

Funding Bulletin

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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

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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/>

A bi-weekly publication of the Office of Research and Technology Transfer. For additional information or to request a customized funding opportunity search, please contact funding@wichita.edu.

OFFICE OF RESEARCH WORKSHOPS

For more information contact Kendra Nguyen at kendra.nguyen@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	Mar 15	9:30 – 11:00 a.m.	409E Jardine	The IRB Administrator will be holding Open Labs this spring for Faculty, Staff or Students who have questions about the new forms or about their study in general. <i>This is a come and go lab with no registration required.</i>
SBIR Monthly Q&A	Mar 15	2:00 – 4:00 p.m.	Experiential Engineering Building 163	These monthly sessions allow students, faculty and staff to learn more about the U.S. government's Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs or ask questions about specific topics.
Research Compliance Open Lab	Mar 21	9:00 – 11:00 a.m.	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. <i>This is a come and go lab with no registration required.</i>



NOTICES

Funding Bulletin Survey – your feedback is appreciated!

The Office of Research has created a short survey to gauge user satisfaction for our Funding Bulletin; please take a couple minutes to tell us your thoughts about it. Participation is confidential and optional; results will be utilized to evaluate customer satisfaction with funding search support. Your feedback is appreciated! Please follow the link below to access the survey:

https://wichitastate.co1.qualtrics.com/jfe/form/SV_9AHfbwsfnD8Y6a1

Curious to see who's receiving external funding on campus?!? Check out the Office of Research's Monthly Awards

<http://webs.wichita.edu/?u=wsuresearchadmin&p=/researchmonthlyawards/jan17/>

INTERNAL OPPORTUNITIES

There are currently no open internal competitions. Upcoming opportunities will be posted as the next deadlines are announced. For information about internal opportunities previously offered, see the link below:

<http://webs.wichita.edu/?u=wsuresearchadmin&p=/orainternalgrants/orainternalgrants/>

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 (please see our website for additional limited submissions whose internal deadlines that have passed but may still be accepted NOIs):**

(1) Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science (NSF INCLUDES)

National Science Foundation (NSF)

Due Date: Internal NOIs 3/23/2018; Full Proposal 4/4/2018

This solicitation is a call for NSF INCLUDES Alliance proposals only.

NSF INCLUDES (Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science) is a comprehensive national initiative designed to enhance U.S. leadership in science, technology, engineering, and mathematics (STEM) discoveries and innovations by focusing on broadening participation in these fields at scale. The vision of NSF INCLUDES is to catalyze the STEM enterprise to collaboratively work for inclusive change, which will result in a STEM workforce that reflects the population of the Nation. The initiative is developing a National Network composed of NSF INCLUDES Design and Development Launch Pilots, NSF INCLUDES Alliances, an NSF INCLUDES Coordination Hub, NSF-funded broadening participation projects, other relevant NSF-funded projects, scholars engaged in broadening participation research, and other organizations that support the development of talent from all sectors of society to build an inclusive STEM workforce. The successful implementation of NSF INCLUDES will result in substantial advances toward a diverse, innovative, and well-prepared STEM workforce to support our Nation's economy and continued U.S. leadership in the global STEM enterprise. It is anticipated that NSF's investment will contribute to new and improved STEM career pathways, policies, opportunities to learn, and practices for equity and inclusion. The initiative will be supported by the NSF INCLUDES Coordination Hub (NSF 17-591) that will provide a framework for communication and networking, network assistance and reinforcement, and visibility and expansion for the NSF INCLUDES National Network as a whole.

This solicitation offers opportunities for NSF INCLUDES Alliances. The critical functions of each NSF INCLUDES Alliance are to:

- 1) Develop a vision and strategy (e.g., problem statement and theory of change) for broadening participation in STEM along with relevant metrics of success and key milestones/goals to be achieved during the project's lifecycle;
- 2) Contribute to the knowledge base on broadening participation in STEM through broadening participation and implementation research, sharing project evaluations, data, new scientific findings/discoveries, and promising practices;
- 3) Develop multi-stakeholder partnerships and build infrastructure among them to decrease social distance and achieve progress on common goals targeted by the Alliance;
- 4) Establish a "backbone" or support organization that provides a framework for communication and networking, network assistance and reinforcement, visibility and expansion of the Alliance and its partners, that will collaborate with the NSF INCLUDES Coordination Hub;
- 5) Advance a logic model or other heuristic that identifies Alliance outcomes that reflect implementation of change at scale and progress toward developing an inclusive STEM enterprise.

Collectively, the set of NSF INCLUDES Alliances are to:

- 1) Participate in a network of peer alliances to achieve long-term goals of the NSF INCLUDES program;
- 2) Collaborate with the NSF INCLUDES Coordination Hub to build critical knowledge that shows measurable progress toward long-term goals; and
- 3) Work to build on-ramps for other organizations and broadening participation stakeholders to join in and expand the NSF National Network.

All NSF INCLUDES Alliance proposals should describe the results they expect to achieve in broadening participation in STEM. Each proposal must explain how they will build the infrastructure to foster collaboration and achieve impact by emphasizing the following five characteristics of the NSF INCLUDES Program: a) Vision, b) Partnerships, c) Goals and Metrics, d) Leadership and Communication, and e) the Potential for Expansion, Sustainability and Scale.

