

NJIT Research Newsletter

Issue: ORN-2017-18

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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Streamlyne Update

Research proposals are being successfully submitted through Streamlyne. New “How to Do” videos have been posted on the research website <http://www5.njit.edu/research/streamlyne/>. These videos show step-by-step process on the following tasks:

- ◆ [How to Begin Proposal Submission in Streamlyne](#)
- ◆ [How to Input Proposal Budget](#)
- ◆ [How to Process Approvals](#)
- ◆ [How to Upload Proposal Attachments](#)

In addition, most Frequently Asked Question (FAQs) from PIs are posted with answers on the same website as [Streamlyne FAQs](#)

Faculty and staff having any questions on proposal submission, may contact their college representatives, and also follow up with **Justin Samolewicz, Associate Director (Pre Award)** 973-596-3145; justin.m.samolewicz@njit.edu; and **Eric Hetherington, Director, Sponsored Research Programs Administration** 973-596-3631; eric.d.hetherington@njit.edu. The college representatives to help PIs on proposal submissions are

John McCarthy, NCE Director of Research
(973) 596-3247; john.p.mccarthy@njit.edu
Cristo Leon, CSLA Director of Research
(973) 596-6426; cristo.e.yanezleon@njit.edu
Nancy Henderson, CCS Project Manager
973-596-5687; nancy.henderson@njit.edu
Iris Pantoja, CoAD and SOM Project Manager
973-596-4483; irp3@njit.edu

Grant Opportunity Alerts

Keywords and Areas Included in the Grant Opportunity Alert Section Below

NSF: Division of Physics: Investigator-Initiated Research Projects (PHY); NSF-Simons Research Centers for Mathematics of Complex Biological Systems (MathBioSys); Innovation Corps - National Innovation Network Teams Program (I-Corps™ Teams); Towards a Leadership-Class Computing Facility - Phase 1; Semiconductor Synthetic Biology for Information Processing and Storage Technologies (SemiSynBio)

NIH: NIH StrokeNet Regional Coordinating Stroke Centers (U24); Revision Applications for Regenerative Medicine Innovation Projects (RMIP) (R01); NIH Director's Transformative Research Awards (R01); NIH Director's Pioneer Award Program (DP1); NIH Director's New Innovator Award Program (DP2); NIH Director's Early Independence Awards (DP5)

Department of Defense/US Army/DARPA/ONR: Peer Reviewed Orthopaedic Clinical Translational Research Award; DoD Peer Reviewed Medical Investigator-Initiated Research Award; Long Range Broad Agency Announcement (BAA) for Navy and Marine Corps Science and Technology; Department of Defense (DoD) Explosive Ordnance Disposal (EOD) Applied Research Program; Missile Defense Agency STEM Outreach BEST Robotics Grant; Communications and Networking Discovery and Invention

Department of Energy: Solar Decathlon 2019 Future Planning - Request for Information

NASA: ROSES 2017: New (Early Career) Investigator Program; ROSES 2017: Early Stage Innovation

National Endowment of Humanities: Summer Stipends; Research and Development Grants

NIHCM Foundation: Research Grants

Woodard & Curran Foundation: Grant Cycle 2017

Recent Research Grant and Contract Awards

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

PI: Sergei Adamovich (PI)

Department: Biomedical Engineering

Grant/Contract Project Title: Planning in Updating in Frontoparietal Networks for Grasping

Funding Agency: NIH

Duration: 10/09/15-12/31/17

PI: Murat Guvendiren (PI)

Department: Chemical, Biological and Pharmaceutical Engineering

Grant/Contract Project Title: New Polymeric Biomaterial Inks for 3-D Printing

Funding Agency: NSF

Duration: 10/27/16-07/31/19

PI: Casey Dickman (PI)

Department: Mathematical Sciences

Grant/Contract Project Title: Multisensory Integration by Circadian Clocks

Funding Agency: US Army Research Office

Duration: 10/01/16-01/13/18

PI: Balavigneh Thiimalainambi (PI)
Department: Technology and Business Development
Grant/Contract Project Title: New Jersey Health Information Network Shared Services Platform
Funding Agency: DHHS ONC
Duration: 07/27/15-07/26/17

PI: Trevor Tyson (PI)
Department: Physics
Grant/Contract Project Title: Polar Phases in Nanoscale Complex Oxides
Funding Agency: Azimuth Corporation– Department of Air Force
Duration: 05/01/17-12/31/17

PI: Michel Boufadel (PI)
Department: Center for Natural Resources Development and Protection
Grant/Contract Project Title: Modeling-Diluted Bitumen Behavior
Funding Agency: Department of Fisheries and Oceans (Canada)
Duration: 07/16/13-03/31/20

PI: Lazar Spasovic (PI)
Department: Transportation Center, Civil and Environmental Engineering
Grant/Contract Project Title: Freight Management Tool – Enhancing Freight Tool Capabilities and Development of Performance Measures
Funding Agency: NJDOT
Duration: 03/13/17-03/06/18

PI: Lou Kondic (PI)
Department: Mathematical Sciences
Grant/Contract Project Title: Collaborative Research: Computational and Data-Enabled Science and Engineering: Characterizing Dynamics of Particle-based Systems
Funding Agency: NSF
Duration: 09/15/15-08/31/18

PI: Treena Arinzeh (PI)
Department: Biomedical Engineering
Grant/Contract Project Title: Evaluation of Cytocompatibility of Integra Matrices
Funding Agency: Integra Lifesciences
Duration: 11/19/15-11/19/17

PI: Catalin Turc (PI)
Department: Mathematical Sciences
Grant/Contract Project Title: Innovative Physics-based Modeling Tool for Application to Passive Radio Frequency Identification System on Rotorcraft
Funding Agency: Mathematical Systems & Solutions, Inc. – NAVAIR
Duration: 01/04/17-01/03/19

In the News...

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

NSF Policy and Awards Update (May 2017): NSF Pilots a New Collaborator and Other Affiliations Template: Last month NSF began piloting a new format for submitting Collaborators and Other Affiliations Information in FastLane. Proposers are required to include collaborators and other affiliations information for principal investigators (PIs), co-PIs and other senior project personnel. NSF uses this information to manage reviewer selection. The pilot standardizes the collection of this data across the Foundation and ensures that the information is submitted in a searchable format. This reduces the burden on NSF program staff who currently must spend time manipulating non-searchable files. Likewise, for the community, proposers can rest assured knowing that their format is acceptable to NSF. The new format requires PIs, co-PIs and other senior project personnel who are identified on the proposal to individually upload their Collaborators and Other Affiliations Information as a Single Copy Document which are only seen by NSF staff and not by reviewers.

Proposers will be directed to the new spreadsheet template while in FastLane. The template is fillable, and the content and format requirements must not be altered by the user. Proposers should not convert the file to PDF format prior to submitting the proposal to NSF, rather it should be completed and saved in .xlsx or .xls format to ensure preservation of searchable text, and uploaded into FastLane as a Single Copy Document. Using any other file format may delay the timely processing and review of the proposal. The template has been tested in Microsoft Excel, Google Sheets and LibreOffice. In addition to benefiting the merit review process, this template provides a compliant and reusable format for PIs to maintain and update for use in subsequent proposal submissions to NSF. The new Collaborators and Other Affiliations pilot only applies to FastLane proposal submissions. Grants.gov proposal submissions shall continue to follow the instructions in the Grants.gov Application Guide, Chapter VI. 2.4.

More information on

https://www.nsf.gov/pubs/2017/nsf17084/nsf17084.pdf?WT.mc_id=USNSF_109

NSF Policy and Awards Update (May 2017): NSF Research Terms and Conditions (RTC): Implementation: the revised Research Terms and Conditions (RTCs) have been made available to research agencies for use with research and research-related awards. The RTCs address and implement the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (2 CFR 200). The RTCs incorporate the entire Uniform Guidance by reference and clarify or supplement existing provisions where appropriate. They further incorporate by reference the most recent Office of Management and Budget (OMB) FAQs (<https://cfo.gov/cofar/cofar-resources/>) in the Uniform Guidance. Pertinent sections of the Uniform Guidance are presented on the left side, and clarifications for research and research-related awards on the right. More information is posted on CFO-United States website <https://cfo.gov/cofar/cofar-resources/>

President Trump's Budget and Research Funding: President Donald Trump unveiled his [full 2018 budget request](#) to Congress today. The spending plan, for the fiscal year that begins 1 October, fleshes out the so-called [skinny budget that the White House released this past March](#). That plan called for [deep cuts to numerous research agencies](#). But it did not include numbers for some key research agencies, such as the National Science Foundation (NSF). *ScienceInsider* will be scouring today's budget documents for fresh details. Come back to our

rolling coverage for analysis and reaction. As expected, the National Institutes of Health's (NIH's) budget would be slashed to \$26.9 billion in the full Trump 2018 budget request. That is \$7.7 billion less than NIH's final 2017 budget of \$34.6 billion, or a 22% cut.

