

NJIT Research Newsletter

Issue: ORN-2017-09

NJIT Research Newsletter includes recent awards, and announcements of research related seminars, webinars, national and federal research news related to research funding, and **Grant Opportunity Alerts**. The Newsletter is posted on the NJIT Research Website <http://www.njit.edu/research/>.

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Save The Date!

Office of Research Events Calendar: Spring 2017

Research Showcases and Presidential Research Forums:

Event: Faculty Research Showcase and Presidential Forum

When: March 28, 2017; 10.00 AM – 2.30 PM

Where: Ballroom A/B/Gallery

Keynote Speaker: James Gallarda, PhD, Senior Program Officer, Diagnostics at Bill & Melinda Gates Foundation

Event: College of Science and Liberal Arts Distinguished Seminar: Equity vs. Excellence: A False Dichotomy in Science and Society

When: March 29, 2017; 2.30 PM – 4.00 PM

Where: Campus Center Atrium

Speaker: Dr. Sylvester James Gates, Jr., Distinguished Professor of Physics, University of Maryland

Event: Innovation Day Symposium and Presidential Forum (Student Research and Innovation Showcase)

When: April 10, 2017; 9.00 AM – 12.00 PM

Where: Ballroom A/B/Atrium

Keynote Speaker: Bill Huffnagle, President, Reconstructive Division at Stryker Orthopaedics

Event: Faculty Research Advisory Board Meeting

When: April 11, 2017; 1.00 PM – 2.00 PM

Where: Ballroom B

Event: Science and Technology Forum: Big Data Analytics: Current and Future Trends

When: April 12, 2017; 1.00 PM – 2.00 PM

Where: Ballroom B

Panel Speakers:

Terry Christiani, Product Marketing Manager, [Microsoft](#)

Kathy Meier-Hellstern, Assistant Vice President, AT&T Advanced Technology Platforms and Architecture

Grant Opportunity Alerts

Keywords and Areas Included in the Grant Opportunity Alert Section Below

NSF: Petascale Computing Resource Allocations (PRAC); Thermal Transport Processes; Nano-Biosensing

NIH: Maximizing Investigators' Research Award for Early Stage Investigators (R35); NIDCD Research Grants for Translating Basic Research into Clinical Tools (R01); Cancer Tissue Engineering Collaborative: Enabling Biomimetic Tissue-Engineered Technologies for Cancer Research (R01)

Department of Defense/US Army/DARPA/ONR: FY17 Acquisition Research Program; Internet of Battlefield Things (IoBT) Collaborative Research Alliance (CRA); Defense University Research Instrumentation Program (DURIP); Quantum Computing Research in New and Emerging Qubits; NRL Broad Agency Announcement -Information for the Preparation and Submission of Proposals

Department of Energy: Solar Decathlon 2019 Future Planning - Request for Information; Stewardship Science Academic Alliances (SSAA) Program

NASA: ROSES 2017: Astrophysics Data Analysis; ROSES 2017: Research Opportunities in Space and Earth Science

National Endowment of Humanities: Humanities Access Grants Digital Humanities Advancement Grants

Nokia Bell Labs: The Bell Lab Awards

Recent Research Grant and Contract Awards

Congratulations to faculty and staff on receiving research grant and contract awards!

PI: Alexander Kosovichev (PI)

Department: Center for Heliophysics

Grant/Contract Project Title: Computational Model of Dynamics and Magnetic Activity of the Sun and Solar-Type Stars

Funding Agency: NASA

Duration: 02/01/17-01/31/18

PI: Yehoshua Perl (PI), James Geller (Co-PI), Michael Halper (Co-PI)

Department: Computer Science, IT Program

Grant/Contract Project Title: A Family-Based Framework of Quality Assurance for Biomedical Ontologies

Funding Agency: NIH

Duration: 03/04/15-02/28/18

PI: Arijit Sengupta (PI)

Department: Mechanical and Industrial Engineering

Grant/Contract Project Title: NIOSH (Region II) Education Resources Center - Occupational Safety

Funding Agency: NIOSH

Duration: 07/01/16-06/30/17

PI: Kevin Belfield (PI)

Department: Chemistry and Environmental Sciences, CSLA

Grant/Contract Project Title: 2017 REAP

Funding Agency: US Army

Duration: 02/01/17-12/13/18

In the News...

(National and Federal News Related to Research Funding and Grant Opportunities)

President Trump's Budget on Climate and Energy Research: President Trump's first budget "stands little chance of full adoption," in the view of [Government Executive](#). But its expected deep cuts in climate science "would be applauded by key GOP lawmakers," [reports USA Today](#). Besides previously noted plans to slash the National Oceanic and Atmospheric Administration by 17 percent, cuts expected to be unveiled Thursday may target "EPA science funding, including half the money for studies of the agency's Air, Climate, and Energy Research Program," and "NASA programs coordinating the launch of satellites that monitor changes in sea level, carbon levels and air temperatures that help provide the justification for climate change rules." E&E News says cuts also "would fall particularly heavily on the Energy Department," including "clean energy, energy efficiency and smart grid technology programs" favored by the Obama administration. More Information on the website <http://www.usatoday.com/story/news/politics/2017/03/10/president-trumps-budget-expected-roll-back-funding-climate-research/99014224/>

Environmental Grand Challenges: A new [National Academies panel](#) will identify "high priority societal challenges for the next several decades that will require the expertise of environmental engineering and science to resolve or manage." The panel, which is calling for ideas from the public and scientific and engineering communities, is led by Domenico Grasso, provost at the University of Delaware. It includes, among others, University of Virginia engineering dean Craig Benson and former Smithsonian secretary and Georgia Tech president Wayne Clough. More information is posted on <http://nas-sites.org/dels/eeschallenges/>

NSF Announces New Proposal & Awards Policies & Procedures Guide (PAPPG): The new NSF PAPPG provides the policies and procedures for all proposals to be submitted on or after January 30, 2017. The *Proposal & Award Policies & Procedures Guide* (PAPPG) is comprised of documents relating to the Foundation's proposal and award process for the assistance programs of NSF. The PAPPG, in conjunction with NSF's Grant General Conditions, serves as the Foundation's implementation of 2 CFR § 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*. If the PAPPG and NSF Grant Conditions are silent on a specific

area covered by 2 CFR § 200, the requirements specified in 2 CFR § 200 must be followed. Please see a summary of changes and complete PAPPG 2017 document on the NSF website https://www.nsf.gov/pubs/policydocs/pappg17_1/index.jsp.