Vision: Every NSF INCLUDES Alliance proposal should describe the vision of what the Alliance aspires to achieve. What will be different in the landscape of broadening participation in STEM as a result of the efforts of this Alliance?

Partnerships: Partnerships and networks are at the heart of the NSF INCLUDES National Network, and Alliance proposals should include a plan for creating a platform for partnerships and collaborative action that includes a "backbone" or support organization. How will the Alliance partners engage an expansive community in a shared vision of the importance and power of broadening participation for scientific innovation? Why is the partnership that is being developed the right partnership to achieve the vision?

Goals and Metrics: Alliance proposals should delineate how the partnerships and networks will develop and be driven by shared goals, available evidence from research that forms the basis for the plans, and the metrics and milestones that define the pathway to achieving the vision. Robust data collection

plans and implementation research will need to be included, to facilitate evidence-based decision making and adjustments as the Alliance matures.

Leadership and Communication: Alliance proposals should provide details for how the Alliance will build and strengthen capacity for leadership and communication among collaborating organizations and individuals to create opportunities and enact inclusion in STEM.

Expansion, Sustainability and Scale: Finally, Alliance proposals should discuss how the collaborative infrastructure building process will ultimately lead to: expansion (more partners joining the movement), sustainability (more long-term connections being made), and implementation of change at scale (a likelihood for collaborative change to lead to change on a broad scale). **NSF 18-529** *An organization may serve as the lead institution on only one Alliance proposal.*

- URL: <https://www.nsf.gov/pubs/2018/nsf18529/nsf18529.htm>

(2) New Work Project Grants

Harpo Foundation

Due Date: Internal NOIs 3/30/2018; Application 4/13/2018

The Foundation's grant program awards 7-10 grants annually. Grants are made directly to artists to support their development and to non-profit organizations in support of new work by artists. **Presenting venues and hosting organizations may only submit one application a year.**

- URL: <http://www.harpofoundation.org/new-work-project-grants/>

(3) SMART FY18 Sexual Violence Prevention Initiative

U.S. Department of Justice (DOJ) - Office of Justice Programs (OJP) – Office of Sex Offender Sentencing, Monitoring, Apprehending, Registering and Tracking (SMART)

Due Date: Internal NOIs 3/9/2018; Application 4/16/2018

Notice seeking applications for the enhancement and advancement of the sexual violence prevention initiative and promote innovation and best practices in protecting the public from sexual violence. **SMART-2018-5202 One application per institution.**

- URL: <https://www.grants.gov/web/grants/view-opportunity.html?oppld=300707>

(4) Preservation Assistance Grants for Smaller Institutions

National Endowment for the Humanities (NEH)

Due Date: Internal NOIs 3/30/2018; Application 5/1/2018

Preservation Assistance Grants help small and mid-sized institutions - such as libraries, museums, historical societies, archival repositories, cultural organizations, town and county records offices, and colleges and universities - improve their ability to preserve and care for their significant humanities collections. These may include special collections of books and journals, archives and manuscripts, prints and photographs, moving images, sound recordings, architectural and cartographic records, decorative and fine art objects, textiles, archaeological and ethnographic artifacts, furniture, historical objects, and digital materials. Applicants must draw on the knowledge of consultants whose preservation skills and experience are related to the types of collections and the nature of the activities that are the focus of their projects. Within the conservation field, for example, conservators usually specialize in the care of specific types of collections, such as objects, paper, or paintings. Applicants should therefore choose a conservator whose specialty is appropriate for the nature of their collections. Similarly, when assessing the preservation needs of archival holdings, applicants must seek a consultant specifically knowledgeable about archives and preservation. Because the organization and the preservation of archival collections must be approached in tandem, an archival consultant should also provide advice about the management and processing needs of such holdings as part of a preservation assessment that includes long-term plans for the arrangement and description of archival collections. **20170502-PG** *Only one application for a Preservation Assistance Grant may be submitted annually by an institution, although distinct collecting entities of a larger organization may apply in the same year, such as the library and museum of a university or two historic sites within a historical society.*

- URL: <https://www.neh.gov/grants/preservation/preservation-assistance-grants-smaller-institutions>

(5) Henry Dreyfus Teacher-Scholar Awards Program

Camille and Henry Dreyfus Foundation, Inc.