In a [widely anticipated move](#) that has already raised alarm bells at research institutes, a White House [budget document](#) states that "significant reductions" will come from slashing the overhead payments that NIH now pays to universities on top of the direct research costs for a project. These so-called indirect costs, which are paid at rates now negotiated between individual institutions and the government, currently comprise about 30% of NIH's total grant funding. The variable indirect cost rates would be replaced with a uniform rate of 10% of total research costs for all NIH grants to reduce paperwork and "the risk for fraud and abuse," states a [budget document](#) for the Department of Health and Human Services (HHS). A 10% cap would bring NIH's indirect costs rate "more in line" with the rate paid by private foundations such as the Bill & Melinda Gates Foundation, the overall budget document notes. NIH will also work to reduce regulatory burdens on grantees.

The White House's proposed 11 percent reduction would bring some National Science Foundation programs "closer to the levels you would have seen in NSF's budget a decade ago," [says Director France Córdova](#). "We understand and appreciate the apprehension felt by many, particularly in the research community, caused by the potential effects of adjusted funding levels." Never before had a president proposed giving NSF less than its current budget, reports Jeff Mervis in [ScienceInsider](#). In working out how to respond, NSF set priorities, including "maintaining capacity across all six research directorates and NSF's education programs," funding "the best unsolicited ideas from academic researchers," and "support for cross-disciplinary research and interagency efforts." More information on <http://www.sciencemag.org/news/2017/05/what-s-trump-s-2018-budget-request-science>

Webinar and Events

Event: IEEE Spectrum Webinar: Tech Insider Webinar: RF Measurement Challenges for Emerging 5G and Millimeter Wave Devices

When: May 31, 2017; 12.00 PM – 1.00 PM

Website:

https://event.on24.com/eventRegistration/EventLobbyServlet?target=reg20.jsp&referrer=https%3A%2F%2Fwcc.on24.com%2Fwebcast%2Fconsole%2F1417174&eventid=1417174&sessionid=1&key=6FEF4646B972884D78862FC8951B40F8®Tag=&sourcepage=register&partnerrref=email1&et rid=2035965180&et_mid=83480087

About the Webinar: In the never-ending quest for more bandwidth, the wireless industry is moving towards technologies that will drastically alter the relationship between the radio and its antennas. Existing over-the-air (OTA) test techniques were developed to address situations where interactions between the radio, antenna, and their embedded platform prevent their performance from being evaluated independently. However, as we move towards fifth generation (5G) wireless networks, the use of advanced adaptive antenna system (AAS) techniques including beam forming, as well as the expected move to millimeter wave (mmWave) frequencies will have an unprecedented impact on existing RF testing of wireless devices. Since most of these techniques rely on active antenna elements, the overall radio performance cannot be dissociated from the antenna performance. Thus, while OTA testing will face its own challenges in adapting to

new 5G radios and mmWave devices, test techniques that traditionally relied on direct cabled connector access to the radio will now face a complete paradigm shift in the way testing must be performed. Common conformance and production line tests that are normally performed with a direct cable connection become impractical if not impossible when there are hundreds of active elements to be tested. Even electromagnetic compatibility (EMC) testing is impacted by the ever present active radio signal. This webinar will provide a background introduction to the implications of the 5G new radio and touch on each of these topics illustrating their impact and offering potential solutions to some of the problems outlined.

Speaker: Dr. Michael D. Foegelle is the Director of Technology Development at ETS-Lindgren in Cedar Park, Texas, and has more than 25 years of test and measurement experience in RF and wireless. He received his Ph.D. in physics from the University of Texas at Austin. Dr. Foegelle has been actively involved in standards development with the CTIA Certification Program Working Group, 3GPP, Wi-Fi Alliance, IEEE 802.11, WiMAX Forum, and ANSI ASC C63 on electromagnetic compatibility. He has served as chair or vice-chair of various working groups in those organizations and currently co-chairs the joint CTIA/Wi-Fi Alliance Converged Wireless Group and the CTIA OTA Measurement Uncertainty Subgroup. He has authored or co-authored numerous papers in the areas of Electromagnetics, EMC, Wireless Performance Testing, and Condensed Matter Physics, holds a number of patents on wireless and electromagnetic test methods and equipment, and is dedicated to advancing the state of the art in radiated RF testing of emerging wireless technologies.

Register

at:

https://event.on24.com/eventRegistration/EventLobbyServlet?target=reg20.jsp&referrer=https%3A%2F%2Fwcc.on24.com%2Fwebcast%2Fconsole%2F1417174&eventid=1417174&sessionid=1&key=6FEF4646B972884D78862FC8951B40F8®Tag=&sourcepage=register&partnerref=email1&et_rid=2035965180&et_mid=83480087

Event: AAAS Science Webinar: What's next for whole genome sequencing?: Moving from research to diagnostics and beyond

When: June 1, 2017; 12.00 PM – 1.00 PM

Website: webinar.sciencemag.org

About the Webinar: As the throughput of next-generation sequencers continues to improve and the cost of reagents declines, whole-genome sequencing (WGS) becomes increasingly cost-effective, making it a realistic possibility for use in a clinical setting. In this webinar, our speakers will discuss how they see WGS evolving as it moves closer to the clinic, highlighting the pros and cons of a whole-genome approach versus a targeted approach. They will also address the hurdles currently slowing implementation of WGS in the clinic, including the lack of reimbursement from medical insurance, the need to achieve the desired sequencing depth in the most cost-effective manner, and how best to manage the huge amounts of data generated.

During the webinar, the speakers will discuss:

- The potential of WGS for cancer diagnosis
- Challenges and solutions for research applications of WGS
- The improved diagnostic utility of WGS compared to the current standard-of-care genetic testing.

The panel will answer questions from the online audience live during the broadcast.

Participants:

Shashaikant Kulkarni, M.S., Ph.D., FACMG

Baylor College of Medicine
Houston, Texas
Christian Marshall, Ph.D.
The Hospital for Sick Children
Toronto, Canada
Register at: webinar.sciencemag.org

Event: NSF EHR CAREER Webinar

When: June 1, 2017; 11.00 AM – 1.00 PM

Website:

https://www.nsf.gov/events/event_summ.jsp?cntn_id=241927&WT.mc_id=USNSF_13&WT.mc_e v=click

Brief Description: The NSF/EHR CAREER Working Group is hosting a webinar to answer participants' questions about developing and submitting proposals to the NSF Faculty Early Career Development Program (CAREER) in the Directorate for Education and Human Resources (EHR). The webinar will provide information specific to CAREER submissions to EHR and will give participants the opportunity to interact with members of the EHR CAREER Working Group in a question-and-answer format. This webinar provides information specific to submitting a CAREER proposal to EHR. For comprehensive information about this NSF-wide program, participants should consult the CAREER Program Solicitation ([NSF 17-537](#)). This webinar will be offered at 3 alternative times: (Eastern Daylight Time, New York, GMT-04:00)

EHR CAREER Webinar #1, Monday, May 15, 2017 11:00 AM to 1:00 PM

<https://nsf.webex.com/nsf/onstage/g.php?MTID=e8ce437335651f92c80061a2541df9a5c>
(Event number: 745 712 118; event confirmation number for captions: #3240428)

EHR CAREER Webinar #2, Friday, May 26, 2017 1:00 PM to 3:00 PM

<https://nsf.webex.com/nsf/onstage/g.php?MTID=e167b5cf6d02ad7f2d80f05dda2fbf8cd>
(Event number: 746 775 807; event confirmation number for captions: #3263700)

EHR CAREER Webinar #3, Thursday, June 1, 2017 1:00 PM to 3:00 PM

<https://nsf.webex.com/nsf/onstage/g.php?MTID=e4c29fda5794547489d54c97885104f76>
(Event number: 740 752 666; event confirmation number for captions: #3263705)

How to Access the Webinar: Click on the link by the date you wish to attend. You will be asked to register; after you register, you will be able to enter the webinar (no password required). If you wish to view real-time captions during the live event, also open a separate browser to www.fedrcc.us/ and enter the event confirmation number.

