planetary atmospheres, rings, orbital dynamics, and exospheres and magnetospheres. The Solar System Workings program values the potential of interdisciplinary efforts to solve key scientific questions. The program also values research

in comparative planetology. Research supported by this call may include data synthesis, laboratory studies that examine physical or chemical properties and processes, studies of sample or analog materials of other Solar System bodies, field studies of terrestrial analogs of planetary environments, or theoretical and numerical modeling of physical or chemical processes. This program seeks to understand processes that occur throughout the Solar System, as well as those which are specific to individual objects and systems, but inform our understanding of the fundamental processes at work. A nonexhaustive list of areas of research called for in this solicitation follows. For conciseness in this list, the term `planetary' refers to Solar System objects other than the Sun (ranging in size from small objects, like comets and asteroids, through natural satellites, and up to planets) and structures (such as atmospheres, ionospheres, and ring systems). Due to the broad nature of this program's mandate, it is open to a wide range of targets of interest and methods of investigation, but only accepts scientific investigations. Each proposal must present a scientific investigation to be conducted, what data and resources will be used, the investigation's methodology, and how the investigation will achieve closure of the proposal's goals. Although this program encourages the utilization of data from planetary missions and studies that produce data products (e.g., cartographic products, calibration data, moments calculations) to inform science investigations, it does not accept proposals eligible for funding by the Data Analysis Programs or the Planetary Data Archiving, Restoration, and Tools Program (see Section 2.1). **NNH16ZDA001N-SSW**

- **URL:***https://nspires.nasaprs.com/external/solicitations/summary.do?method=init&solId={BA231B0B-067C-9D42-D770-848B361FC4CA}&path=open*

Advancing Systemic Changes to Promote Healthy School Environments

Robert Wood Johnson Foundation (RWJF)

Due Date: Phase I Preliminary Proposals 11/30/2016; Phase II Full Proposals 2/16/2017

RWJF seeks to advance systemic changes that embed health in school environments. To help advance these systemic changes, the Foundation will support a collaborative, multipronged strategy with three complementary areas of work related to Research, Policy, and Strategic Action. This Call for Qualifications (CFQ) represents Phase I of a two-phase selection process designed to identify eligible organizations to lead each area of work, which include:

1. Applied Research and Translation (one to two grants awarded) to use research to facilitate the implementation of practices and policies that generate healthy, safe, and nurturing school climates that help to reduce health disparities.
2. Policy Analysis and Development (one to two grants awarded) to identify and elevate effective and equitable policies that generate healthy, safe, and nurturing school climates that help to reduce health disparities.
3. Strategic Action and Alignment (one lead grantee with core partners) to expand support from decision-makers, practitioners, and other key stakeholders who will ultimately be responsible for

establishing and supporting policy, implementing best practices, and embracing school-change efforts that address the real conditions that support or impede children's health and learning.

- **URL:** *http://www.rwjf.org/en/library/funding-opportunities/2016/advancing-systemic-changes-to-promote-healthy-school-environment.html*

Glenn/AFAR Breakthroughs in Gerontology (BIG) Awards
American Federation for Aging Research (AFAR)
Due Date: Letters of Intent 12/15/2016

The BIG initiative provides timely support to a small number of research projects that are building on early discoveries that show translational potential for clinically-relevant strategies, treatments and therapeutics, addressing human aging and health span. The following types of studies using one or more of these models will be considered: Human subjects, Human cells and tissues, Mice or other mammals. Proposals using other types of models (i.e. yeast, drosophila melanogaster, c. elegans, etc.) will only be considered when there is compelling justification that these studies may be directly relevant to human health and aging (or "the human condition".) Recipients of this award are expected to attend the AFAR Grantee Conference. The purpose of the meeting is to promote scientific and personal exchanges among recent AFAR grantees and experts in aging research. Priority will be given to proposals that have a near-term potential for translation.

- **URL:** *http://www.afar.org/research/funding/big*

Centers of Excellence (COE)
Dept. of Health & Human Services (HHS) - Health Resources & Services Administration (HRSA)
Due Date: 1/9/2017

Notice seeking applications supporting innovative resource and education centers to recruit, train, and retain underrepresented minority students and faculty at health professions schools. Funds support efforts to improve information resources, clinical education, curricula, and cultural competence as they relate to minority health issues and social determinants of health, and facilitate faculty and student research on health issues particularly affecting minority groups. Eligible applicants are accredited allopathic schools of medicine, osteopathic medicine, dentistry, pharmacy, and graduate programs in behavioral or mental health. **HRSA-17-065**

- **URL:** *http://www.grants.gov/web/grants/view-opportunity.html?oppId=289063*

Division of Environmental Biology (DEB)
National Science Foundation (NSF)
Due Date: Preliminary Proposals 1/23/2017; Full Proposals 8/2/2017