Due Date: Internal NOIs 4/6/2018; Nomination 5/18/2018

The Henry Dreyfus Teacher-Scholar Awards Program supports the research and teaching careers of talented young faculty in the chemical sciences at undergraduate institutions. Based on institutional nominations, the program provides discretionary funding to faculty at an early stage in their careers. The award is based on accomplishment in scholarly research with undergraduates, as well as a compelling commitment to teaching. The Foundation seeks Henry Dreyfus Teacher-Scholars who, as independent faculty members, have demonstrated leadership in original scholarly research of

outstanding quality, substantially with undergraduates, as well as excellence and dedication in undergraduate education. Recommendations for awards are based on evidence of outstanding educational efforts and the nominee's scholarly research achievements with undergraduates as an independent faculty member, as assessed by a panel of distinguished faculty in the chemical sciences. The three outside letters of support (see below for details) are of particular value to the reviewers. Other considered factors are: awards and honors, publication of research achievements in leading journals, and success in attracting research funding. ***Institutions may submit only one Henry Dreyfus nomination annually.***

- URL: http://www.dreyfus.org/awards/henry_dryfus_teacher_award.shtml

(6) Research Initiative for Scientific Enhancement (RISE) (R25)

National Institutes of Health (NIH) - National Institute of General Medical Sciences (NIGMS)

Due Date: Internal NOIs 4/6/2018; Application 5/25/2018

The NIH Research Education Program (R25) supports research education activities in the mission areas of the NIH. The over-arching goal of this NIGMS R25 program is to support educational activities that enhance the diversity of the biomedical, behavioral and clinical research workforce. To accomplish the stated over-arching goal, this FOA will support creative educational activities with a primary focus on research experiences and courses for skills development. Applicants should directly address how the set of activities will enhance the diversity of the biomedical, behavioral and clinical research workforce by discussing 1) the rationale underlying the balance of effort and resources dedicated to each activity; 2) how the three activities integrate; and 3) objective indicators that can measure the effectiveness of the program. **PAR-16-361 Only one application per institution is allowed**

- URL: <https://grants.nih.gov/grants/guide/pa-files/PAR-16-361.html>

(7) Shared Instrumentation for Animal Research (SIFAR) Grant Program (S10 Clinical Trial Not Allowed)

National Institutes of Health (NIH) - Office of Research Infrastructure Programs (ORIP)

Due Date: Internal NOIs 4/20/2018; Application 5/31/2018

The Shared Instrumentation for Animal Research (SIFAR) Grant Program encourages applications from groups of NIH-funded investigators to purchase or upgrade scientific instruments necessary to carry out animal experiments in all areas of biomedical research supported by the NIH. Applicants may request clusters of commercially available instruments configured as specialized integrated systems or

as series of instruments to support a thematic well-defined area of research using animals or related materials. Priority will be given to uniquely configured systems to support innovative and potentially transformative investigations. This FOA supports requests for state-of-the art commercially available technologies needed for NIH-funded research using any vertebrate and invertebrate animal species. This funding opportunity announcement (FOA) does not support requests for single instruments. **PAR-18-599 Applicant organizations may submit only one application per institution.**

- URL: <https://grants.nih.gov/grants/quide/pa-files/PAR-18-599.html>

(8) Cybersecurity Innovation for Cyberinfrastructure (CICI)

National Science Foundation (NSF)

Due Date: Internal NOIs 5/4/2018; Full Proposal 6/4/2018

The objective of the Cybersecurity Innovation for Cyberinfrastructure (CICI) program is to develop, deploy and integrate security solutions that benefit the scientific community by ensuring the integrity, resilience and reliability of the end-to-end scientific workflow. **NSF 18-547 Organizations are limited to 2 CICI proposals.**

CICI seeks three categories of projects:

1. Secure Scientific Cyberinfrastructure: These awards seek to secure the scientific workflow by encouraging novel and trustworthy architectural and design approaches, models and frameworks for the creation of a holistic, integrated security environment that spans the entire scientific CI ecosystem;
2. Collaborative Security Response Center: This single award targets the development of a community resource to provide security monitoring, analysis, expertise, and resources Research & Education (R&E) cyberinfrastructure staff, regardless of physical location or organization; and
3. Research Data Protection: These awards provide solutions that both ensure the provenance of research data and reduce the complexity of protecting research data sets regardless of funding source.

- URL: <https://www.nsf.gov/pubs/2018/nsf18547/nsf18547.htm>

ARTS & HUMANITIES

Grants for Visual Artists

Harpo Foundation

Due Date: 4/20/2018

The award provides direct support to under-recognized artists. Grants are made to support the development of artists' work and a grantee may use their award to support any activity toward that purpose. Applications are evaluated on the basis of the quality of the artist's work, the potential to expand aesthetic inquiry, and its relationship to the foundation's priority to provide support to visual artists who are under recognized by the field.

- URL: <http://www.harpofoundation.org/grants-for-visual-artists/>

Grants

The Kurt Weill Foundation for Music

Due Date: 6/1/2018 (College/University Performances)

The Kurt Weill Foundation Grant Program awards financial support worldwide to not-for-profit organizations for performances of musical works by Kurt Weill and Marc Blitzstein, to individuals and not-for-profit organizations for scholarly research pertaining to Kurt Weill, Lotte Lenya, and Marc Blitzstein, and to not-for-profit organizations for relevant educational or scholarly initiatives.