Contacts: Dawn Rickey (DUE), drickey@nsf.gov ; John Haddock (DUE), jhaddock@nsf.gov ; Susan Brennan (DGE), SBRENNAN@nsf.gov.

Grant Opportunities

National Science Foundation

Grant Program: Division of Physics: Investigator-Initiated Research Projects (PHY)

Agency: National Science Foundation NSF 17-561

RFP Website: <https://www.nsf.gov/pubs/2017/nsf17561/nsf17561.htm>

Brief Description: The Division of Physics (PHY) supports physics research and the preparation of future scientists in the nation's colleges and universities across a broad range of physics

disciplines that span scales of space and time from the largest to the smallest and the oldest to the youngest. The Division is comprised of disciplinary programs covering experimental and theoretical research in the following major subfields of physics: Accelerator Science; Atomic, Molecular and Optical Physics; Computational Physics; Elementary Particle Physics; Gravitational Physics; Integrative Activities in Physics; Nuclear Physics; Particle Astrophysics; Physics of Living Systems; Plasma Physics (supported under a separate solicitation); and Quantum Information Science.

Additional Information

The Physics Division strongly encourages single proposal submission for possible co-review rather than multiple submissions of proposals with slight differences to several programs.

Awards: Standard Grants. **Anticipated Funding Amount:** \$90,000,000.

Letter of Intent: Not Required

Full Proposal Submission Due Date: Various depending on the area;

October 25, 2017 for Atomic, Molecular & Optical Physics - Experiment & Theory; Elementary Particle Physics - Experiment; Gravitational Physics - Experiment & Theory; Integrative Activities in Physics; LIGO Research Support; Particle Astrophysics - Experiment; Physics of Living System

Contacts: Krastan B. Blagoev, Physics of Living Systems, telephone: (703) 292-4666, email: kblagoev@nsf.gov

Michael J. Cavagnero, Atomic, Molecular and Optical Physics - Theory, telephone: (703) 292-2163, email: mcavagne@nsf.gov

Mark Coles, Projects and Facilities, telephone: (703) 292-4432, email: mcoles@nsf.gov

Jean Cottam Allen, Particle Astrophysics (Cosmic Phenomena) - Experiment, telephone: (703) 292-8783, email: jcallen@nsf.gov

Grant Program: NSF-Simons Research Centers for Mathematics of Complex Biological Systems (MathBioSys)

Agency: National Science Foundation NSF 17-560

RFP Website: <https://www.nsf.gov/pubs/2017/nsf17560/nsf17560.htm>

Brief Description: The purpose of the NSF-Simons Research Centers for Mathematics of Complex Biological Systems (MathBioSys) is to enable innovative collaborative research at the intersection of mathematics and molecular, cellular and organismal biology, to establish new connections between these two disciplines, and to promote interdisciplinary education and workforce training. The National Science Foundation Directorates for Mathematical and Physical Sciences (MPS) and for Biological Sciences (BIO) and the Simons Foundation Division of Mathematics and the Physical Sciences (MPS) and Division of Life Sciences shall jointly sponsor up to three new research centers to facilitate collaborations among groups of mathematicians, statisticians, and biologists. Research activities conducted at each center will be focused on a particular set of topics at the interface of the mathematical sciences with molecular, cellular, and organismal biology. Each center will conduct interdisciplinary education and training through research involvement of recent doctoral degree recipients and graduate students from across this multi-disciplinary spectrum. Each center is also expected to conduct convening activities, including short-term and/or long-term visitors programs, workshops, and/or outreach activities. These centers will have annual meetings of the Principal Investigators (PIs) and other principal researchers, held at the Simons Foundation in New York City.

Awards: Continuing Grants. **Anticipated Funding Amount:** \$30,000,000.

Letter of Intent: Not Required

Full Proposal Submission Due Date: Proposals Accepted Anytime

- **Contacts:** ary Ann Horn, Directorate for Mathematical and Physical Sciences, NSF, telephone: (703) 292-4879, email: mhorn@nsf.gov
 - Arcady Mushegian, Directorate for Biological Sciences, NSF, telephone: (703) 292-8528, email: amushegi@nsf.gov
-

Grant Program: Innovation Corps - National Innovation Network Teams Program (I-Corps™ Teams)

Agency: National Science Foundation NSF 17-559

RFP Website: <https://www.nsf.gov/pubs/2017/nsf17559/nsf17559.htm>

Brief Description: The National Science Foundation (NSF) seeks to develop and nurture a national innovation ecosystem that builds upon fundamental research to guide the output to facilitate the application of scientific discoveries closer to the development of technologies, products and processes that benefit society.

In order to maintain, strengthen and grow a national innovation ecosystem, NSF has established the Innovation Corps - National Innovation Network Teams Program (I-Corps Teams). The NSF I-Corps Teams Program purpose is to identify NSF-funded researchers who will receive additional support in the form of entrepreneurial education, mentoring and funding to accelerate innovation that can attract subsequent third-party funding.

The purpose of the NSF I-Corps Teams grant is to give the project team access to resources to help determine the readiness to transition technology developed by previously-funded or currently funded NSF projects. The outcomes of I-Corps Teams projects will be threefold: 1) a clear go /or no go decision regarding viability of products and services, 2) should the decision be to move the effort forward, a transition plan for those projects to move forward, and 3) a definition of a compelling technology demonstration for potential partners.

WEBINAR

A webinar will be held monthly to answer questions about this program. Details will be posted on the I-Corps website (see https://www.nsf.gov/news/special_reports/i-corps/program.jsp) as they become available.

Awards: Standard Grants. **Anticipated Funding Amount:** \$12,750,000.

Letter of Intent: Not Required

Full Proposal Submission Due Date: Proposals Accepted Anytime

Contacts: Steven Konsek, telephone: (703) 292-7021, email: skonsek@nsf.gov

Grant Program: Towards a Leadership-Class Computing Facility - Phase 1

Agency: National Science Foundation NSF 17-558

RFP Website: <https://www.nsf.gov/pubs/2017/nsf17558/nsf17558.htm>

Brief Description: NSF invites proposals for the acquisition and deployment of a High Performance Computing (HPC) system, called the Phase 1 system, with the option of a possible future upgrade to a leadership-class computing facility. The Phase 1 system will serve two important and complementary purposes:

1. It will serve as a robust, well-balanced, and forward-looking computational asset for a broad range of research topics for which advances in fundamental understanding require the most extreme computational and data analysis capabilities; and
2. It will serve as an evaluation platform for testing and demonstrating the feasibility of an upgrade to a leadership-class facility five years following deployment.

A competitive proposal in response to this solicitation will have the following five characteristics:

1. A detailed acquisition plan for deploying a reliable and well-balanced HPC system with at least two- to three-fold time-to-solution performance improvement over the current state of the art, the University of Illinois at Urbana-Champaign's (UIUC) [Blue Waters](#) system, for a broad range of existing and emerging computational and data intensive applications;
2. A thorough operations plan for the Phase 1 system to ensure that it will serve as an effective computational tool for the broad scientific and engineering community, and for the Nation at large;
3. A detailed three- to five-year project plan for scientific and technical evaluation of the Phase 1 system that will lead to an upgrade design of a leadership-class system, called the Phase 2 system, as well as the physical facility that will host it: the Phase 2 system is expected to have a ten-fold or more time-to-solution performance improvement over the Phase 1 system;
4. Clear and compelling science and engineering use cases, as well as detailed strategic project goals for a leadership-class computing facility; and
5. A persuasive articulation of educational and industry outreach, and the achievement of other broader societal impact goals, in the long-term strategic plan for the leadership-class computing facility.

Note that the award of a Phase 1 system does not imply any commitment beyond support for beginning the initial planning process for a leadership-class computing facility. The facility planning process may be terminated at any time if satisfactory progress is not demonstrated through annual reviews.

Awards: A total of \$60,000,000 in FY 2018 will be used to fund one award, subject to the availability of funds. At least 95% of the proposal amount should be for the system acquisition cost.

Limit on Number of Proposals per Organization: 1

Only one integrated proposal may be submitted from NJIT. Any interest in the submission of a proposal should be submitted to Vice Provost of Research at dhawan@njit.edu with a copy to David Ullman at david.ullman@njit.edu as soon as possible but no later than June 1, 2017.