The Division of Environmental Biology (DEB) supports fundamental research on populations, species, communities, and ecosystems. Scientific emphases range across many evolutionary and ecological patterns and processes at all spatial and temporal scales. Areas of research include biodiversity, phylogenetic systematics, molecular evolution, life history evolution, natural selection, ecology, biogeography, ecosystem structure, function and services, conservation biology, global change, and biogeochemical cycles. Research on organismal origins, functions, relationships, interactions, and evolutionary history may incorporate field, laboratory, or collection-based approaches; observational or manipulative experiments; synthesis activities; as well as theoretical approaches involving analytical, statistical, or computational modeling. **NSF 17-512**

- **URL:** *http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503634*

Animal and Biological Material Resource Centers (P40)
National Institutes of Health (NIH)
Due Date: 1/25/2017, 5/25/2017, 9/25/2017 (standard NIH due dates apply)

This FOA encourages grant applications for national Animal Model, and Biological Material Resource Centers. These Centers provide support for special colonies of laboratory animals, as well as other resources such as informatics tools, reagents, cultures (cells, tissues, and organs) and genetic stocks that serve the biomedical research community in a variety of research areas on a local, regional, national and international basis. Support for Animal and Biological Material Resource Centers is limited to those that span the interests of two or more categorical NIH Institutes/Centers/Offices (ICOs). This funding opportunity is designed to both support continuation of existing resources, and to develop new ones when appropriate. Prior to preparing an application, all applicants are strongly encouraged to consult with Scientific/Research staff to be advised on appropriateness of the intended resource plans for this program, competitiveness of a potential application and ORIP's program priorities. **PAR-17-006**

- **URL:** *https://grants.nih.gov/grants/guide/pa-files/PAR-17-006.html*

Core Facility Support
Kansas IDeA Network of Biomedical Research Excellence (K-INBRE)
Due Date: 2/1/2017

This award is for the purpose of providing funds to institutional core facilities that support the research focus of the K-INBRE, Cell and Developmental Biology. Proposals are limited to one year of funding.

- **URL:** *http://www.k-inbre.org/FacultyAwards.html*

Recruitment/Start-Up Packages
Kansas IDeA Network of Biomedical Research Excellence (K-INBRE)
Due Date: 2/1/2017

Recruitment/Start-up packages are for the purpose of assisting in the process of bringing in new faculty to K-INBRE Undergraduate Partner Institutions (UPI) Emporia State University, Fort Hays State University, Haskell Indian Nations University, Langston University, Pittsburg State University, Washburn University, Wichita State University and helping in the establishment of their research laboratories. Requests are limited to one period of funding.

- **URL:** *http://www.k-inbre.org/FacultyAwards.html*

Gallagher Koster Innovative Practices in College Health Award
American College Health Association - American College Health Foundation
Due Date: 2/3/2017

This award will provide a cash award to help fund the development of creative solutions to access issues specifically related to (1) understanding students' health care needs and perspectives; (2) assessing students' knowledge of available health services and their appropriate utilization; (3) strengthening methods of health care delivery, including the development of community and public health strategies that reach out to populations at risk; (4) strengthening the use of technology to integrate health service delivery with an educational system focused on appropriate utilization of health services and improved health status; and (5) creating innovative strategies that support student's financial access to needed health care services. The goal of this award program is to spawn new ideas and innovative practices that improve students' access to health care and to share these strategies with other college health care professionals via presentations at state, regional, and national conferences, and publications in college health related periodicals. Applicants are encouraged to put together project proposals that

develop or utilize partnerships on their campuses and that demonstrate internal financial and in-kind support. Consideration will be given to proposals where institutional commitment to sustain the project is evidenced.

- **URL:** *http://www.acha.org/ACHA/Foundation/Gallagher_Koster_Award.aspx*

Earth Sciences: Laboratory Technician Support (EAR/LTS)
National Science Foundation (NSF)
Due Date: 2/9/2017

The Instrumentation and Facilities Program in the Division of Earth Sciences (EAR/IF) supports meritorious requests for infrastructure that promotes research and education in areas supported by the Division. Under this solicitation EAR/IF will consider proposals for Laboratory Technician Support to provide for optimal and efficient operation of advanced instrumentation, analytical protocol development, and user training for Earth science research instrumentation. Support is available through grants in response to investigator-initiated proposals. Technician support duties that promote human resource development and education are expected to be an integral part of proposals. Efforts to support participation of underrepresented groups in laboratory and/or field instrument use and training are encouraged as part of any described technician's duties. Proposals from early career (tenure track but untenured) lead investigators are also encouraged. Such proposals will be given due consideration as part of the Broader Impacts merit review criterion. **NSF 17-504**

