NJIT Research Newsletter

Issue: ORN-2018-21

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/ .

Grant Opportunity Alerts

Keywords and Areas Included in the Grant Opportunity Alert Section Below

NSF: Electrochemical Systems; Biosensing; Biological and Environmental Interactions of Nanoscale Materials; Environmental Engineering; Environmental Sustainability; Engineering of Biomedical Systems (EBMS); Molecular Separation; Disability and Rehabilitation Engineering (DARE); Cellular and Biochemical Engineering (CBE)
NIH: BRAIN Initiative Advanced Postdoctoral Career Transition Award to Promote Diversity (K99/R00); NIH Director's New Innovator Award Program (DP2); NIH Director's Transformative Research Award (R01); Exploratory Team-Research BRAIN Circuit Programs - eTeamBCP (U01); BRAIN Initiative: Development and Validation of Novel Tools to Probe Cell-Specific and Circuit-Specific Processes in the Brain (R01); NIH Director's Pioneer Award (DP1)
Department of Defense/US Army/DARPA/ONR: Spinal Cord Injury Research Program Investigator-Initiated Research Award; DoD Hearing Restoration Focused Applied Research Award; Defense Science, Technology, Engineering, and Mathematics (STEM) Education Consortium (DSEC) Cooperative Agreement; DoD Autism Idea Development Award; DoD Trauma Resiliency Immersive Adaptive Gaming Environment (TRIAGE) Award; DARPA Biological Technologies; Bilateral Academic Research Initiative (BARI) Pilot Program
Department of Education: Education Innovation and Research Program: Early-phase Grants
Department of Energy: Integrated University Program (IUP): Enabling Technologies and Innovation (ETI) & Monitoring, Technology and Verification (MTV); Building America Industry Partnerships and Research Priorities for High Performance Housing Innovation – 2018; Solid-State Lighting Advanced Technology Research and Development

NASA: Space Technology Research Institutes (STRI)Appendix; ROSES 2018: Heliophysics Space Weather Operations to Research; Early Stage Innovation (ESI); Astrophysics Data Analysis
National Endowment of Humanities: Research and Development; Digital Humanities Advancement
National Institute for Health Care Management Foundation: Research Grants
PVA Foundation: PVA Research Grant

Special Announcement

Finding Research Opportunities and Collaborations (FROC)

Walk-In Open-Hour Discussion with SVPR Over Tea

Every Thursday: 3.00 PM-4.00 PM; 340 Fenster Hall

The Office of Research is starting a new service to help all faculty and staff explore collaborative research opportunities and currently active RFPs (Request for Proposals) for potential proposal development and submission. Faculty and research staff members are welcome to meet with Senior Vice Provost for Research Atam Dhawan at the open-hour every Thursday from 3.00 PM to 4.00 PM to discuss research opportunities related issues including the following but not limited to:

- Research opportunities and potential collaborations
- Currently active RFPs and developing collaborative teams for proposal submission
- Proposal review criterion for specific RFP/program/agency
- Proposal concept and draft review in the context of review criterion
- Future plans for proposal development and submission
- Invention disclosures, patent applications and processing of intellectual property
- External faculty research awards including fellowships

Though *walk-ins* are welcome during the open-hour, faculty members are encouraged to email SVPR Atam Dhawan (dhawan@njit.edu) about specific questions on research opportunities and needs to be discussed in advance for more detailed discussion.

The open-hour session with individuals or small groups of faculty and research staff members is expected to focus on finding research opportunities, developing collaborative teams, exploring the review criterion and reviewing program requirements. Specific proposal submission and grant management issues can be discussed with Office of Research staff separately.

Enjoy coffee/tea and cookies with SVPR over the discussion.

For any questions and additional information, please send an email to SVPR at dhawan@njit.edu.

Recent Research Grant and Contract Awards

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

PI: Gregory Fleishman (PI), Dale Gary (Co-PI) and Gelu Nita (Co-PI)
Department: Center for Solar Terrestrial Research
Grant/Contract Project Title: Revealing Evolution of Electrons and Magnetic Field in Solar Flares
Funding Agency: NSF
Duration: 06/01/18-05/31/21

PI: Gale Spak (PI)
Department: CPE
Grant/Contract Project Title: Talent Development Center: Building and Implementing Career Pathways in Key Industries
Funding Agency: NJ Dept of Labor and Workforce Development
Duration: 11/01/17-10/31/18

PI: Suzanne Berliner-Heyman(PI)
Department: CPCP
Grant/Contract Project Title: STEM-Focused Pre-College Summer Program
Funding Agency: Victoria Foundation
Duration: 06/01/18-05/31/19

PI: Suzanne Berliner-Heyman(PI)
Department: CPCP
Grant/Contract Project Title: 2018-2019 UNITE Summer Program Site
Funding Agency: U.S. Army (Educational Outreach Program)
Duration: 06/01/18-05/31/19

PI: Suzanne Berliner-Heyman(PI)
Department: CPCP
Grant/Contract Project Title: 2018 Research and Engineering Apprenticeship Program (Student 1 & 2)
Funding Agency: U.S. Army (Educational Outreach Program)
Duration: 10/01/17-09/30/18

PI: Esra Buyuktahtakin (PI)
Department: Mechanical and Industrial Engineering
Grant/Contract Project Title: Risk-Averse Surveillance and Intervention Planning for Emerald Ash Borer in Community Forests
Funding Agency: US Dept of Agriculture
Duration: 07/01/18-06/30/19

PI: Michel Boufadel (PI)
Department: Center for Natural Resources
Grant/Contract Project Title: Consortium for Advanced Research on Transport of Oil in the Environment (CARTHE III)
Funding Agency: Gulf of Mexico Research Initiative
Duration: 01/01/18-12/31/18

In the News…

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

Drones and Smart Infrastructure: House appropriators would grant the U.S. Department of Transportation more money for research and development "to accelerate the safe integration of (unmanned aircraft systems, or UAS) into the national airspace." The panel also "encourages the Department to prioritize" and engage with the research community on smart infrastructure that "incorporates advanced sensor and other smart technologies." Full report is posted on the website https://docs.house.gov/meetings/AP/AP00/20180523/108366/HRPT-115-HR.pdf

The Office of Science and ARPA-E FY19 Budget: The Senate bill would provide $6.65 billion for the Office of Science, a $390 million or six percent increase above the FY 2018 enacted level and $50 million above the House bill. This follows a 16 percent increase in the FY 2018 omnibus bill. The bill would increase funding for all major programs except for fusion energy sciences, which would be cut by 20 percent. The highest priorities are exascale computing, construction of world-leading science facilities, and new research initiatives focused on machine learning, artificial intelligence, and quantum information science. The bill would provide $105 million to advance quantum information science efforts across the six Office of Science programs, as proposed in the President's request, as well as $13 million for a new artificial intelligence and big data initiative and $11 million as requested for fundamental mathematics and computer science research for machine learning.

The bill would provide Advanced Scientific Computing Research (ASCR) with $980 million, an increase of $170 million, or 21 percent, over the FY 2018 level, and $65 million above the House bill. Specifically, the bill would provide $514 million for the exascale computing initiative with $233 million to support hardware, software and application development for exascale computing systems and another $281 million to upgrade computing facilities at Oak Ridge and Argonne National Laboratories to prepare them for power needs and operations of exascale computing systems. The bill also provides $159 million for mathematical, computational, and computer sciences research, an increase of $41 million above FY 2018 and roughly $18 million over the House bill—though the latter does not specify a set amount for these programs. The growth in ASCR's fundamental research programs would support $11 million as requested for machine learning and $34 million for quantum information science efforts, and would reverse the erosion and stagnation seen in ASCR's research budget over the past several years. The bill also would launch a new $13 million artificial intelligence and big data initiative to meet DOE's nuclear security, energy, and science missions which would leverage artificial intelligence to analyze and interpret large volumes of data. This is $13 million less than proposed in the House bill. Like the House bill, the Senate bill provides $10 million to continue the Computational Science Graduate Fellowship program.

The next largest increase would be for High Energy Physics (HEP), which would receive an increase of $102 million or 11 percent above FY 2018. The increase is primarily to accelerate the ongoing construction of the Long Baseline Neutrino Facility/Deep Underground Neutrino Experiment and U.S. participation in the upgrades to the accelerator and detectors at the Large Hadron Collider. However, funding is also provided to increase base research at national laboratories and universities. The increase is due to the high energy physics community's success in "achieving significant accomplishments and meeting the milestones and goals set forth in the [P5] strategic plan." The bill also calls on DOE to develop a plan to respond to the recent National

Academies study and recommendations of investing in high-intensity and ultrafast laser technologies to maintain U.S. leadership. The bill would also increase funding for Basic Energy Sciences (BES) by $103 million or 5 percent above FY 2018 enacted levels, primarily to accelerate construction of upgrades to light sources and neutron sources to maintain U.S. leadership and fully fund operations of existing facilities.

NSF-AIR FORCE Collaboration: National Science Foundation Director France Córdova and Air Force Secretary Heather Wilson will sign a letter of intent next week "to create a new partnership for collaboration on scientific research to bolster national security." NSF says "The partnership will foster an increased exchange of research information, support expanded collaboration in common research areas, and identify opportunities for complementary activities in 'research pathways' comprising basic research, applied research, and advanced technology development. The partnership will also facilitate long-term planning of each organization's research strategy, and sharing of best practices for portfolio shaping and science, technology, engineering, and mathematics (STEM) workforce development."

Webinar and Events

Event: Smart & Autonomous Systems (S&AS) Program Webinar
Sponsor: NSF
When: June 13, 2018; 12.00 PM – 1.00 PM
Website: https://www.nsf.gov/events/event_summ.jsp?cntn_id=245675&org=NSF
Brief Description: The Smart and Autonomous Systems (S&AS) program focuses on Intelligent Physical Systems (IPS) that are capable of robust, long-term autonomy requiring minimal or no human operator intervention in the face of uncertain, unanticipated, and dynamically changing situations. IPS are systems that combine perception, cognition, communication, and actuation to operate in the physical world. Examples include, but are not limited to, robotic platforms, self-driving vehicles, underwater exploration vehicles, and smart grids. Most current IPS operate in pre-programmed ways and in a limited variety of contexts. They are largely incapable of handling novel situations, or of even understanding when they are outside their areas of expertise. To achieve robust, long-term autonomy, however, future IPS need to be aware of their capabilities and limitations and to adapt their behaviors to compensate for limitations and/or changing conditions. This webinar will cover the S&AS program solicitation, NSF 18-557, submission requirements, and program updates. There will be a question and answer session following the presentation.
To participate in the webinar, please register at: https://nsf.webex.com/nsf/j.php?RGID=r0e27837f8de9dbe64e1f256aae2b08bc

Event: Webinar for EHR CAREER Proposers
Sponsor: NSF
When: June 19, 2018; 2.00 PM – 3.00 PM
Website: https://www.nsf.gov/events/event_summ.jsp?cntn_id=245598&org=NSF
Brief Description: The Directorate for Education and Human Resources (EHR) will present information for principal investigators addressing specific issues related to the submission of a CAREER proposal to EHR.
To join the webinar: When it is time click on start your meeting or go to https://nsf.webex.com
Meeting number access code: 746-339-895
Meeting Password: CAREeR1!