Letter of Intent: Required by July 14, 2017

Full Proposal Submission Due Date: November 20, 2017

Contacts: Edward Walker, Program Director, CISE/ACI, 1160, telephone: (703) 292-4863, email: edwalker@nsf.gov

Grant Program: Semiconductor Synthetic Biology for Information Processing and Storage Technologies (SemiSynBio)

Agency: National Science Foundation NSF 17-557

RFP Website: <https://www.nsf.gov/pubs/2017/nsf17557/nsf17557.htm>

Brief Description: The National Science Foundation (NSF), through its Division of Electrical, Communications and Cyber Systems (ECCS) in the Directorate for Engineering (ENG), Division of Computing and Communication Foundations (CCF) in the Directorate for Computer and Information Science and Engineering (CISE), and Division of Molecular and Cellular Biosciences (MCB) in the Directorate for Biological Sciences (BIO), has established a partnership with the Semiconductor Research Corporation (SRC), through its Global Research Collaboration (GRC) program, and the Intelligence Advanced Research Projects Activity (IARPA) to announce a solicitation on the "Semiconductor Synthetic Biology for Information Processing and Storage Technologies (SemiSynBio)". Future ultra-low-energy computing, storage and signal-processing systems can be built on principles derived from organic systems that are at the intersection of

chemistry, biology, and engineering. New information technologies can be envisioned that are based on biological principles and that use biomaterials in the fabrication of devices and components; it is anticipated that these information technologies could enable stored data to be retained for more than 100 years and storage capacity to be 1,000 times greater than current capabilities. These could also facilitate compact computers that will operate with substantially lower power than today's computers. Research in support of these goals can have a significant impact on advanced information processing and storage technologies. This focused solicitation seeks high-risk/high-return interdisciplinary research on novel concepts and enabling technologies that will address the scientific issues and technological challenges associated with the underpinnings of synthetic biology integrated with semiconductor technology. This research will foster interactions among various disciplines including biology, engineering, physics, chemistry, materials science, computer science, and information science that will enable heretofore-unanticipated breakthroughs as well as meet educational goals.

Awards: Continuing Grants. Approximately, 8 to 10 multidisciplinary awards will be made in FY 2018, subject to the availability of funds and quality of proposals. Individual projects will be funded at up to \$500,000 per year for three years depending on the availability of funds.

Letter of Intent: Not Required

Full Proposal Submission Due Date: October 02, 2017 - October 30, 2017

- **Contacts:** Usha Varshney, Program Director, ENG/ECCS, telephone: (703) 292-8339, email: uvarshne@nsf.gov
- Mitra Basu, Program Director, CISE/CCF, telephone: (703) 292-8910, email: mbasu@nsf.gov
- Arcady Mushegian, Program Director, BIO/MCB, telephone: (703) 292-8528, email: amushegi@nsf.gov

National Institutes of Health

Grant Program: NIH StrokeNet Regional Coordinating Stroke Centers (U24)

Agency: National Institutes of Health PAR-17-276

RFP Website: <https://grants.nih.gov/grants/guide/pa-files/PAR-17-276.html>

Brief Description: Stroke is a disabling, often fatal and expensive disorder that is a major public health burden. Globally it is the second leading cause of death, but in North America stroke has fallen to the fourth most common cause of mortality as the result of ongoing successes in prevention and acute care. Vascular disease of the brain can manifest not only as overt stroke but also as silent infarction and diffuse white matter disease with cognitive and functional decline. Stroke is a syndrome, with two broad types (ischemic and hemorrhagic) and with multiple possible underlying causes. Although stroke impacts all age groups (including children and especially neonates), the incidence is strongly linked to aging. Stroke will become increasingly prominent in the next 30 years with the projected rise in the proportion of elderly in the US, and it will impose an even more significant toll on individuals, families, and society.

NIH-funded basic, translational and clinical research offers the promise to reduce the burden of stroke.

The Stroke Progress Review Group and NINDS stroke planning efforts identified a need for stroke trial network infrastructure to effectively pursue a number of scientific opportunities and to accelerate translation (see http://www.ninds.nih.gov/find_people/ninds/OSPP/Stroke-Research-Priorities-Meeting-2012.htm). The unbiased evaluation of newly-developed and existing

interventions—drugs, devices and systems of care—in randomized, controlled clinical trials are necessary to establish efficacy of interventions for improving important clinical outcomes. Phase 1/2 trials explore safety, target engagement, proof of biological concept, and dose response to inform Phase 3 efficacy trials. Phase 3 efficacy trials are designed to demonstrate clinical benefit that patients consider meaningful. Comparative effectiveness trials examine how to best apply established efficacious treatments.

In 2013, the NIH StrokeNet was established to conduct clinical trials in a centrally coordinated network that includes 25 regional centers that are linked to over 350 stroke hospitals across the United States. The NIH StrokeNet was designed to rapidly initiate and efficiently implement small and large multi-site exploratory and confirmatory clinical trials focused on promising interventions for stroke prevention, treatment and recovery, as well as validation studies of biomarkers or outcome measures. The network includes an education platform designed to train the next generation of stroke clinical researchers and collaborations from a variety of health professionals across multiple disciplines. The interdisciplinary nature of the NIH StrokeNet is expected to build research capabilities that match the scientific opportunities across the spectrum of stroke research. Additional information on the current structure of the network can be found at: www.nihstrokenet.org.

Research Objectives

The aims of the network are to harness multidisciplinary stroke expertise to collaboratively and efficiently conduct exploratory NINDS-sponsored Phase 1/2 clinical trials for stroke interventions with the goal to quickly move potential treatments into larger, confirmatory Phase 3 trials. In addition, the network may perform biomarker validation studies that are immediately preparatory to clinical trial(s). Collaboration with international consortia will facilitate the execution of the larger, Phase 3 definitive trials. Together with the larger U.S. and the international stroke research community, stroke patients, and stroke-related nonprofit associations, the investigators at the RCC's will work to design and execute the most clinically impactful stroke research. Study execution and performance will be monitored by the NINDS and the National Clinical Coordinating (NCC) and National Data Management (NDMC) Centers to ensure that all eligible stroke patients are considered for NINDS-funded trials. The NINDS intends that the NIH StrokeNet will be the primary and first-line infrastructure involved in implementing all multi-site stroke trials submitted to the NINDS.

Network Organization

The NIH StrokeNet currently includes: one NCC, one NDMC and 25 RCC's that have the capacity of coordinating activities in a large number of Stroke Centers across the United States. This FOA encourages both currently awarded network centers and new center applications for funding of infrastructure for RCC's in the NIH StrokeNet. The additional project-specific funds to support the implementation of protocols conducted in the network will be from separate awards. Projects can come from academic investigators, from small business or industry through a CRADA or from the NINDS through a specific funding opportunity announcement. Collaborative projects developed by site investigators in the network will be strongly encouraged. These funds will be distributed to the RCC's via the NCC on a per-patient basis protocol budgets via master trial agreements with the RCC's.

Awards: NIH intends to fund an up to 25 awards, corresponding to a total of \$8,700,000, for fiscal year 2018. Future year amounts will depend on annual appropriations. The Maximum allowable direct cost per year for a NIH StrokeNet RCC will be \$200,000 per year up to 5 years.

Letter of Intent: 30 days prior to application due Date

Deadline: September 25, 2017, by 5:00 PM local time of applicant organization. All [types of non-AIDS applications](#) allowed for this funding opportunity announcement are due on this date.

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: Revision Applications for Regenerative Medicine Innovation Projects (RMIP) (R01)

Agency: National Institutes of Health RFA-HL-17-029

RFP Website: <https://grants.nih.gov/grants/guide/rfa-files/RFA-HL-17-029.html>

Brief Description: Research projects responsive to this FOA are expected to involve both of the following: (1) human subjects or material of human origin, such as cells, tissues, and specimens; and (2) human stem cells that are not of embryonic or fetal origin. Research projects involving induced pluripotent stem (iPS) cells may be supported, as long as the cells used to generate iPS cells were not of fetal or embryonic origin. Applicable research on adult human stem cells may encompass, for example, research on biologics (e.g., growth factors, cytokines) and biomaterials (e.g., ECM, scaffolds) that stimulate host adult stem cell growth, differentiation, and function or otherwise directly act upon adult stem cells to support innate host healing mechanisms, treat disease, and/or restore function. Funding could be used, for example, for the appropriate chemistry, manufacturing, and controls development to support the production of such products for clinical trials using good manufacturing practices (GMP). Funds may not be used for research involving human cells of embryonic or fetal origin.

