

NJIT Research Newsletter

Issue: ORN-2021-13

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** (with links to sections). The Newsletter is posted on the NJIT Research Website <https://research.njit.edu/funding-opportunities>.

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Special Announcements

Reminder: Call For Proposals

NJIT Faculty Seed Grant Awards – FY2021-22

Proposal Submission Deadline to College/School Dean: April 12, 2021

Project Funding Period: July 1, 2021 – June 30, 2022

Purpose:

NJIT 2025 Strategic Plan targets on substantial increase in academic research and external funding with faculty and student professional development. The purpose of the NJIT Faculty Seed Grant (FSG) initiative is to promote academic research in the core and interdisciplinary areas by providing seed funding to obtain preliminary results or establish hypotheses for

developing future grant proposals for submission to external funding agencies. The FSG initiative specifically seeks seed funding proposals from faculty to launch new initiatives in core and interdisciplinary emerging areas aligned with NJIT strategic tactics to develop critical research mass.

Eligibility and Type of Awards:

NJIT full-time faculty with specific research initiative to enhance the critical mass in key and emerging areas may apply to FSG program for internal funding with a budget of \$7500 per project over the project period. Multidisciplinary collaborative projects with 2 or more PIs are strongly encouraged and will receive priority consideration at the funding level of \$10,000 per project.

It is expected that about 20-25 FSG awards will be made this year. Funding is arranged through the Offices of Research and College/School Deans.

Recipients of FSG as lead faculty are not eligible to receive another FSG award as lead faculty within three years from the last FSG award. Projects funded by FSG are not eligible to receive another FSG as the intent of internal seed funding is to facilitate initial research towards obtaining external funds to pursue research.

Allowable Expenses include Project supplies and small equipment, travel to conferences and/or funding agencies, travel expenses for funding agency people to visit NJIT, student hourly wages. Faculty summer salary, AY release and any stipend are not permitted in the budget.

Deadlines:

CFP Announcement: February 4, 2021

FSG Proposal Due in the Office of College/School Dean: April 12, 2021

College/School Dean Recommendations to Office of Research Due: April 26, 2021

Institutional Review and Announcement of Awards: May 10, 2021

Period of Award: **July 1, 2021 – June 30, 2022 (no extension will be available)**

Review Process and Criterion:

All Proposals will be reviewed within the College/School to which PI is affiliated. College/School Dean will make the recommendation of top ranked proposals based on the reviews from the College/School review committee, which will be forwarded to the Office of Research for further review and discussion with Deans leading to the announcement of awards.

Review criterion primarily includes the scientific merit of the proposal, and potential of external funding. Additional criterion includes significance of project goals, fit to the NJIT strategic research clusters and emerging trends towards developing critical mass in key areas, justification of internal funding, expected outcomes, and faculty expertise.

Other Requirements:

Faculty receiving FSG awards will submit a full proposal to external funding agencies within six months from the end date of the award. They will also participate in the NJIT Faculty Research Showcase and Panel Discussion events in the Spring semester.

Required FSG Proposal Format:

The main proposal (sections 2-7 in the required FSG proposal format below) is limited to 5 pages with single spaced 12 point font size. The page limit does not include the cover sheet, budget and budget justification (maximum one page) and list of references (maximum one page). In addition up to 2 pages of biographical sketch and 1 page of current and pending support are required for PI and each investigator. Please see the proposal format guidelines below.

The main proposal should have the following sections:

1. Cover Sheet:

Title of the Project

Principal and Co-Principal Investigators

Department

College

Date Submitted

PI and Co-PI (if multiple investigators) Signatures

2. Abstract (Maximum 250 words; Non-IP for public dissemination):

(Please summarize briefly on):

a. Project Goal(s)

b. Significance

c. Expected Outcomes

d. Justification of Internal Funding

3. Specific Objectives

4. Methods and Procedures

5. Evaluation and Deliverables

6. Future Plans

(Describe how the project funding with the deliverables will help in future proposal submissions, enhancing the research synergy, and obtaining external funds)

7. Justification of Internal Funding

(Describe what other funds are available and why additional internal funding is needed)

8. Budget and Budget Justification (maximum 1 page)

9. References (maximum 1 page)

10. Appendix (for PI and each Co-PI/Investigator):

a. PI Biographical Sketch (NSF/NIH or Federal Agency Format; 2-3 pages per investigator)

b. Other Grant Support (maximum 1 page per investigator; summarize specific project goal(s) for each grant and any overlap with this proposal)

NJIT Pandemic Recovery Plan Research Continuity and Phased Recovery Plan

<https://research.njit.edu/njit-pandemic-recovery-plan>

NJIT faculty, staff, and students at research facilities must follow the specific social distancing and safety protocols including the use of personnel protective equipment (PPE) as required by the institutional, state and federal guidelines in the respective phase of the research continuity plan. Details on NJIT Research Continuity and Phased Recovery Plan and associated protocols are posted on the website <https://research.njit.edu/njit-pandemic-recovery-plan>

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Grant Opportunity Alerts

Keywords and Areas Included in the Grant Opportunity Alert Section Below

NSF: Alliances for Graduate Education and the Professoriate (AGEP); Mathematical and Physical Sciences Ascending Postdoctoral Research Fellowships; NSF Convergence Accelerator Program; Broadening Participation in Computing (BPC); Launching Early-Career Academic Pathways in the Mathematical and Physical Sciences (LEAPS-MPS)

NIH: Innovative Programs to Enhance Research Training (IPERT) (R25); Research on Autism Spectrum Disorders (R21); NLM Institutional Grants for Research Training in Biomedical Informatics and Data Science (T15); Academic-Industrial Partnerships for Translation of Technologies for Diagnosis and Treatment (R01); Cutting-Edge Basic Research Awards (CEBRA) (R21); Support for Research Excellence – First Independent Research (SuRE-First) (R16)

Department of Defense/US Army/DARPA/ONR: Quantum Benchmarking; Peer Reviewed Orthopaedic Research Program; Clinical Translational Research Award; DoD Spinal Cord Injury, Investigator- Initiated Research Award; Multidisciplinary Research Program of the University Research Initiative (MURI); Prevention or Reduction of Risk/Severity to Traumatic Brain Injuries; Notice

of Future Artificial Intelligence Exploration Opportunity: In Pixel Intelligent Processing (IP2); PRMRP Investigator Initiated Research Award; Defense University Research Instrumentation Program (DURIP) **Department of Transportation: DDETFP Transportation Fellowship Program**; High Priority Program – Innovative Technology Deployment (HP-ITD)

Department of Agriculture: Data and Technical Assistance (DATA) Grants Program; Agriculture and Food Research Initiative - Foundational and Applied Science

Department of Labor: State Apprenticeship Expansion, Equity and Innovation (SAEEI) Grant Program

Department of Commerce/EDA: NOAA Science Collaboration Program; 2021 Build to Scale Program; Measurement Science and Engineering (MSE) Research Grant Programs; FY2021 to FY2023 NOAA Broad Agency Announcement (BAA)

EPA: Early Career: Measurement and Monitoring Methods for Air Toxics and Contaminants of Emerging Concern in the Atmosphere

Department of Energy: Data-Intensive Scientific Machine Learning and Analysis; Data Science to Advance Chemical and Materials Sciences

NASA: ROSES 2021: Heliophysics Mission Concept Studies; ROSES 2021: Living With a Star Science; New (Early Career) Investigator Program in Earth Science; Earth Science Applications: Health and Air Quality; Advanced Information Systems Technology

National Endowment of Humanities: Digital Projects for the Public; Humanities Initiatives; Research and Development; Awards for Faculty

Private Foundations: U.S-Israel Binational Science Foundation (BSF): NSF-BSF Joint Funding Research Grants; BSF Research Grants; Start-Up Research Grants

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Recent Research Grant and Contract Awards

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

PI: Zeyuan Qiu (PI)

Department: Chemistry and Environmental Sciences

Grant/Contract Project Title: Developing a Watershed Restoration Plan for Southern Barnegat Bay-Little Egg Harbor Tributaries

Funding Agency: U.S. Environmental Protection Agency

Duration: 03/01/21-02/28/22

PI: Senjuti Basu Roy (PI)

Department: Computer Science

Grant/Contract Project Title: CAREER: Streamlining Task Deployment on Crowdsourcing Platforms

Funding Agency: NSF

Duration: 06/01/20-05/31/25

PI: Colette Santasieri (PI)

Department: Center for Community Systems

Grant/Contract Project Title: NJ Brownfields Assistance Center at NJIT

Funding Agency: State of NJ (Office of EDA - Economic Development Authority)

Duration: 02/10/20-02/09/22

PI: Edward Dreizin (PI) and Mirko Schoenitz (Co-PI)
Department: Chemical and Materials Engineering - Center of Materials for Advanced Energetics
Grant/Contract Project Title: Metal Based Reactive Materials for Rapid Destruction of Chemical Weapon Agents
Funding Agency: U.S. Department of Defense (DTRA - Defense Threat Reduction Agency)
Duration: 07/15/19-07/14/22