Event: Math Frontiers Monthly Webinar Series
Sponsor: National Academies
When: June 12, 2018 from 2.00 PM
Website: http://sites.nationalacademies.org/deps/bmsa/deps_183972
Brief Description: Join the National Academies of Sciences, Engineering, and Medicine for a webinar series on exciting and upcoming mathematics research across an array of topics. Webinars will take place on the **second Tuesday of each month from 2-3 p.m. ET,** with two speakers and live Q&A. See below for the list of dates and themes for each webinar. ***When registering, please make sure you select all the webinars you would like to attend.*** You will only receive reminder emails and login instructions for webinars you have registered for.
As each webinar approaches, we will post more information about the speakers on the webinar series page at nas.edu/mathfrontiers.
June 12, 2018: ***Number Theory: The Riemann Hypothesis***
Professors Ken Ono and Terence Tao will speak on the importance and recent advances on the Riemann Hypothesis, one of the most famous unsolved problems in algebra and number theory.
July 10, 2018: ***Topology***
Professors Jeffrey F. Brock and John Morgan will discuss applications of topology—the mathematical study of how object properties are impacted by deformations—to fields such as data analytics, tumor identification, and robotics.
August 14, 2018: ***Algorithms for Threat Detection***
Professor Andrea Bertozzi and others will discuss applications of mathematics to spatiotemporal data analytics as a way to discover and mitigate national security threats.
September 11, 2018: ***Mathematical Analysis***
Professor Dimitri Shlyakhtenko and others will discuss mathematical analysis—the study of functions and their limits. Application areas include computational fluid dynamics and astronomy.
October 9, 2018: ***Combinatorics***
Invited speakers will discuss the mathematical study of discrete structures and their properties focusing on some of the modern techniques in the area including the probabilistic method. Application areas include information theory, statistical physics, molecular biology and computer science.
November 13, 2018: ***Why Machine Learning Works***
Invited speakers will discuss the mathematics behind machine learning and how they enable predictive analyses.
December 11, 2018: ***Mathematics of Epidemics***
Professors Calistus Ngonghala and Folashade B. Agusto will discuss mathematical approaches to studying biology, including ecology and infectious disease.
To join the webinar: Please register at http://sites.nationalacademies.org/deps/bmsa/deps_183972

Grant Opportunities

National Science Foundation

Grant Program: Electrochemical Systems
Agency: National Science Foundation NSF PD 18-7644
RFP Website:
https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505558&org=NSF&sel_org=NSF&from=fund
Brief Description: The **Electrochemical Systems** program is part of the Chemical Process Systems cluster, which includes also 1) Catalysis; 2) Molecular Separations; and 3) Process Systems, Reaction Engineering, and Molecular Thermodynamics.

The goal of the **Electrochemical Systems** program is to support fundamental engineering research that will enable innovative processes involving electro- or photochemistry for the sustainable production of electricity, fuels, and chemicals. Processes for sustainable energy and chemical production must be scalable, environmentally benign, reduce greenhouse gas production, and utilize renewable resources. Research projects that stress fundamental understanding of phenomena that directly impact key barriers to improved system or component-level performance (e.g., energy efficiency, product yield, process intensification) are encouraged. Processes for energy storage should address fundamental research barriers for the applications of renewable electricity storage or for transport propulsion. For projects involving energy storage materials, proposals should involve hypotheses that involve device or component performance characteristics that are tied to fundamental understanding of transport, kinetics, or thermodynamics. Advanced chemistries are encouraged.

Proposed research should be inspired by the need for economic and impactful conversion processes. All proposal project descriptions should address how the proposed work, if successful, will improve process realization and economic feasibility and compare the proposed work against current state-of-the-art. Highly integrated multidisciplinary projects are encouraged.

Current topics of interest include:

Electrochemical Energy and Chemical Production Systems

Organic Photovoltaics Devices and Processing

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Proposals should address the novelty and/or potentially transformative nature of the proposed work compared to previous work in the field. Also, it is important to address why the proposed work is important in terms of engineering science, as well as to also project the potential impact on society and/or industry of success in the research. The novelty or potentially transformative nature of the research should be included, as a minimum, in the Project Summary of each proposal.

Faculty Early Career Development (CAREER) program proposals are strongly encouraged. Award duration is five years. The submission deadline for Engineering CAREER proposals is in July every year. Please see the CAREER URL here for more information.

Proposals for Conferences, Workshops, and Supplements: PIs are strongly encouraged to discuss their requests with the Program Director before submission of the proposal.

Grants for Rapid Response Research (RAPID) and **EArly-concept Grants for Exploratory Research (EAGER)** are also considered when appropriate. Please note that proposals of these types must be discussed with the program director before submission. Further details are available in the **Proposal and Award Policies and Procedures Guide (PAPPG)** download found here. **Grant Opportunities for Academic Liaison with Industry (GOALI)** proposals that integrate fundamental research with translational results and are consistent with the application areas of interest to each program are also encouraged. Please note that GOALI proposals must be submitted during the annual unsolicited proposal window for each program. More information on GOALI can be found here.

Awards: Various

Letter of Intent: See the program information

Full Proposal Submission Deadline: October 1, 2018 - October 22, 2018

Contacts: Carole Read cread@nsf.gov (703) 292-2418

Grant Program: Biosensing

Agency: National Science Foundation NSF PD 18-7909

RFP Website:

https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505556&org=NSF&sel_org=NSF&from=fund

Brief Description: The **Biosensing** program is part of the Engineering Biology and Health cluster, which also includes 1) Biophotonics; 2) Cellular and Biochemical Engineering; 3) Disability and Rehabilitation Engineering; and 4) Engineering of Biomedical Systems.

The **Biosensing** program supports fundamental engineering research on devices and methods for measurement and quantification of biological analytes. Examples of biosensors include, but are not limited to, electrochemical/electrical biosensors, optical biosensors, plasmonic biosensors, paper-based and nanopore-based biosensors. In addition to technology development, submissions that address critical needs for biomedical research, public health, food safety, agriculture, forensic, environmental protection, and homeland security are highly encouraged. Proposals that incorporate emerging nanotechnology methods are especially encouraged.

Areas of interest include: 1) multiplex biosensing platforms that exceed the performance of current state-of-the-art devices; 2) novel transduction principles, mechanisms and sensor designs suitable for measurement in practical matrix and sample-preparation-free approaches, including error-free detection of pathogens and toxins in food matrices, waterborne pathogens, parasites, toxins, biomarkers in body fluids, neuron chemicals, and others that improve human condition; 3) biosensors that enable measurement of biomolecular interactions in their native states, transmembrane transport, intracellular transport and reactions, and other biological phenomena; 4) biosensing performance optimization for specific health applications such as point-of-care testing and personalized health monitoring; and 5) miniaturization of biosensors for lab-on-a-chip and cell/organ-on-a-chip applications to enable measurement of biological properties and functions of cell/tissues *in vitro*.

The Biosensors Program does not encourage proposals addressing surface functionalization and modulation of bio-recognition molecules, development of basic chemical mechanisms for biosensing applications, circuit design for signal processing and amplification, computational modeling, and microfluidics for sample separation and filtration. Medical imaging-based measurements are out of the scope of the program interests. Proposals that rely heavily on descriptive approaches are given lower priority. Proposals for optimizing and/or utilizing established methods for specific applications should be directed to programs focused on the application.

Innovative ideas outside of the above specific interest areas may be considered. However, prior to submission, it is recommended that the PI contact the Program Director to avoid the proposal being returned without review.

INFORMATION COMMON TO MOST CBET PROGRAMS

Proposals should address the novelty and/or potentially transformative nature of the proposed work compared to previous work in the field. Also, it is important to address why the proposed work is important in terms of engineering science, as well as to also project the potential impact on society and/or industry of success in the research. The novelty or potentially transformative nature of the research should be included, as a minimum, in the Project Summary of each proposal.

Faculty Early Career Development (CAREER) program proposals are strongly encouraged. Award duration is five years. The submission deadline for Engineering CAREER proposals is in July every year. Please see the CAREER URL here for more information.

Proposals for Conferences, Workshops, and Supplements: PIs are strongly encouraged to discuss their requests with the Program Director before submission of the proposal.

Grants for Rapid Response Research (RAPID) and **EArly-concept Grants for Exploratory Research (EAGER)** are also considered when appropriate. Please note that proposals of these types must be discussed with the program director before submission. Further details are available in the **Proposal and Award Policies and Procedures Guide (PAPPG)** download found here. **Grant Opportunities for Academic Liaison with Industry (GOALI)** proposals that integrate fundamental research with translational results and are consistent with the application areas of interest to each program are also encouraged. Please note that GOALI proposals must be submitted during the annual unsolicited proposal window for each program. More information on GOALI can be found here.

Awards: Various
Letter of Intent: See the program information
Full Proposal Submission Deadline: October 1, 2018 - October 22, 2018
Contacts: Chenzhong Lichli@nsf.gov 703-292-2857

Grant Program: Biological and Environmental Interactions of Nanoscale Materials
Agency: National Science Foundation NSF PD 19-1179
RFP Website:
https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505553&org=NSF&sel_org=NSF&from=fund
Brief Description: The **Biological and Environmental Interactions of Nanoscale Materials** program is part of the **Environmental Engineering and Sustainability** cluster, which also includes: 1) Environmental Engineering; and 2) Environmental Sustainability.
The goal of the Biological and Environmental Interactions of Nanoscale Materials program is to support research to advance fundamental and quantitative understanding of the interactions of nanomaterials and nanosystems with biological and environmental media.
Materials of interest include one- to three-dimensional nanostructures, heterogeneous nano-bio hybrid assemblies, quantum dots, and other nanoparticles. Such nanomaterials and systems frequently exhibit novel physical, chemical, photonic, and biological behavior in living systems and environmental matrices as compared to the bulk scale.
Research areas supported by the program include:

- Characterization of interactions at the interfaces of nanomaterials and nanosystems with surrounding biological and environmental media, including both simple nanoparticles and complex and/or heterogeneous composites;
- Development of predictive tools based on the fundamental behavior of nanostructures within biological and ecological matrices to advance cost-effective and environmentally benign processing and engineering solutions over full-life material cycles;
- Examination of the transport, interaction, and impact of nanostructured materials and nanosystems on biological systems and the environment; and
- Simulations of nanoparticle behavior at interfaces, in conjunction with experimental comparisons, and new theories and simulation approaches for determining the transport and transformation of nanoparticles in various media.

Research in these areas will enable the design of nanostructured materials and heterogeneous nanosystems with optimal chemical, electronic, photonic, biological, and mechanical properties for their safe handling, management, and utilization.
Innovative proposals outside of these specific interest areas may be considered. However, prior to submission, it is recommended that the Principal Investigator contact the Program Director to avoid the possibility of the proposal being returned without review.
The duration of unsolicited awards is generally one to three years. The typical award size for the program is $130,000 per year. Proposals requesting a substantially higher amount than this, without prior consultation with the Program Director, may be returned without review.
INFORMATION COMMON TO MOST CBET PROGRAMS
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Faculty Early Career Development (CAREER) program proposals are strongly encouraged. Award duration is five years. The submission deadline for Engineering CAREER proposals is in July every year. Please see the CAREER URL here for more information.
Proposals for Conferences, Workshops, and Supplements: PIs are strongly encouraged to discuss their requests with the Program Director before submission of the proposal.
Grants for Rapid Response Research (RAPID) and **EArly-concept Grants for Exploratory Research (EAGER)** are also considered when appropriate. Please note that proposals of these types must be discussed with the program director before submission. Further details are available in the **Proposal and Award Policies and Procedures Guide (PAPPG)** download found here. **Grant Opportunities for Academic Liaison with Industry (GOALI)** proposals that integrate fundamental research with translational results and are consistent with the application areas of interest to each program are also encouraged. Please note that GOALI proposals must be submitted during the annual unsolicited proposal window for each program. More information on GOALI can be found here.
Awards: Various
Letter of Intent: See the program information
Full Proposal Submission Deadline: Anytime
Contacts: Nora F. Savage nosavage@nsf.gov (703) 292-7949
Brandi L. Schottel bschotte@nsf.gov (703) 292-4798

Grant Program: Environmental Engineering
Agency: National Science Foundation NSF PD 18-1440
RFP Website:
https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505551&org=NSF&sel_org=NSF&from=fund
Brief Description: The **Environmental Engineering** program is part of the **Environmental Engineering and Sustainability** cluster together with 1) the Biological and Environmental Interactions of Nanoscale Materials program and 2) the Environmental Sustainability program.
Environmental engineering is an interdisciplinary field that applies chemical, biological, and physical scientific principles to protect human and ecological health.
The goal of the Environmental Engineering program is to support potentially transformative fundamental research that applies scientific and engineering principles to 1) prevent or minimize solid, liquid, and gaseous discharges of pollution to soil, water, and air; 2) mitigate the ecological and human-health impacts of such releases by smart/adaptive/reactive amendments or manipulation of the environment, and 3) remediate polluted environments through engineered chemical, biological, and/or geo-physical processes.
Integral to achieving these goals is a fundamental understanding of the transport and biogeochemical reactivity of pollutants in the environment. Therefore, research on environmental micro/biology, environmental chemistry, and environmental geophysics may be relevant providing there is a clear connection to the application of environmental engineering to protect human and ecological health.
Major areas of interest include (but are not limited to):

- **Enhancing the availability of high-quality water supplies**: Investigation of innovative biogeochemical processes that remove, biologically or chemically transform, and/or prevent the release of contaminants in surface and groundwater; innovative processes for recovery of water, nutrients, and other resources from wastewater, saline water, or brines; innovative approaches to smart and adaptive management of surface water, groundwater, and urban watersheds and storm water to maintain/improve quality and prevent downstream impacts from nutrients and other water constituents.
- **Environmental chemistry, fate, and transport of nutrients and contaminants of emerging concern in air, water, soils, and sediments**: Investigation of transport and biogeochemical

reactivity in the environment; environmental forensics to identify sources and reaction pathways; field- and laboratory-scale experimental research that bridges gaps between data and predictions from molecular, continuum, and field-scale modeling.