Funding Categories:

- Professional Performance
- College/University Performance
- Media
- Scholarly Symposia/Conferences; Educational Outreach; Community Engagement
- Kurt Weill Mentors
- Kurt Weill Dissertation Fellowship
- Publication Assistance
- Research and Travel

- URL: <https://www.kwf.org/pages/grant-program.html>

Digital Projects for the Public

National Endowment for the Humanities (NEH)

Due Date: 6/6/2018

Digital Projects for the Public grants support projects that cogently interpret and analyze humanities content in formats that will attract broad public audiences. Digital platforms- such as websites, mobile applications and tours, interactive touch screens and kiosks, games, and virtual environments- can reach diverse audiences and bring the humanities to life for the American people. The program offers three levels of support for digital projects: grants for Discovery projects (early-stage planning work), Prototyping projects (proof-of-concept development work), and Production projects (end-stage production and distribution work). While projects can take many forms, shapes, and sizes, your request should be for an exclusively digital project or for a digital component of a larger project.

All Digital Projects for the Public projects should

- present analysis that deepens public understanding of significant humanities stories and ideas;
- incorporate sound humanities scholarship;
- involve humanities scholars in all phases of development and production;
- include appropriate digital media professionals;
- reach a broad public through a realistic plan for development, marketing, and distribution;
- create appealing digital formats for the general public; and
- demonstrate the capacity to sustain themselves.

All projects should demonstrate the potential to attract a broad, general, nonspecialist audience, either online or in person at venues such as museums, libraries, or other cultural institutions. Applicants may also choose to identify particular communities and groups, including students, to whom a project may have particular appeal. NEH also welcomes applications for non-promotional digital components of a larger project. For these projects, you should explain how the digital platform will enrich the users' learning experience and engagement. For instance, if your request is for a mobile experience that would operate within a museum or would work in conjunction with a film, you should explain how this project element will substantially add to the audience's learning experience. **20170607-MD**

- URL: <https://www.neh.gov/grants/public/digital-projects-the-public>

Media Projects: Production & Development Grants

National Endowment for the Humanities (NEH)

Due Date: 8/9/2018

The Media Projects program supports film, television, and radio projects that engage general audiences with humanities ideas in creative and appealing ways. All projects must be grounded in humanities scholarship in disciplines such as history, art history, film studies, literature, drama, religious studies, philosophy, or anthropology. Projects must also demonstrate an approach that is thoughtful, balanced, and analytical. The approach to the subject matter must go beyond the mere presentation of factual information to explore its larger significance and stimulate critical thinking. NEH is a national funding agency, so the projects that we support must demonstrate the potential to attract a broad general audience. Film and television projects may be single programs or a series addressing significant figures, events, or ideas. Programs must be intended for national distribution, via traditional carriage or online distribution. The Division of Public Programs welcomes projects that range in length from short-form to broadcast-length video. The Division of Public Programs also encourages film and television projects that examine international themes and subjects in the humanities, in order to spark Americans' engagement with the broader world beyond the United States. These projects should demonstrate international collaboration by enlisting scholars based both in the United States and abroad, and/or by working with an international media team. The collaborations should bring broad cross-cultural perspectives to the proposed topics and should be intended primarily for U.S. public audiences. Radio projects, including podcasts, may involve single programs, limited series, or segments within an ongoing series. They may also develop new humanities content to augment existing radio programming or add greater historical background or humanities analysis to the subjects of existing programs. Programs receiving production grants may be either broadcast or disseminated online. They may be intended for national or regional distribution. NEH encourages projects that engage public audiences through multiple formats in the exploration of humanities ideas. Proposed projects might include complementary components to a film, television, or radio project. These components should deepen the audience's understanding of the subject in a supplementary manner: for example, book/film discussion programs, supplemental educational websites, or museum exhibitions. **20180110-TD**

Production grants support the production and distribution of films, television programs, and radio programs or podcasts that promise to engage a broad public audience.

- URL: <https://www.neh.gov/grants/public/media-projects-production-grants>

Development grants enable media producers to collaborate with scholars to develop humanities content and to prepare programs for production. Grants should result in a script or treatment and should also yield a detailed plan for outreach and public engagement.

- URL: <https://www.neh.gov/grants/public/media-projects-development-grants>

ENGINEERING, MATHEMATICS & PHYSICAL SCIENCES

AI for Earth Grant

Microsoft

Due Date: 4/9/2018

In collaboration with Esri's outreach team, the Microsoft AI for Earth program awards advanced Microsoft Azure cloud computing resources and powerful Esri GIS tools to individuals and organizations working on environmental and conservation programs aimed towards transforming the way we are currently managing complex environmental challenges.

AI for Earth program activity is focused on four areas that are vital for building a sustainable future:

- Agriculture: To feed the world's rapidly growing population, farmers must produce more food, on less arable land and with lower environmental impact.
- Water: In the next two decades, demand for fresh water--for human consumption, agriculture, and hygiene--is predicted to dramatically outpace supply.
- Biodiversity: Species are going extinct beyond the natural rate by orders of magnitude, driving the decay of key ecosystem services, like pollination, that humans depend upon.
- Climate change: An increasingly variable climate--extreme weather events, rising sea levels, higher global temperatures, and increased ocean acidity--threaten human health, infrastructure, and the natural systems we rely on for life itself.