This FOA will support highly meritorious clinical research projects proposing to explore and enable the development of safe and effective RM interventions. Specifically, for FY 2017 funds, in addition to being subject to the standard NIH review criteria, clinical research projects for this FOA will also be assessed according to the following criteria:

- Contributes to breadth/diversity of RM science;
- Addresses critical issues relevant to clinical research and regulatory submissions including those related to product development. Areas of focus may include improved tools, methods, standards, or applied science that support a better understanding and improved evaluation of product manufacturing, quality, safety, or effectiveness; and
- Helps to significantly build or advance the field of RM by contributing to foundational knowledge while addressing a well-recognized challenge in clinical development including the development and evaluation of safe and effective RM products.

Research Examples

Applications that demonstrate potential to catalyze sustained and accelerated development of the RM field through contributing to the knowledge critical for product development, clinical testing, and data standards and sharing, are strongly encouraged. For example, such projects may:

- Further development of standards and GMP for adult stem cell-based RM products;
- Leverage extant cell production facilities for product preparation and qualification;
- Promote and enhance mechanisms for data standardization, curation, integration, and sharing;
- Utilize clinical trial network(s) to leverage infrastructure and facilitate subject recruitment and follow up as well as data sharing; and/or
- Contribute to a better and shared understanding of current technical and operational barriers as well as the regulatory science issues.

Awards: Application budgets should not exceed \$324,500 per year in direct costs. See details in [R&R or Modular Budget](#)

Letter of Intent: May 26, 2017

Deadline: June 26, 2017, by 5:00 PM local time of applicant organization. All [types of non-AIDS applications](#) allowed for this funding opportunity announcement are due on this date. No late applications will be accepted for this Funding Opportunity Announcement. 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: NIH Director's Transformative Research Awards (R01)

Agency: National Institutes of Health RFA-RM-17-007

RFP Website: <https://grants.nih.gov/grants/guide/rfa-files/RFA-RM-17-007.html>

Brief Description: The goal of the NIH Director's Transformative Research Award is to provide support for collaborative investigative teams or individual scientists who propose unusually innovative research projects, which, if successful, would have a major impact in a broad area of biomedical or behavioral research. To be considered transformative, projects must have the potential to create or overturn fundamental scientific paradigms through the use of novel approaches, to transform the way research is conducted through the development of novel tools or technologies, or to lead to major improvements in health through the development of highly innovative therapies, diagnostic tools, or preventive strategies. Consistent with this focus, applications supported under the Transformative Research Award will reflect ideas substantially different from mainstream concepts.

Several key features of this FOA have been designed to emphasize to applicants and peer reviewers that these applications are very different from conventional, investigator-initiated research awards. The application format, through its requirements for explicitly addressing specific issues, focuses attention on the importance of the problem, the novelty of the hypothesis and/or the proposed methodology, and the magnitude of the potential impact rather than on preliminary data or experimental details. Reviewers will be instructed to emphasize significance and innovation in their evaluations, and these criteria will be the primary basis for funding decisions. These features are intended to steer applicants and reviewers, at each step of the process, toward the goal of this initiative, which is to solicit and fund unusually bold and potentially transformative research.

Projects in any area of NIH interest, including basic, clinical, translational and behavioral studies, are encouraged and will be considered responsive to this FOA. Though technical and conceptual risks are expected in highly innovative projects, clinical research also must address potential risk to human subjects. Clinical researchers are encouraged to submit applications as long as rigorous assessment of participant risk/benefit ratios compellingly indicates the ratio to be in favor of the potential benefit. Many of the advances in public health have been achieved through clinical trials, which necessarily involve some risk to participating human subjects. NIH acknowledges the presence of such risk and has established a set of [clinical research ethics principles](#) that provides guidance regarding the risk/benefit ratio in clinical research. **Applicants proposing clinical research should contact Program staff at the [appropriate NIH Institute or Center \(IC\)](#) to ensure that their applications conform to IC-specific policies for clinical research.**

The NIH Director's [Transformative Research Award](#) is part of the [High-Risk, High-Reward Research program](#), which also includes the [NIH Director's Pioneer Award](#), the [NIH Director's New Innovator Award](#), and the [NIH Director's Early Independence Award](#). The program is part of the [NIH Common Fund](#), which supports cross-cutting efforts that are expected to have exceptionally high impact. All Common Fund initiatives invite investigators to develop bold,

innovative, and often risky approaches to address problems that may seem intractable or to seize new opportunities that offer the potential for rapid progress.

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

Letter of Intent: Not required.

Deadline: September 15, 2017, by 5:00 PM local time of applicant organization. All [types of non-AIDS applications](#) allowed for this funding opportunity announcement are due on this date.

No late applications will be accepted for this Funding Opportunity Announcement.

Grant Program: NIH Director's Pioneer Award Program (DP1)

Agency: National Institutes of Health RFA-RM-17-005

RFP Website: <https://grants.nih.gov/grants/guide/rfa-files/RFA-RM-17-005.html>

Brief Description: The [NIH Director's Pioneer Award](#) is part of the [High-Risk, High-Reward Research program](#), which also includes the [NIH Director's New Innovator Award](#), the [NIH Director's Transformative Research Award](#), and the [NIH Director's Early Independence Award](#).

The program is part of the [NIH Common Fund](#), which supports cross-cutting programs that are expected to have exceptionally high impact. All Common Fund initiatives invite investigators to develop bold, innovative, and often risky approaches to address significant problems with no clear solution or to seize new opportunities that offer the potential for rapid progress.

To be considered pioneering, the proposed research must reflect ideas substantially different from those being pursued in the investigator's research program or being pursued elsewhere. The Pioneer Award is not intended to expand a current research program's funding in the area of the proposed project. While the research direction may have as its foundation the applicant's prior work and expertise, it cannot be an obvious extension or scale up of a current research enterprise which could be anticipated to be competitive as a new or renewal R01 application. Rather, the proposed project must reflect a fundamental new insight into the potential solution of a problem, which may derive from the development of exceptionally innovative approaches and/or from the posing of radically unconventional hypotheses. Applications for projects that are extensions of ongoing research should not be submitted.

Pioneer awardees are required to commit the major portion (at least 51%) of their research effort to activities supported by the Pioneer Award research project in the first three years of the project period. Effort expended toward teaching, administrative, or clinical duties should not be included in this calculation. Awardees will be allowed to reduce effort to 33% and 25% in the fourth and fifth years, respectively, to help them transition to other sources of support since Pioneer Awards cannot be renewed. Applicants with current research commitments exceeding 49% must provide a detailed explanation describing how their effort on existing grants will be adjusted to permit them to devote the required minimum effort to the Pioneer Award project. Applicants who will not be able to meet this requirement should not submit applications.

Awards: Awards will be for \$700,000 Direct Costs per year for up to 5 years.

Letter of Intent: Not required.

Deadline: September 1, 2017, by 5:00 PM local time of applicant organization. All [types of non-AIDS applications](#) allowed for this funding opportunity announcement are due on this date.

No late applications will be accepted for this Funding Opportunity Announcement.

Grant Program: NIH Director's New Innovator Award Program (DP2)

Agency: National Institutes of Health RFA-RM-17-006

RFP Website: <https://grants.nih.gov/grants/guide/rfa-files/RFA-RM-17-006.html>

Brief Description: The NIH Director's New Innovator Award addresses two important goals: stimulating highly innovative research and supporting promising new investigators. New investigators may have exceptionally innovative research ideas, but not the preliminary data required to fare well in the traditional NIH peer review system. As part of NIH's commitment to increasing opportunities for new scientists, it has created the NIH Director's New Innovator Award to support exceptionally creative new investigators who propose highly innovative research projects that have the potential for unusually high impact. This award complements ongoing efforts by NIH and its Institutes and Centers to fund new investigators through R01 grants and other mechanisms.

The NIH Director's New Innovator Award is different from traditional NIH grants in several ways. It is designed specifically to support unusually creative investigators with highly innovative research ideas at an early stage of their career when they may lack the preliminary data required for an R01 grant application. The emphasis is on innovation and creativity; preliminary data are not required, but may be included. No detailed, annual budget is requested in the application. The review process emphasizes the individual's creativity, the innovativeness of the research approaches, and the potential of the project, if successful, to have a significant impact on an important biomedical or behavioral research problem.

The research proposed for a NIH Director's New Innovator Award may be in any scientific area relevant to the mission of NIH (biological, behavioral, clinical, social, physical, chemical, computational, engineering, and mathematical sciences). Investigators who were not selected for an award in prior years may submit applications this year as long as they retain their ESI (early stage investigator) eligibility; however, all applications must be submitted as "new" applications regardless of any previous submission to the program.