PI: Ali Abdi (PI)
Department: Electrical and Computer Engineering
Grant/Contract Project Title: I-Corps: An Emergency Electro-Mechanical Communication System for Underground Tunnels and Mines
Funding Agency: NSF
Duration: 03/15/21-08/31/21

PI: Alexander Haimovich (PI)
Department: Electrical and Computer Engineering
Grant/Contract Project Title: Blind Source Separation (BSS) of Frequency Hopping Spread Spectrum (FHSS)
Funding Agency: U.S. Department of Defense - Navy (NAVWAR - Pacific)
Duration: 01/01/20-12/31/21

PI: James Haorah (PI) and Kevin Belfield (Co-PI)
Department: Biomedical Engineering; Chemistry and Environmental Science
Grant/Contract Project Title: Alcohol Promotes Waste Metabolites Clearance in the CNS
Funding Agency: NIH
Duration: 04/10/20-03/31/22

PI: Prateek Shekhar (PI)
Department: School of Applied Engineering Technology
Grant/Contract Project Title: EAGER: Examining Women STEM Faculty's Participation in Entrepreneurship Programs
Funding Agency: NSF
Duration: 02/15/21-06/30/22

PI: Lazar Spasovic (PI), Dejan Besenski (Co-PI), Steven I Jy Chien (Co-PI), Joyoung Lee (co-PI), Branislav Dimitrijevic (Co-PI) and Taha Marhaba (Co-PI)
Department: Intelligent Transportation Systems Research Center
Grant/Contract Project Title: ITS Resource Center 2021-2024
Funding Agency: NJ Department of Transportation
Duration: 06/01/20-05/31/25

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[In the News...](#)

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

Drones Could One Day Make Up 40% of a Carrier Air Wing, Navy Says: “We think we could get upwards of 40 percent of the aircraft in an air wing that are unmanned and then transition beyond that. So I think the logical step would be trying to follow a logical crawl, walk, run,” Vice Adm. James Kilby told lawmakers gathered for a Thursday hearing. Kilby, the deputy chief of naval operations for warfighting requirements and capabilities, was on Capitol Hill to discuss the Navy Department’s new [Unmanned Campaign Framework](#), which covers uncrewed ground, maritime, and airborne weapons. Lawmakers [have been skeptical](#) of the Navy’s unmanned plans for some time. Kilby said the new report had led Navy leaders to conclude that “we were focused on platforms too narrowly and not looking at the enabling technologies that will bring those all to bear.” The Framework outlines a plan to move toward smaller tactical networks, more distributed data storage and the use of artificial intelligence, thus decreasing the importance of any single platform that’s part of a swarm or group. More information is posted on the [GovExec website](#).

Pentagon AI Hub Issues \$241M Data Readiness Contract: The Joint Artificial Intelligence Center is out with a \$241 million contract vehicle to help the Defense Department become ready for AI development by preparing data for the emerging technology. The Data Readiness for Artificial Intelligence Development services solicitation covers a five-year performance period and will result in multiple basic ordering agreements, according to the solicitation documents published Wednesday to [beta.sam.gov](#).

“The purpose of this Performance Work Statement (PWS) is to help the DoD and Government users prepare data for use in AI applications by providing an easily accessible path to access the cutting-edge commercial services needed to meet the complex technical challenges involved in preparing data for AI,” the documents read. “Through access to AI data preparation tools, capabilities, and services, the DoD will be positioned to effectively prepare AI data to support the full range of AI activities across the DoD.” The PWS indicates the services the Defense Department is looking for under this contract include curating, preparing, securing, and encrypting data for AI, securing, packaging and delivering AI tools, and making sure those tools can be integrated into cloud platforms. More information is posted on the [NextGov website](#).

Bipartisan Legislation to Boost U.S. Manufacturing Put Forward in Both Chambers: Lawmakers pushed this week for the creation of an Office of Manufacturing and Industrial Innovation Policy to advise the president, a coordinated, long-term national strategy to promote production—and multiple other moves meant to support U.S. supply chains and makers. Proposals were laid out in the [Office of Manufacturing and Industrial Innovation Policy Act](#), introduced Monday by Reps. Marcy Kaptur, D-Ohio, Brian Fitzpatrick, R-Pa., Tim Ryan, D-Ohio, and Haley Stevens, D-Mich., and Sens. Rob Portman, R-Ohio, Amy Klobuchar, D-M.N., Roger Wicker, R-Miss., and Chris Coons, D-Del.

“A strong manufacturing sector is critical to maintaining American competitiveness, to our national security, and to a robust economic recovery from the coronavirus crisis,” Portman said in a [statement](#). “The Office of Manufacturing and Industrial Innovation will work to coordinate existing federal programs and resources for manufacturers, while providing the president with analysis and perspective.” Deemed OMII for short, the office would sit in the Executive Office of the President and be led by a to-be-appointed chief manufacturing officer. Among other responsibilities, that individual would provide guidance to America’s leader on manufacturing and industrial innovation-aligned considerations connected “to areas of national concern,” according to the House’s 58-page version of [the bill](#). Topics

like the economy, workforce, environment and technological innovation would be assessed and addressed. More information is posted on the [NextGov website](#).

DARPA Seeks to Improve Computer Vision in ‘Third Wave’ of AI Research: The military’s primary advanced research shop wants to be a leader in the “third wave” of artificial intelligence and is looking at new methods of visually tracking objects using significantly less power while producing results that are 10-times more accurate. The Defense Advanced Research Projects Agency, or DARPA, has been instrumental in many of the most important breakthroughs in modern technology—from the first computer networks to early AI research. “DARPA-funded R&D enabled some of the first successes in AI, such as expert systems and search, and more recently has advanced machine learning algorithms and hardware,” according to [a notice for an upcoming opportunity](#).

The special notice cites the agency’s past efforts in AI research, including the “first wave”—rule-based AI—and “second wave”—statistical learning-based. “DARPA is now interested in researching and developing ‘third wave’ AI theory and applications that address the limitations of first and second wave technologies,” the notice states. To facilitate its AI research, DARPA created the Artificial Intelligence Exploration, or AIE, program in 2018 to house various efforts on “very high-risk, high-reward topics ... with the goal of determining feasibility and clarifying whether the area is ready for increased investment.” More information is posted on the [NextGov website](#).

Cyber Skills Gap: Though the cybersecurity “skills gap” should be an issue of the past, it remains a problem companies across industries still struggle to solve. Even with the cybersecurity workforce gap seeing its [first decrease on record](#), cybersecurity professionals’ workloads and tasks have only scaled up and increased in complexity amidst a rise in sophisticated, fast-moving attacks. The actual most critical gap for security teams across industries isn’t a specific skill: it is the gap between the growing number of cybersecurity tasks and the personnel and expertise needed to complete them. Even as more individuals enter the field, a number of factors will continue to leave the cybersecurity community playing a constant game of catch up. Without solving the work-to-worker gap, trying to solve the skills gap by hiring en masse will only make a small dent in a larger, continuous problem.

These challenges include evolutions in external attack methods—such as the rise of automated attacks and advanced threat tactics. Security teams are also dealing with accelerated transformation in workforce practices and technological infrastructure, with the widespread shift toward remote working and the adoption of software-as-a-service and cloud platforms. With these compounded challenges, the cybersecurity resources gap is no longer a problem we can solve with humans alone. Rather than work harder, and throw more humans at the problem, we need to empower them to work smarter. More information is posted on the [NextGov website](#).

Army Pursues Innovative Wearables to Better Block Infantry from Traumatic Brain Injuries: The Pentagon’s primary developer of advanced military, medical material products is exploring how it might operationalize wearable Traumatic Brain Injury, or TBI, prevention devices. Specifically, the U.S. Army Medical Materiel Device Activity’s Warfighter Brain Health Project Management Office is interested in technologies—designed with the intent to be cleared by the Food and Drug Administration—that can protect service members from such traumas or at least reduce the severity of them. “Identification of medical device technologies with such capabilities are essential to protect the warfighter and is vital to force protection and strength,” officials from that office wrote in a [request for information](#) released this week. A brief about the RFP is also included in the Grant Opportunity section below.

In recent months, various Defense Department components have been cautiously applying diverse wearable technologies to [gauge](#) soldiers’ stress, monitor for COVID-19 spread and other health- and [performance](#)-related purposes. But, according to the RFI, there remains a capability gap when it

comes to wearables to confront TBIs. Those injuries occur when a human's brain is disrupted by a blow to their head, and they might immediately result in confusion, blurry vision—or worse. More information is posted on the [NextGov website](#).

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[Webinar and Events](#)

Event: NJACTS Webinar and Workshop Events

Sponsor: NJACTS

When: Various dates in April

Website: <https://njacts.rbhs.rutgers.edu/events/>

Brief Description: New Jersey Alliance for Clinical and Translational Science workshop, webinars and workshop events.