AR/IF accepts proposals seeking support for a laboratory technician with planned focus competitions over three fiscal years (FY 2017 - FY 2019) as follows:
- FY 2017: Laboratory Technician Support - Geochronology
- FY 2018: Laboratory Technician Support - Experimental Geophysics
- FY 2019: Laboratory Technician Support - High Performance Computing

- **URL:** *https://www.nsf.gov/pubs/2017/nsf17504/nsf17504.htm*

Powering Research through Innovative Methods for mixtures in Epidemiology (PRIME) (R01)
National Institutes of Health (NIH) - National Institute of Environmental Health Sciences (NIEHS)
Due Date: 2/22/2017 (Letters of Intent due 30 days prior to application due date)

The purpose of this Funding Opportunity Announcement (FOA) is to stimulate the development of innovative statistical, data science, or other quantitative approaches to studying the health effects of complex chemical mixtures in environmental epidemiology. **RFA-ES-17-001**

- **URL:** *http://grants.nih.gov/grants/guide/rfa-files/RFA-ES-17-001.html*

Earth Sciences: Instrumentation and Facilities (EAR/IF)
National Science Foundation (NSF)
Due Date: Full Proposals Accepted Anytime

The EAR/IF Program supports meritorious requests for infrastructure that promotes research and education in areas supported by the Division. EAR/IF will consider proposals for:
1. Acquisition or Upgrade of Research Equipment that will advance laboratory and field investigations, and student research training opportunities in the Earth sciences.
2. Development of New Instrumentation, Analytical Techniques or Software that will extend current research and research training capabilities in the Earth sciences.
3. Support of National or Regional Multi-User Facilities that will make complex and expensive instruments or systems of instruments broadly available to the Earth sciences research and student communities;
4. Support for Early Career Investigators to facilitate expedient operation of new research infrastructure proposed by the next generation of leaders in the Earth Sciences. This opportunity allows for submission of a proposal for Acquisition or Upgrade of Research Equipment that includes budget line items associated with support of a new full-time technician who will be dedicated to manage the instrument(s) being requested.
Planned research uses of requested instruments, software, and facilities must include basic research on Earth processes supported by EAR. Human resource development and education are expected to be an integral part of all proposals submitted to EAR/IF. Efforts to support participation of underrepresented groups in laboratory and/or field instrument use and training are encouraged. All proposers to EAR/IF are invited to consider Support of Outreach and/or Broadening Participation Activities. Proposals requesting equipment, infrastructure or personnel that will also serve disciplines outside the Earth sciences may be jointly reviewed with other programs within the Foundation. EAR/IF will consider co-funding of projects with other NSF programs and other agencies. **NSF 16-609**

- **URL:** *https://www.nsf.gov/pubs/2016/nsf16609/nsf16609.htm*

Plant Genome Research Program (PGRP)
National Science Foundation (NSF)
Due Date: Full Proposals Accepted Anytime

The Plant Genome Research Program (PGRP) supports genome-scale research in plant genomics that addresses challenging questions of biological importance and of relevance to society. The Program encourages the development of innovative tools, technologies and resources that push the boundaries of research capabilities and permit the community to answer seemingly intractable and pressing questions on a genome-wide scale. Emphasis is placed on the creativity of the approach and the scale and depth of the question being addressed. Data produced by plant genomics should be usable, accessible, integrated across scales and of high impact across biology. Training and career advancement in plant genomics is featured as an essential element of scientific progress. The PGRP continues to focus on plants of economic importance and biological processes and interactions that will have broad impact on the scientific research community and society in general.

Four funding opportunities are currently available:

1. Genome-scale plant research and/or tool development to address fundamental biological questions in plants of economic importance on a genome-wide scale (RESEARCH-PGR);
2. Plant Transformation Challenge Grants to overcome constraints in plant transformation through breakthrough discoveries (TRANSFORM-PGR);
3. Data Mining Challenge Grants to mine, reuse and unleash new information from available large-scale datasets (MINE-PGR);
4. Career Advancement to build new careers in plant genomics as early career awards (ECA-PGR) or mid-career awards (MCA-PGR).