- **Environmental engineering of the built environment**: Research to understand the biogeochemical reactivity of the built environment with the goal of enhancing and improving human and ecological health; research that will lead to new technologies to improve outdoor and indoor air quality; research to understand how drinking water and wastewater chemical characteristics and microbial community structure impact or are affected by water quality and human health; research that will lead to new technologies for waste separation and recovery to close the resource loop.

INFORMATION COMMON TO MOST CBET PROGRAMS

Proposals should address the novelty and/or potentially transformative nature of the proposed work compared to previous work in the field. Also, it is important to address why the proposed work is important in terms of engineering science, as well as to also project the potential impact on society and/or industry of success in the research. The novelty or potentially transformative nature of the research should be included, as a minimum, in the Project Summary of each proposal.

Faculty Early Career Development (CAREER) program proposals are strongly encouraged. Award duration is five years. The submission deadline for Engineering CAREER proposals is in July every year. Please see the CAREER URL here for more information.

Proposals for Conferences, Workshops, and Supplements: PIs are strongly encouraged to discuss their requests with the Program Director before submission of the proposal.

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Awards: Various

Letter of Intent: See the program information

Full Proposal Submission Deadline: October 1, 2018 - October 22, 2018

Contacts: Karl J. Rockne krockne@nsf.gov (703) 292-5356
Brandi L. Schottel bschotte@nsf.gov (703) 292-47982418

Grant Program: Environmental Sustainability
Agency: National Science Foundation NSF PD 18-7643
RFP Website:
https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505549&org=NSF&sel_org=NSF&from=fund

Brief Description: The **Environmental Sustainability** program is part of the **Environmental Engineering and Sustainability** cluster, which also includes 1) Environmental Engineering; and 2) Biological and Environmental Interactions of Nanoscale Materials.

The goal of the **Environmental Sustainability** program is to promote sustainable engineered systems that support human well-being and that are also compatible with sustaining natural (environmental) systems. These systems provide ecological services vital for human survival. Research efforts supported by the program typically consider long time horizons and may incorporate contributions from the social sciences and ethics. The program supports engineering research that seeks to balance society's need to provide ecological protection and maintain stable economic conditions.

There are four principal general research areas that are supported:

- **Industrial Ecology**: Topics of interest in Industrial Ecology include advancements in modeling such as life cycle assessment, materials flow analysis, input/output economic models, and novel metrics for measuring sustainable systems. Innovations in industrial ecology are encouraged.
- **Green Engineering**: Research is encouraged to advance the sustainability of manufacturing processes, green buildings, and infrastructure. Many programs in the Engineering Directorate support research in environmentally benign manufacturing or chemical processes. The Environmental Sustainability program supports research that would affect more than one chemical or manufacturing process or that takes a systems or holistic approach to green engineering for infrastructure or green buildings. Improvements in distribution and collection systems that will advance smart growth strategies and ameliorate effects of growth are research areas that are supported by Environmental Sustainability. Innovations in management of storm water, recycling and reuse of drinking water, and other green engineering techniques to support sustainability may also be fruitful areas for research. **NOTE**: Water treatment proposals are to be submitted to the CBET Environmental Engineering program (1440), NOT the Environmental Sustainability program (7643).
- **Ecological Engineering**: Topics should focus on the engineering aspects of restoring ecological function to natural systems. Engineering research in the enhancement of natural capital to foster sustainable development is encouraged.
- **Earth Systems Engineering**: Earth systems engineering considers aspects of large scale engineering research that involve mitigation of greenhouse gas emissions, adaptation to climate change, and other global scale concerns.

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Faculty Early Career Development (CAREER) program proposals are strongly encouraged. Award duration is five years. The submission deadline for Engineering CAREER proposals is in July every year. Please see the CAREER URL here for more information.

Proposals for Conferences, Workshops, and Supplements: PIs are strongly encouraged to discuss their requests with the Program Director before submission of the proposal.

Grants for Rapid Response Research (RAPID) and **EArly-concept Grants for Exploratory Research (EAGER)** are also considered when appropriate. Please note that proposals of these types must be discussed with the program director before submission. Further details are available in the **Proposal and Award Policies and Procedures Guide (PAPPG)** download found here. **Grant Opportunities for Academic Liaison with Industry (GOALI)** proposals that integrate fundamental research with translational results and are consistent with the application areas of interest to each program are also encouraged. Please note that GOALI proposals must be submitted during the annual unsolicited proposal window for each program. More information on GOALI can be found here.

Awards: Various

Letter of Intent: See the program information

Full Proposal Submission Deadline: October 1, 2018 - October 22, 2018

Contacts: Bruce Hamilton bhamilto@nsf.gov (703) 292 -7066
Brandi L. Schottel bschotte@nsf.gov (703) 292-4798

Grant Program: Engineering of Biomedical Systems (EBMS)

Agency: National Science Foundation NSF PD 18-5345
RFP Website:
https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505546&org=NSF&sel_org=NSF&from=fund
Brief Description: The **Engineering of Biomedical Systems (EBMS)** program is part of the Engineering Biology and Health cluster, which also includes 1) Biophotonics; 2) Biosensing; 3) Cellular and Biochemical Engineering; and 4) Disability and Rehabilitation Engineering.
The goal of the EBMS program is to provide research opportunities for creating discovery-level and transformative projects that integrate engineering and life sciences to solve biomedical problems and serve humanity in the long term. EBMS projects must be at the interface of engineering and biomedical sciences. They are expected to use an engineering framework (for example, design or modeling) that supports increased understanding of physiological or pathophysiological processes. The project must include objectives that advance both engineering and biomedical sciences.
EMBS projects should focus on high-impact, transformative methods and technologies -- especially those that potentially will have a broad impact on biomedical challenges. Projects may include: methods, models, and enabling tools applied to understand or control living systems; fundamental improvements in deriving information from cells, tissues, organs, and organ systems; or new approaches to the design of systems that include both living and non-living components for eventual medical use in the long term.
The EBMS program supports fundamental and transformative research in the following areas of biomedical engineering:

- Development of validated models (living or computational) of normal and pathological tissues and organ systems that can support improved fundamental understanding of these systems or development and testing of medical interventions,
- Design and validation of systems that integrate living and non-living components for improved understanding, diagnosis, monitoring, and treatment of disease or injury,
- Advanced biomanufacturing of three-dimensional tissues and organs, and
- Design and subsequent application of technologies and tools to investigate fundamental physiological and pathophysiological processes.

Innovative proposals outside of these specific areas of biomedical engineering may be considered. However, prior to submission, it is strongly recommended that the Principal Investigator (PI) contacts the Program Director to avoid the possibility of the proposal being returned without review. Related programs also fund biomedical engineering research, and PIs are encouraged to examine these to find the appropriate program for submission.
INFORMATION COMMON TO MOST CBET PROGRAMS
Proposals should address the novelty and/or potentially transformative nature of the proposed work compared to previous work in the field. Also, it is important to address why the proposed work is important in terms of engineering science, as well as to also project the potential impact on society and/or industry of success in the research. The novelty or potentially transformative nature of the research should be included, as a minimum, in the Project Summary of each proposal.
Faculty Early Career Development (CAREER) program proposals are strongly encouraged. Award duration is five years. The submission deadline for Engineering CAREER proposals is in July every year. Please see the CAREER URL here for more information.
Proposals for Conferences, Workshops, and Supplements: PIs are strongly encouraged to discuss their requests with the Program Director before submission of the proposal.
Grants for Rapid Response Research (RAPID) and **EArly-concept Grants for Exploratory Research (EAGER)** are also considered when appropriate. Please note that proposals of these types must be discussed with the program director before submission. Further details are available in the **Proposal and Award Policies and Procedures Guide (PAPPG)** download found here. **Grant Opportunities for Academic Liaison with Industry (GOALI)** proposals that integrate fundamental research with translational results and are consistent with the application areas of interest to each program are also

encouraged. Please note that GOALI proposals must be submitted during the annual unsolicited proposal window for each program. More information on GOALI can be found here.
Awards: Various
Letter of Intent: See the program information
Full Proposal Submission Deadline: October 1, 2018 - October 22, 2018
Contacts: Michele J. Grimm mgrimm@nsf.gov (703) 292-4641

Grant Program: Molecular Separations
Agency: National Science Foundation NSF PD 19-1417
RFP Website:
https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505559&org=NSF&sel_org=NSF&from=fund
Brief Description: The **Molecular Separations** program is part of the Chemical Process Systems cluster, which also includes 1) Catalysis; 2) Electrochemical Systems; and 3) Process Systems, Reaction Engineering, and Molecular Thermodynamics.
The **Molecular Separations** program supports research focused on novel methods and materials for separation processes, such as those central to the chemical, biochemical, bioprocessing, materials, energy, and pharmaceutical industries. A fundamental understanding of the interfacial, transport, and thermodynamic behavior of multiphase chemical systems as well as quantitative descriptions of processing characteristics in the process-oriented industries is critical for efficient resource management and effective environmental protection. The program encourages proposals that address long standing challenges and emerging research areas and technologies, have a high degree of interdisciplinary work coupled with the generation of fundamental knowledge, and the integration of education and research.
Research topics of particular interest include fundamental, molecular-level work on:

- A molecular-level design of scalable mass separating agents (e.g., adsorbents and membranes) targeted for a specific gas, chemical, or water separation
- A molecular-level understanding of interfacial thermodynamics, fluid nanoconfinement, and/or transport within nanopores or highly engineered surfaces
- Engineering science that advances a fundamental and/or a mechanistic understanding of mass transport principles and/or design of separation processes
- Downstream processing of biologically derived chemicals for increased throughput
- Integrated design of chemical separations with other chemical conversions for process intensification
- Innovative separation mechanisms or engineering processes, including but not limited to field (flow, magnetic, electrical) induced separations, that target a significant reduction in energy and/or materials requirements in the process industries