NIH Notice NOT-OD-17-003: Ruth L. Kirschstein National Research Service Awards (NRSA) Postdoctoral Stipends, Training Related Expenses, Institutional Allowance, and Tuition/Fees Effective for Fiscal Year 2017

URL <https://grants.nih.gov/grants/guide/notice-files/NOT-OD-17-003.html>

Related Announcements

[NOT-OD-16-134](#)

[NOT-OD-16-062](#)

National Institutes of Health ([NIH](#))

Purpose: The purpose of this Notice is to announce the process whereby recipients of Kirschstein-NRSA institutional training grant and individual fellowship awards supporting currently active postdoctoral trainees or fellows with 0, 1, or 2 years of experience as of December 1, 2016, will receive increased stipends. The Notice also provides instructions for requesting one-time supplemental funding to cover the stipend increase. As previously announced ([NOT-OD-16-134](#)), stipend levels for postdoctoral NRSA recipients with 0, 1 or 2 years of experience will be increased in furtherance of the NIH mission. This increase is distinct from a projected cost-of-living adjustment for postdoctoral stipends that is subject to the availability of FY 2017 appropriations.

Webinar and Events

Event: NSF Webinar: ADVANCE Resource and Coordination (ARC) Network Pre-proposal Presentation

When: March 15, 2017; 8.00 AM – 4.00 PM

Website: https://www.nsf.gov/events/event_summ.jsp?cntn_id=190111&org=NSF

Brief Description: Abstract: Organizations interested in partnering to develop a ARC Network proposal are advised to discuss the ARC Network proposal with the ADVANCE program officers before submitting. Please review the program solicitation and the NSF Grant Proposal Guide (GPG) when preparing and submitting an ARC Network proposal ([PAPP Guide](#)).

Target date for ARC Network proposals: March 15, 2017 The goal of the ARC Network is to advance gender equity for STEM faculty nationally by facilitating the adoption and implementation of evidence-based systemic changes by institutions of higher education and other STEM organizations that affect those in STEM academic careers. The ARC Network is expected to have the range of expertise and the infrastructure needed to implement the network activities which may require a partnership among multiple existing organizations.

ADVANCE anticipates supporting one ARC Network project for five years. Proposals may request a total budget of \$5 million, for an average of \$1 million each year for five years.

Contacts

Sharon R. Bird, (703) 292-8640, sbird@nsf.gov

Jessie A. DeAro, (703) 292-5350, jdearo@nsf.gov

Event: NSF Webinar: NSF Electronic Administration (ERA) Forum Webinar

When: March 15, 2017; 12.00 PM – 1.30 PM

Website: https://www.nsf.gov/events/event_summ.jsp?cntn_id=191215&org=NSF

Brief Description: The next NSF Electronic Research Administration (ERA) Forum webinar will be hosted by NSF on March 15, 2017, at 10:00 a.m. ET. To participate in this Forum, please [Register Now](#).

The purpose of the forum is to gather individual opinions and perspectives around NSF ERA activities. This open forum will also be used to present proposed solutions, collect feedback, understand how solutions may impact the community, and solicit volunteers for testing.

The topic of this forum will be NSF's **Proposal Submission Modernization (PSM)** initiative. PSM is a multi-year effort to modernize and migrate proposal preparation and submission capabilities from FastLane to Research.gov. This Forum will specifically focus on Sponsored Projects Office (SPO) and Authorized Organizational Representative (AOR) access and activities.

Agenda Topics include:

- PSM Status Update Demo
- Sponsored Projects Office (SPO) and Authorized Organizational Representative (AOR) access and activities

To Join the Webinar:

Register for the Webinar: <https://goo.gl/qevWKp>

ERA Forum: https://www.nsf.gov/bfa/dias/policy/era_forum.jsp

Event: NSF Webcast: Securing the Network Time Protocol

When: March 16, 2017; 11.00 AM – 12.00 PM

Website: https://www.nsf.gov/events/event_summ.jsp?cntn_id=191242&org=NSF

Abstract: Time is a fundamental building block for computing applications, and time synchronization is crucial for the security of many cryptographic protocols and the correctness of many distributed systems. Time on computer clocks is commonly set using the Network Time Protocol (NTP). This talk considers the security of the NTP specification and its reference implementation ntpd. We consider various threats to NTP that allow an attacker to either (a) alter time on computer systems that set their clocks using NTP (timeshifting attacks), or (b) prevent those systems from synchronizing their clocks (denial of service attacks). We also discuss protocols that can secure NTP against these classes of attacks.

Bio: Sharon Goldberg is an associate professor in the Computer Science Department at Boston University. Her research uses tools from theory (cryptography, game-theory, algorithms), and networking (measurement, modeling, and simulation) to solve practical problems in network security. She received her Ph.D. from Princeton University in 2009, her B.A.Sc. from the University of Toronto in 2003, has worked as a researcher at IBM, Cisco, and Microsoft, as an engineer at Bell Canada and Hydro One Networks, and has served on working groups of the Federal Communications Commission (FCC) and the Internet Engineering Task Force (IETF). In 2014 she received two IETF/IRTF Applied Networking Research Prizes, an NSF CAREER Award, and a Sloan Research Fellowship.

To view the webcast, please register at: <http://www.tvworldwide.com/events/nsf/170316/>

Event: Webinar: New Administration and Republican Congress Impact on Federal Funding?

When: March 20, 2017, 11.00 AM-12:00 PM

Registration: Email info@wswdc.com to register

Brief Description of the Panel: Please join us for a timely webinar on the outlook for federal funding in the coming fiscal year and beyond, and learn some of the things you can be doing now to plan for the new fiscal reality in Washington.

Presenters:

Donna Mullins, Managing Partner, Winning Strategies Washington

Laura Lay, Principal and Director of Grants

Event: NJIT College of Science and Liberal Arts Distinguished Seminar: Equity vs. Excellence: A False Dichotomy in Science and Society

When: March 29, 2017; 2.30 PM – 4.00 PM

Where: Campus Center Atrium

Abstract: Physicist Sylvester James Gates Jr. will deliver the spring 2017 College of Science and Liberal Arts Distinguished Speaker lecture: “Equity vs. Excellence: A False Dichotomy in Science and Society.” The issue of diversity and its impact can be studied from an evidence-based, scientifically-enabled viewpoint. This discussion highlights one scientist’s thinking about diversity and an opportunity in education within the confines of our nation’s historical and traditional trajectory.

Speaker: Dr. Sylvester James Gates Jr. is a Distinguished University Professor, University System of Maryland Regents Professor and John S. Toll Professor of Physics at the University of Maryland. Also an affiliate mathematics professor, Gates is known for his pioneering work in supersymmetry and supergravity, areas closely related to string theory. Gates earned two Bachelor of Science degrees in physics and mathematics and his Ph.D. in physics from the Massachusetts Institute of Technology. In 1984, Gates co-authored Superspace, or One thousand and one lessons in supersymmetry, the first comprehensive book on supersymmetry, and joined the faculty at Maryland as an associate professor. Four years later, he became the first African American to hold an endowed chair in physics at a major U.S. research university.