To Join the Webinar: Please register using the above URL

Event: MPS-Ascend Webinar

Sponsor: NSF

When: April 12, 2021 2:00 PM to 3:30 PM

Website: https://www.nsf.gov/events/event_summ.jsp?cntn_id=302409&org=NSF

Brief Description: The [Mathematical and Physical Sciences Ascending Postdoctoral Research Fellowships \(MPS-Ascend\)](#) (NSF 21-573) program provides support for postdoctoral fellows who will broaden the participation of minorities that are significantly underrepresented in mathematical and physical sciences (MPS) fields in the U.S., and enable the fellows to develop as future leaders in MPS. Awards will support research in any scientific area within the purview of the five MPS Divisions: [Astronomical Sciences \(AST\)](#), [Chemistry \(CHE\)](#), [Materials Research \(DMR\)](#), [Mathematical Sciences \(DMS\)](#), and [Physics \(PHY\)](#). Proposals must be submitted by the potential postdoc (not by the postdoc mentor), and applicants must be U.S. citizens (or nationals) or legally admitted permanent residents of the U.S. (Green Card holders) at the time the proposal is submitted. The proposal should present research, professional development, and plans that describe how the suggested activities will broaden the participation of underrepresented minorities who will become leaders in MPS fields. Fellowships are awards to individuals, not institutions, and are administered by the fellows. Underrepresented minorities are especially encouraged to apply.

To Join the Webinar: Register at https://nsf.zoomgov.com/webinar/register/WN_3KKn0-DUQ9qrBkXGFxDDQQ

Event: LEAPS-MPS Webinar

Sponsor: NSF

When: April 13, 2021 1:00 PM to 2:30 PM

Website: https://www.nsf.gov/events/event_summ.jsp?cntn_id=302411&org=NSF

Brief Description: The [Launching Early-Career Academic Pathways in the Mathematical and Physical Sciences \(LEAPS-MPS\)](#) (NSF 21-570) program supports tenure-track (or equivalent) but non-tenured faculty members at institutions of higher education in MPS who have not previously served as principal investigators, co-principal investigators, or senior personnel on an NSF-funded research award. We particularly encourage submissions from applicants at R2 institutions, as defined in the [Carnegie Classification of Institutions of Higher Education](#), as well as minority-serving institutions (MSIs), including historically Black colleges and universities (HBCUs), Hispanic-serving institutions (HSIs),

tribal colleges and universities (TCUs), and Asian American and Native American Pacific Islander-serving institutions (AANAPISIs). As part of the proposal, applicants should include a discussion of how the proposed research activities will facilitate development of a subsequent research proposal, and present a plan that demonstrates the way in which the proposed activities will increase the participation of scientists who are underrepresented minorities, ultimately helping to create role models for the scientific workforce of the future.

To Join the Webinar: Register at https://nsf.zoomgov.com/webinar/register/WN_e1IYYrLGS3CC4FeLgxAZ5w

Event: BIO/MCB HBCU EiR Webinar

Sponsor: NSF

When: April 14, 2021 10.00 AM to 11.00 AM

April 21, 2021 2.00 PM to 3:00 PM

Website: https://www.nsf.gov/events/event_summ.jsp?cntn_id=302282&org=NSF

Brief Description: In April, MCB will offer two informational webinars reviewing relevant highlights of the Historically Black Colleges and Universities – Excellence in Research (HBCU – EiR) [solicitation \(NSF 20-542\)](#). The webinars will introduce the solicitation and encourage prospective principal investigators to communicate closely with program directors before submitting a Letter of Intent and will feature program directors from each of the four divisions of NSF’s Directorate of Biological Sciences (BIO):

- MCB – Division of Molecular and Cellular Biosciences
- DBI – Division of Biological Infrastructure
- DEB – Division of Environmental Biology
- IOS – Integrative and Organismal Systems

To Join the Webinar: To register and receive the Zoom meeting link, please click on the link below.

April 14, 2021: https://nsf.zoomgov.com/webinar/register/WN_RM6mFe_QF23VJTfxQnXzA

April 21, 2021: https://nsf.zoomgov.com/webinar/register/WN_s3Y-AQS9TpS2wg_wTaKh0A

Event: 2021 NSF Engineering CAREER Proposal Writing Workshop

Junior faculty must apply by February 19, 2021, to participate in the mock panel review session

Sponsor: NSF

When: April 21, 2021; 1:00 PM - 5:00 PM

April 22, 2021; 1:00 PM - 5:00 PM

April 23, 2021; 1:00 PM - 5:00 PM

Website: https://www.nsf.gov/events/event_summ.jsp?cntn_id=302095&org=NSF

Brief Description: The 2021 NSF Engineering CAREER Proposal Writing Workshop will be held VIRTUALLY April 21-23, 2021, from 1:00PM to 5:00PM ET each day. The workshop aims to provide junior faculty who plan to submit a CAREER proposal to a program in the NSF [Directorate for Engineering \(ENG\)](#) with a CAREER proposal review experience and a forum in which they can interact with NSF Program Directors and recent NSF CAREER awardees.

Attendees of the 2021 NSF ENG CAREER Proposal Writing Workshop will benefit from:

- Mock proposal reviews by panels
- Interactions with ENG Directorate Program Directors
- Focus sessions with recent CAREER awardees
- Interaction across disciplines and engineering schools nationwide

All activities for the 2021 NSF ENG CAREER Proposal Writing Workshop will be conducted virtually. The Mock Panel Review session is limited to 300 participants; all other sessions will be open.

To Join the Webinar: Visit <https://apply.hub.ki/career/> for details.

Event: DMS Virtual Office Hours**Sponsor: NSF****When: April 23, 2021 1.00 PM to 2:00 PM****Website:** https://www.nsf.gov/events/event_summ.jsp?cntn_id=302416&org=NSF

Brief Description: The Division of Mathematical Sciences (DMS) is hosting virtual office hours to share information about NSF's current operations and to provide guidance to the mathematical sciences community. All members of the mathematical sciences research community interested in the work of DMS are welcome to attend. Virtual office hours are held at roughly monthly intervals; topics vary. The event will be in the form of a webinar, starting with a brief presentation of selected current topics, with DMS program directors available to answer questions from the community.

To Join the Webinar: Participants should register (and may do so in advance) at the web page

https://nsf.zoomgov.com/webinar/register/WN_k9luU1bORFaGsawlOe4Xcw

Event: Robotics Program Webinar for CAREER Principal Investigators**Sponsor: NSF****When: April 26, 2021, 3.00 PM – 4.30 PM****Website:** https://www.nsf.gov/events/event_summ.jsp?cntn_id=302318&org=NSF

Brief Description: The [Foundational Research in Robotics program](#) is holding a webinar for prospective [CAREER](#) principal investigators on April 26, 2021, starting at 3:00 PM Eastern Time.

To Join the Webinar: Please register in advance and submit your questions at:

https://nsf.zoomgov.com/webinar/register/WN_Js6oOXw9Rweqvk5u4b47_g

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[Grant Opportunities](#)

[National Science Foundation](#)

Grant Program: Alliances for Graduate Education and the Professoriate (AGEP)**Agency: National Science Foundation NSF 21-576****RFP Website:** <https://www.nsf.gov/pubs/2021/nsf21576/nsf21576.htm>

Brief Description: The NSF's Alliances for Graduate Education and the Professoriate (AGEP) program contributes to the National Science Foundation's objective to foster the growth of a more capable and diverse research workforce.¹ Through this solicitation, the NSF seeks to build on prior AGEP work, and other research and literature concerning racial and ethnic equity, in order to address the *AGEP program goal to increase the number of historically underrepresented minority faculty in STEM.*² Furthering the AGEP goal requires advancing knowledge about new academic STEM career pathway models, and about evidence-based systemic or institutional change initiatives to promote equity and the professional advancement of the AGEP populations who are pursuing, entering and continuing in non-tenure and tenure-track STEM faculty positions. The use of the term "historically underrepresented minority" reflects language from Congress, and in the context of the AGEP program, the AGEP populations are defined as STEM doctoral candidates, postdoctoral scholars and faculty, who are African Americans, Hispanic Americans, American Indians, Alaska Natives, Native Hawaiians, and Native Pacific Islanders. The terms for these racial and ethnic populations are derived from the US government's guidance for federal statistics and administrative reporting. At the graduate student level, only doctoral candidates are included because they have greater potential to enter a faculty position within the project duration time frame.

This solicitation includes three funding tracks that all support the AGEP program goal. All tracks require collaborative IHE teams to use an intersectional lens as they address systemic and institutional change strategies at IHEs to promote equity for AGEP populations.