The [NIH Director's New Innovator Award](#) is part of the [High-Risk, High-Reward Research program](#), which also includes the [NIH Director's Pioneer Award](#), the [NIH Director's Transformative Research Award](#), and the [NIH Director's Early Independence Award](#). The program is part of the [NIH Common Fund](#), which supports cross-cutting programs that are expected to have exceptionally high impact. All Common Fund initiatives invite investigators to develop bold, innovative, and often risky approaches to address problems that may seem intractable or to seize new opportunities that offer the potential for rapid progress.

Awards: Awards are multi-year funded, with all funds being disbursed in the first year of the award. Awards will be up to \$1,500,000 in direct costs (the equivalent of \$300,000 in Direct Costs each year for five years) plus applicable Facilities and Administrative (F&A) costs to be determined at the time of award.

Letter of Intent: Not required.

Deadline: September 8, 2017, by 5:00 PM local time of applicant organization. All [types of non-AIDS applications](#) allowed for this funding opportunity announcement are due on this date.

No late applications will be accepted for this Funding Opportunity Announcement.

Grant Program: NIH Director's Early Independence Awards (DP5)

Agency: National Institutes of Health RFA-RM-17-008

RFP Website: <https://grants.nih.gov/grants/guide/rfa-files/RFA-RM-17-008.html>

Brief Description: The [NIH Director's Early Independence Awards](#) initiative is funded through the NIH Common Fund, which supports cross-cutting programs that are expected to have exceptionally high impact. All Common Fund initiatives invite investigators to develop bold,

innovative, and often risky approaches to address major problems that are especially daunting or to seize new opportunities that offer the potential for rapid progress.

The NIH Director's Early Independence Awards provide an opportunity for exceptional junior scientists to accelerate their entry into an independent research career by forgoing the traditional post-doctoral training period. Though most newly graduated doctoral-level researchers would benefit by post-doctoral training, a small number of outstanding junior investigators would benefit instead by launching directly into an independent research career. For these select investigators, who have established a record of scientific innovation and research productivity and who have demonstrated unusual leadership, drive, and maturity, post-doctoral training would unnecessarily delay their entry into performing independent research. By the end of the award period, the Early Independence investigator is expected to be competitive for continued funding of his/her research program and for a permanent research-oriented position. The NIH Director's Early Independence Awards also provide an opportunity for institutions to invigorate their research programs by bringing in the fresh perspectives of the awardees that they host.

The NIH recognizes a unique and compelling need to promote diversity in the biomedical, behavioral, clinical and social sciences research workforce. The NIH expects all of its efforts to diversify the workforce to lead to the recruitment of the most talented researchers from all groups; to improve the quality of the educational and training environment; to balance and broaden the perspective in setting research priorities; to improve the ability to recruit subjects from diverse backgrounds into clinical research protocols; and to improve the Nation's capacity to address and eliminate health disparities. Applicant institutions are always encouraged to consider talented researchers from diverse backgrounds underrepresented in biomedical research, including underrepresented racial and ethnic groups, persons with disabilities and women for participation in all NIH-funded research opportunities.

Awards: Awards will be for up to \$250,000 in direct costs per year, plus applicable Facilities and Administrative (F&A) costs.

Letter of Intent: August 22, 2017

Deadline: September 22, 2017, by 5:00 PM local time of applicant organization. All [types of non-AIDS applications](#) allowed for this funding opportunity announcement are due on this date. No late applications will be accepted for this Funding Opportunity Announcement.

Department of Defense/US Army/DARPA/ONR

Grant Program: Peer Reviewed Orthopaedic Clinical Translational Research Award

Agency: Department of Defense USAMRAA W81XWH-17-PRORP-CTRA

Website: <https://www.scholarshipandgrants.com/scholarships/peer-reviewed-orthopaedic-clinical-translational-research-award/>

Brief Description: The FY17 PRORP Clinical Translational Research Award is intended to support high-impact and/or new/emerging clinical research that may or may not be ready for a full-scale randomized controlled clinical trial. Projects should include translational research that evaluates the effectiveness of healthcare practices and/or interventions in neuromusculoskeletal injuries rehabilitation. Projects should demonstrate potential to impact the standard of care, as well as contribute to evidence-based guidelines for the evaluation and care of military or Veteran patients with orthopaedic injuries including, but not limited to, amputation and/or limb salvage. One goal is to better understand and optimize the experiences, health, functional abilities, and quality of life of individuals who receive treatment for traumatic orthopaedic injuries. Another

goal is to identify the most effective diagnosis, treatment, rehabilitation, and prevention options available to support critical decision making for patients, clinicians, other caregivers, and policymakers. Proposed projects should be designed to provide information about the impact, advantages, disadvantages, and risks of specific healthcare practices and interventions. To meet the intent of the award mechanism, applications must specifically address one primary FY17 PRORP Focus Areas listed in Section II.A.1, above. Funding from this award mechanism must support clinical research studies involving human subjects. The proposed studies may be interventional and may involve some retrospective data analysis. Small pilot clinical trials with human subjects are also allowable. A clinical trial is defined as a prospective accrual of human subjects where an intervention (e.g., device, drug, biologic, surgical procedure, rehabilitative modality, behavioral intervention, or other) is tested on a human subject for a measurable outcome with respect to safety, effectiveness, and/or efficacy. This outcome represents a direct effect on the human subject of that intervention or interaction. The term “human subjects” is used in this Program Announcement to refer to individuals who will be recruited for or who will participate in the proposed clinical research. For more information, a Human Subject Resource Document is provided at <https://ebrap.org/eBRAP/public/Program.htm>. Note that purely retrospective or database- related research is not allowed under this funding opportunity. The anticipated total costs budgeted for the entire period of performance for an FY17 PRORP Clinical Translational Research Award will not exceed \$2M. Refer to Section II.D.5, Funding Restrictions, for detailed funding information. Animal research, to develop or refine new technology or research to establish the efficacy/ effectiveness of diagnostic agents, or otherwise, is not allowed under this funding opportunity. Investigators seeking support to conduct studies involving animal research should consider applying to the FY17 PRORP Applied Research Award (Funding Opportunity Number: W81XWH-17-PRORP-ARA) mechanism, which can be accessed at <http://cdmrp.army.mil/funding/default.shtml>. All applications are required to articulate the relevance of the proposed project to military and/or Veteran populations affected by orthopaedic injury. Studies that address how the proposed research outcomes will provide new paradigms for or novel insights into the rehabilitation of Service members and/or Veterans who have sustained orthopaedic injuries are strongly encouraged. Studies that include active duty military or Veteran participants as all or a portion of the study population are encouraged. Collaboration with military and VA researchers and/or clinicians is also encouraged.

Awards: Anticipated funding: \$4,000,000

Proposal Deadline: September 27, 2017

Contact Information: CDMRP Help Desk Phone: 301-682-5507 Email: help@eBRAP.org

Grant Program: DoD Peer Reviewed Medical Investigator-Initiated Research Award

Agency: Department of Defense USAMRAA W81XWH-17-PRMRP-IIRA

Website: <https://www.grants.gov/web/grants/search-grants.html>

Brief Description: The PRMRP Investigator-Initiated Research Award is intended to support studies that will make an important contribution toward research and/or patient care for a disease or condition related to at least one of the Congressionally directed FY17 PRMRP Topic Areas. The rationale for a research idea may be derived from a laboratory discovery, population-based studies, a clinician’s first-hand knowledge of patients, or anecdotal data. Applications must include relevant data that support the rationale for the proposed study. These data may be unpublished or from the published literature. The program seeks applications in laboratory, clinical, behavioral, epidemiologic, and other areas of research to advance knowledge in disease etiology, improve prevention, detection, diagnosis, treatment, and quality of life for those affected

by a relevant disease or condition, and to develop and validate clinical care or public health guidelines.

Awards: Various; Anticipated funding: \$90,000,000

Proposal Deadline: October 18, 2017

Contact Information: CDMRP Help Desk 301-682-5507 help@eBRAP.org

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

Agency: Department of Defense ONR N00014-17-S-B001

Website: <https://www.onr.navy.mil/Contracts-Grants/Funding-Opportunities/Broad-Agency-Announcements>

Brief Description: The Office of Naval Research (ONR) is interested in receiving proposals for Long-Range Science and Technology (S&T) Projects which offer potential for advancement and improvement of Navy and Marine Corps operations. Readers should note that this is an announcement to declare ONR's broad role in competitive funding of meritorious research across a spectrum of science and engineering disciplines. A brief description of the ONR Program Codes and the science and technology thrusts that ONR is pursuing is provided below. Additional information can be found at the ONR website at <http://www.onr.navy.mil/Science-Technology/Departments.aspx>.