The author of more than 200 research papers and a member of the National Academy of Sciences, Gates has been featured in dozens of video documentaries, including five in 2015. For his contribution to science and research, he received the National Medal of Science from President Obama in 2013. Gates serves on the U.S. President’s Council of Advisors on Science and Technology, the National Commission on Forensic Science, and the Maryland State Board of Education. He is a strong advocate for science, technology, engineering and mathematics education.

Grant Opportunities

National Science Foundation

(No New RFP This week)

Grant Program: Petascale Computing Resource Allocations (PRAC)

Agency: National Science Foundation NSF 17-542

RFP Website: <https://www.nsf.gov/pubs/2017/nsf17542/nsf17542.htm>

Brief Description: In 2013, a new NSF-funded petascale computing system, Blue Waters, was deployed at the University of Illinois at Urbana-Champaign. The goal of this project and system is to open up new possibilities in science and engineering by providing computational capability that

makes it possible for investigators to tackle much larger and more complex research challenges across a wide spectrum of domains. The purpose of this solicitation is to invite research groups to submit requests for allocations of resources on the Blue Waters system. Proposers must show compelling science or engineering challenges that require petascale computing resources. Proposers must also be prepared to demonstrate that they have science or engineering research problems that require and can effectively exploit the petascale computing capabilities offered by Blue Waters. Proposals from or including junior researchers are encouraged, as one of the goals of this solicitation is to build a community capable of using petascale computing.

Awards: Standard Grants of about \$15,000 each. Anticipated funding amount: \$180,000 - \$225,000

Letter of Intent: Not Required

Full Proposal Submission Due Date: November 06, 2017

Contacts:

- Edward Walker, CISE/OAC, telephone: (703) 292-4863, email: edwalker@nsf.gov
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Grant Program: Thermal Transport Processes

Agency: National Science Foundation NSF PD 17-1406

RFP Website:

https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505328&org=NSF&sel_org=NSF&from=fund

Brief Description: The **Thermal Transport Processes** program is part of the **Transport Phenomena** cluster, which includes also 1) Combustion and Fire Systems; 2) Fluid Dynamics; and 3) Particulate and Multiphase Processes.

The **Thermal Transport Processes (TTP)** program supports engineering research projects that lay the foundation for new discoveries in thermal transport phenomena. These projects should either develop new fundamental knowledge or combine existing knowledge in thermodynamics, fluid mechanics, and heat and mass transfer to probe new areas of innovation. The program seeks transformative projects with the potential for improving our basic understanding, predictability and application of thermal transport processes. Projects should articulate the contribution(s) to the fundamental knowledge supporting thermal transport processes and state clearly the potential application(s) impact when appropriate. Projects that combine analytical, experimental and numerical efforts, geared toward understanding, modeling and predicting thermal phenomena, are of great interest. Collaborative and interdisciplinary proposals for which the main contribution is in thermal transport processes fundamentals are also encouraged. Priority is given to insightful investigations of fundamental problems with clearly defined economic, environmental and societal impacts.

Awards: CBET program mechanisms: CAREER, RAPID and Conference/Workshop

Letter of Intent: Not Required

Full Proposal Submission Due Date: October 1, 2017 - October 20, 2017

Contacts: José Lage jlage@nsf.gov (703) 292-4997

Grant Program: Nano-Biosensing

Agency: National Science Foundation NSF PD 17-7909

RFP Website:

https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505340&org=NSF&sel_org=NSF&from=fund

Brief Description: The **Nano-Biosensing** program is part of the Engineering Biology and Health cluster, which includes also 1) Cellular and Biochemical Engineering; 2) Engineering of Biomedical Systems; 3) Biophotonics; and 4) Disability and Rehabilitation Engineering. The **Nano-Biosensing** program supports fundamental engineering research on devices and methods for measurement and quantification of biological analytes. Proposals that incorporate emerging nanotechnology methods are especially encouraged. Areas of interest include:

- Multi-purpose sensor platforms that exceed the performance of current state-of-the-art devices.
- Novel transduction principles, mechanisms and sensor designs suitable for measurement in practical matrix and sample-preparation-free approaches. These include error-free detection of pathogens and toxins in food matrices, waterborne pathogens, parasites, toxins, biomarkers in body fluids, and others that improve human condition.
- Nano-biosensors that enable measurement of biomolecular interactions in their native states, transmembrane transport, intracellular transport and reactions, and other biological phenomena.
- Studies that examine intracellular measurements must include discussion on the significance of the measurement.

Proposals should clearly identify the proposed problem to be solved, describe why the proposed approach is superior to current available methods, and articulate the benefit of solving the identified problem for the society at large. Sensor designs that yield reliable measurements are encouraged. While sensitivity is important, it cannot be at the expense of reproducibility. Every application must include research strategies for addressing reproducibility of measurement and sensor response, as well as approaches that reduce errors. The program does not support applications with incremental improvements of existing approaches and technologies. Projects that do not include experimental characterization of sensor responses to biological analytes are discouraged, and may be returned without a review. Studies on surface functionalization and immobilization of bio-recognition molecules, and/or orientation of them are not encouraged. Research that is focused on new recognition chemistry is also discouraged. The novelty or potentially transformative nature of the research must be included in the Project Summary. The last line in Project Summary must include three key phrases that describe: (1) sensor transduction principles, (2) type of biological analytes, (3) potential application areas.

Awards: CBET program mechanisms: CAREER, RAPID and Conference/Workshop

Letter of Intent: Not Required

Full Proposal Submission Due Date: October 1, 2017 - October 20, 2017

Contacts: Rajakkannu Mutharasan rmuthara@nsf.gov (703) 292-4608

National Institutes of Health

Grant Program: Maximizing Investigators' Research Award for Early Stage Investigators (R35)

Agency: National Institutes of Health PAR-17-190

RFP Website: <https://grants.nih.gov/grants/guide/pa-files/PAR-17-190.html>

Brief Description: An NIGMS MIRA grant is intended to provide support for the [NIGMS-related research](#) in an investigator's laboratory. NIGMS supports research on technology development and computational approaches, as well as basic biomedical sciences, translational, and clinical

research, and all phases of the scientific process, not only hypothesis testing. Within the scope of the MIRA, investigators will have the freedom to explore new avenues of inquiry that arise during the course of their research, as long as they remain within the mission of NIGMS. Work involving the addition of human subjects, vertebrate animals, stem cells, select agents, or a new foreign component would require prior approval of NIH staff according to existing policies and procedures. Research that involves a major change in scientific focus or that migrates away from the mission of NIGMS and/or into an area of major interest of one of the other NIH Institutes or Centers would warrant a discussion with NIGMS program staff.