INFORMATION COMMON TO MOST CBET PROGRAMS
Proposals should address the novelty and/or potentially transformative nature of the proposed work compared to previous work in the field. Also, it is important to address why the proposed work is important in terms of engineering science, as well as to also project the potential impact on society and/or industry of success in the research. The novelty or potentially transformative nature of the research should be included, as a minimum, in the Project Summary of each proposal.
Faculty Early Career Development (CAREER) program proposals are strongly encouraged. Award duration is five years. The submission deadline for Engineering CAREER proposals is in July every year. Please see the CAREER URL here for more information.
Proposals for Conferences, Workshops, and Supplements: PIs are strongly encouraged to discuss their requests with the Program Director before submission of the proposal.
Grants for Rapid Response Research (RAPID) and **EArly-concept Grants for Exploratory Research (EAGER)** are also considered when appropriate. Please note that proposals of these types must

be discussed with the program director before submission. Further details are available in the **Proposal and Award Policies and Procedures Guide (PAPPG)** download found here. **Grant Opportunities for Academic Liaison with Industry (GOALI)** proposals that integrate fundamental research with translational results and are consistent with the application areas of interest to each program are also encouraged. Please note that GOALI proposals must be submitted during the annual unsolicited proposal window for each program. More information on GOALI can be found here.
Awards: Various
Letter of Intent: See the program information
Full Proposal Submission Deadline: Anytime
Contacts: Angela Lueking alueking@nsf.gov (703) 292-2161

Grant Program: Disability and Rehabilitation Engineering (DARE)
Agency: National Science Foundation NSF PD 18-5342
RFP Website:
https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505557&org=NSF&sel_org=NSF&from=fund
Brief Description: The **Disability and Rehabilitation Engineering** program is part of the Engineering Biology and Health cluster, which also includes 1) Biophotonics; 2) Biosensing; 3) Cellular and Biochemical Engineering; and 4) Engineering of Biomedical Systems.
The **Disability and Rehabilitation Engineering** program supports fundamental engineering research that will improve the quality of life of persons with disabilities through: development of new technologies, devices, or software; advancement of knowledge regarding normal or pathological human motion; or understanding of injury mechanisms.
Research may be supported that is directed toward the characterization, restoration, rehabilitation, and/or substitution of human functional ability or cognition, or to the interaction between persons with disabilities and their environment. Areas of particular interest are neuroengineering and rehabilitation robotics. The program will also consider research in the areas of: new engineering approaches to understand normal or pathological motion, both as a target for rehabilitation and as a means to characterize motion related to disability or injury; or understanding injury at the tissue or system-level such that interventions may be developed to reduce the impact of trauma and subsequent disability.
Emphasis is placed on significant advancement of fundamental engineering knowledge that facilitates transformative outcomes. We discourage applications that propose incremental improvements.
Innovative proposals outside of the above specific interest areas may be considered. However, prior to submission, it is recommended that the PI contact the Program Director to avoid the possibility of the proposal being returned without review.
NSF does not support clinical trials; however, feasibility studies involving human volunteers may be supported if appropriate to the project objectives.
The duration of unsolicited awards generally is one to three years. The typical award size is approximately $100,000 per year, with allowance of up to $130,000 or $200,000 per year for multidisciplinary collaborative projects or those involving investigators from multiple institutions, respectively. Proposals requesting a substantially higher amount than this, without prior consultation with the Program Director, may be returned without review.
INFORMATION COMMON TO MOST CBET PROGRAMS
Proposals should address the novelty and/or potentially transformative nature of the proposed work compared to previous work in the field. Also, it is important to address why the proposed work is important in terms of engineering science, as well as to also project the potential impact on society and/or industry of success in the research. The novelty or potentially transformative nature of the research should be included, as a minimum, in the Project Summary of each proposal.

Faculty Early Career Development (CAREER) program proposals are strongly encouraged. Award duration is five years. The submission deadline for Engineering CAREER proposals is in July every year. Please see the CAREER URL here for more information.
Proposals for Conferences, Workshops, and Supplements: PIs are strongly encouraged to discuss their requests with the Program Director before submission of the proposal.
Grants for Rapid Response Research (RAPID) and **EArly-concept Grants for Exploratory Research (EAGER)** are also considered when appropriate. Please note that proposals of these types must be discussed with the program director before submission. Further details are available in the **Proposal and Award Policies and Procedures Guide (PAPPG)** download found here. **Grant Opportunities for Academic Liaison with Industry (GOALI)** proposals that integrate fundamental research with translational results and are consistent with the application areas of interest to each program are also encouraged. Please note that GOALI proposals must be submitted during the annual unsolicited proposal window for each program. More information on GOALI can be found here.
Awards: Various
Letter of Intent: See the program information
Full Proposal Submission Deadline: October 1, 2018 - October 22, 2018
Contacts: Michele J. Grimmmgrimm@nsf.gov (703) 292-4641

Grant Program: Cellular and Biochemical Engineering (CBE)
Agency: National Science Foundation NSF PD 18-1491
RFP Website:
https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505547&org=NSF&sel_org=NSF&from=fund
Brief Description: The **Cellular and Biochemical Engineering** (CBE) program is part of the **Engineering Biology and Health** cluster, which also includes 1) Biophotonics; 2) Biosensing; 3) Disability and Rehabilitation Engineering; and 4) Engineering of Biomedical Systems.
The Cellular and Biochemical Engineering program supports fundamental engineering research that advances understanding of cellular and biomolecular processes in engineering biology. CBE-funded research eventually leads to the development of enabling technology for advanced biomanufacturing in support of the therapeutic cell, biochemical, biopharmaceutical, and biotechnology industries.
Fundamental to many research projects in this area is the understanding of how biomolecules, subcellular systems, cells, and cell populations interact in the biomanufacturing environment, and how those interactions lead to changes in structure, function, and behavior. A quantitative treatment of problems related to biological processes is considered vital to successful research projects in the CBE program.
The program encourages highly innovative and potentially transformative engineering research leading to novel bioprocessing and biomanufacturing approaches. The CBE program also encourages proposals that effectively integrate knowledge and practices from different disciplines while incorporating ongoing research into educational activities.
Major areas of interest in the program include:

- Metabolic engineering and synthetic biology for biomanufacturing, including the design of synthetic metabolic components and synthetic cells,
- Quantitative systems biotechnology,
- Cell culture technologies,
- Protein and enzyme engineering, and
- Single cell dynamics and modeling in the context of biomanufacturing.

All proposals should include a description on the potential impact of proposed research on an associated biomanufacturing process. Proposals whose core innovation involves tissue engineering or organ culture should be submitted to the **Engineering of Biomedical Systems** program (5345).

The duration of unsolicited awards is generally one to three years. The typical award size for the program is around $100,000 per year with allowance for up to $200,000 per year for collaborative projects involving multiple institutions. Proposals requesting a substantially higher amount than this, without prior consultation with the Program Director, may be returned without review.

INFORMATION COMMON TO MOST CBET PROGRAMS

Proposals should address the novelty and/or potentially transformative nature of the proposed work compared to previous work in the field. Also, it is important to address why the proposed work is important in terms of engineering science, as well as to also project the potential impact on society and/or industry of success in the research. The novelty or potentially transformative nature of the research should be included, as a minimum, in the Project Summary of each proposal.

Faculty Early Career Development (CAREER) program proposals are strongly encouraged. Award duration is five years. The submission deadline for Engineering CAREER proposals is in July every year. Please see the CAREER URL here for more information.

Proposals for Conferences, Workshops, and Supplements: PIs are strongly encouraged to discuss their requests with the Program Director before submission of the proposal.

Grants for Rapid Response Research (RAPID) and **EArly-concept Grants for Exploratory Research (EAGER)** are also considered when appropriate. Please note that proposals of these types must be discussed with the program director before submission. Further details are available in the **Proposal and Award Policies and Procedures Guide (PAPPG)** download found here. **Grant Opportunities for Academic Liaison with Industry (GOALI)** proposals that integrate fundamental research with translational results and are consistent with the application areas of interest to each program are also encouraged. Please note that GOALI proposals must be submitted during the annual unsolicited proposal window for each program. More information on GOALI can be found here.

Awards: Various

Letter of Intent: See the program information

Full Proposal Submission Deadline: October 1, 2018 - October 22, 2018

Contacts: Email Phone Room

Steven W. Peretti speretti@nsf.gov (703) 292-7029

National Institutes of Health

Grant Program: BRAIN Initiative Advanced Postdoctoral Career Transition Award to Promote Diversity (K99/R00 Independent Clinical Trial Not Allowed)

Agency: National Institutes of Health PAR-18-814

RFP Website: https://grants.nih.gov/grants/guide/pa-files/PAR-18-814.html

Brief Description: The objective of the NIH BRAIN Initiative Advanced Postdoctoral Career Transition Award to Promote Diversity (K99/R00) is to help outstanding postdoctoral researchers from diverse backgrounds with the opportunity to complete needed, mentored training and transition in a timely manner to independent, tenure-track or equivalent faculty positions. The BRAIN Initiative Diversity K99/R00 program is intended to foster the development of a creative, independent researcher that will be competitive for subsequent independent funding and that will help advance the mission of the NIH and BRAIN Initiative research areas in particular. Applicants must have no more than 5 years of postdoctoral research experience at the time of the initial or the subsequent resubmission application. The K99/R00 award is intended for individuals who require at least 12 months of mentored research training and career development (K99 phase) before transitioning to the R00 award phase of the program. Consequently, the strongest applicants will require, and will propose, a well-conceived plan for 1–2 years of substantive mentored research training and career development that will help them become competitive candidates for tenure-track faculty positions and prepare them to launch robust, independent research programs. *An*

individual who cannot provide a compelling rationale for at least one year of additional mentored research training at the time of award is not a strong candidate for this award.
Awards: Award budgets are composed of salary and other program-related expenses.
Letter of Intent: Not applicable
Deadline: The first due date is August 1, 2018; Standard dates apply after that, 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

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Grant Program: NIH Director's New Innovator Award Program (DP2 - Clinical Trial Optional)
Agency: National Institutes of Health RFA-RM-18-008
RFP Website: https://grants.nih.gov/grants/guide/rfa-files/RFA-RM-18-008.html
Brief Description: The NIH Director's New Innovator Award addresses two important goals: stimulating highly innovative research and supporting promising Early Stage Investigators. Early Stage 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 Early Stage Investigators, it has created the NIH Director's New Innovator Award to support exceptionally creative Early Stage Investigators who propose highly innovative research projects with the potential for unusually high impact. This award complements ongoing efforts by the NIH and its Institutes and Centers to fund Early Stage Investigators through R01 grants and other mechanisms. The definition of Early Stage Investigator is provided here.

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.

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. No reference to any prior application may be included. Any reference to prior applications may be grounds for administrative withdrawal.

The NIH Director's New Innovator Award is part of the High-Risk, High-Reward Research program 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 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 applicable
Deadline: September 21, 2018, 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 Award (R01 - Clinical Trial Optional)
Agency: National Institutes of Health RFA-RM-18-009
RFP Website: https://grants.nih.gov/grants/guide/rfa-files/RFA-RM-18-009.html
Brief Description: The NIH Director's Transformative Research Award supports 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 novel approaches, transform the way research is conducted through the development of novel tools or technologies, or lead to major improvements in health through the development of highly innovative therapies, diagnostic tools, or preventive strategies. Consistent with this focus, Transformative Research Award applications should reflect ideas substantially different from mainstream concepts.

Several key features of this FOA are designed to emphasize to applicants and peer reviewers that Transformative Research applications are very different from conventional, investigator-initiated research applications. The Transformative Research application focuses 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 the significance and innovation of the application in their evaluations. Applicants and reviewers should keep the goal of the Transformative Research Award in mind throughout the process– to solicit and fund unusually innovative and potentially transformative research.