- URL: <https://www.microsoft.com/en-us/research/academic-program/azure-research-award-ai-earth/>

Research Training Groups in the Mathematical Sciences (RTG)

National Science Foundation (NSF)

Due Date: 6/5/2018

The long-range goal of the RTG program is to strengthen the nation's scientific competitiveness by increasing the number of well-prepared U.S. citizens, nationals, and permanent residents who pursue careers in the mathematical sciences. The RTG program supports efforts to improve research training by involving undergraduate students, graduate students, postdoctoral associates, and faculty members in structured research groups centered on a common research theme. Research groups supported by RTG must include vertically-integrated activities that span the entire spectrum of educational levels from undergraduates through postdoctoral associates. **NSF 14-585**

- URL: <https://www.nsf.gov/pubs/2014/nsf14585/nsf14585.htm>



Foundation Grants Program

Institute of Electrical and Electronics Engineers (IEEE) - Institute of Electrical and Electronics Engineers (IEEE) Foundation

Due Date: 7/15/2018

IEEE Foundation invites grant applications exclusively from IEEE organizational units for projects that address the pre-defined theme identified by the IEEE Foundation for each year. The theme aligns with the IEEE Foundation's mission to "enable IEEE programs that enhance technology access, literacy, and education". A joint committee of the IEEE Foundation Board of Directors and the IEEE Life Members Committee reviews the grant applications. Funding is provided from the IEEE Foundation Fund or IEEE Life Members Fund. The IEEE Foundation Grants Program will invest to raise awareness and understanding of technology and its impact on society.

- URL: <https://www.ieeefoundation.org/Grants#Focus>

Cybermanufacturing Systems

National Science Foundation (NSF)

Due Date: Continuous

The Cybermanufacturing Systems (CM) Program supports fundamental research to enable the evolution of a wide range of network-accessed manufacturing services that:

- employ applications (or "apps") that reside in the "cloud" and plug into an expansible, interactive architecture;
- are broadly accessible, guarantee reliable execution and have capabilities that are transparent to users; and
- are accessible at low cost to innovators and entrepreneurs, including both users and providers.

Current manufacturing software applications are predominantly large, manufacturer-centric, general-purpose programs with the universal applicability needed to justify their development, marketing and acquisition costs. They usually have broad capabilities, but are cumbersome to learn and often require expert intervention. There is an opportunity for researchers to pursue research and educational efforts to accelerate the creation of an interoperating, cross-process manufacturing service layer that enables the rapid, bottom-up transformation of access to manufacturing services. Such a service layer can allow creative entrepreneurs and companies to both furnish and access manufacturing apps that span the full spectrum from ideation to physical realization, giving rise to an era of "cybermanufacturing." The cybermanufacturing service layer differs from existing Internet services in that it needs an architecture that can incrementally incorporate and organize the rich and deep semantic elements of manufacturing knowledge, requiring an almost unlimited capacity to expand the range and depth of content contributed in the form of partitioned, but interoperating, manufacturing applications. Such efforts are

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well-suited to incubation in universities, where potential service layer architectures and application modules can be prototyped at low cost, used in coursework and tested by students and faculty. Of particular interest is the exploration of the tradeoffs between generality and tractability in algorithmic representations of manufacturing knowledge. In the classic example, the automation of integrated circuit manufacturing depends on restricting device design options to those that can be produced with 100 percent reliability by a standardized set of manufacturing processes. As a result, the problem of compiling manufacturing instructions is made tractable by limiting available design options to those that can be manufactured using proven methods. In practice, the considerable design inefficiencies due to such limitations are more than compensated for by the cost savings due to dependable execution.

PD-16-018Y

- URL: https://nsf.gov/funding/pgm_summ.jsp?pims_id=505291

Targeted Grants in Mathematics and Physical Sciences

Simons Foundation

Due Date: Continuous

The Simons Foundation's Mathematics and Physical Sciences (MPS) division invites applications for its new Targeted Grants in MPS program. The program is intended to support high-risk projects of exceptional promise and scientific importance on a case-by-case basis.

- URL: <https://www.simonsfoundation.org/grant/targeted-grants-in-mps/>

HEALTH, LIFE & EARTH SCIENCES

Epigenetic CHaracterization and Observation (ECHO)

U.S. Dept. of Defense (DOD) - Defense Advanced Research Projects Agency (DARPA)

Due Date: Abstracts 3/22/2018; Applications 5/3/2018

The Defense Advanced Research Projects Agency (DARPA) is soliciting innovative proposals to provide a field-forward system that evaluates an individual's epigenome, revealing their history of exposure to threats, including weapons of mass destruction (WMD) and their molecular precursors. Success in this program will require groundbreaking approaches to characterize epigenetic signatures from militarily relevant exposure events, and new bioinformatics tools to perform forensic analysis and disease diagnostics with high sensitivity, specificity and temporal resolution. These novel signatures and associated analytics will integrate into a single, manportable device that operates in an austere setting with an untrained user. Proposing teams should be multidisciplinary with expertise in WMD threat agents, chromatin biology, epigenetics, gene expression, bioinformatics, microfluidics, next-generation sequencing, forensics, circulating biomarker discovery, point-of-care diagnostic device development, and computational modeling. Proposals describing incremental research and device development will be excluded. **HR001118S0023**

- URL: <https://www.fbo.gov/index?s=opportunity&mode=form&id=c18eabb605ca91b3ca6a3ff54bdc58ce&tab=core&cvview=0>