MIRA may not be the best mechanism to support all kinds of research, even though it is within the NIGMS mission. For example, clinical research, requiring highly detailed human subjects protocols and milestones, may be more appropriately supported by other mechanisms. In addition, since the flexibility of MIRA allows for work in any area of the NIGMS mission, it may not be the best mechanism to support laboratories that are fully committed to research on HIV/AIDS, which is supported with funds from the Office of AIDS Research, NIH. Confer with NIGMS program staff (or the Scientific/Research staff indicated in [Section VII. Agency Contacts](#) of this FOA) before applying for research in these areas.

Because the MIRA is to support a significant and ambitious program of research, the investigator is required to devote at least 51% of his/her time available for research to this award. The time available for research should be determined in person-months and should not include time expended toward teaching, administration, and/or clinical duties. The effort committed by the PD/PI to the MIRA application should be over half of the time available for research and expressed in person-months.

Because most institutions expect some commitment from investigators to administrative, teaching and/or clinical duties, any salary support for the PD/PI requested on the grant should generally be less than 51% of the PD/PI's annual salary and should in no case be more than the actual research effort the PD/PI will devote to the grant.

The goal of this announcement is to make the MIRA program available to early stage investigators in their first independent faculty position. For that reason, eligibility for this FOA is limited to early stage investigators. Note that Early Stage Investigator status can be extended beyond the normal 10-year window after completion of the terminal research degree or medical residency for certain life or career events, as described in [NOT-OD-09-034](#) and on the [NIH website](#). Investigators who applied in response to RFA-GM-16-003 and RFA-GM-17-004 are welcome to apply provided they are still eligible ESIs, but the application must be written as a New submission without reference to the previous review or an Introduction to a Resubmission Application.

Investigators receiving a MIRA are required to relinquish their other NIGMS research funding, including Mentored Career Development (K) awards, except for award mechanisms listed below. Investigators with K awards from another Institute/Center of the NIH may receive an NIGMS MIRA but will be required to adjust their person-months of effort on those awards to be less than the number of person-months committed to the MIRA.

Investigators who receive support from the NIGMS research grants of other investigators serving, for example, as collaborators and subcontractors on R01s and as project leaders on P01, P20, or P50 subprojects will no longer be able to receive funds from those sources. NIGMS continues to encourage collaborative and interdisciplinary research when it is appropriate, and individual MIRA grantees are free to collaborate with one another or with other investigators using funds from their individual grants to support their parts of the team's research.

Required Application Instructions: It is critical that applicants follow the Research (R) Instructions in the [SF424 \(R&R\) Application Guide](#), except where instructed to do otherwise (in

this FOA or in a Notice from the [NIH Guide for Grants and Contracts](#)). Conformance to all requirements (both in the Application Guide and the FOA) is required and strictly enforced. Applicants must read and follow all application instructions in the Application Guide as well as any program-specific instructions noted in [Section IV](#). When the program-specific instructions deviate from those in the Application Guide, follow the program-specific instructions.

Applications that do not comply with these instructions may be delayed or not accepted for review.

Awards: Applications may request up to \$250,000 direct costs per year. Investigators are encouraged to request what is actually well justified for their research program. Budget categories should not include inflationary escalation for recurring costs in out-years. Cost efficiency is one of the goals of the principles of NIGMS stewardship of public funds and will be one of the considerations in funding decisions.

Letter of Intent: Not required.

Deadline: October 3, 2017; October 3, 2018; October 3, 2019, by 5:00 PM local time of applicant organization. All [types of non-AIDS applications](#) allowed for this funding opportunity announcement are due on these dates.

Applicants are encouraged to apply early to allow adequate time to make any corrections to errors found in the application during the submission process by the due date.

Grant Program: NIDCD Research Grants for Translating Basic Research into Clinical Tools (R01)

Agency: National Institutes of Health PAR-17-184

RFP Website: <https://grants.nih.gov/grants/guide/pa-files/PAR-17-184.html>

Brief Description: The objective of this FOA is to provide support for research studies that translate basic research findings into better clinical tools for human health. The application should seek to translate basic behavioral or biological research findings, which are known to be directly connected to a human clinical condition, to a practical clinical impact. Tools or technologies advanced through this FOA must overcome existing obstacles and should provide improvements in the diagnosis, treatment or prevention of a disease process. For the purposes of this FOA, the basic science advancement must have previously demonstrated potential for clinical impact and the connection to a human clinical condition must be clearly established. The research must be focused on a disease/disorder within one or more of the NIDCD scientific mission areas: hearing, balance, smell, taste, voice, speech or language.

Research conducted under this FOA is expected to include human subjects. Preclinical studies in animal models are allowed only for a candidate therapeutic that has previously demonstrated potential for the treatment of communication disorders. The scope of this FOA allows for a range of activities encouraging the translation of basic research findings to practical impact on the diagnosis, treatment and prevention of deafness and other communication disorders.

Possible goals include, but are not limited to:

- Biochemical, electrophysiological and behavioral assays to enhance diagnostic capabilities.
- Pharmacology (toxicity) and pharmacokinetic studies for candidate therapeutics that have demonstrated potential for the treatment of communication disorders.
- Preclinical animal research for dosage studies and toxicity when a subsequent Phase I/II clinical trial is planned.
- Studies to test the efficacy of highly promising interventions in animal models of disease.

- Development of tools and techniques for better diagnostics or therapeutics, including but not limited, to drug delivery devices, neuro-electrical stimulators and recording devices.
- Development of screening tests, including biomarkers, to identify individuals at risk for a communication disorder to allow for early intervention.
- Development and testing of new tools to better target the treatment to the individual patient and to better predict patient response or prognosis.
- Development of sensitive and objective tools and technologies for clinical decision matrices.
- Development and testing of innovative prevention and treatment paradigms and processes using discoveries from biological, psychological, and social sciences.
- Development and testing of surgical techniques with the goal of providing better patient performance.
- Development and assessment of new data collection, measurement and recording instruments leading to better diagnostic, evaluation and assessment paradigms.
- Modification of laboratory measures of function or laboratory treatment protocols for use in clinical settings.

This FOA is not intended for outcomes/health services research, the extension of ongoing clinical studies, the optimization of current clinical protocols, or pre-translational studies (early stage proof of concept or developmental work premature to direct clinical relevance). Basic discovery research is not appropriate under this FOA.

Awards: Application budgets are not limited but need to reflect the actual needs of the proposed project.

Letter of Intent: 30 days before the application due date.

Deadline: October 18, 2017; June 19, 2018; February 20, 2019; October 18, 2019; June 18, 2020; by 5:00 PM local time of applicant organization. All [types of non-AIDS applications](#) allowed for this funding opportunity announcement are due on these dates.