- The ***AGEP Institutional Transformation Alliance (ITA)*** track is designed to support the development, implementation, and evaluation of *innovative* systemic and institutional change strategies that promote equity for AGEP populations, within similar IHEs. ITAs will create permanent policy and practice changes that advance AGEP populations, and the project work is expected to be sustained after NSF funding expires. Please note that a preliminary proposal to the ITA track is required, and that at least one of the institutions submitting must first have or have had an AGEP Catalyst Alliance. The proposing IHEs represented in the preliminary ITA proposal must be the same collaborating IHEs who will plan to submit a full ITA proposal, if invited by NSF to submit the full ITA. Please read the full solicitation for details about ITA Preliminary and Full proposal submissions that begin in FY2022.
- The ***AGEP Faculty Career Pathways Alliance Model (FC-PAM)*** track is intended to support the development, implementation, evaluation, and institutionalization of Alliance models that will advance AGEP populations, within similar IHEs. The FC-PAM collaborators must also self-study into how socio-cultural, economic, structural, leadership and institutional variables affect the formation of the FC-PAM Alliance, and the strategies or interventions the collaborators implement to advance the AGEP populations. A Letter of Intent (LOI) is required **ONLY** for IHEs that plan to submit an FC-PAM collaborative proposal, and only one LOI is needed for the collaborating research institutions that plan to submit the FC-PAM proposal. The FC-PAM track will only be available in FY2021-FY2022 and it will be discontinued thereafter.
- The ***AGEP Catalyst Alliance (ACA)*** track supports the design and implementation of one or more organizational self-assessment(s) to collect and analyze data that will identify inequities affecting the AGEP populations; pilot equity strategies as appropriate; and develop a five-year equity strategic plan for the AGEP populations. The ACA is meant as a facilitator grant to help similar IHEs generate the foundational work necessary to initiate an ITA project.

Awards: Standard Grant or Continuing Grant; Anticipated Funding Amount: Up to \$4,400,000

Letters of Intent: Required by June 02, 2021

Preliminary Proposal Deadline (due by 5 p.m. submitter's local time): February 08, 2022

Full Proposal Submission Deadline: August 17, 2021

Contacts: Mark H. Leddy, Lead Program Director, telephone: (703) 292-4655, email: mleddy@nsf.gov

- Sandra Romano, Program Director, telephone: (703) 292-5064, email: sromano@nsf.gov
- Carrie Hall, Program Director, telephone: (703) 292-4641, email: carhall@nsf.gov

Grant Program: Mathematical and Physical Sciences Ascending Postdoctoral Research Fellowships (MPS-Ascend)

Agency: National Science Foundation NSF 21-573

RFP Website: <https://www.nsf.gov/pubs/2021/nsf21573/nsf21573.htm>

Brief Description: The purpose of the Mathematical and Physical Sciences Ascending Postdoctoral Research Fellowship (MPS-Ascend) program is to support postdoctoral Fellows who will broaden the participation of groups that are underrepresented in MPS fields in the U.S. including Blacks or African Americans, Hispanics, Latinos, and Native Americans (to include Alaska Natives, Native Hawaiians or other Native Pacific Islanders) as future leaders in MPS fields. The program is intended to recognize beginning investigators of significant potential and provide them with experience in research that will broaden perspectives, facilitate interdisciplinary interactions and help broadening participation within MPS fields. The program funds postdoctoral Fellows in postdoctoral research environments that will have

maximal impact on their future scientific development and facilitates their transition into a faculty appointment. Awards will support research in any scientific area within the purview of the five MPS Divisions: the Divisions of Astronomical Sciences (AST), Chemistry (CHE), Materials Research (DMR), Mathematical Sciences (DMS), and Physics (PHY). Fellowships are awards to individuals, not institutions, and are administered by the Fellows.

Awards: Individual Fellowships; Anticipated Funding Amount: \$5,000,000

Letters of Intent: Not Required

Proposal Submission Deadline: June 15, 2021

Contacts: Harshal Gupta, AST, telephone: (703) 292-5039, email: hgupta@nsf.gov

- Rebecca Peebles, CHE, telephone: (703) 292-8809, email: rpeebles@nsf.gov

Grant Program: NSF Convergence Accelerator Phases I and II for the 2021 Cohort

Agency: National Science Foundation NSF 21-572

RFP Website: <https://www.nsf.gov/pubs/2021/nsf21572/nsf21572.htm>

Brief Description: The NSF Convergence Accelerator program addresses national-scale societal challenges through use-inspired [convergence research](#). Using a convergence approach and innovation processes like human-centered design, user discovery, and team science and integration of multidisciplinary research, the Convergence Accelerator program seeks to transition basic research and discovery into practice—to solve high-impact societal challenges aligned with specific research themes (tracks).

NSF Convergence Accelerator tracks are chosen in concordance with the themes identified during the program’s ideation process that have the potential for significant national impact. The NSF Convergence Accelerator implements a two-phase program. Both phases are described in this solicitation and are covered by this single solicitation and corresponding Broad Agency Announcement. The link to the Broad Agency Announcement can be found [here](#). The purpose of this parallel activity is to provide increased opportunities for proposals that are led by non-academic entities. Proposals that are led by Institutions of Higher Education (IHEs), non-profits, independent museums, observatories, research labs, professional societies and similar organizations should respond to this solicitation. Proposals led by for-profit or similar organizations should respond to the BAA. Phase I awardees receive significant resources to further develop their convergence research ideas and to identify important partnerships and resources to accelerate their projects, leading to deliverable research prototypes in Phase II.

This solicitation for FY 2021 invites proposals for the following Track Topics:

Networked Blue Economy (Track E): The overarching goal of Track E is to interconnect the Blue Economy and accelerate convergence across ocean sectors. This track aims to create a smart, integrated, connected, and open ecosystem for ocean innovation, exploration, and sustainable utilization.

Trust & Authenticity in Communications Systems (Track F): The overarching goal of Track F is to develop prototype(s) of novel research platforms forming integrated collection(s) of tools, techniques, and educational materials and programs to support increased citizen trust in public information of all sorts (health, climate, news, etc.), through more effectively preventing, mitigating, and adapting to critical threats in our communications systems.

Letters of Intent should identify a team with the appropriate mix of disciplinary and cross-sector expertise required to build a convergence research effort. Letters of Intent must identify one or more deliverables, how those research outputs could impact society at scale, and the team that will be formed to carry this out. Phase I proposals must describe the deliverables, a research plan, and the process of team formation that will help lead to a proof-of-concept during Phase I.

If selected, Phase I awards may receive funding up to \$750,000 for 12 months duration, of which nine months includes intense hands-on activities, centering around the Program’s innovation curriculum (for

additional details regarding the innovation curriculum refer to section V.A.), and three months of other activities such as participation in the NSF Convergence Accelerator Pitch Presentations and Expo. Only awardees of Phase I awards under this solicitation may submit a Phase II proposal. Phase II proposals must outline a 24-month research and development plan that transitions research into practice through convergence activities, multi-sector partnerships, and collaboration with other partners and end-users. Phase II awards may be up to \$5 million for 24 months.

Awards: Standard Grant or Cooperative Agreement; Anticipated Funding Amount: \$22,000,000

Letters of Intent: Proposers are required to submit a Letter of Intent by May 05, 2021 in order to submit a Phase I Full Proposal.

Proposal Submission Deadline: June 14, 2021 for Phase I Full Proposals

May 25, 2022 for Phase II Full Proposals, only Phase I awardees are eligible to apply

Contacts: Chaitanya K. Baru, telephone: (703) 292-2473, email: cbaru@nsf.gov

- Lara A. Campbell, telephone: (703) 292-7049, email: lcampbel@nsf.gov
- Pradeep P. Fulay, telephone: (703) 292-2445, email: pfulay@nsf.gov

Grant Program: Broadening Participation in Computing (BPC)

Agency: National Science Foundation NSF 21-571

RFP Website: <https://www.nsf.gov/pubs/2021/nsf21571/nsf21571.htm>

Brief Description: The Broadening Participation in Computing program (BPC) aims to significantly increase the number of U.S. citizens and permanent residents receiving post-secondary degrees in the computing disciplines, and to encourage participation of other underrepresented groups in the discipline. These groups may include women, persons with disabilities, Blacks and African Americans, Hispanics, American Indians, Alaska Natives, Native Hawaiians, and Pacific Islanders. With this solicitation, the BPC program seeks to engage the computing community to develop and implement innovative methods, frameworks, and strategies to improve recruitment and retention of these students through undergraduate and graduate degrees. Projects that target stages of the academic pipeline through faculty ranks are encouraged. All BPC projects must have the potential for widespread, national impact. That is, they should either develop an effective practice that could be widely deployed, or they should deploy existing effective practices to reach larger audiences.

The BPC program will support three categories of awards: Alliances, Demonstration Projects, and Supplements.

Alliances are broad coalitions of academic institutions of higher learning, K-12 schools, government, industry, professional societies, and other not-for-profit organizations that design and carry out comprehensive programs addressing underrepresentation in the computing disciplines. They have a large regional or national scope. Alliances operate across multiple stages of the academic pipeline and address one or several intended groups that are underrepresented. Collectively, Alliances serve as a national resource for achieving the transformation of computing education.

Demonstration Projects (DPs) are more focused than Alliance projects. Typical DPs pilot innovative programs that, once fully developed, could be incorporated into the activities of an existing or new Alliance, or otherwise scaled up for widespread impact. Examples include projects proposed by a single institution or those that focus on a single underrepresented community, a single point in the academic pathway, or a single impediment to full participation in computing. Demonstration projects should contribute knowledge to our understanding of effective teaching and learning of computing for students from groups underrepresented in computing.