Code 30 develops and transitions technologies to enable the Navy-Marine Corps team to win and survive on the battlefield. The department invests primarily in asymmetric and irregular warfare, distributed operations, information dominance, and survivability and self-defense. To achieve the goals of the department, the expertise of a number of technical communities are needed. The department supports applied physics efforts ranging from electromagnetics for C4 to condensed matter physics. The department engages chemistry and materials science to improve structures and efficiencies of our platforms and systems and is interested in emerging opportunities from the computer science community to efficiently control and protect our information and hardware systems. Given the applied nature of some of the department's work, we frequently support ideas and opportunities from the engineering community including electrical, mechanical, and software engineering.

Code 31 invests in areas of science and their applications such as data science, mathematical and computational science, computer and information sciences, quantum information sciences, cyber security, electronics, command and control and combat systems, communications, cyber operations, electronic warfare, sensing and surveillance, and precision timing and navigation. Specific thrusts and focused research areas are: 1) Mathematics, Computers and Information Sciences, which sponsors basic and applied research, and advanced technology development efforts in mathematics, computer and information sciences that address Navy and Department of Defense needs in computation, information processing, information operation, information assurance and cybersecurity, decision tools, and command and control with specific focus on enabling rapid, accurate decision making (<http://www.onr.navy.mil/Science-Technology/Departments/Code-31/AllPrograms/311-Mathematics-Computers-Research.aspx>).

White Paper: Required

Awards: Various

White Paper Deadline: August 31, 2017

Proposal Received by ONR

April-June 2017

Period of Performance Start

September 2017

July-September 2017

January 2018

Contact Information: Questions of a Technical nature should be submitted to the ONR POC whose program best matches the offeror's field of interest. Explore ONR's website at <http://www.onr.navy.mil/Science-Technology/Contacts.aspx> , where you can navigate the various directorates and departments within the ONR umbrella. Embedded within the specific exploratory threads should be the relevant POC information for the cognizant ONR Program Office that you seek.

Grant Program: Department of Defense (DoD) Explosive Ordnance Disposal (EOD) Applied Research Program

Agency: Department of Defense ONR N00014-17-S-B011

Website: <https://www.onr.navy.mil/Contracts-Grants/Funding-Opportunities/Broad-Agency-Announcements>

Brief Description: ONR is interested in receiving white papers and full proposals for the Department of Defense (DoD) Explosive Ordnance Disposal (EOD) Science and Technology Program. ONR develops and demonstrates emerging technologies for DoD EOD functional areas. The DoD EOD functional area include the ability to detect/locate, access, diagnose/identify, render safe/neutralize, and dispose of explosive hazards. It includes land and underwater environments. The EOD mission is unique from the role of other forces, such as combat engineers that support movement of U.S. and allied forces. Explosive hazards include conventional and unconventional foreign and domestic ordnance, Improvised Explosive Devices (IEDs), and Weapons of Mass Destruction (WMD). An IED is a device placed in an improvised manner incorporating destructive, lethal, noxious, pyrotechnic, or incendiary chemicals to destroy, incapacitate, harass, or distract. It can include military stores, but normally is devised from non-military components. An IED can be emplaced on the surface, above ground, buried, or underwater.

Awards: Various

Proposal Deadline: August 18, 2017

Contact Information: Russelle Dunson Contracting Officer Phone 703-696-8375

Grant Program: Communications and Networking Discovery and Invention

Agency: Department of Defense ONR [N00014-17-S-B012](#)

Website: <https://www.onr.navy.mil/Contracts-Grants/Funding-Opportunities/Broad-Agency-Announcements>

Brief Description: Communications technology that can provide seamless, robust, connectivity is at the foundation of the Sea Power 21 and FORCEnet Vision "... to have the right information, at the right place, at the right time ..." The performance of Command and Control (C2) systems and decision making at all levels of command depend critically on reliable, interoperable, survivable, secure, and timely communications and networking, and the availability of high capacity multimedia (voice, data, imagery) communication networks is fundamental to nearly all Department of Navy missions. The current evolution of naval warfighting from a platform-centric to a network-centric paradigm depends on successfully meeting the implied need for significantly enhanced communications and networking capabilities of C2, sensor and weapon systems. These systems are deployed on a variety of platforms and users, both manned and unmanned, operating under challenging battlefield conditions (lack of infrastructure, mobility, spectrum, interference,

multipath, atmospheric, size/weight/power constraint, etc.) in different environments (space, terrestrial and undersea).

Awards: Various.

Proposal Deadline:

White Papers: 26 June 2017

Full Proposals: 25 September 2017

Contact Information: AnShawn Lewis Contract Specialist Phone 7036962025

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.

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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NASA

Grant Program: ROSES 2017: New (Early Career) Investigator Program

Agency: NASA NNH17ZDA001N-NIP

Website:

<https://nspires.nasaprs.com/external/solicitations/summary.do?method=init&solId={344D6EF1-D56F-60FD-505E-A31035E2B19C}&path=open>

Brief Description: The New (Early Career) Investigator Program (NIP) in Earth Science is designed to support outstanding scientific research and career development of scientists and engineers at the early stage of their professional careers. The program aims to encourage innovative research initiatives and cultivate scientific leadership in Earth system science. The

Earth Science Division (ESD) places particular emphasis on the investigators' ability to promote and increase the use of space-based remote sensing through the proposed research. The NIP supports all aspects of scientific and technological research aimed to advance NASA's mission in Earth system science (<http://science.nasa.gov/about-us/sciencestrategy/>). In research and analysis, the focus areas are: • Carbon Cycle and Ecosystems, • Climate Variability and Change, • Water and Energy Cycle, • Atmospheric Composition, • Weather, and • Earth Surface and Interior. In Applied Sciences, the ESD encourages efforts to discover and demonstrate practical uses of NASA Earth science data, knowledge, and technology (see <http://appliedsciences.nasa.gov>). In technological research, the ESD aims to foster the creation and infusion of new technologies into space missions in order to enable new scientific observations of the Earth system or reduce the cost of current observations (see <http://esto.nasa.gov>). The ESD also promotes innovative development in computing and information science and engineering of direct relevance to ESD. See Appendix A.1 for more detailed descriptions of the Focus Areas, themes in applied sciences, and related research topics of high priority to the ESD.

The proposed research project must be led by a single, eligible (see further description below for eligibility) investigator serving as the Principal Investigator (PI). Indeed, this individual must be the only essential team member; no Co-Investigators (Co-Is), paid or unpaid, are permitted. The NIP does not accept proposals with Co-PIs nor two types of PIs, such as Science PI and Institutional PI. Students and postdoctoral fellows may participate as paid team members. The proposed research may include collaborations. See the Guidebook for Proposers at <http://www.hq.nasa.gov/office/procurement/nraguidebook/> for the definitions of Collaborator vs. Co-Investigator and descriptions of China-related restrictions.

To be eligible for an NIP award, proposed PIs must meet the following requirements:

1. Be employed at an institution in the U.S., its territories, or possessions, or the Commonwealth of Puerto Rico, which awards a baccalaureate or advanced degree in a field supporting the objectives of NASA Earth system studies, or be employed at any nonprofit research institution or other nonprofit organization that performs a significant amount of work in fields of research supporting the objectives of NASA's Earth Science Program. Such organizations could include museums, observatories, Government or nonprofit research laboratories, as well as nonprofit entities in the private sector.
2. Be in tenure- or nontenure-track positions in either teaching or research or both, as long as the employing institution assumes the responsibility of submitting the proposal with the individual as the proposed PI.
3. Despite being more than five years beyond the receipt of their Ph.D. degrees, individuals who have interrupted their careers for reasons such as family leave or serious health problems may also be eligible. These applicants should make a written request for prior concurrence from NASA before the due date for Notices of Intent to propose. NASA will provide a written response within three weeks. Such exception is not intended for individuals who have had successful employment in technical fields in science and engineering, even though the employment is not a direct continuation of their Ph.D. research, nor is it intended for individuals with a recent Ph.D. degree after having already established a successful career in Earth system science and related disciplines.
4. Not hold or have held tenure (or equivalent) on or before the submission deadline of this program.
5. Not be a current or former recipient of the NIP or Presidential Early Career Award for Scientists and Engineers (PECASE) (see further below) award.