Applicants are encouraged to apply early to allow adequate time to make any corrections to errors found in the application during the submission process by the due date.

Grant Program: Cancer Tissue Engineering Collaborative: Enabling Biomimetic Tissue-Engineered Technologies for Cancer Research (R01)

Agency: National Institutes of Health PAR-17-171

RFP Website: <https://grants.nih.gov/grants/guide/pa-files/PAR-17-171.html>

Brief Description: Biomimetic tissue-engineered technologies offer great precision and control of their physical and spatial parameters and components. These technologies bridge the discontinuity in cancer research models between two-dimensional (2D) and three-dimensional (3D) spheroid or cell-laden extracellular matrix in vitro systems and in vivo animal models. Limits exist in the types of biological questions that can be answered with 2D and 3D systems due to the inability to replicate tissue-specific pathophysiology. On the other hand, limitations of in vivo animal models include costly assays and the challenge of precisely controlling experimental variables of the tumor microenvironment, such as spatial, molecular, and physical information. To address these limitations of conventional in vitro systems and in vivo animal models, well-characterized tissue-engineered in vitro systems that incorporate tissue pathology and physiology are needed within the cancer model continuum.

This FOA will support the development and characterization of state-of-the-art biomimetic tissue-engineered technologies for cancer research. *Critical to this FOA will be characterizing the biological relevance of the tissue-engineered technologies.* Applicants will be expected to take a

novel engineering approach to define the critical features and parameters for the proposed system, how they are sufficient to mimic the physiology and pathology of the specific cancer question under study, and what characterization will be needed to validate the biological relevance of the system. Characterization could include the demonstration of relevant tissue structure, tumor biology, pathology, and physiological function that replicate the aspect of tumor biology that will be studied using the proposed system. The long-term goal is that the technologies might begin to have novel applications addressing questions in cancer biology, prevention, early detection of aggressive cancer, diagnosis and therapy.

Possible research areas of emphasis include the development and characterization of tissue-engineered biomimetic technologies, such as the following:

- Engineered native and/or synthetic scaffolds (e.g., hydrogels, nanofibers, 3D printing, decellularized matrix), bioreactors, and microfluidic devices to better understand the role of the structure and spatial organization in cancer initiation, progression, and treatment. The biomimetic systems could incorporate functionalized biomaterials that mimic tumor properties and are designed to probe cellular behaviors such as crowding, coupled interactions and/or cooperativity, and autocrine/paracrine behaviors at the molecular and cellular length scales.
- Cellular, mechanical, and secreted chemical factors of the tumor microenvironment such as stromal cells, exosomes, immune components, gradients of cytokines, growth factors and hormones, oxygen tension, pH, and extracellular matrix structure.
- Perfusion, lymphatics, interstitial pressure, passive flow, or immobile and soluble gradients to study the role of tumor physiology and immune responses on cancer biology, diagnosis, and treatment. Molecular probes could be incorporated to obtain quantitative and dynamic functional measurements.
- Technologies to facilitate measurements of bi-directional signaling, stresses, and dynamics of complex tumor systems, such as responsive materials, molecular probes, or genome editing tools that can be regulated or monitored with minimal invasiveness. Integration of advanced imaging modalities could allow visualization of dynamic cell and tissue processes across space and time.
- Engineered tissues capable of long-term culture to examine cancer initiation and dormancy over several weeks.
- Coupling with computational models to understand the emergence of tumor form, function, and heterogeneity from genetic or spatial information.
- Multi-organ engineered culture systems to probe organ-to-organ interactions during cancer progression and treatment.
- Systems to model cancer progression from pre-neoplastic lesions to invasive and metastatic disease; to develop biomimetic systems amenable to imaging for early detection of aggressive cancer, diagnosis and prognosis; and to select preventive and therapeutic agents.

Awards: Budgets are limited to \$400,000 Direct Costs per year. Application budgets should reflect the actual needs of the proposed project.

Letter of Intent: 30 days before the application due date.

Deadline: [Standard dates](#) apply, by 5:00 PM local time of applicant organization. All [types of non-AIDS applications](#) allowed for this funding opportunity announcement are due on these dates.

Applicants are encouraged to apply early to allow adequate time to make any corrections to errors found in the application during the submission process by the due date.

Department of Defense/US Army/DARPA/ONR

Grant Program: FY17 ACQUISITION RESEARCH PROGRAM

Agency: Department of Defense N00244-17-S-F003

Website: <http://nps%20funding%20opportunity%20announcements/>

Brief Description: The Acquisition Research Program (ARP) at the Naval Postgraduate School is interested in stimulating and supporting scholarly research in academic disciplines that bear on public procurement policy and management. These include economics, finance, financial management, information systems, organization theory, operations management, human resources management, risk management, and marketing, as well as the traditional public procurement areas such as contracting, program/project management, logistics, test and evaluation and systems engineering management. The ARP primarily supports scholarly research through assistance vehicles that will benefit the general public and/or private sector to a larger extent than any direct benefits that may be gained by the Government. Studies of government processes, systems, or policies should also expand the body of knowledge and theory of processes, systems, or policies outside the government. The ARP in this FOA is interested only in proposals that will provide unclassified and non-proprietary findings suitable for publication in open scholarly literature. Offerors bear prime responsibility for the design, management, direction and conduct of research. Researchers should exercise judgment and original thought toward attaining the goals within broad parameters of the research areas proposed and the resources provided. Offerors are encouraged to be creative in the selection of the technical and management processes and approaches and consider the greatest and broadest impact possible. Note: Proposals for workshops, conferences, and symposia, or for acquisition of technical, engineering, advisory and assistance, and other types of support services for the direct benefit of the Government will not be considered.

Awards: Various

Full Proposal Deadline: August 01, 2017.

Contact Information: Janet Norton Contract and Grant Officer
Business POC.