The NIH Director's Transformative Research Award is part of the High-Risk, High-Reward Research program 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 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 applicable
Deadline: September 21, 2018, 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: BRAIN Initiative: Exploratory Team-Research BRAIN Circuit Programs - eTeamBCP (U01 Clinical Trial Not Allowed)
Agency: National Institutes of Health RFA-NS-18-029
RFP Website: https://grants.nih.gov/grants/guide/rfa-files/RFA-NS-18-029.html
Brief Description: The broad goal of the BRAIN Initiative is to understand the circuits and patterns of neural activity that give rise to mental experience and behavior, which will provide a foundation for understanding and treating diverse neurological, psychiatric, and behavioral disorders. It is the dynamic activity of massively interconnected ensembles of neurons in specially organized networks that give rise to the internal states we experience as sensations, perceptions, emotions, thoughts, memories, and movements. The activity of these networks is the substrate of cognitive processes such as attention, intention, emotions, and rational processes such as reasoning and decision making. Ultimately, these covert, internal activities are translated into patterns of neural activation that lead to overt behaviors, from simple reflexes to highly coordinated movements such as reaching and walking, to more complex behaviors such as navigating the environment and foraging, or speech and language. Dysfunction of these large systems of neurons due to disease, injury or developmental anomaly are the basis of neural and

mental disorders. The mission of the NIH BRAIN initiative is to understand how large scale neural systems contribute to cognitive and neurological function in both health and disease.

We can seek to understand circuits of the brain by systematically controlling stimuli and measuring the resulting behaviors, while actively recording and manipulating the dynamic patterns of neural activity. We now have transformational technologies that allow us to record large, interrelated ensembles of neurons on an unprecedented scale during active behaviors. For example, it is now possible to study the collective neural activities of entire sensory-motor circuits. By clever manipulation of environments and contingencies, we can devise behavioral tasks that engage memories, decision making, and selective attention, while documenting and manipulating the functional relationships within the neural circuits that subtend the behaviors.

Increasingly, sophisticated approaches are required for data acquisition, analysis, interpretation, and dissemination. These demanding requirements often involve expertise not typically associated with traditional neurobiological experiments and training, such as expertise in computer and information science, hardware and software engineering, statistics, machine learning, and computational methods. As new, large-scale, systems approaches become routine, it will be essential to develop testable theories of how information originating from millions of neurons in diverse and widespread brain regions can be integrated to produce a wide range of motor, sensory and cognitive behaviors, and how this information evolves dynamically to adapt, refine and learn.

The purpose of this FOA is to provide resources for integration of experimental, analytic, and theoretical capabilities for large-scale analysis of neural systems and circuits within the context, and during the simultaneous measurement of complex behavior. We seek applications to build teams of experts for exploratory studies that integrate theory and modeling with new and emerging methods for recording and manipulating neural circuits across multiple brain regions, to elucidate a specific behavioral or neural system in terms of dynamic circuit activity. Novel and innovative approaches to theory and analysis are expected. Multiple species are encouraged where fundamental principles can be revealed with comparative approaches.

Awards: Application budgets are not limited but need to reflect the actual needs of the proposed project.
Letter of Intent: June 23, 2018
Deadline: July 23, 2018 and June 10, 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 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: BRAIN Initiative: Development and Validation of Novel Tools to Probe Cell-Specific and Circuit-Specific Processes in the Brain (R01 Clinical Trial Not Allowed)
Agency: National Institutes of Health RFA-MH-19-136
RFP Website: https://grants.nih.gov/grants/guide/rfa-files/RFA-MH-19-136.html
Brief Description: This funding opportunity announcement (FOA) is designed to support development and validation of novel tools to facilitate the detailed analysis of cells and circuits and provide insights into the neural circuitry and structure underlying complex behaviors. The human brain consists of an estimated one hundred billion neurons and more than one trillion supporting glial cells that are uniquely organized to confer the extraordinary computational activities of the brain. Cell types are categorized by their anatomical position, neurotransmitter content, dendritic and axonal connections, receptor profile, gene expression profile and distinct electrical properties. Although the human brain has long been the focus of numerous studies with many major achievements along the way, to date we remain largely ignorant about the specific details such as cell types and connections that are responsible for rapid information processing. Defining cellular and circuit-level function is dependent on detailed knowledge about the components and structure of the circuit. Such knowledge, in turn, is fundamental to

understanding how these features underlie cognition and behavior, which should aid in the development of targeted cell-type and circuit-specific therapeutics to treat brain disorders. This initiative is focused on developing tools (or vastly improving existing tools) to enable access to individual cells and defined groups of cells within neuronal circuits. The tools sought through this FOA can include novel genetic or non-genetic methods for targeted delivery of genes, proteins, and chemicals to specific cells or tightly defined cell types and circuits.

Development of novel tools that will delineate anatomical connections between cells and expand our knowledge of circuit architecture and function is an area well poised for additional investment. Several efforts are currently underway to study large-scale, long-range connections, such as the NIH Human Connectome Project, as well as large scale rodent connectional studies. Recent development of new technologies (e.g., CLARITY, expansion microscopy, MerFISH, and several other imaging breakthroughs) allow an unprecedented three-dimensional view into the post-mortem brain. While still at an early stage, these exciting technologies hold promise for mapping short- and long-range connections throughout the brain. Coupled with improved activity monitoring technologies in awake, behaving animals, these new tools promise an understanding of circuitry in action. Further development of these technologies is crucial to push the envelope beyond our current capabilities. To this end, applicants from the biological sciences are encouraged to establish collaborations with nanobiologists, material scientists, engineers and colleagues in other disciplines to develop groundbreaking approaches to study brain activity.

Awards: Application budgets are not limited but need to reflect the actual needs of the proposed project.
Letter of Intent: August 27, 2018
Deadline: September 27, 2018, 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 Pioneer Award (DP1 - Clinical Trial Optional)
Agency: National Institutes of Health RFA-RM-18-007
RFP Website: https://grants.nih.gov/grants/guide/rfa-files/RFA-RM-18-007.html
Brief Description: The NIH Director's Pioneer Award supports individual scientists of exceptional creativity who propose highly innovative approaches to addressing major challenges in the biomedical or behavioral sciences towards the goal of enhancing human health. The NIH recognizes a unique and compelling need to promote diversity in the biomedical and behavioral research workforce and expects its efforts to lead to the recruitment of the most talented researchers from all groups. Thus, this Funding Opportunity Announcement encourages applications from talented researchers from diverse backgrounds underrepresented in biomedical/behavioral research, including underrepresented racial and ethnic groups, persons with disabilities, and women. Applications proposing research on any topic within the broad mission of NIH are welcome.

Emphases are on the qualities of the investigator and the innovativeness and potential impact of the proposed research. Preliminary data and detailed experimental plans are not requested. To be considered pioneering, the proposed research must reflect substantially different ideas from those being pursued in the investigator's current research program or elsewhere. The Pioneer Award is not intended to expand a current research program into the area of the proposed project. While the research direction may rely on the applicant's prior work and expertise as its foundation, it cannot be an obvious extension or scale-up of a current research enterprise which may 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 develop from exceptionally innovative approaches and/or 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 (more than 6 person-months or at least 51%) 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 at least 4 person-months (33%) and at least 3 person-months (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 equal to 6 person-months or more must adjust their effort on existing grants during the award 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.

The NIH Director's Pioneer Award is part of the High-Risk, High-Reward Research program 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 problems that may seem intractable or to seize new opportunities that offer the potential for rapid progress.

Awards: Awards will be for $700,000 in direct costs per year, plus applicable Facilities and Administrative (F&A) costs.

Letter of Intent: Not required

Deadline: September 14, 2018, 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.

Department of Defense/US Army/DARPA/ONR

Grant Program: Spinal Cord Injury Research Program Investigator-Initiated Research Award
Agency: Department of Defense Dept of Army W81XWH-18-SCIRP-IIRA
Website: https://www.arl.army.mil/www/default.cfm?page=8

Brief Description: Applications to the Fiscal Year 2018 (FY18) Spinal Cord Injury Research Program (SCIRP) are being solicited for the Defense Health Agency (DHA) J9, Research and Development Directorate, by the U.S. Army Medical Research Acquisition Activity (USAMRAA) using delegated authority provided by United States Code, Title 10, Section 2358 (10 USC 2358). As directed by the Office of the Assistant Secretary of Defense for Health Affairs (OASD[HA]), the DHA manages the Defense Health Program (DHP) Research, Development, Test, and Evaluation (RDT&E) appropriation. The execution management agent for this Program Announcement is the Congressionally Directed Medical Research Programs (CDMRP). The SCIRP was initiated in 2009 to provide support for research of exceptional scientific merit that has the potential to make a significant impact on improving the health and well-being of military Service members, Veterans, and other individuals living with spinal cord injury (SCI). Appropriations for the SCIRP from FY09 through FY17 totaled $217.85 million (M). The FY18 appropriation is $30M.

To meet the intent of the award mechanism, applications must address at least one of the FY18 SCIRP IIRA Focus Areas listed below. Applications may address more than one Focus Area. In particular, applications combining biomarker studies with studies in one or more of the following Focus Areas are encouraged: preserving and protecting tissues after injury; bladder dysfunction, bowel dysfunction, and

neuropathic pain; and rehabilitation and regeneration. Applications using clinically relevant combinations of interventions within or across Focus Areas are also encouraged.
• Preserving and protecting tissue early after injury: Applications should demonstrate a clear path from proposed research to improved neurological outcomes. ○ Preclinical and clinical studies are supported in this FY18 SCIRP IIRA Focus Area.
Includes surgical and acute care management of SCI. ○ Early therapeutics (devices and pharmacologic interventions) to stabilize SCI in the prehospital environment and during transport are encouraged. ○ Applications proposing neuroprotective interventions need to demonstrate a clinically feasible window for treatment and more than an incremental improvement over existing therapies.
• Biomarkers: Identifying and validating SCI biomarkers for diagnosis, prognosis, and evaluation of treatment efficacies: ○ Preclinical and clinical studies are supported in this FY18 SCIRP IIRA Focus Area. Correlative studies with existing clinical trials are allowed and encouraged. ○ Biomarkers must focus on diagnosis, prognosis, progression, and/or recovery of SCI. ○ Projects can include imaging and other modalities. ○ Applications should demonstrate a clear path to clinical use. ○ Biomarker studies directed at identifying the best single or combination of treatments for individuals (personalized medicine) are encouraged.
Awards: The anticipated direct costs budgeted for the entire period of performance for an FY18 SCIRP IIRA will not exceed $500,000. Refer to Section II.D.5, Funding Restrictions, for detailed funding information.
Proposal Deadline:
Pre-Application Submission Deadline: 5:00 p.m. Eastern time (ET), July 9, 2018 • Invitation to Submit an Application: August 2018 • Application Submission Deadline: 11:59 p.m. ET, October 15, 2018
Contact Information: Questions related to Program Announcement content or submission requirements as well as questions related to the pre-application or intramural application submission through eBRAP should be directed to the CDMRP Help Desk, which is available Monday through Friday from 8:00 a.m. to 5:00 p.m. ET. Response times may vary depending upon the volume of inquiries. Phone: 301-682-5507 Email: help@eBRAP.org