Environmental Education Local Grants Program

United States Environmental Protection Agency (EPA) - Office of Environmental Education (OEE)

Due Date: 4/11/2018

EPA is making available up to \$3 million in funding for locally-focused environmental education grants under the 2018 EE Local Grant Program. Ten RFPs are being issued nationally, one in each of EPA's ten Regions, for a total funding of up to \$3 million nationwide. Under the Environmental Education Grants Program, EPA seeks grant proposals from eligible applicants to support environmental education projects that promote environmental awareness and stewardship and help provide people with the skills to take responsible actions to protect the environment. This grant program provides financial support for projects that design, demonstrate, and/or disseminate environmental education practices, methods, or techniques. Since 1992, EPA has distributed between \$2 and \$3.5 million in grant funding per year, supporting more than 3,700 grants. **EPA-EE-18-07 (Region 7)**

- URL: <https://www.epa.gov/education/environmental-education-ee-grants>

ROSES 2018: Earth Surface and Interior

National Aeronautics and Space Administration (NASA) - Science Mission Directorate (SMD)

Due Date: Notices of Intent 4/13/2018; Full Proposals 5/15/2018

NASA's Earth Surface and Interior focus area (ESI, <http://science.nasa.gov/earth-science/focus-areas/surface-and-interior>) supports research and analysis of solid-Earth processes and properties from crust to core. The overarching goal of ESI is to use NASA's unique capabilities and observational resources to better understand core, mantle, and lithospheric structure and dynamics, and interactions between these processes and Earth's fluid envelopes. ESI studies provide the basic understanding and data products needed to inform the assessment, mitigation, and forecasting of natural hazards, including earthquakes, tsunamis, landslides, and volcanic eruptions. These investigations also exploit the time-variable signals associated with other natural and anthropogenic perturbations to the Earth system, including those connected to the production and management of natural resources. ESI's Space Geodesy Program (SGP) produces observations that refine our knowledge of Earth's shape, rotation, orientation, and gravity, advancing our understanding of the motion and rotation of tectonic plates, elastic properties of the crust and mantle, mantle-core interactions, solid-Earth tides, and the effects of surface loading resulting from surface water, ground water, glaciers, and ice sheets. SGP infrastructure enables the establishment and maintenance of a precise terrestrial reference frame that is foundational to many Earth missions and location-based observations. **NNH18ZDA001N-ESI**

- URL: <https://nspires.nasaprs.com/external/solicitations/summary/init.do?sollid={B4D94D24-60AE-981C-24F2-2A6EC690C99E}&path=open>

ROSES 2018: Precipitation Measurement Missions Science Team

National Aeronautics and Space Administration (NASA) - Science Mission Directorate (SMD)

Due Date: Notices of Intent 4/30/2018; Full Proposals 6/28/2018

The Precipitation Measurement Missions (PMM) science team seeks investigations related to satellite observations of precipitation using measurements from, but not limited to, the Global Precipitation Measurement (GPM) Core Observatory (2014-present), GPM mission constellation partner spacecraft, and the Tropical Rainfall Measuring Mission (TRMM, 1997-2015). This program supports scientific investigations in three research categories: (1) The use of satellite and ground measurements for physical process studies to gain a better understanding of precipitation, the global water cycle, climate, weather, and concomitant improvements in numerical models from cloud resolving to climate scales; (2) development of methodologies for improved hydrological modeling and applications of these satellite measurements; and (3) continued enhancement and validation of GPM and TRMM retrieval algorithms. While the major focus of the expected research should be on GPM and TRMM satellite data

products, observations from other satellite, aircraft, and ground sensors may be used for the proposed research. **NNH18ZDA001N-PMMST**

- URL: <https://nspires.nasaprs.com/external/solicitations/summary/init.do?sollid={0FE8D9CE-6ACA-66C0-FE5E-1805A2DE3224}&path=open>

Advanced Development of Informatics Technologies for Cancer Research and Management (U24)

National Institutes of Health (NIH) - National Cancer Institute (NCI)

Due Date: 6/14/2018 (Optional LOIs due 30 days before the application due date)

The purpose of this Funding Opportunity Announcement (FOA) is to invite Cooperative Agreement (U24) applications for advanced development and enhancement of emerging informatics technologies to improve the acquisition, management, analysis, and dissemination of data and knowledge across the cancer research continuum, including cancer biology, cancer treatment and diagnosis, cancer prevention, cancer control and epidemiology, and/or cancer health disparities. As a component of the NCI's Informatics Technology for Cancer Research (ITCR) Initiative, this FOA focuses on emerging informatics technology, defined as one that has passed the initial prototyping and pilot development stage, has demonstrated potential to have a significant and broader impact, has compelling reasons for further improvement and enhancement, and has not been widely adopted in the cancer research field. The central mission of ITCR is to promote research-driven informatics technology across the development lifecycle to address priority needs in cancer research. In order to be successful, proposed development plans must have a clear rationale on why the proposed technology is needed and how it will benefit the cancer research field. In addition, mechanisms to solicit feedback from users and collaborators throughout the development process should be included. Potential applicants who are interested in early-stage development or informatics resource sustainment should consult companion FOAs listed in the solicitation. **PAR-15-331**