Grant Program: Internet of Battlefield Things (IoBT) Collaborative Research Alliance (CRA)

Agency: Department of Defense USAMRAA W911NF-17-S-0005

Website: <http://www.fbodaily.com/archive/2017/03-March/05-Mar-2017/FBO-04422799.htm>

Brief Description: The ability of the Army to understand, predict, adapt, and exploit the vast array of internetworked things that will be present of the future battlefield is critical to maintaining and increasing its competitive advantage. The explosive growth of technologies in the commercial sector that exploits the convergence of cloud computing, ubiquitous mobile communications, networks of data-gathering sensors, and artificial intelligence presents an imposing challenge for the Army. These Internet of Things (IoT) technologies will give our enemies ever increasing capabilities that must be countered, but commercial developments do not address the unique challenges that the Army will face in using them. The U.S. Army Research Laboratory (ARL) has established an Enterprise approach to address the challenges resulting from the Internet of Battlefield Things (IoBT) that couples multi-disciplinary internal research with extramural research and collaborative ventures. ARL intends to establish a new collaborative venture (the IoBT CRA) that seeks to develop the foundations of IoBT in the context of future Army operations. The Collaborative Research Alliance (CRA) will consist of private sector and

government researchers working jointly to solve complex problems. The overall objective is to develop the fundamental understanding of dynamically-composable, adaptive, goal-driven IoBTs to enable predictive analytics for intelligent command and control and battlefield services. The Future Army will operate in a highly complex and rapidly changing environment, thus the U.S. Army's Operating Concept is to "Win in a Complex World". The Army must tackle wicked problems wherein objectives and constraints evolve in unpredictable ways. Complexity arises from the increasing heterogeneity, connectivity, scale, dynamics, functionality and interdependence of networked elements, and from the increasing velocity and momentum of human interactions and information. Events now unfold in internet time, as noted by the Defense Science Board (DSB) 2014 Study on Decisive Army Strategic and Expeditionary Maneuver. In this context, future IoBTs will be significantly more complex than today's networked systems, and novel mathematical approaches and techniques will be needed to represent them, reason about them, understand their behaviors, and to provide predictive analytics in diverse and dynamic environments. The Army will use IoTs for diverse and dynamic missions and will require rapid deployment and adaptation in environments with high mobility, resource constraints, and extreme heterogeneity in both very dense and sparse environments. In addition to Things and IoTs that the Army owns and controls, it may also need to make use of IoTs that it does not own or fully control. A foundational problem to be addressed by the CRA is the fundamental understanding of how to learn and devise complex models of IoBT goals, networks, information, and analytics to enable intelligent command and control, and battlefield services. A critical issue embedded throughout all aspects of IoBTs is cyber physical security as the Army will need to use things it does not control (military (blue), adversary (red), civilian (gray)), accommodate deceptive data, and counter advanced persistent threats. ARL strongly believes that a joint collaborative approach by multidisciplinary researchers is required to make fundamental advances towards meeting the CRA goal to develop a fundamental understanding of IoBTs. ARL has identified three interrelated Research Areas (RAs) that when jointly studied will advance the theoretical foundations of IoBTs in the context of future Army operations. • Discovery, Composition and Adaptation of Goal-Driven Heterogeneous IoBTs • Autonomic IoBTs to Enable Intelligent Services • Distributed Asynchronous Processing and Analytics of Things In addition to these three RAs, Cyber-Physical Security has been identified as a Cross-Cutting Research Issue (CCRI) that is inherent in each of the RAs and that must be jointly studied with the RAs to make fundamental advances in IoBTs. The CRA is intended to create a collaborative environment that enables the Alliance to advance the state-of-the-art and to take advantage of the diverse scientific capabilities and viewpoints of both the private sector and government researchers. The CRA will work collaboratively with ARLs Enterprise research programs to identify areas where joint, multi-disciplinary, collaborative research is advantageous. Continuous collaboration, technical exchanges, site visits, and staff rotations will strengthen and improve the CRA research and its Army relevance.

Awards: Various; Estimated Funding Available: \$70,000,000

Full Proposal Deadline: Applications for this cooperative agreement are due July 27, 2017.

Contact Information: Niko Georgakopoulos, Phone: 9195410817 nikolaos.georgakopoulos.civ@mail.mil

Grant Program: Defense University Research Instrumentation Program (DURIP)

Agency: Department of Defense PA-AFRL-AFOSR-2017-0001

Website: <http://www.arl.army.mil/www/default.cfm?page=8%20>

<https://www.fbo.gov/index?s=opportunity&mode=form&id=ed3e2f50150544d3a699052f563d8793&tab=core&cvview=0>

Brief Description: The Department of Defense (DoD) announces the Fiscal Year 2017 Defense University Research Instrumentation Program (DURIP). DURIP is designed to improve the capabilities of accredited United States (U.S.) institutions of higher education to conduct research and to educate scientists and engineers in areas important to national defense, by providing funds for the acquisition of research equipment or instrumentation. For-profit organizations are not eligible for DURIP funding.

This announcement seeks proposals from universities to purchase equipment and instrumentation in support of research in areas of interest to the DoD. DoD interests include the areas of research supported by the Army Research Office (ARO), the Office of Naval Research (ONR), and the Air Force Office of Scientific Research (AFOSR), hereafter generally referred to collectively as "we, our, us, or administering agency."

Each administering agency will make grant awards to fund the purchase of research equipment or instrumentation costing \$50,000 or more that cannot typically be purchased within the budgets of single-investigator awards. We generally cannot make any individual award that exceeds more than \$1,500,000 in DoD funding unless your proposal qualifies for an exception. We intend to award approximately \$47 million under this competition, subject to availability of funds. DURIP awards are typically one year in length. DURIP is part of the University Research Initiative (URI).

Awards: Various; Estimated Funding Available: \$47,000,000

Full Proposal Deadline: July 07, 2017 Pre-Proposal inquires and questions must be submitted not later than Friday, 16 Jun 2017.

Contact Information: David Broadwell Grants Officer Phone 703-588-2866
[Business POC](#)

Grant Program: Quantum Computing Research in New and Emerging Qubits & Cross-Quantum Systems Science & Technology

Agency: US Army Research Laboratory W911NF-17-S-0001

Website: <http://www.arl.army.mil/www/default.cfm?page=8%20>

<http://www.arl.army.mil/www/pages/8/NEQST%20CQTS%20Final%20BAA.pdf>

Brief Description: The U.S. Army Research Office (ARO) in collaboration with the Laboratory for Physical Sciences (LPS) is soliciting proposals for research in two focused topic areas: (A) new and emerging qubit science and technology (NEQST) and (B) cross quantum technology systems (CQTS). NEQST focuses on qubit systems that explore new operating regimes and environments, fundamentally new methods of fabrication, and new methods of design, control, or operation. These explorations should have in mind the development of quantum computation where the novel properties of these systems create significant advantages in coherence, fabrication, and/or qubit operation over current state-of-the-art qubits. While NEQST focuses on developing new qubit and quantum gate technologies, CQTS focuses on combining existing disparate quantum technologies to provide functionality that significantly improves the performance of, or adds capability to, any of the individual qubit types. Topics of particular interest are quantum state transfer (e.g. microwave-to-optical), novel classical control paradigms, and quantum memories. (Note: this BAA is concerned only with the circuit model of quantum computation).