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Grant Program: DoD Hearing Restoration Focused Applied Research Award
Agency: Department of Defense Dept of Army W81XWH-18-HRRP-FARA
Website: https://www.arl.army.mil/www/default.cfm?page=8
Brief Description: The FY18 HRRP FARA mechanism is intended to support applied research that will advance the diagnosis and treatment of auditory dysfunction where hearing sensitivity may be within normal limits but the individual's capacity to listen and understand speech is substantially impaired. Such listening difficulties are often described using terms such as synaptopathy, hidden hearing loss, and central auditory processing disorders. These disorders can be triggered by exposure to loud noises such as those encountered on the battlefield or certain work environments. While these types of auditory dysfunction may severely affect the ability of a person to hear and interpret speech, they are not readily diagnosed by typical hearing tests. If a Service member cannot effectively hear battlefield communication and sounds, s/he may pose a danger to himself/herself, others in the unit, and the mission. There is a great need for validated and reliable techniques and methods to detect and assess these types of auditory dysfunction, especially techniques and methods that can be applied by a non-specialist (e.g., physician assistants, medics, or corpsmen) in the operational environment (e.g., a Forward Operating Base or a Battalion Aid Station) to quickly screen Service members for combat readiness. Techniques and methods are further needed to identify the component(s) of the auditory system or pathway that is (are) damaged. Interventions are needed to treat different types of damage (e.g., synaptopathy, central auditory processing disorder) or mitigate their adverse effects on hearing. It is expected that the diagnostic tools, tests, and treatments

developed under the FARA would also benefit the general public by advancing hearing loss prevention/treatment and improving hearing health care for individuals in rural or remote deployed environments.
Awards: Various; The FY18 appropriation is $10M.
Proposal Deadline:
Pre-Application Submission Deadline: 5:00 p.m. Eastern time (ET), July 17, 2018 • Invitation to Submit an Application: September 2018 • Application Submission Deadline: 11:59 p.m. ET, November 8, 2018
Contact Information: Contact Information: Questions related to Program Announcement content or submission requirements as well as questions related to the pre-application or intramural application submission through eBRAP should be directed to the CDMRP Help Desk, which is available Monday through Friday from 8:00 a.m. to 5:00 p.m. ET. Response times may vary depending upon the volume of inquiries. Phone: 301-682-5507 Email: help@eBRAP.org

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Grant Program: Defense Science, Technology, Engineering, and Mathematics (STEM) Education Consortium (DSEC) Cooperative Agreement
Agency: Department of Defense Dept of Army W911NF-18-S-0008
Website: https://www.arl.army.mil/www/default.cfm?page=8
Brief Description: In accordance with 10 USC §2192, *Improvement of education in technical fields: general authority regarding education in science, mathematics, and engineering*, the National Defense Education Program (NDEP) K-16 Science, Technology, Engineering, and Mathematics (STEM) education and outreach is seeking to strategically implant a vehicle to identify and support stronger guidelines for conducting K-16 education and outreach programs. The Department of Defense seeks to diversify its portfolio of support and increase focus on efforts that support the Force of the Future, and align with the Federal and DoD STEM strategies. Enhancing the permeability of ideas into DoD's workforce, especially the STEM workforce, through alliances with academia, industry and various non-traditional partners in STEM should deliver far-reaching sustainable and scalable programs and partnerships. While aligning with the DoD STEM mission, "to attract, inspire, and develop exceptional STEM talent across the education continuum to enrich our current and future DoD workforce to meet defense technological challenges," the Defense STEM Education Consortium (DSEC) should collaboratively work with the Government to provide a cohesive strategy to meet the vision, roles, and goals outlined in the DoD STEM Strategic Plan (https://www.acq.osd.mil/rd/publications/docs/DoD_STEM_Strategic_Plan_2015_1022_final.pdf). The goals and objectives of this strategic plan will support: (1) building and maintaining not only DOD's, but the nation's STEM pipeline; (2) reducing the number of STEM professionals who choose to leave DoD; and (3) keeping DoD competitive with industry and other countries also seeking STEM talent.

The fundamental elements under the DSEC Cooperative Agreement (COA) are: (1) Consortium Management; (2) Program Evaluations: Data Collection, Analysis and Reports; (3) Outreach/Communications; (4) STEM Alumni Management; and (5) Strategic Outreach Initiatives. These fundamental elements are the essential elements of the consortium that will support the DoD STEM education and outreach goals.
Awards: Various; Award Ceiling: $82,000,000
Proposal Deadline: June 25, 2018
Contact Information: Camilo Asuncion Grants Specialist camilo.b.asuncion.civ@mail.mil

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Grant Program: DoD Autism Idea Development Award
Agency: Department of Defense Dept of Army W81XWH-18-ARP-IDA
Website: http://cdmrp.army.mil/funding/pa/FY18-ARP-IDA.pdf

Brief Description: The ARP Idea Development Award supports the development of innovative, high-risk/high-reward research that could lead to critical discoveries or major advancements that will accelerate progress in improving outcomes for individuals with ASD. This award mechanism is designed to support innovative ideas with the potential to yield impactful data and new avenues of investigation.

The FY18 ARP Idea Development Award seeks applications from all areas of basic and preclinical research and ***strongly encourages*** applications that address the critical needs of the ASD community in one or more of the following areas:

• Assessment of novel therapeutics using valid preclinical models
• Environmental risk factors
• Mechanisms of heterogeneous clinical expression of ASD
• Mechanisms underlying conditions co-occurring with ASD (e.g., sleep disturbances, gastrointestinal issues, inflammation, aggression, depression, anxiety, attention deficit, seizures)
• Factors promoting success in key transitions to independence for individuals living with ASD
• Development of healthcare provider-focused training or tools to improve healthcare delivery for individuals with ASD across the lifespan and the continuum of care (i.e., primary care, urgent/emergent care, and disaster relief)
• Improve diagnosis across the lifespan
• Cultural and socioeconomic factors in treatment efficacy, delivery, and access to services

Awards: Various
Proposal Deadline:
Pre-Application Submission Deadline: 5:00 p.m. Eastern time (ET), July 5, 2018 • Invitation to Submit an Application: August 10, 2018 • Application Submission Deadline: 11:59 p.m. ET, October 4, 2018
Contact Information: CDMRP Help Desk Phone: 301-682-5507 Email: help@eBRAP.org

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Grant Program: DoD Trauma Resiliency Immersive Adaptive Gaming Environment (TRIAGE) Award
Agency: Department of Defense Dept of Army W81XWH-18-S-MSI1
Website: http://cdmrp.army.mil/funding/pa/FY18-JPC1-TRIAGE.pdf
Brief Description: The FY18 JPC-1/ MSIS PH/TBIRP TRIAGE Award is seeking proposals/applications developing and evaluating an innovative protocol for virtual immersive gaming interoperable components that will increase medical care provider performance, adaptability, and agility in stress-inducing contexts related to Roles of Care 1-3. These resulting TRIAGE proof-of-concept models should be developed for relevancy to medical simulation training across the continuum of care and address the needs and priorities of the military medical training community, with applicability to civilian groups as well. TRIAGE is a line of research that maps to DHA's Warfighter Preparation, Resilience, Enhancement and Protection (WarPREP) program, under the JPC-1/MSIS Med Sim portfolio. It addresses the capability gap to provide resiliency training prior to deployment to better elicit higher performance under pressure. The ultimate goal of this research is to increase medical care providers' readiness and resiliency through increases in performance, adaptability, and agility in the diverse high pressure and stressful context anticipated in Roles of Care 1-3.
Awards: Various
Proposal Deadline: Pre-Proposal/Pre-Application Submission Deadline: 5:00 p.m. Eastern time (ET), June 25, 2018 • Invitation to Submit a Proposal/Application: July 17, 2018 • Proposal/Application Submission Deadline: 11:59 p.m. ET, September 17, 2018
Contact Information: CDMRP Help Desk Phone: 301-682-5507 Email: help@eBRAP.org

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Grant Program: DARPA Biological Technologies
Agency: Department of Defense DARPA HR001118S0041
Website:
https://www.fbo.gov/index?s=opportunity&mode=form&id=715c01b4c4e355ec67f46ad2b70db8b3&tab=core&_cview=0
Brief Description: The mission of BTO is to foster, demonstrate, and transition breakthrough fundamental research, discoveries, and applications that integrate biology, engineering, computer science, mathematics, and the physical sciences. BTO's investment portfolio goes far beyond life sciences applications in medicine to include areas of research such as human-machine interfaces, microbes as production platforms, and deep exploration of the impact of evolving ecologies and environments on U.S. readiness and capabilities. BTO's programs operate across a wide range of scales, from individual cells to the warfighter to global ecosystems. BTO responds to the urgent and long-term needs of the Department of Defense (DoD) and addresses national security priorities. BTO is interested in submissions related to the following areas: • Discovering and leveraging novel findings from neuroscience, psychology, cognitive science, and related disciplines to advance treatment and resilience in neurological health and optimize human performance. • Understanding and improving interfaces between the biological and physical world to enable seamless hybrid systems. • Developing and leveraging fundamental understanding of the underlying design rules that govern the behavior of biological systems. • Developing new tools and capabilities for forward engineering of biological systems, such as cells, tissues, organs, organisms, and complex communities, to both develop new products and functional systems, as well as to gain new insights into underlying mechanisms. • Developing new platform technologies that integrate, automate, and miniaturize the collection, processing, and analysis of biological samples.
Awards: Various
Proposal Deadline: Open Period – April 25, 2018 through April 25, 2019 o Proposal Abstracts and Full Proposals will be submitted on a rolling basis until April 25, 2019, 4:00 pm ET
Contact Information: BAA Coordinator BTOBAA2018@darpa.mil

Grant Program: Bilateral Academic Research Initiative (BARI) Pilot Program
Agency: Department of Defense US Army W911NF-18-S-0007
Website: https://www.grants.gov/web/grants/search-grants.html
Brief Description: This FOA is for the Bilateral Academic Research Initiative Pilot Program (BARI), which is jointly sponsored by the US Office of the Secretary of Defense (OSD) and the United Kingdom's (UK's) Ministry of Defense (MOD). The BARI program addresses high risk basic research as an international collaboration. This research should attempt to understand new phenomena or produce discoveries that would have significant impact on enabling new and improved operational technologies of interest to the US and UK militaries. The program is in its pilot year and the goal is to produce significant scientific breakthroughs with far reaching consequences in the field of artificial intelligence. Proposals focused on specific devices or components are beyond the scope of this FOA. The Department of Defense (DoD) agencies and Ministry of Defense agencies involved in this program reserve the right to select one or none of the proposals submitted in response to this announcement for award. The participating DoD agencies and MOD Agencies will provide no funding for direct reimbursement of proposal development costs. Technical and cost proposals (or any other material) submitted in response to this FOA will not be returned. Unless noted in an offeror's proposal to the contrary, unsuccessful proposals will be retained for six (6) months from declination and then properly destroyed. It is the policy of participating DoD agencies and MOD agencies to treat all proposals as sensitive, competitive information and to disclose their contents only for the purposes of evaluation.
Awards: Up to $3,000,000

Proposal Deadline: July 6, 2018
Contact Information: William Creech
Grants/Contracting Officer
Phone 9195494387
william.a.creech3.civ@mail.mil

Grant Program: NRL Long Range Broad Agency Announcement (BAA) for Basic and Applied Research
Agency: Department of Defense Naval Research Laboratory N00173-18-S-BA01
Website: https://www.nrl.navy.mil/doing-business/Current-NRL-BAA
Brief Description: The Naval Research Laboratory (NRL) The Naval Research Laboratory (NRL) is the Navy's corporate laboratory. NRL conducts basic and applied research for the Navy in a variety of scientific and technical disciplines. The basic research program is driven by perceptions about future requirements of the Navy. NRL conducts most of its research program at its own facilities but also funds some related research such as anticipated by this announcement. More extensive research support opportunities are available from the Naval Research Laboratory (NRL). NRL announcements may be accessed via the Internet at https://www.nrl.navy.mil/doingbusiness/contracting-division/baa. NRL 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 NRL's broad role in competitive funding of meritorious research across a spectrum of science and engineering disciplines. A brief description of the NRL Program Codes and the science and technology thrusts that NRL is pursuing is provided below. Additional information can be found at the NRL website at https://www.nrl.navy.mil/research/directorates-divisions/. This announcement is an expression of interest only and does not commit the Government to make any award or to pay for any proposal preparation costs. The cost of proposal preparation for response to a BAA is not considered an allowable direct charge to any resultant contract or any other contract; however, it may be an allowable expense to the normal bid and proposal indirect cost specified in FAR 31.205-18.
Awards: Various
Proposal Deadline: May 9, 2019
Contact Information: Mary Johnson Contract Specialist Phone 202-767-2021

Department of Education

Grant Program: Institute of Education Sciences (IES): Education Research CFDA Number 84.305A
Agency: Department of Education ED-GRANTS-052118-001
Website: https://www.gpo.gov/fdsys/pkg/FR-2018-05-21/pdf/2018-10802.pdf
Brief Description: Each funding opportunity description is a synopsis of information in the Federal Register application notice. For specific information about eligibility, please see the official application notice. The official version of this document is the document published in the Federal Register. Free Internet access to the official edition of the Federal Register and the Code of Federal Regulations is available on GPO Access at: http://www.access.gpo.gov/nara/index.html. Please review the official application notice for pre-application and application requirements, application submission information, performance measures, priorities and program contact information.
For the addresses for obtaining and submitting an application, please refer to our Common Instructions for Applicants to Department of Education Discretionary Grant Programs, published in the Federal

Register on February 12, 2018 (83 FR 6003) and available atwww.gpo.gov/fdsys/pkg/FR-2018-02-12/pdf/2018-02558.pdf.