- URL: <https://grants.nih.gov/grants/guide/pa-files/PAR-15-331.html>

Coupling, Energetics, and Dynamics of Atmospheric Regions (CEDAR)

National Science Foundation (NSF)

Due Date: Proposals Accepted Anytime

CEDAR is a broad-based, community-guided, upper atmospheric research program. The goal is to understand the behavior of atmospheric regions from the middle atmosphere upward through the thermosphere and ionosphere into the exosphere in terms of coupling, energetics, chemistry, and dynamics on regional and global scales. These processes are related to the sources of perturbations that propagate upward from the lower atmosphere as well as to solar radiation and particle inputs from above. The activities within this program combine observations, theory and modeling. The specific goals of the CEDAR program include the study of: 1) dynamics and energetics of the upper atmosphere, with particular emphasis on the region between 60 and 150 km; 2) coupling between the mesosphere, ionosphere, thermosphere, exosphere, and magnetosphere; and 3) horizontal coupling between adjacent geographic regions. The CEDAR program encourages the use of both chains and clusters of instruments in scientific studies of atmosphere coupling processes, as well as the development of new instrumentation and modeling approaches and algorithms. The CEDAR community continuously strives to update its science plan to focus on specific high-priority research areas. The most recent plan is the "CEDAR The New Dimension" report. **NSF 18-544**

It identifies the following strategic thrusts:

- Encourage and undertake a systems perspective of geospace.
- Explore exchange processes at boundaries and transitions in geospace.
- Explore processes related to geospace evolution
- Develop observational and instrumentation strategies for geospace system studies
- Manage, mine, and manipulate geosciences/geospace data and models.

- **URL:** <https://www.nsf.gov/pubs/2018/nsf18544/nsf18544.htm>

MULTIPLE DISCIPLINES

Partnerships between Science and Engineering Fields and the NSF TRIPODS Institutes

National Science Foundation (NSF)

Due Date: 5/29/2018

The National Science Foundation's Directorates for Computer & Information Science & Engineering (CISE) and Mathematical & Physical Sciences (MPS) recently launched the Transdisciplinary Research in Principles of Data Science (TRIPODS) Phase I program with the goal of promoting long-term, interdisciplinary research and training activities that engage theoretical computer scientists, statisticians, and mathematicians in developing the theoretical foundations of data science. Twelve TRIPODS Phase I Institutes were established in FY17. The Partnerships between Science and Engineering Fields and the NSF TRIPODS Institutes (TRIPODS + X) solicitation seeks to expand the scope of the TRIPODS program beyond the foundations community by engaging researchers across other NSF disciplines and the TRIPODS research teams in collaborative activities. TRIPODS + X projects will foster relationships between researchers in science & engineering domains and foundational data scientists by leveraging existing NSF investments in the TRIPODS organizations. Working in concert with a TRIPODS organization, a TRIPODS + X project would focus on data-driven research challenges motivated by applications in one or more science and engineering domains or other activities aimed at building robust data science communities. **NSF 18-542**

- URL: <https://www.nsf.gov/pubs/2018/nsf18542/nsf18542.htm>

SOCIAL & BEHAVIORAL SCIENCES

Communications Technologies Research and Evaluation for Law Enforcement and Corrections Applications

U.S. Dept. of Justice (DOJ) - Office of Justice Programs (OJP) - National Institute of Justice (NIJ)

Due Date: 4/23/2018

With this solicitation, NIJ seeks proposals for communications technologies research and evaluation projects: (1) to develop practical knowledge to inform the deployment of mobile broadband communications technologies by law enforcement agencies in the United States; or (2) to identify

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feasible technology solutions to combat the use of contraband wireless devices in correctional facilities. This solicitation supports the U.S. Department of Justice's priorities of reducing crime, protecting officers and other public safety personnel, and reducing victimization. **NIJ-2018-14045**

- URL: <https://www.grants.gov/custom/viewOppDetails.jsp?oppld=300814>

NIJ FY18 Artificial Intelligence Technology Applied Research and Development for Law Enforcement Applications

U.S. Dept. of Justice (DOJ) - Office of Justice Programs (OJP) - National Institute of Justice (NIJ)

Due Date: 4/30/2018

With this solicitation, NIJ is seeking applications for research to apply advances in artificial intelligence (AI) technologies to support law enforcement in preventing, responding to, and investigating gang violence, human and drug trafficking, migrant smuggling, opioid trafficking, and/or child pornography. **NIJ-2018-14000**

NIJ is most interested in proposals that apply AI technology to combatting:

- Street gang violence and victimization.
- Human trafficking
- Migrant smuggling
- Opioid trafficking
- Child pornography.

This solicitation supports five United States Department of Justice priorities:

- Reducing violent crime.
- Reducing victimization, specifically with respect to human trafficking.
- Addressing the opioid epidemic.
- Enhancing investigations and prosecution.
- Enforcing our nation's immigration laws.