Awards: Various; Available Funding: \$14,000,000

Full Proposal Deadline:

- **Whitepapers due:**
 - 4:00 p.m. EDT, Friday, April 28, 2017
- **2017 Deadline for Questions on PA - 1 April 2017**

- **RSVP deadline** - Noon Eastern Standard Time 28 Feb 2017

Contact Information: Bryan Ash Contracts Specialist Phone 919-549-4268
[Point of Contact](#)

Department of Energy

Grant Program: Solar Decathlon 2019 Future Planning - Request for Information

Agency: Department of Energy DE-FOA-0001753

Website: <https://eere-exchange.energy.gov/#Foald72d17068-b4e5-4694-b1f7-ac3269743b1e>

Brief Description: This is a Request for Information (RFI) only.

The Solar Decathlon is a program for collegiate teams to design, build, and operate solar-powered houses that are innovative, energy-efficient, and attractive. It provides participating students with hands-on experience and training. The Solar Decathlon, is open to the public and the next Solar Decathlon will take place October 5-15, 2017, in Denver, Colorado. Since Solar Decathlon's inception in 2002, DOE has continuously sought to refine and improve both the application process and event execution. This RFI seeks information to inform designing, planning and implementing Solar Decathlon 2019 that is planned to also take place in the Denver area. The goals of this Request for Information (RFI) are twofold:

1. Gather feedback on changes being considered by the Department of Energy to increase the opportunities for team participation and innovation, and
2. Gather feedback on ways DOE can reduce the barriers to entry for participation for university teams.

DOE is specifically interested in feedback regarding changes that would make it easier for universities to compete in the Solar Decathlon while maintaining the ability to hold a large public event that enables the public to experience the innovation in the houses.

This is an RFI only. EERE will not pay for information provided under this RFI and no project will be supported as a result of this RFI. This RFI is not accepting applications for financial assistance or financial incentives.

Document: [Request for Information DE-FOA-0001753 - Solar Decathlon 2019 Future Planning - Full Text](#)

Contact Information: solar.decathlon@ee.doe.gov For responses to this Request for Information. Include the RFI number DE-FOA-0001753 in the email Subject line.

- EERE-ExchangeSupport@hq.doe.gov For technical assistance with EERE Exchange.
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Grant Program: Stewardship Science Academic Alliances (SSAA) Program

Agency: Department of Energy Advanced Research Projects Agency Energy

DE-FOA-0001634

Website: <http://open-grants.insidegov.com/l/48138/Stewardship-Science-Academic-Alliances-SSAA-Program-DE-FOA-0001634>

Brief Description: The Stewardship Science Academic Alliances (SSAA) Program was established in 2002 to support state-of-the-art research at U.S. academic institutions in areas of fundamental physical science and technology of relevance to the SSP mission. The SSAA Program provides the research experience necessary to maintain a cadre of trained scientists at U.S. universities to meet the nation's current and future SSP needs, with a focus on those areas not supported by other federal agencies. It supports the DOE/NNSA's priorities both to address the workforce specific

needs in science, technology, engineering, and mathematics and to support the next generation of professionals who will meet those needs.

Awards: Awards may vary between \$1 to \$3 million. Approximately \$18 million available in total funds.

Deadline: Apr 30, 2017 Applications should be received by April 30, 2017 and not later than 23:59 ET in Grants.gov.

Contact Information: Grants Management Specialist Patricia M. Parrish 505-845-4057 Patricia.Parrish@nnsa.doe.gov

NASA

Grant Program: ROSES 2017: Astrophysics Data Analysis

Agency: NASA NNH17ZDA001N-ADAP

Website:

<https://nspires.nasaprs.com/external/solicitations/summary.do?method=init&solId={9B644CB9-C0A8-8F23-DE92-FA3837D2F0BD}&path=open>

Brief Description: Over the years, NASA has invested heavily in the development and execution of an extensive array of space astrophysics missions. The magnitude and scope of the archival data from those missions enables science that transcends traditional wavelength regimes and allows researchers to answer questions that would be difficult, if not impossible, to address through an individual observing program. To capitalize on this invaluable asset and enhance the scientific return on NASA mission investments, the Astrophysics Data Analysis Program (ADAP) provides support for investigations whose focus is on the analysis of archival data from NASA space astrophysics missions. 1.1 Special Considerations for ADAP 2017 Proposers • The budget justification of any proposal that involves the collection and analysis of new ground-based observations must include (1) an explicit statement that all costs associated with the ground-based portion of the project are less than 25% of the total cost of the investigation and (2) a separate budget breakout detailing the work effort and procurement costs (e.g., travel, equipment, consumables, etc.) associated with executing the ground-based observing component of the investigation (see Sec. 1.3.1). Proposals that do not satisfy this requirement will be penalized, even to the extent of being declined and not considered for funding, regardless of their intrinsic merit rating. • Most proposals to ROSES will require a data management plan (DMP) or an explanation of why one is not necessary given the nature of the work proposed. For convenience, the NSPIRES proposal cover page now includes a mandatory text box for this purpose. It is expected that the majority of proposals will simply state that the proposer will meet the mandatory minimum requirement by making the data behind figures and tables available electronically at the time of publication, ideally in supplementary material with the article. More information on the data management plan is available in the SARA DMP FAQs. However, ADAP proposals which involve the development of new databases, data products, or data analysis tools must satisfy the more rigorous requirements described in Subsection 1.3.3. Those proposers should simply indicate that the proposal is in one of these categories and refer to the appropriate section of their proposal in the NSPIRES text box where it asks for a data management plan .

Awards: Various.

Full Proposal Deadline:

ADAP17 NOIs Due Mar 28, 2017

ADAP17 Proposals Due May 16, 2017

Contact: Douglas M. Hudgins Astrophysics Division Science Mission Directorate NASA Headquarters Washington, DC 20546-0001 Telephone: (202) 358-0988 E-mail: Douglas.M.Hudgins@nasa.gov

Grant Program: ROSES 2017: Research Opportunities in Space and Earth Science

Agency: NASA NNH17ZDA001N

Website:

<https://nspires.nasaprs.com/external/solicitations/summary.do?method=init&solId=%7BE757EF32-60E6-76AE-A276-21A1F8BA96BB%7D&path=open>

Brief Description: This ROSES NRA (NNH17ZDA001N) solicits basic and applied research in support of NASA's Science Mission Directorate (SMD). The NRA covers all aspects of basic and applied supporting research and technology in space and Earth sciences, including, but not limited to: theory, modeling, and analysis of SMD science data; aircraft, scientific balloon, sounding rocket, International Space Station, CubeSat and suborbital reusable launch vehicle investigations; development of experiment techniques suitable for future SMD space missions; development of concepts for future SMD space missions; development of advanced technologies relevant to SMD missions; development of techniques for and the laboratory analysis of both extraterrestrial samples returned by spacecraft, as well as terrestrial samples that support or otherwise help verify observations from SMD Earth system science missions; determination of atomic and composition parameters needed to analyze space data, as well as returned samples from the Earth or space; Earth surface observations and field campaigns that support SMD science missions; development of integrated Earth system models; development of systems for applying Earth science research data to societal needs; and development of applied information systems applicable to SMD objectives and data. Solicitation website <https://nspires.nasaprs.com/external/viewrepositorydocument/cmdocumentid=554057/solicitationId=%7BE757EF32-60E6-76AE-A276-21A1F8BA96BB%7D/viewSolicitationDocument=1/ROSES%202017%20SoS.pdf>

Awards: Awards range from under \$100K per year for focused, limited efforts (e.g., data analysis) to more than \$1M per year for extensive activities (e.g., development of specialized science experimental hardware).