The dates when applications are available and the deadlines for transmittal of applications invited under this notice are indicated in the chart at the end of this notice and in the Requests for Applications (RFAs) that are posted at the following websites: https://ies.ed.gov/funding,https://www.ed.gov/programs/edresearch/index.html,and https://www.ed.gov/programs/specialedresearch/index.html.

FOR FURTHER INFORMATION CONTACT: The contact person associated with a particular research competition is listed in the chart at the end of this notice, as well as in the relevant RFA and application package.

Purpose of Program: In awarding these grants, the Institute of Education Sciences (Institute) intends to provide national leadership in expanding fundamental knowledge and understanding of (1) developmental and school readiness outcomes for infants and toddlers with or at risk for a disability, (2) education outcomes for all students from early childhood education through postsecondary and adult education, and (3) employment and wage outcomes when relevant (such as for students who engaged in career and technical, postsecondary, or adult education). The Institute's research grant programs are designed to provide interested individuals and the general public with reliable and valid information about education practices that support learning and improve academic achievement and access to education opportunities for all students. These interested individuals include parents, educators, students, researchers, and policymakers. In carrying out its grant programs, the Institute provides support for programs of research in areas of demonstrated national need.

Competitions in This Notice: The Institute will conduct nine research competitions in FY 2019 through two of its centers: The Institute's National Center for Education Research (NCER) will hold a total of five competitions--one competition in each of the following areas: Education research; education research and development centers; statistical and research methodology in education; partnerships and collaborations focused on problems of practice or policy; and low-cost, short-duration evaluation of education interventions.

Catalog of Federal Domestic Assistance (CFDA) numbers 84.305A, 84.305C, 84.305D, 84.305H, 84.305L, 84.324A, 84.324B, 84.324L, and 84.324N.

Awards: Up to $4,000,000. Estimated total funding: $115,000,000

Proposal Deadline: Aug 23, 2018 Application Package Available: June 21, 2018. Deadline for Transmittal of Applications: August 23, 2018

Contact Information: Julius Cotton ED Grants.gov FIND Systems Admin. Phone 202-245-6288 EducationGrantInquiries@ed.gov

Program Manager: Molly Faulkner-Bond e-Mail: Molly.Faulkner-Bond@ed.gov .

Department of Energy

Grant Program: Integrated University Program (IUP): Enabling Technologies and Innovation (ETI) & Monitoring, Technology and Verification (MTV)

Agency: Department of Energy DE-FOA-0001875

Website: https://www.fedconnect.net/FedConnect/default.htm

Brief Description: The mission of the U.S. Department of Energy (DOE), National Nuclear Security Administration (NNSA), Office of Defense Nuclear Nonproliferation Research and Development (DNN R&D) is to support U.S. national and nuclear security objectives in reducing global nuclear security threats through the innovation of unilateral and multi-lateral technical capabilities to detect, identify, and characterize: 1) foreign nuclear weapons programs, 2) illicit diversion of special nuclear materials, and 3) global nuclear detonations. Section 313 of the Omnibus Appropriations Act of 2009 (H.R. 1105, P.L.

111-8) created the Integrated University Program (IUP). DNN R&D is one of the three participants in this program and is continuing a nuclear science and engineering program, including nuclear security, to support multi-year research projects. The role of Institutions of Higher Education (IHE; as defined in Section III.A. of the FOA) for nuclear security research and development is to innovate and develop some of the most challenging basic aspects of new technology and methods. Once these basic aspects have been proven at the IHE level, the DOE/NNSA National Laboratories and/or National Security Sites/Complexes can fulfill their unique role to perform mission-specific research and development that improves on capabilities until they are either adopted by operational enterprises or transitioned into private industry for commercialization. Transparently and effectively linking these IHE and DOE/NNSA National Laboratory and/or National Security Sites/Complexes roles represents the core of how DNN R&D proposes to meet its objectives. The intent of this FOA is to award TWO separate five-year cooperative agreements to consortia of accredited IHEs to allow them to receive and administer funds for student and faculty research, fellowships, and scholarship funding awarded by DOE/NNSA, DNN R&D. Each cooperative agreement will be awarded to a consortium of IHEs which will include the participation of DOE/NNSA National Laboratories and/or National Security Sites/Complexes as a consortium-member(s). Individual consortium-member IHEs shall make specific contributions and shall receive specified portions of the funding. The consortium may include student and research fellows and must have a long-term objective of building expertise in nuclear nonproliferation detection. Research results should be incorporated readily into IHE curricula. Students, faculty, and researchers must be able to work unencumbered while moving across what are now organizational and bureaucratic boundaries of the academic and governmental facilities engaged in the consortium, while properly protecting critical information and materials. The consortium should establish reciprocal arrangements between the lead IHE and other IHEs as well as relationships with appropriate DOE/NNSA National Laboratories and/or National Security Sites/Complexes.
Awards; Up to $25,000,000; Available Funding: $50,000,000
Submission Deadline: Sep 04, 2018 Application deadline is September 4, 2018, 11:59PM Eastern Standard Time.
Contact Information: Grant Specialist Alex Trejo 505-845-5472 alex.trejo@nnsa.doe.gov

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Grant Program: Building America Industry Partnerships and Research Priorities for High Performance Housing Innovation – 2018
Agency: Department of Energy DE-FOA-0001824
Website: https://eere-exchange.energy.gov/#FoaIdc5aa2e1c-5e0d-4077-88e9-f789e6524aab
Brief Description: The mission of BTO's Residential Buildings Integration (RBI) Program is to accelerate energy performance improvements in existing and new residential buildings using an integrated building systems approach to achieve peak energy performance. The RBI Program's market outcome goal is to reduce, by 2025, the energy used for space conditioning and water heating in single-family homes by 40% from 2010 levels. RBI's focus on space conditioning and water heating offers the best opportunities for influencing residential energy use.

With this FOA, RBI will select building science project teams in 2018 for the Building America Program to conduct early stage research and validation of energy performance improvements in existing and new residential buildings with integrated building systems approaches, and achieve optimal home energy performance. These Building America teams will work with industry partners and real world homes to develop and validate technologies and practices that achieve optimal energy and cost performance while effectively managing related risks (e.g., indoor air quality and moisture durability). This FOA builds on work begun in the 2015, 2016, and 2017 Building America FOAs, and is focused primarily on addressing remaining gaps and objectives in the Building America Research-to-Market Plan.

Building America seeks to fund projects with a high potential for significant impact. Successful applicants will present a relevant problem statement, compelling hypothesis and/or solution, and effective research question(s) to be answered or technology/practice to be validated. Successful applications will also include a well-developed plan for answering the research questions or validating the innovative technology/practice, and will describe a clear and compelling rationale linking successful project outcomes to lasting impact in the housing industry. Teams should have strong partnerships with affected industry stakeholders, such as builders, remodelers, and/or manufacturers.

This FOA has two (2) topics, described below. Applicants may submit multiple applications, but each individual application must be submitted to either Topic 1 or Topic 2, not both. Applications will be evaluated using the technical review criteria of the selected topic.

Topic 1 - Baseline In-situ Fault Analysis in Residential Comfort Systems

Topic 2 - Integration of Advanced Residential Envelope and HVAC Systems

Topic 3 - Gap Analysis of Building Industry Standard Practices

The full Funding Opportunity Announcement is published at EERE-Exchange.energy.gov.

For questions and answers pertaining to this FOA, please reference the DE-FOA-0001824 Building America FAQ Log in FOA Documents.

The eXCHANGE system is currently designed to enforce hard deadlines for Letter of Intent and Full Application submissions. The APPLY and SUBMIT buttons automatically disable at the defined submission deadlines. The intention of this design is to consistently enforce a standard deadline for all applicants.

Applicants that experience issuse with submissions PRIOR to the FOA Deadline: In the event that an Applicant experiences technical difficulties with a submission, the Applicant should contact the eXCHANGE helpdesk for assistance (exchangehelp@hq.doe.gov). The eXCHANGE helpdesk and/or the EERE eXCHANGE System Administrators (eXCHANGE@go.doe.gov) will assist the Applicant in resolving all issues.

Awards; Up to $1,000,000; Available Funding: $11,000,000

Submission Deadline: Jun 11, 2018 Submission Deadline for Full Applications: 06/11/2018, 5:00 pm ET; through EERE Exchange at: https://eere-Exchange.energy.gov, EERE's online application portal.

Contact Information: Mary Murray BTOResidentialBuildingsFOA@ee.doe.gov

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Grant Program: Solid-State Lighting Advanced Technology Research and Development- 2018

Agency: Department of Energy DE-FOA-0001823

Website: https://eere-exchange.energy.gov/#FoaIdb9afac73-0500-4ec6-9a22-ae5adeaa1652

Brief Description: The U.S. Department of Energy's Building Technologies Office (BTO) Emerging Technologies (ET) Program is working in partnership with industry, national laboratories, and academia to develop innovative energy saving technologies, systems, tools, and models that could lead to a significant reduction in building energy consumption.

The ET Program has identified the program-specific goal of supporting the development of cost-effective technologies capable of reducing the energy use of typical buildings by 45% by 2030, relative to high-efficiency technologies available in 2010. Government investment through mechanisms such as the annual solid-state lighting (SSL) funding opportunity targets early-stage R&D enabling industry to develop novel technologies that can improve the efficiency and reduce the energy costs of the nation's buildings.

The objective of this funding opportunity is to select a diverse portfolio of early-stage R&D projects which can contribute to achieving:

- Maximized energy-efficiency of SSL products;
- Improved lifetime, color quality, and lighting system performance for SSL technology; and,
- Reduced costs of SSL sources and luminaires.

Success in this portfolio of early-stage R&D is expected to further contribute to the growth, leadership, and sustainability of domestic U.S. advanced manufacturing within the SSL industry.
An informational webinar is scheduled to take place on May 7, 2018 at 1:00 PM EDT. Please register for this webinar at https://register.gotowebinar.com/register/4903250504106776579. After registering, you will receive a confirmation email containing information about joining the webinar.
Awards; Up to $1,500,000; Available Funding: $15,000,000
Submission Deadline: Full Application Submission Deadline: 6/18/2018 5:00 PM EST
Contact Information: Contract Specialist Nicole E. Murray 412-386-7263 DE-FOA0001823@netl.doe.gov

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NASA

Grant Program: Space Technology Research Institutes (STRI)Appendix
Agency: NASA 80HQTR18NOA01-18STRI-B3
Website: http://www.spaceref.com/news/viewsr.html?pid=51488
Brief Description: The National Aeronautics and Space Administration (NASA) Headquarters has released a solicitation, titled Space Technology Research Institutes (STRI), as an appendix to the Space Technology Mission Directorate (STMD) umbrella NASA Research Announcement (NRA) title Space Technology Research, Development, Demonstration, and Infusion 2018 (SpaceTech-REDDI-2018), on My 31, 2018. The solicitation is available by opening the NSPIRES homepage at http://nspires.nasaprs.com/ b selecting "Solicitations," then selecting "Open Solicitations," and, finally, selecting "Space Technology Research Institutes (STRI)."