Both Alliances and Demonstration Projects have significant evaluation efforts with both formative and summative components. Competitive projects will have significant impact both in the quality of opportunities afforded to participants and in the number of participants potentially served.

Awards: Standard Grant or Cooperative Agreement; Anticipated Funding Amount: \$12,750,000

Letters of Intent: Not Required

Proposal Submission Deadline: June 14, 2021

Contacts: Jeffrey Forbes, Program Director, CISE/CNS, telephone: (703) 292-8950, email: jforbes@nsf.gov

- Fay Cobb Payton, Program Director, CISE/CNS, telephone: (703) 292-7939, email: fpayton@nsf.gov
- Allyson Kennedy, Program Director, CISE/CNS, telephone: (703) 292-8950, email: aykenned@nsf.gov

Grant Program: Launching Early-Career Academic Pathways in the Mathematical and Physical Sciences (LEAPS-MPS)

Agency: National Science Foundation NSF 21-569

RFP Website: <https://www.nsf.gov/pubs/2021/nsf21569/nsf21569.htm>

Brief Description: With emphasis in helping to launch the careers of pre-tenure faculty in Mathematical and Physical Sciences (MPS) fields at minority-serving institutions (MSIs), predominantly undergraduate institutions (PUIs), and Carnegie Research 2 (R2) universities, and with the goal of achieving excellence through diversity, the Directorate for Mathematical and Physical Sciences hereby announces a call for Launching Early-Career Academic Pathways (LEAPS-MPS) proposals. This LEAPS-MPS call also aims to broaden participation to include members from groups underrepresented in the Mathematical and Physical Sciences, including Blacks and African Americans, Hispanics, Native Americans, Alaska Natives, and Native Hawaiians, and other Pacific Islanders.

These grants are intended to support MPS principal investigators in initiating their research programs early in their careers, particularly at the aforementioned institutions. By providing this funding opportunity, MPS intends to help initiate viable independent research programs for researchers attempting to launch their research careers such that LEAPS-MPS awards are followed by competitive CAREER or individual-investigator grant submissions that build upon the research launched through this mechanism. This LEAPS-MPS solicitation welcomes proposals from principal investigators who share NSF's commitment to diversity.

Awards: Standard Grant or Cooperative Agreement; Anticipated Funding Amount: \$5,000,000

Letters of Intent: Not Required

Proposal Submission Deadline: June 14, 2021

Contacts: Sarah Higdon (AST), telephone: (703) 292-2541, email: shigdon@nsf.gov

- Rebecca Peebles (CHE), telephone: (703) 292-8809, email: rpeebles@nsf.gov

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[National Institutes of Health](#)

Grant Program: Innovative Programs to Enhance Research Training (IPERT) (R25 Independent Clinical Trial Not Allowed)

Agency: National Institutes of Health PAR-21-196

RFP Website: <https://grants.nih.gov/grants/guide/pa-files/PAR-21-196.html#>

Brief Description: The overarching goal of this R25 program is to support educational activities that complement and/or enhance the training of a workforce to meet the nation's biomedical, behavioral and clinical research needs.

The goal of the Innovative Programs to Enhance Research Training (IPERT) initiative is to enable the scientific community to develop and implement innovative educational activities to equip diverse cohorts of participants with technical, operational or professional skills required for careers in the biomedical research workforce, by effectively integrating the required core elements described below:

- **Courses for Skills Development:** For example, support for short courses designed to develop technical (e.g., appropriate and safe methods, technologies, and quantitative/computational approaches), operational (e.g., independent knowledge acquisition, rigorous experimental design, and interpretation of data) and/or professional (e.g., management, leadership, communication, and teamwork) skills necessary to conduct rigorous and reproducible research, and to transition successfully into careers in the biomedical research workforce. These courses could be in-person or provided electronically. Dissemination of educational materials and outreach activities to benefit individuals from a variety of backgrounds are required components of the program.
- **Mentoring Activities:** For example, activities designed to provide career information, advice, and support to research-oriented undergraduates, graduate students, postdoctoral fellows, or independent faculty in biomedical fields. The activities should provide participants with a perspective on the biomedical research training pathway and tools for overcoming challenges, navigating career transition points, and successfully transitioning into careers in the biomedical research workforce.

Through this funding announcement, NIGMS intends to encourage innovative biomedical research education activities designed to keep pace with the rapid evolution of the research enterprise that is increasingly complex, interdisciplinary, and collaborative. As the scientific enterprise has expanded, there is greater variation in the backgrounds of people participating, approaches taken to investigate research questions, and the range of the careers in the biomedical research workforce that Ph.D. recipients are pursuing. There is also an increasing recognition of the need to enhance reproducibility of biomedical research results through scientific rigor and transparency and to reinforce the principles of the responsible conduct of research. This FOA is intended to enable the scientific community to develop and implement innovative activities that will provide high-quality skills development, mentoring, and outreach to equip diverse cohorts of participants with technical, operational or professional skills required for careers in the biomedical research workforce.

The IPERT activities must be open to the broader biomedical community and not be restricted to individuals from a single department, program or institution. NIGMS encourages applications that are intended for individuals in a variety of biomedical fields; however, if a scientific area is described, it must be within the [NIGMS mission](#).

The activities may focus on individuals at a particular research career stage or at a range of career stages. NIGMS will support programs designed for research-oriented individuals from the undergraduate to independent faculty stages. Programs designed for pre-college participants should utilize the [Science Education Partnership Awards \(SEPA\)](#) funding opportunities rather than the IPERT.

Awards: Application budgets should reflect the actual needs of the proposed project and are limited to \$500,000 per year in direct costs.

Letter of Intent: Not Applicable

Proposal Submission Deadline: October 14, 2021; October 14, 2022; October 13, 2023

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

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.

Contact: Edgardo Falcón Ph.D.; National Institute of General Medical Sciences (NIGMS)
Email: edgardo.falcon@nih.gov

Grant Program: Research on Autism Spectrum Disorders (R21 Clinical Trial Optional)

Agency: National Institutes of Health PA-21-200

RFP Website: <https://grants.nih.gov/grants/guide/pa-files/PA-21-200.html>

Brief Description: The purpose of this Funding Opportunity Announcement (FOA) is to encourage research grant applications to support research designed to elucidate the etiology, epidemiology, diagnosis, and optimal means of service delivery in relation to Autism Spectrum Disorders (ASD). The R21 grant mechanism is intended to encourage exploratory/developmental research by providing support for the early and conceptual stages of project development. Exploratory, novel studies that break new ground or extend previous discoveries toward new directions are appropriate for this mechanism. No preliminary data are required but may be included if available.

Autism Spectrum Disorders share a cluster of impairments in social communication, as well as the presence of restricted/stereotyped behavior, interests, or activities. These complex disorders are usually of lifelong duration and affect multiple aspects of development, learning, and adaptation at home and in the community, thus representing a pressing public health need. The etiologies of these disorders are not yet understood, but may include a combination of genetic and environmental influences. Basic research into the pathophysiology of ASD, including research on brain mechanisms, is of special interest. Also of high priority are clinical and applied investigations that may lead to the development of new treatments and interventions.

Awards: The combined budget for direct costs for the two year project period may not exceed \$275,000. No more than \$200,000 may be requested in any single year.

Letter of Intent: Not Applicable

Proposal Submission Deadline: NIH [standard due dates](#)

Contact: Lisa Gilotty, Ph.D.; National Institute of Mental Health ([NIMH](#))

Phone: 301-443-3825; E-mail: gilottyl@mail.nih.gov

Grant Program: NLM Institutional Grants for Research Training in Biomedical Informatics and Data Science (T15 Clinical Trial Not Allowed)

Agency: National Institutes of Health RFA-LM-21-001

RFP Website: <https://grants.nih.gov/grants/guide/rfa-files/RFA-LM-21-001.html>

Brief Description: The purpose of the National Library of Medicine (NLM) Institutional Training Program in Biomedical Informatics and Data Science is to support pre-doctoral and post-doctoral training for research careers in biomedical informatics and data science. Applications may be for the creation of entirely new training programs or for the renewal of existing NLM training program grants. NLM's training programs help meet the growing need for investigators trained in biomedical computing, data science and related information fields as they directly relate to application domains in health and biomedicine, including health care delivery, basic biomedical research, clinical and translational research, public health and similar areas. Biomedical informatics and data science training is, by its nature, interdisciplinary. Trainees will come to these programs with a range of educational and professional backgrounds and receive the training they need to prepare them for research careers in biomedical informatics and data science. More information about NLM's existing training programs is available at <http://www.nlm.nih.gov/ep/GrantTrainInstitute.html>.