Letter of Intent: Contact Program Officer

Full Proposal Deadline: May 15, 2017 to June 01, 2018

Contact: Tsengdar J. Lee, Earth Science Division, Science Mission Directorate, NASA Headquarters, Washington, DC 20546-0001, E-mail: Tsengdar.J.Lee@nasa.gov, Telephone: 202-358-0860

National Endowment of Humanities

Grant Program: Humanities Access Grants

Agency: National Endowment of Humanities

Website: <https://www.neh.gov/grants/challenge/humanities-access-grants>

Brief Description: Humanities Access grants help support capacity building for humanities programs that benefit one or more of the following groups: **children, family, and young adults** (defined to include those between ages 18 and 30).

Humanities Access grants provide funding for existing programs at institutions such as public libraries, local and regional museums, historical societies, community colleges, four-year colleges and universities, archival repositories, and other cultural organizations.

Programs supported by Humanities Access grants have included, for example

- a young readers' initiative sponsored by a state humanities council;
- a "family conversations" program at a rural historical society connecting the area's cultural and natural resources; and
- internships for students at a liberal arts college to work in local cultural organizations during the summer.

Humanities Access Grants offer **two years of match-based funding**. All funds must be expended by the end of the grant period. Humanities Access grant funds should not be used to replace existing program funds. Instead, the grant should expand or enhance an existing exemplary humanities program.

Awards: NEH will offer successful applicants a one-to-one matching grant of either \$50,000 or \$100,000 divided evenly over the first two years of the three-year grant. The grant amount that applicants request should be appropriate to the humanities needs and the fundraising capacity of the institution.

Proposal Deadline: May 3, 2017

Contact: Contact the staff of NEH's Office of Challenge Grants at 202-606-8309 or at challenge@neh.gov. Applicants who are deaf or hard of hearing can contact NEH via Federal Relay (TTY users) at 800-877-8399.

Grant Program: Digital Humanities Advancement Grants

Agency: National Endowment of Humanities

Website: <https://www.neh.gov/grants/odh/digital-humanities-advancement-grants>

Brief Description: Digital Humanities Advancement Grants (DHAG) support digital projects throughout their lifecycles, from early start-up phases through implementation and long-term sustainability. Experimentation, reuse, and extensibility are hallmarks of this grant category, leading to innovative work that can scale to enhance research, teaching, and public programming in the humanities.

This program combines the former Digital Humanities Start-Up Grants and Digital Humanities Implementation Grants programs; the combined program is offered twice per year. Proposals are welcome for digital initiatives in any area of the humanities.

Through a special partnership, the Institute of Museum and Library Services (IMLS) anticipates providing additional funding to this program to encourage innovative collaborations between museum or library professionals and humanities professionals to advance preservation of, access to, use of, and engagement with digital collections and services. Through this partnership, IMLS and NEH may jointly fund some DHAG projects that involve collaborations with museums and/or libraries.

Digital Humanities Advancement Grants may involve

- creating or enhancing experimental, computationally-based methods or techniques that contribute to the humanities;
- pursuing scholarship that examines the history, criticism, and philosophy of digital culture and its impact on society, or explores the philosophical or practical implications and impact of digital humanities in specific fields or disciplines; or
- revitalizing and/or recovering existing digital projects that promise to contribute substantively to scholarship, teaching, or public knowledge of the humanities.

Awards: Awards up to \$375,000.

Proposal Deadline: June 06, 2017

Contact: Contact the Office of Digital Humanities (ODH) via e-mail at odh@neh.gov. Applicants wishing to speak to a staff member by telephone should provide in an e-mail message a telephone number and a preferred time to call.

Nokia Bell Labs

Grant Program: The Bell Lab Prize

Agency: Bell Labs

Website: <https://www.bell-labs.com/prize/>

Brief Description: The Bell Labs Prize is a competition for innovators from participating countries around the globe that seeks to recognize proposals that ‘change the game’ in the field of information and communications technologies by a factor of 10, and provides selected innovators the unique opportunity to collaborate with Bell Labs researchers to help realize their vision.

The Challenge: We are looking for game-changing and impactful ideas that have the potential to change the way we live, work and communicate with each other.

Stage One: In Stage One, you will be requested to formulate an idea (max 250 words) related to the field of information and communications technologies. You will have the option to attach 3 pages of text and/or images to illustrate your concept. In the submission form we have outlined an indicative list of categories related to communications technologies. Please select the one that best matches your idea. The list is not restrictive and you are free to indicate a different category.

Categories: Web Applications, Cloud Services, Information Theory, Coding Theory, Computational Sciences, Cryptography, Distributed Systems, Data Privacy, Mathematics of Networks, Modulation Schemes, Optical Systems or Components, Communications Systems, Network Protocols, Security, Network Architecture, RF design, Sustainability, Wireless, Fixed Network technologies, Software-Defined Networks, Virtualization Technologies, Real-time Analytics, Search algorithms, Self-Optimizing Networks, Inference systems.

Stage Two: Finalists from Stage 1 will be assigned a Bell Labs researcher as a Partner (BLRP) to help them strengthen their idea and turn it into a robust proposal. Your BLRP will help you develop each element of your idea – from your vision until initial thoughts on implementation through to description of context, risks and impact. The objective is to have a strong and complete proposal that selected finalists can present in person to the Bell Labs Judging Panel.

Awards: First prize: \$100K + matching \$100K for the winner's university

- Second prize: \$50K
- Third prize: \$25K

Proposal Deadline: May 1, 8:00 PM US-Eastern - Deadline for registration and formal submission of Stage 1 ideas

- June 12 - Candidates selected to proceed to Stage 2 are informed

Stage Two

- June 12 - September 8 - Finalists develop in-depth proposal with the help of a Bell Labs Research Partner
- September 8 - Deadline for submission of Stage 2 detailed idea
- October 16 - 10 finalists who are invited to present in front of the Bell Labs Judging Panel in Murray Hill are informed of the selection
- November 29 - Final presentations and winners announced.

Contact: For any technical issues please write to bell-labs.prize@nokia.com