The Space Technology Mission Directorate is seeking to invest, via research institutes, in university-led, multi-disciplinary basic research and technology development within particular area of strong interest to NASA and the wider aerospace community. The institutes construct allows for the participation of experts from a wide range of fields and organizations in a single distributed research structure, enabling greater progress and benefit for all involved. The institute approach facilitates a more focused and coordinated set of research and development efforts than typically arise from separate solicitations and individual research grants. In addition, because the institute maintains this focus for several years, more effective and substantial research progress is envisioned for the featured high priority research areas. An awarded institute will typically be 5 years in duration and up to $15M total over the 5-year period. Only accredited U.S. universities are eligible to submit proposals; teaming with other universities is required, and teaming with non-profit entities and industry is permitted. See Appendix section 3.0 for full list of eligibility requirements. The award instrument will be a grant.

The Appendix exclusively seeks proposals that are responsive to the following topics:

- Revolutionary Propulsion for Rapid Deep Space Transit
- Smart Deep Space Habitats (SmartHabs)

The financial and programmatic support for STRI comes from the Space Technology Research Grants Program within the Space Technology Mission Directorate. Awards are planned to start in Spring 2019. Proposals are being solicited via a two-step process where preliminary proposal are mandatory and only those invited may submit a full proposal. NASA plans to make approximately 2 awards as a result of this STRI solicitation, subject to the availability of funds and receipt of meritorious proposals. The actual number of awards will depend on the quality of proposal received; NASA reserves the right to make no awards under this solicitation.

All preliminary proposals must be submitted electronically through NSPIRES or through Grants.gov (www.grants.gov) by an authorized organizational representative. Notices of Intent (strongly encouraged) are due by July 2, 2018, with preliminary proposals due on or before July 20, 2018, 5 pm Eastern with invited full proposals targeted for November 5, 2018 Eastern. Detailed submission

instructions and due dates are provided in the solicitation. Potential proposers and their proposing organizations are urged to familiarize themselves with the submission systems(s), ensure they are registered in NSPIRES, and submit the required proposal material well in advance of the deadline.
Awards: An awarded institute will typically be 5 years in duration and up to $15M total over the 5-year period.
Notice of Intent: July 1, 2018
Preliminary Proposal Deadline: July 30, 2018
Contact: Claudia M. Meyer NASA Space Technology Research Grants Program Exec Phone: 202-358-4458

Grant Program: ROSES 2018: Heliophysics Space Weather Operations to Research
Agency: NASA NNH18ZDA001N-HSWO2R
Website: https://nspires.nasaprs.com/external/solicitations/summary.do?solId=%7BE17AD920-C9F2-600D-5913-6951AB56F31F%7D&path=open&method=init
Brief Description: NASA's heliophysics strategic objective is to understand the Sun and its interactions with the Earth and the Solar System, including space weather. In this framework, the Heliophysics Research Program is guided by goals defined in the NASA 2014 Science Plan (available at https://science.nasa.gov/about-us/science-strategy) and the 2013 National Research Council Decadal Strategy for Solar and Space Physics report, Solar and Space Physics: A Science for a Technological Society (www.nap.edu/catalog.php?record_id=13060) and its purpose is to enable achieving these goals, which are: 1. Determine the origins of the Sun's activity and predict the variations in the space environment; 2. Determine the dynamics and coupling of Earth's magnetosphere, ionosphere, and atmosphere and their response to solar and terrestrial inputs; 3. Determine the interaction of the Sun with the Solar System and the interstellar medium; 4. Discover and characterize fundamental processes that occur both within the heliosphere and throughout the Universe. The Heliophysics Research Program seeks to understand phenomena, on a broad range of spatial and temporal scales, the fundamental processes that drive them, how these processes combine to create space weather events, and to enable a capability for predicting future space weather events. In concert with the other NASA science divisions (Planetary Science, Astrophysics, and Earth Science), the program shares responsibility for learning about the Earth, our solar system, the universe, and their interrelationships.
Awards: Standard Grants
Proposal Deadline: August 03, 2018
Contact: Terrance Onsager
Heliophysics Division
Science Mission Directorate
NASA Headquarters
Washington, DC 20546-0001
Telephone: (202) 358-1615
Email: terrance.g.onsager@nasa.gov

Grant Program: Early Stage Innovation (ESI)
Agency: NASA 80HQTR18NOA01-18ESI-B2
Website: https://nspires.nasaprs.com/external/solicitations/summary!init.do?solId=%7B04D6F05D-EC44-7D17-7782-69E354E0D422%7D&path=open
Brief Description: The National Aeronautics and Space Administration (NASA) Headquarters has released a solicitation, titled Early Stage Innovations (ESI), as an appendix to the Space Technology Mission Directorate (STMD) umbrella NASA Research Announcement (NRA) titled "Space Technology

Research, Development, Demonstration, and Infusion 2018 (SpaceTech-REDDI-2018), on May 2, 2018. The solicitation is available by opening the NSPIRES homepage at http://nspires.nasaprs.com/ by selecting "Solicitations," then selecting "Open Solicitations," and, finally, selecting "Early Stage Innovations (ESI)."

STMD, and the Space Technology Research Grants (STRG) Program in particular, seek proposals from accredited U.S. universities 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.

Our Nation's universities couple fundamental research with education, encouraging a culture of innovation based on the discovery of knowledge. Universities are, therefore, ideally positioned to both conduct fundamental space technology research and diffuse newly-found knowledge into society at large through graduate students and industrial, government, and other partnerships. STMD investments in space technology research at U.S. universities promote the continued leadership of our universities as an international symbol of the country's scientific innovation, engineering creativity, and technological skill. These investments also create, fortify, and nurture the talent base of highly skilled engineers, scientists, and technologists to improve America's technological and economic competitiveness.

Only accredited U.S. universities are eligible to submit proposals. Teaming is permitted - see solicitation for complete eligibility requirements as well as teaming restrictions.

A PI (see solicitation for restrictions) or Co-I may participate in no more than two proposals in response to this solicitation. The Appendix exclusively seeks proposals that are responsive to one of the six topics:

• Modeling for Small Satellite Electric Propulsion
• Smart and Autonomous Systems for Space
• Omni-Optical Antennas and Optical-Multiple-Access Technologies for Free-Space Near-Earth Satellite Communication
• Modeling Shock Layer Radiation and Chemical Kinetics for Planetary Entry
• Physical and Mechanistic Modeling of the Self-Reacting Friction Stir Welding Process
• Smart Tribological Mechanical Systems for Extreme Temperature Space Environments

Awards: Up to $500,000
Notice of Intent: Not Required
Proposal Deadline: June 20, 2018
Contact: Claudia M. Meyer, NASA Space Technology Research Grants Program Exec Phone: 202-358-4458 Fax: 202-358-3602

National Endowment of Humanities

Grant Program: Research and Development
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.
Awards: Up to $350,000
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 provides awards up to $75,000 for a period of performance of one to two years. This level supports 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 provides awards up to $350,000 for a period of performance of one to three years. This level supports 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.

Proposal Deadline: June 7, 2018
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.

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 program, leading to innovative work that can scale to enhance scholarly research, teaching, and public programming in the humanities. This program is offered twice per year. Proposals are welcome for digital initiatives in any area of the humanities.
Through a special partnership with NEH, 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. 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, techniques, or infrastructure 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: Up to $375,000

Proposal Deadline: June 5, 2018
Contact: Contact the Office of Digital Humanities (ODH) via e-mail at odh@neh.gov.

National Institute for Health Care Management Foundation

Grant Program: Grand Challenges Exploration (GCE)
Agency: National Institute for Health Care Management 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. In the first six years of the program, we have awarded nearly $1.7 million to support 30 studies.
Awards: NIHCM Foundation is making approximately $400,000 available and expects to fund 7 to 8 studies from this amount.
Proposal Deadline: Interested researchers must submit a brief letter of inquiry (LOI) outlining their study idea by 5:00 PM EDT on July 9, 2018.
Contact: For questions related to this initiative, please contact Julie Schoenman at 202-296-4192 or nihcm[at]nihcm.org. Please specify "RESEARCH GRANT QUESTION" in the email subject line.

PVA Foundation

Grant Program: PVA Research Grant
Agency: Paralyzed Veterans of America
Website: https://www.pva.org/research-foundation
Brief Description: The Research Foundation is focused on funding projects grounded in basic laboratory science and the education of scientists working on breakthroughs directed toward a cure for paralysis or the secondary medical conditions, and technologies associated with spinal cord injury or disease (SCI/D). These projects should be designed to find better treatments and cures for paralysis, to support efforts to improve the quality of life of individuals with SCI/D until improved clinical treatments, technologies or cures are discovered, and to train post-doctoral fellow investigators and encourage them to specialize in the area of spinal cord research.
From transplanting cells to regenerating damaged nerve fibers to designing adaptive canoe seats, the Paralyzed Veterans of America Research Foundation supports innovative research and fellowships that improve the lives of those with **spinal cord injury** and **disease** (SCI/D). The Research Foundation, a 501(c)(3) nonprofit, funds the following categories:

- Laboratory research in the basic sciences to find a cure for SCI/D
- Clinical and functional studies of the medical, psychosocial and economic effects of SCI/D, and interventions to alleviate these effects
- Design and development of assistive technology for people with SCI/D, which includes improving the identification, selection and utilization of these devices
- Fellowships for postdoctoral scientists, clinicians and engineers to encourage training and specialization in the field of spinal cord research

Award: Grants of up to $150,000 over two years.
Proposal Deadline: The Fiscal Year 2019 PVA Research Foundation grant cycle is open and will close on July 1, 2018. Applicants will be notified of awards by December 1, 2018.
Contact: Cheryl Vines, M.S.
Director of Research and Education

Phone: 202-256-5526 (cell) or 805-439-2804 (office)
Fax: 202-416-7641
Email: **cherylv@pva.org**

Streamlyne Question of the Week

Question: **Can I generate budgets for multiple years from the Year-1 budget in Streamlyne?**

Answer: Yes! You only need to input the Year-1 budget and then click on the "generate all periods" button. Stremalyne will create budget sheets for the remaining periods. You can then go to "summary" under the budget tab to review budget sheets for all periods. You can also change specific budget items that you allocated in Year-1 but you do not want to continue them in the following periods.

More FAQs on Streamlyne: Please visit http://www.njit.edu/research/streamlyne/

Streamlyne Contacts

Two user manuals on Streamlyne have been added on the Streamlyne website http://www.njit.edu/research/streamlyne/

Steamlyne_NewUserManual_CommonElements.docx : This manual provides a reference to all the common elements of Streamlyne Research. This user manual is a good document to review each module's functionality.

Steamlyne_NewUserManual_PD&PDBudget.docx: This is a user manual on proposal and budget development in Streamlyne. The content herein explain the use and functionality of this module. This is the most useful Streamlyne document for PIs and users new to Streamlyne.

How-to-do-Videos

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
- How to Search for a Proposal that is in Route
- Difference Between "Prime Sponsor Code" and "Sponsor Code"
- How to Select an RR Budget, RR Sub-award or Modular Budget
- How to Add a Student/Summary
- Participant Support Categories
- Supplies Specific Category Materials
- How to Create a Modular Budget

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
Sean Andrews, YWCC Director of Research; (973) 596-5352; sean.t.andrews@njit.edu
Iris Pantoja, NCE, CoAD and MTSM Project Manager; 973-596-4483; irp3@njit.edu

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