Graduates of the NLM-supported programs should be able to conduct original basic or applied research at the intersection of computer, statistical and information sciences with one or more biomedical application domains. Successful graduates of these programs will be prepared for research-oriented roles in academic institutions, not-for-profit research institutes, governmental and public health agencies, pharmaceutical and software companies, and health care organizations. This initiative is not intended to

prepare trainees for careers emphasizing planning, deployment, maintenance, or administration of computer systems in health care, public health, medical education or research. The emphasis in this program is on the development of new knowledge that advances the scientific disciplines of biomedical informatics and data science.

Awards: NLM intends to commit \$12,000,000 in FY 2022 to fund up to 16 awards.

Letter of Intent: Required by April 14, 2021

Proposal Submission Deadline: May 14, 2021

Contact: Jane Ye, PhD; National Library Of Medicine (NLM); Phone: (301) 594-4927

E-mail: yej@mail.nih.gov

Grant Program: Academic-Industrial Partnerships for Translation of Technologies for Diagnosis and Treatment (R01 - Clinical Trial Not Allowed)

Agency: National Institutes of Health PAR-21-166

RFP Website: <https://grants.nih.gov/grants/guide/pa-files/PAR-21-166.html>

Brief Description: The purpose of this Funding Opportunity Announcement (FOA) is to stimulate efforts to translate scientific discoveries and engineering developments into methods or tools that address problems in basic research to understand disease, or in applied research to assess risk, detect, prevent, diagnose, treat, and/or manage disease. The rationale is to deliver new capabilities to meet evolving requirements for technologies and methods relevant to the advance of research and delivery of care in pre-clinical, clinical and non-clinical settings, domestic or foreign, for conditions and diseases within the missions of participating institutes.

This FOA specifies a partnership structure that is expected to help bridge gaps in knowledge and experience by engaging the strengths of academic, industrial, and other investigators. The partners on each application should establish an inter-disciplinary, multi-institutional research team to work in strategic alliance to implement a coherent strategy to develop and translate a solution to their chosen problem. They are expected to plan, design, and validate that the solution will be suitable for end users. Each partnership should include at least one academic and one industrial organization. Each partnership should plan to transition a technology, method, assay, device, and/or system from a demonstration of possibility to a status useful in the chosen setting. Funding may be requested to enhance, adapt, optimize, validate, and otherwise translate technologies that address problems in biology, pathology, risk assessment, diagnosis, treatment, and/or monitoring of disease status.

Awards: Application budgets are limited to \$499,000 (direct costs) per year for up to 5 years.

Letter of Intent: Not required

Proposal Submission Deadline: NIH [standard due dates](#)

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

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.

Contact: Miguel R. Ossandon, Ph.D.; National Cancer Institute (NCI); Telephone: 240-276-5714

Email: ossandom@mail.nih.gov

Grant Program: Cutting-Edge Basic Research Awards (CEBRA) (R21 Clinical Trial Optional)

Agency: National Institutes of Health PAR-21-208

RFP Website: <https://grants.nih.gov/grants/guide/pa-files/PAR-21-208.html>

Brief Description: Pharmacological, neurobiological, behavioral, cellular, and genetic research has provided rich insight into how addictive drugs exert their actions on the brain and other organs.

Neurobiological, behavioral and cognitive studies have shown how addictive drugs affect behavior and information processing in the brain, and have helped to elucidate the normal behavioral and neurobiological processes that are "hijacked" by addictive substances. They have also helped us understand motivational aspects of SUDs and other relevant behaviors, emotional regulation, and decision-making processes. Genetic, epigenetic, and single cell studies have delineated genes, proteins, and epigenetic factors that modulate responses to drug exposures. They have also demonstrated key alleles, genes, and epigenetic modifications associated with various aspects of substance use disorders and demonstrated that there are genetic differences underlying consumption compared with problematic consequences.

Basic science discoveries have consistently been the basis for many major advances in both clinical and applied SUD research and have contributed to the development and implementation of successful treatment strategies for SUDs and associated behavioral phenotypes. Basic research has also led to the discovery of new targets for medications, non-addictive treatments for pain, the development of technologies that enhance prevention and treatment programs for SUDs, and new approaches for statistical analysis of epidemiological and clinical trials data.

The goal of NIDA's CEBRA program is to accelerate the pace of discoveries to advance addiction research by encouraging scientifically sound applications that focus on innovation. The CEBRA encourages researchers to explore new approaches, test imaginative new ideas, and challenge existing paradigms in drug addiction research.

Awards: The combined budget for direct costs for the two year project period may not exceed \$275,000. No more than \$150,000 in direct costs may be requested in any single year.

Letter of Intent: 30 days prior to the application due date.

Proposal Submission Deadline: August 10, 2021

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

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.

Contact: Amy C. Lossie, PhD; National Institute on Drug Abuse ([NIDA](#)); Telephone: 301-827-6092
Email: lossieac@mail.nih.gov

Grant Program: Support for Research Excellence – First Independent Research (SuRE-First) Award (R16 - Clinical Trial Not Allowed)

Agency: National Institutes of Health PAR-21-173

RFP Website: <https://grants.nih.gov/grants/guide/pa-files/PAR-21-173.html>

Brief Description: The SuRE program supports research capacity building at institutions that enroll significant numbers of students from backgrounds nationally underrepresented in biomedical research (see [NOT-OD-20-031](#)), award baccalaureate and/or graduate degrees in biomedical sciences, and receive limited NIH [Research Project Grant](#) funding. It seeks to develop and sustain research excellence of faculty investigators and provide students with research opportunities while catalyzing institutional research and enriching the research environment. The SuRE program will support investigator-initiated research in the biomedical, clinical, behavioral and social sciences (collectively termed "biomedical" sciences) that falls in the mission areas of NIH Institutes, Centers, and Offices. Research activities funded by the SuRE program require participation by students. Two distinct funding opportunity announcements will be utilized to support research projects led by faculty investigators at different career stages. A third SuRE funding opportunity announcement will support a national resource center to provide infrastructure development to SuRE-eligible institutions and application services to faculty investigators.

Awards: Applications may request up to \$125,000 direct costs/year.

Letter of Intent: Not required

Proposal Submission Deadline: September 28, 2021

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

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.

Contact: Lawrence Agodoa, M.D., FACP; National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK); Phone: (301) 594-9650; Email: AgodoaL@extra.niddk.nih.gov

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[Department of Defense/US Army/DARPA/ONR/AFOSR](#)

Grant Program: Quantum Benchmarking

Agency: Department of Defense DARPA - Defense Sciences Office HR001121S0026

Website: <https://beta.sam.gov/opp/b421419cb4d0485baf0c28ee62a9e7b0/view>

Brief Description: The Defense Sciences Office (DSO) at the Defense Advanced Research Projects Agency (DARPA) is soliciting innovative research proposals in the area of quantum benchmarking. Proposed research should quantify the long-term utility of quantum computers. In particular, proposed research should center around either (1) the creation of application-specific, hardware-agnostic benchmarks for quantum computer utility or (2) hardware resource estimation for quantum computers. Specifically excluded is research that primarily results in evolutionary improvements to the existing state of practice.

Awards: Multiple awards. DARPA is limiting funding for TA2 awards to \$1,450,000 for the entire 18 months of Phase 1 and \$1,500,000 for the entire 18 months of Phase 2. Funding guidance is not provided for TA1.

Letter of Intent: Please see below.

Proposal Deadline: Proposers Day: April 20, 2021. See Section VIII.A. o Abstract Due Date: May 11, 2021, 4:00 p.m. o FAQ Submission Deadline: June 8, 2021, 4:00 p.m. See Section VIII.B. o Full Proposal Due Date: June 22, 2021, 4:00 p.m.

Contact Information: Joseph Altepeter, Program Manager, DARPA/DSO o BAA Email: QuantumBenchmarking@darpa.mil

Grant Program: Peer Reviewed Orthopaedic Research Program: Clinical Translational Research Award

Agency: Department of Defense Dept. of the Army – USAMRAA W81XWH-21-PRORP-CTRA

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=332532>

Brief Description: The PRORP CTRA is intended to support high-impact and/or new/emerging clinical research that may or may not be ready for a full-scale randomized controlled clinical trial. Projects should demonstrate potential to impact the standard of care, both immediate and long-term, as well as contribute to evidence-based guidelines for the evaluation and care of military, Veteran, and all patients with orthopaedic injuries. • One goal of the FY21 PRORP CTRA is to translate current and emerging techniques and interventions into the clinical space to better serve military patients. The health, functional abilities, and quality of life of individuals who have sustained an orthopaedic injury should be considered.

• Another goal is to identify the most effective diagnosis, treatment, rehabilitation, and prevention options available to support critical decision-making for patients, clinicians, other caregivers, and policymakers.
Awards: The anticipated total costs budgeted for the entire period of performance for an FY21 PRORP CTRA will not exceed \$1.5M. The CDMRP expects to allot approximately \$7.5M to fund approximately five Clinical Translational Research Award applications.

Letter of Intent: Please see below.