- **URL:** *https://www.nsf.gov/pubs/2016/nsf16614/nsf16614.htm*

MULTIPLE DISCIPLINES

National Science Foundation: Dear Colleague Letter (DCL): Enabling New Collaborations Between Computer and Information Science & Engineering (CISE) and Social, Behavioral and Economic Sciences (SBE) Research Communities *(NSF 17-019)*

- **URL:***https://www.nsf.gov/pubs/2017/nsf17019/nsf17019.jsp?WT.mc_id=USNSF_25&WT.mc_ev=click*

Research Interests of the Air Force Office of Scientific Research
U.S. Department of Defense - Air Force – Air Force Office of Scientific Research (AFOSR)
Due Date: Applications are accepted at any time

Notice seeking applications supporting efforts to foster revolutionary scientific breakthroughs enabling the Air Force and U.S. industry to produce world-class, militarily significant, and commercially valuable products. Focus areas include: Engineering and Complex Systems; Information and Networks; Physical Sciences; Chemistry and Biological Sciences; Student Exchange Program; and Other Innovative Research Concepts. **BAA-AFRL-AFOSR-2016-0007**

- **URL:** *http://www.grants.gov/web/grants/view-opportunity.html?oppId=285269*

NEW FACULTY / INVESTIGATOR

Niehaus Postdoctoral and Visiting Fellowship Program
Princeton University - Woodrow Wilson School of Public and International Affairs - Niehaus Center for Globalization and Governance (NCGG)
Due Date: 1/2/2017

The Niehaus Center for Globalization and Governance (NCGG) at Princeton University's Woodrow Wilson School of Public and International Affairs seeks up to six visitors for the 2017-2018 academic year. This fellows program is targeted at developing a generation of scholars able to analyze and make policy recommendations about the regional political economy in the Middle East, East, South, or

Southeast Asia, Africa and Latin America. The Center invites candidates with a background in economics, political science, contemporary history, sociology, law, business, and other disciplines bearing on the study of markets, politics, and economic development, focusing on the regions of the Middle East, East, South, or Southeast Asia, Africa and Latin America to apply. Scholarly work should explore the ways in which the politics within and between a set of countries intersect with natural resource endowments, market conditions, technological and physical infrastructure, and cultural biases to explain existing patterns of economic development and to promote higher levels of development more effectively.

- **URL:** *http://ncgg-new.princeton.edu/fellowsprogram/postdoc*

Grants-in-Aid
Whitehall Foundation, Inc.
Due Date: Letters of Intent 1/15/2017; Applications 2/15/2017

The Grants-in-Aid program is designed for researchers at the assistant professor level who experience difficulty in competing for research funds because they have not yet become firmly established. Grants-in-Aid can also be made to senior scientists. All applications will be judged on the scientific merit and innovative aspects of the proposal, as well as on past performance and evidence of the applicant's continued productivity. The foundation, through its program of grants and grants-in-aid, assists scholarly research in the life sciences. It is the foundation's policy to assist those dynamic areas of basic biological research that are not heavily supported by Federal Agencies or other foundations with specialized missions. In order to respond to the changing environment, the Whitehall Foundation periodically reassesses the need for financial support by the various fields of biological research. The foundation is currently interested in basic research in neurobiology, defined as follows: Invertebrate and vertebrate (excluding clinical) neurobiology, specifically investigations of neural mechanisms involved in sensory, motor, and other complex functions of the whole organism as these relate to behavior. The overall goal should be to better understand behavioral output or brain mechanisms of behavior. The foundation does not support research focused primarily on disease(s) unless it will also provide insights into normal functioning.

- **URL:** *http://www.whitehall.org/grants/*

SOCIAL & BEHAVIORAL SCIENCES

Biological Anthropology Program - Doctoral Dissertation Research Improvement Grants (BA-DDRIG)
National Science Foundation (NSF)
Due Date: 1/20/2017, 7/20/2017

The Biological Anthropology Program supports multifaceted research which advances scientific knowledge of human biology and ecology, including understanding of our evolutionary history and mechanisms which have shaped human and nonhuman primate biological diversity. Supported research focuses on living and fossil forms of both human and nonhuman primates, addressing time scales ranging from the short-term to evolutionary, encompassing multiple levels of organization and analysis (molecular and organismal, to the population and ecosystem scales), and conducted in field, laboratory, and captive research environments. Areas of inquiry which promote understanding of the evolution, biology, and adaptability of our diverse species include, but are not limited to, human genetic and epigenetic variation and relationships to phenotype; human and nonhuman primate ecology, socioecology, functional anatomy and skeletal biology; human and nonhuman primate paleontology; and the anthropological science of forensics. Multidisciplinary research which fully integrates biological anthropology with other anthropological fields, such as bioarchaeological or biocultural research, also receives support through the Program.

The Program contributes to the integration of education and basic research through support of dissertation projects conducted by doctoral students enrolled in U.S. universities. This solicitation specifically addresses the preparation and evaluation of proposals for such Doctoral Dissertation Research Improvement (DDRI) Grants. Dissertation research projects in all of the subareas of biological anthropology, whether conducted in specialized facilities or field settings, are eligible for support through these grants. These awards are intended to enhance and improve the conduct of dissertation research by doctoral students who are pursuing research in biological anthropology that enhances basic scientific knowledge. **NSF 17-506**

- **URL:** *http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505067*