Awards: Proposals to the NIP are openly solicited approximately every two years. The anticipated average award is \$80-90K per year for a period of up to three years, subject to satisfactory progress and availability of funds.

Proposal Deadline: NIP17 NOIs Due: July 31, 2017

NIP17 Proposals Due: August 31, 2017

Contact: Lin Chambers

Earth Science Division

Science Mission Directorate

NASA Headquarters

Washington, DC 20546-0001

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E-mail: lin.h.chambers@nasa.gov

Grant Program: ROSES 2017: Early Stage Innovation

Agency: NASA NNH17ZOA001N-17ESI_B2

Website:

<https://nspires.nasaprs.com/external/solicitations/summary.do?method=init&solId=%7B68935F1B-9778-91FC-CB89-D49868D3FC94%7D&path=init>

Brief Description: The STRG Program within STMD is fostering the development of innovative, low-TRL technologies for advanced space systems and space technology. The goal of this lowTRL endeavor is to accelerate the development of groundbreaking, high-risk/high-payoff space technologies, not necessarily directed at a specific mission, to support the future space science and exploration needs of NASA, other government agencies, and the commercial space sector. Such efforts complement the other NASA Mission Directorates' focused technology activities which typically begin at TRL 3 or higher. The starting TRL of the efforts to be funded as a result of this Appendix will be TRL 1 or TRL 2; typical end TRLs will be TRL 2 or TRL 3. See Attachment 2 of the NRA for TRL descriptions.

This Appendix seeks proposals to develop unique, disruptive, or transformational space technologies that have the potential to lead to dramatic improvements at the system level — performance, weight, cost, reliability, operational simplicity, or other figures of merit associated with space flight hardware or missions. Although progress under an award may be incremental, the projected impact at the system level must be substantial and clearly defined. This Appendix does not seek literature searches, survey activities or incremental enhancements to the current state of the art (SOA).

This Appendix exclusively seeks proposals that are responsive to one of the seven topics described in 1.3. Proposals that are not responsive to any of these topics, as specifically described, will be considered non-compliant and will not be submitted for peer review. NASA anticipates addressing other topics in future Appendix releases. The topics described in 1.3 are aligned with NASA's Technology Roadmaps (<http://www.nasa.gov/offices/oct/home/roadmaps/index.html>)..

Awards: Various

Proposal Deadline: ESI17 NOIs Due: June 2, 2017

ESI17 Proposals Due: June 30, 2017

Contact: Claudia Meyer

Space Technology Research Grants Program Executive

Space Technology Mission Directorate, NASA Headquarters

hq-esi-call@mail.nasa.gov

National Endowment of Humanities

Grant Program: Summer Awards

Agency: National Endowment of Humanities

Website: <https://www.neh.gov/grants/research/summer-stipends>

Brief Description: Summer Stipends support individuals pursuing advanced research that is of value to humanities scholars, general audiences, or both. Eligible projects usually result in articles, monographs, books, digital materials and publications, archaeological site reports, translations, or editions. Projects must not result solely in the collection of data; instead they must also incorporate analysis and interpretation.

Summer Stipends support continuous full-time work on a humanities project for a period of two consecutive months. Summer Stipends support projects at any stage of development.

Awards: \$6,000 stipend.

Proposal Deadline: **September 27, 2017** for *Projects Beginning May 2018*

Contact: Contact NEH's Division of Research Programs at 202-606-8200 or stipends@neh.gov.

Grant Program: Research and Development Grants

Agency: National Endowment of Humanities

Website: <https://www.neh.gov/grants/preservation/research-and-development>

Brief Description: The Research and Development program supports projects that address major challenges in preserving or providing access to humanities collections and resources. These challenges include the need to find better ways to preserve materials of critical importance to the nation's cultural heritage—from fragile artifacts and manuscripts to analog recordings and digital assets subject to technological obsolescence—and to develop advanced modes of organizing, searching, discovering, and using such materials. This program recognizes that finding solutions to complex problems often requires forming interdisciplinary project teams, bringing together participants with expertise in the humanities; in preservation; and in information, computer, and natural science.

All projects must demonstrate how advances in preservation and access would benefit the cultural heritage community in supporting humanities research, teaching, or public programming.

Research and Development offers two funding tiers in order to address projects at all stages of development and implementation.

Tier I: Planning and Basic Research

Tier I grants support the following activities:

- planning and preliminary work for large-scale research and development projects; and
- stand-alone basic research projects, such as case studies, experiments, or the development of methods, models, and tools.

Tier II: Advanced Implementation

Tier II grants support projects at a more advanced stage of implementation for the following activities:

- the development of standards, practices, methodologies, or workflows for preserving and creating access to humanities collections; and
- applied research addressing preservation and access issues concerning humanities collections.

Awards: For Planning and Basic Research (Tier I) projects, the maximum award is \$75,000 for up to two years. For Advanced Implementation (Tier II) projects, the maximum award is \$350,000 for up to three years. Successful applicants will be awarded a grant in outright funds, federal matching funds, or a combination of the two, depending on the applicant's preference and the availability of NEH funds.

Proposal Deadline: June 8, 2017

Contact: Contact the staff of NEH's Division of Preservation and Access at preservation@neh.gov and 202-606-8570. Applicants who are deaf or hard of hearing can contact NEH via Federal Relay (TTY users) at 800-877-8399.

National Institute for Healthcare Management (NIHCM) Foundation

Grant Program: Research Grants

Agency: NIHCM Foundation

Website: <https://www.nihcm.org/grants/research-grants>

Brief Description: NIHCM Foundation supports innovative investigator-initiated research with high potential to inform improvements to the U.S. health care system. Projects must advance the existing knowledge base in the areas of health care financing, delivery, management and/or policy. During the first five years of the program, we have awarded \$1.3 million to support 23 studies.

Awards: The 2017-2018 round of grant making for this program is now underway. NIHCM Foundation is making approximately \$300,000 available and expects to fund 5 to 6 studies from this amount.

Proposal Deadline: Interested researchers must submit a brief letter of inquiry (LOI) outlining their study ideas by 5:00 PM EDT on July 10, 2017. Applications are welcome at any time prior to that deadline. LOIs must conform to the required structure and must be submitted using NIHCM's online entry system (see below).

- Full (10-page) proposals will be invited from a small number of applicants in August and will be due in September 2017.
- NIHCM will announce the grant winners in November 2017, for project start dates as early as January 2018.

Contact: <https://www.nihcm.org/categories/research-grants-application-information>

Woodard & Curran Foundation

Grant Program: GRANT CYCLE 2017

Agency: Woodard & Curran Foundation

Website: <http://www.woodardcurranfoundation.org/grant-cycle-2017/>

Brief Description: Woodard & Curran Foundation's 2017 giving strategy is focused on a resource basic to life and often taken for granted: clean water. Whether you live in an area where water supplies are plentiful or where water scarcity is a daily concern, issues surrounding water conservation, sanitation, and safe drinking water supplies are high on the list of environmental concerns. We are passionate about progress for a sustainable future and strive to partner with 501(c)(3) nonprofit organizations taking action toward that progress. If your nonprofit shares that passion and your efforts have a particular focus on water, we are excited to offer you two opportunities for funding:

TRACK 1: 1-YEAR GRANTS

1-year Grants (application deadline July 1, 2017)

Up to three smaller grants totaling \$9,000 with no one grant exceeding \$5,000 are available in this category, which is dedicated to addressing the problem of water scarcity through STEAM (Science, Technology, Engineering, Arts, and Math) initiatives. Projects at levels of grant requests from \$1,000 to \$5,000 will be accepted. This opportunity is limited to 501(c)(3) nonprofits that meet our general eligibility requirements and are located in states where [Woodard & Curran Inc.](#) either has an office or operates a treatment facility: CA, CT, FL, GA, IL, MA, ME, MI, MO, MT, NH, NJ, NY, PA, RI, TN, UT, VT, or WY.

TRACK 2: 3-YEAR IMPACT GRANT

3-year Impact Grant (Letter of Interest by July 1, 2017)

This grant will total \$100,000 over three consecutive years beginning in November 2017 (\$33,000 in 2017, \$33,000 in 2018, and \$34,000 in 2019). Applicants would be pursuing funding for an innovative project applying or advancing technology to address water (e.g. water, wastewater, stormwater, etc.) issues relating to climate change. This opportunity is open to all U.S.-based 501(c)(3) nonprofits that meet our general eligibility requirements.