- URL: <https://www.grants.gov/custom/viewOppDetails.jsp?oppld=301073>

W.E.B. Du Bois Program

U.S. Dept. of Justice (DOJ) - Office of Justice Programs (OJP) - National Institute of Justice (NIJ)

Due Date: 4/30/2018

The W.E.B. Du Bois Program supports quantitative and qualitative research that furthers the Department's mission by advancing knowledge regarding the intersections of race, crime, violence, and the administration of justice within the United States. This solicitation seeks investigator-initiated proposals for funding to conduct research on topics linked to issues deemed critical by the U.S. Department of Justice, including:

- Reducing violent crime;
- Enhancing investigations and prosecution;
- Protecting police officers and other public safety personnel;
- Reducing victimization; and
- Enhancing immigration enforcement.

The proposals should have clear implications for criminal justice policy and practice in the United States. **NIJ-2018-14220**

- **URL:** <https://www.nij.gov/funding/fellowships/dubois-fellowship/pages/welcome.aspx>

Post-Ph.D. Research Grants

Wenner-Gren Foundation for Anthropological Research, Inc.

Due Date: 5/1/2018, 11/1/2018

These grants are awarded to individuals to support individual research projects. The program contributes to the Foundation's overall mission to support basic research in anthropology and to ensure that the discipline continues to be a source of vibrant and significant work that furthers our understanding of humanity's cultural and biological origins, development, and variation. The Foundation supports research that demonstrates a clear link to anthropological theory and debates, and promises to make a solid contribution to advancing these ideas. There is no preference for any methodology, research location, or subfield. The Foundation particularly welcomes proposals that employ a comparative perspective, can generate innovative approaches or ideas, and/or integrate two or more subfields.

- **URL:** <http://www.wennergren.org/programs/post-phd-research-grants>

Responsive Grants

Retirement Research Foundation (RRF)

Due Date: 5/1/2018, 8/1/2018

The Retirement Research Foundation (RRF) is devoted exclusively to improving the quality of life for the nation's older adults, especially those who are vulnerable due to advanced age, economic disadvantage, or disparity related to race and ethnicity. RRF fulfills its mission through grantmaking programs that support innovative advocacy, direct service, professional education and training, and research projects that benefit older Americans.

The Foundation's funding interests fall into the following four areas:

- **Advocacy**
 - **Direct Service**
 - **Professional Education and Training**
 - **Research**
- URL: <http://www.rrf.org/grants/responsive-grants>

Comprehensive School Safety Initiative

U.S. Dept. of Justice (DOJ) - Office of Justice Programs (OJP) - National Institute of Justice (NIJ)

Due Date: 5/3/2018

The Comprehensive School Safety Initiative (CSSI) funds rigorous research to produce practical knowledge that can improve the safety of students and schools. The Initiative is carried out through partnerships between researchers, educators, and other stakeholders; including law enforcement, behavioral and mental health professionals, courts, and other justice system professionals. Projects funded under the CSSI are designed to improve understanding that can be applied to schools and school districts across the nation for years to come. This solicitation includes five funding categories with different expectations and requirements to accomplish the purposes of the CSSI. **NIJ-2018-14140**

- URL: <https://www.grants.gov/custom/viewOppDetails.jsp?oppld=301114>

Research and Evaluation on Hate Crimes

U.S. Dept. of Justice (DOJ) - Office of Justice Programs (OJP) - National Institute of Justice (NIJ)

Due Date: 5/3/2018

NIJ is seeking research and evaluation related to hate crime perpetration and victimization. The purpose of this solicitation is to support research and evaluation to: 1) understand the motivations and pathways to hate crime offending; 2) determine whether programs targeted at hate crime offenders are effective at reducing reoffending; 3) determine whether programs that work with victims of hate crimes and their communities are effective at reducing the harms caused by hate crimes; and 4) provide information that will improve investigative and prosecutorial outcomes. Other proposals that address research related to hate crimes will be considered. **NIJ-2018-13961**

- **URL:** <https://www.grants.gov/custom/viewOppDetails.jsp?oppld=301095>

STUDENTS

Science, Technology, Engineering and Math (STEM) Teachers Scholarship

Armed Forces Communications and Electronics Association (AFCEA) - AFCEA Educational Foundation

Due Date: 4/13/2018

The foundation is offering competitive based scholarships to students actively pursuing a graduate degree or credential/licensure for the purpose of teaching STEM (science, technology, engineering or math) subjects at a U.S. school in grades K-12.

- **URL:** <http://www.afcea.org/education/scholarships/undergraduate/TeachersScholarship.asp>



E-Team Grants

Lemelson Foundation - VentureWell (formerly National Collegiate Inventors and Innovators Alliance (NCIIA))

Due Date: 5/2/2018, 10/4/2018

The Program cultivates opportunities for collegiate technology entrepreneurs by providing early-stage support and funding. The E-Team Program gives college students the chance to move new tech ideas out of the lab and classroom and into the marketplace. The three-stage program provides grant funding, experiential workshops, veteran coaching and a potential investment opportunity to help teams manifest their projects' full commercial potential. The foundation defines an "E-Team" as a multidisciplinary group of students, faculty, and mentors working together to bring an invention to market.

- URL: <http://venturewell.org/student-grants/>