Proposal Deadline: Pre-Application Submission Deadline: 5:00 p.m. Eastern time (ET), May 27, 2021 • Invitation to Submit an Application: July 2, 2021 • Application Submission Deadline: 11:59 p.m. ET, September 10, 2021

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

Grant Program: DoD Spinal Cord Injury, Investigator- Initiated Research Award

Agency: Department of Defense Dept. of the Army – USAMRAA W81XWH-21-SCIRP-IIRA

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=332299>

Brief Description: The vision of the SCIRP is to advance the treatment and management of SCI and ameliorate its consequences relevant to injured Service Members. The FY21 SCIRP challenges the scientific community to design research that will advance the development or translation of healthcare solutions for people living with SCI. Innovative research that fosters new directions or addresses neglected issues in the field of traumatic SCI is also supported, although studies focused exclusively on target identification are discouraged. The SCIRP encourages impactful research across the continuum of care from time-of-injury throughout life that is well reasoned and scientifically supported.

Awards: The anticipated direct costs budgeted for the entire period of performance for an FY21 SCIRP IIRA award will not exceed \$500,000.

Letter of Intent: Please see below.

Proposal Deadline: Pre-Application Submission Deadline: 5:00 p.m. Eastern time (ET), May 24, 2021 • Invitation to Submit an Application: July 2, 2021 • Application Submission Deadline: 11:59 p.m. ET, September 3, 2021

Contact Information: Office of Naval Research Dr. Joan S. Cleveland Email: joan.cleveland@navy.mil; Army Research Office DR. Larry Russel Jr. Email: usarmy.rtp.ccdc-arl.mbx.aro-muri@mail.mil; Air Force Office of Scientific Research Ms. Katie Wisecarver Email: MURI@us.af.mil

Grant Program: 2022 Department of Defense Multidisciplinary Research Program of the University Research Initiative (MURI)

Agency: Department of Defense Dept of the Army -- Materiel Command W911NF-21-S-0008

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=332299>

Other Related MURI Opportunities:

MURI ONR Announcement # N00014-21-S-F003

MURI AFOSR Announcement # FOA-AFRL-AFOSR-2021-0003

Brief Description: The MURI program supports basic research in science and engineering at U.S. institutions of higher education (hereafter referred to as "universities") that is of potential interest to DoD. The program is focused on multidisciplinary research efforts where more than one traditional discipline interacts to provide rapid advances in scientific areas of interest to the DoD. As defined in the DoD Financial Management Regulation: Basic research is systematic study directed toward greater knowledge or understanding of the fundamental aspects of phenomena and of observable facts without specific applications towards processes or products in mind. It includes all scientific study and experimentation directed toward increasing fundamental knowledge and understanding in those fields of the physical,

engineering, environmental, and life sciences related to longterm national security needs. It is farsighted high payoff research that provides the basis for technological progress (DoD 7000.14-R, vol. 2B, chap. 5, para. 050105. A.) DoD's basic research program invests broadly in many fields to ensure that it has early cognizance of new scientific knowledge.

Awards: The total amount of funding for the five years available for grants resulting from this MURI FOA is estimated to be approximately \$190 million dollars pending out-year appropriations. MURI awards are contingent on availability of funds, the specific topic, and the scope of the proposed work. Typical annual funding per grant is in the \$1.25M to \$1.5M range.

Letter of Intent: Please see below.

Proposal Deadline: White Paper Inquiries and Questions: 24 May 2021 (Monday)

White Papers must be received no later than: 7 June 2021 (Monday) at 11:59 PM Eastern Time

Application Inquiries and Questions: 13 September 2021 (Monday)

Applications must be received no later than: 27 September (Monday) at 11:59 PM Eastern Time

Contact Information: Office of Naval Research Dr. Joan S. Cleveland Email:

joan.cleveland@navy.mil; Army Research Office DR. Larry Russel Jr. Email: usarmy.rtp.ccdc-arl.mbx.aro-muri@mail.mil; Air Force Office of Scientific Research Ms. Katie Wisecarver Email: MURI@us.af.mil

Grant Program: Prevention or Reduction of Risk/Severity to Traumatic Brain Injuries

Agency: Department of Defense DARPA W81XWH-21-RFI-TJK2

Website: https://beta.sam.gov/opp/b7d62c11b37e48c4a4c411584a49dad2/view?index=opp&sort=-modifiedDate&page=1&keywords=wearable&date_filter_index=0&inactive_filter_values=false

Brief Description: The Warfighter Brain Health Project Management Office of the United States Army Medical Materiel Device Activity is currently seeking information on wearable Traumatic Brain Injury (TBI) prevention medical device technologies with a Technology Readiness Level (TRL) 4 or above (utilizing chart located in reference section of the attached expanded sources sought document) that are designed with the intent of preventing of and/or reduction of the risk/severity of TBI and achieving future U.S. FDA clearance. Ultimately, these technology candidates must be suitable for field/operational use by U.S. Service Members. Identification of medical device technologies with such capabilities are essential to protect the warfighter and is vital to force protection and strength. The primary capability gap and areas of interest is related to wearable TBI prevention medical devices that aid in preventing brain injuries that include, but are not limited to:

Technologies that can be safely worn by U.S. Service members for extended periods and will prevent and/or lessen the risk/severity of TBI's when a Service Member is exposed to a potential concussive event(s) (ex: Blast, blunt, accelerative injury). The ideal medical device technology should be easily applied by front line users (eg: Infantry), safe, and not inhibit range of motion, impact health experienced on the battlefield, exacerbate injuries (ex: penetrating head injuries,) or compromise mission essential tasks.

Awards: Contract

Letter of Intent: Please see below.

Proposal Deadline: Jun 09, 2021

Contact Information: Timothy Kelly timothy.j.kelly169.civ@mail.mil Phone Number 301-619-7806

Grant Program: Notice of Future Artificial Intelligence Exploration Opportunity: In Pixel Intelligent Processing (IP2)

Agency: Department of Defense DARPA DARPA-SN-21-20

Website:

<https://beta.sam.gov/opp/1a76b321bc0e4b57939621a1b45f9a50/view?index=opp&naics=541&page=4>

Brief Description: The purpose of this Special Notice (SN) is to provide public notification of additional research areas of interest to the Defense Advanced Research Projects Agency (DARPA), specifically the Artificial Intelligence Exploration (AIE) program. The mission of the Defense Advanced Research Projects Agency (DARPA) is to make strategic, early investments in science and technology that will have long-term positive impact on our Nation's security. In support of this mission, DARPA has pioneered groundbreaking research and development (R&D) in Artificial Intelligence (AI) for more than five decades. Today, DARPA continues to lead innovation in AI research through a large, diverse portfolio of fundamental and applied R&D AI programs aimed at shaping a future for AI technology where machines may serve as trusted and collaborative partners in solving problems of importance to national security.

The pace of discovery in AI science and technology is accelerating worldwide. AIE will enable DARPA to fund pioneering AI research to discover new areas where R&D programs awarded through this new approach may be able to advance the state of the art. AIE will enable DARPA to go from idea inception to exploration in 90 days.

Awards: TBD

Letter of Intent: Please contact the PO.

Proposal Deadline: May 10, 2021

Pre-proposal inquiries and questions must be submitted not later than Friday, April 23, 2021.

Contact Information: Dr. Whitney Mason IP2@darpa.mil

Grant Program: CDMRP PRMRP Investigator Initiated Research Award

Agency: Department of Defense Dept. of the Army -- USAMRAA W81XWH-21-PRMRP-IIRA

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=332102>

Brief Description: The PRMRP Investigator-Initiated Research Award is intended to support studies that will make an important contribution toward research and/or patient care for a disease or condition related to at least one of the FY21 PRMRP Topic Areas. The rationale for a research idea may be derived from a laboratory discovery, population-based studies, a clinician's first-hand knowledge of patients, or anecdotal data. Applications must include relevant data that support the rationale for the proposed study. These data may be unpublished or from the published literature.

Impact: The Investigator-Initiated Research Award is designed to support research with the potential to yield highly impactful data that could lead to critical discoveries or major advancements. The application must clearly demonstrate the project's potential short-term and long-term outcome(s)/product(s) (knowledge and/or materiel) and how they will impact a critical problem or question in the field of research and/or patient care in the FY21 PRMRP Topic Area(s) addressed.

Research projects may focus on any phase of research from basic laboratory research through translational research, including preclinical studies in animal models and human subjects, as well as correlative studies associated with an existing clinical trial. Research involving human subjects and human anatomical substances is permitted; however, this award may not be used to conduct clinical trials.

Awards: Various; Anticipated Available Funding: \$83,000,000

Letter of Intent: Please see below.

Proposal Deadline: Pre-Application Submission Deadline: 5:00 p.m. Eastern time (ET), April 28, 2021

• Invitation to Submit an Application: July 2021 • Application Submission Deadline: 11:59 p.m. ET, September 2, 2021

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

Grant Program: 2022 Defense University Research Instrumentation Program (DURIP)

Agency: Department of Defense DARPA

DURIP - ARMY SUBMISSION Dept of the Army -- Materiel Command W911NF-21-S-0004

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=331862>

Other Related DURIP Opportunities:

Air Force Office of Scientific Research FOA-AFRL-AFOSR-2021-0002

Office of Naval Research N00014-21-S-F002

Brief Description: The Department of Defense (DoD) announces the Fiscal Year 2020 Defense University Research Instrumentation Program (DURIP). DURIP is designed to improve the capabilities of accredited United States (U.S.) institutions of higher education to conduct research and to educate scientists and engineers in areas important to national defense, by providing funds for the acquisition of research equipment or instrumentation. For-profit organizations are not eligible for DURIP funding. We refer to eligible institutions of higher education as universities in the rest of this announcement. DURIP is part of the University Research Initiative (URI).

Awards: Amount of Requested DoD Funding – \$50,000 to \$1,500,000

Letter of Intent: Please see below.

Proposal Deadline: May 14, 2021 at 11:59 PM

Pre-proposal inquiries and questions must be submitted not later than Friday, April 23, 2021.

Contact Information: Anastasia Lenfest, Grants Officer, Phone 7035882866

anastasia.lenfest@navy.mil

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[Department of Transportation](#)

Grant Program: Dwight David Eisenhower Transportation Fellowship Program (DDETFP) Graduate Fellowship

Agency: Department of Transportation 693JJ318NF5227-2021

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=331800>

Brief Description: The goals of these Grants are to provide DDETFP Graduate Fellowships to 1) attract the Nation's brightest minds to the field of transportation, 2) enhance the careers of transportation professionals by encouraging them to seek advanced degrees, and 3) bring and retain top talent in the transportation industry of the U.S.

Individual students apply for the DDETFP Graduate Fellowship. The FHWA makes awards to the Institution of Higher Education (IHE) (“Recipient”) on behalf of the student (“Student Designee”). The IHE must be accredited by a federally-recognized accrediting agency and must be located within the United States or its Territories. If a student is selected to receive a fellowship, the student, their faculty advisor, and the IHE will be responsible for completing and submitting all required paperwork to execute the Agreement. Students must be prepared to submit a copy of their application package and this Notice of Funding Opportunity (NOFO) to their IHE. The Recipient will be responsible for allocating funds to the Student Designee as outlined in the Budget of the Agreement. The IHE will also be responsible for submitting all required Federal financial reports to FHWA.

Award: The FHWA expects approximately \$1 million to be made available for the DDETFP Graduate Fellowship program.

Letter of Intent: Not Required

Proposal Deadline: Apr 30, 2021 Application deadline is 4/30/2021 at 5:00pm Eastern Time.
Contact Information: Ewa Flom, ewa.flom@dot.gov, 202-924-1125

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Department of Agriculture:

Grant Program: Data and Technical Assistance (DATA) Grants Program

Agency: Department of Agriculture Food and Nutrition Service USDA-FNS-SNAP-21-DATA

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=331666>

Brief Description: The purpose of the SNAP E&T Data and Technical Assistance (DATA) Grants is to support the development of State SNAP E&T data collection and reporting systems. FNS is interested in funding projects that improve States' ability to use administrative data, such as Quarterly Wage Record (QWR) information, as the source for employment and earnings of E&T participants and former participants, because it is the preferred and most reliable and efficient method to meet reporting requirements. States using random sampling to gather information are doing so as an interim approach until systems to use administrative data are in place. Therefore, proposals that include random sampling of participants or former participants as a long term strategy will not be considered.

Awards: Up to \$1,000,000; Anticipated Available Funding: \$3,000,000.

Proposal Deadline: April 29, 2021

Contact Information: Anna J Arrowsmith Grants Officer [Anna Arrowsmith](#)

Grant Program: Agriculture and Food Research Initiative - Foundational and Applied Science

Agency: Department of Agriculture USDA-NIFA-AFRI-007692

Website: <https://nifa.usda.gov/funding-opportunity/agriculture-and-food-research-initiative-foundational-applied-science-program>

Brief Description: The AFRI Foundational and Applied Science Program supports grants in six AFRI priority areas to advance knowledge in both fundamental and applied sciences important to agriculture. The six priority areas are: Plant Health and Production and Plant Products; Animal Health and Production and Animal Products; Food Safety, Nutrition, and Health; Bioenergy, Natural Resources, and Environment; Agriculture Systems and Technology; and Agriculture Economics and Rural Communities. Research-only, extension-only, and integrated research, education and/or extension projects are solicited in this Request for Applications (RFA). See Foundational and Applied Science RFA for specific details.

Letter of Intent: Required.

Awards: Up to \$15,000,000; Anticipated available funding: \$290,000,000

Proposal Deadline: Thursday, July 29, 2021

Contact Information: [AFRI Coordination Team](#)

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Department of Labor

Grant Program: State Apprenticeship Expansion, Equity and Innovation (SAEEI) Grant Program

Agency: Department of Labor FOA-ETA-21-07

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=331689>

Brief Description: The SAEEI Funding Opportunity Announcement FOA will provide up to \$87.5 million in grant awards to support the expansion and diversification of Registered Apprenticeship Programs (RAPs), as described in 29 C.F.R. 29. Grant funds will be awarded to Governor-led, state initiatives that are expanding, diversifying and transforming registered apprenticeship. Funding will provide states with the flexibility to meet specific industry needs and demands. Collectively, these efforts will aim to achieve the following goals:

- 1) System expansion to support the development, modernization, and diversification of RAPs;
- 2) Equity in apprenticeship by increasing the number of apprentices enrolled in RAPs, including underrepresented populations; and
- 3) Partnership and alignment to support workforce system integration;
- 4) Innovation in program development and recruitment strategies.

Allowable activities under this grant include activities related to establishing or expanding existing RAPs for adults and/or youth, pre-apprenticeship leading to a RAP, and wrap-around/supportive services.

Awards: FOA will provide up to \$87.5 million in grant awards.

Proposal Deadline: This advance notice is to encourage potential applicants to begin forming partnerships and other early preparations to improve readiness for when the Funding Opportunity Announcement (FOA) is published. This is not a grant solicitation, and is for informational purposes only. Eligibility, scoring criteria, and other requirements for application will be outlined in full in the upcoming FOA in the spring of 2021.

Contact Information: Matthew Carls Grants Management Specialist, Carls.Matthew.L@dol.gov

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[Department of Commerce/EDA](#)

Grant Program: NOAA Science Collaboration Program

Agency: U.S. Department of Commerce National Oceanic and Atmospheric Administration (NOAA) NOAA-OAR-CPO-2021-2006797

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=332046>

Brief Description: The NOAA Science Collaboration Program (NSCP) supports research, programs, projects and other activities related to NOAA's mission, primarily through collaborations among scientists and professionals in areas of mutual interest across the full spectrum of NOAA sciences. This includes the support of undergraduate, graduate, and postdoctoral researchers and scientists with expertise in NOAA-related sciences. It is expected that some of the scientists will collaborate onsite at NOAA facilities and laboratories. Through this funding opportunity, NOAA is also interested in supporting complementary Earth systems research and modeling efforts, social science and interdisciplinary research efforts which can serve as a catalyst for collaborations between NOAA professionals and scientists supported through this program.

Awards: The total NOAA funding amount available for the NSCP is anticipated to be approximately \$10,000,000 to \$15,000,000 per year or a total of \$50,000,000 to \$75,000,000 for the five-year period.

Letter of Intent: Contact the program director.

Proposal Deadline: May 10, 2021

Contact Information: Ms. Kendra R. Hammond 301-734-1223 [Work](#)

Grant Program: 2021 Build to Scale Program

Agency: U.S. Department of Commerce EDA-HDQ-OIE-2021-2006827

Website: <https://www.eda.gov/oie/buildtoscale/>

Brief Description: EDA is committed to furthering technology-based economic development initiatives that accelerate high quality job growth, create more economic opportunities, and support the future of the next generation of industry leading companies. To advance these goals, EDA's Office of Innovation & Entrepreneurship awards grants through the Build to Scale Program for activities designed to develop and support regional innovation initiatives.¹ EDA thereby advances the growth of connected, innovation-centric economies that increase job growth, enable the workforce of tomorrow, enhance global competitiveness, and foster global competitiveness through technology commercialization and entrepreneurship

i. Venture Challenge

The Venture Challenge invites organizations to submit competitive proposals that seek to support entrepreneurship and accelerate company growth in their community, region, or combination of regions. Competitive proposals will outline how the project will strengthen economic competitiveness through new product innovation or new technology adoption, enhancing research commercialization processes and outcomes, remediating structural barriers that inhibit regional innovation capacity and resilience, and/or leveraging regional competitive strengths to stimulate innovation and job creation. Companies served by the applicant organization should be challenging the status quo of established markets, commercializing technologies, and furthering job creation within their businesses. Applicants should provide evidence that illustrates how funds leveraged through this competition will not only launch new programming and/or scale existing programming, but also generate sustainable added value for the region's entrepreneurial ecosystem by augmenting existing regional assets for innovation and entrepreneurship.

The Venture Challenge is a single competition but is comprised of two funding levels: Build and Scale. Venture Challenge Build applicants may not request in excess of \$750,000 over the three-year period of performance. Venture Challenge Scale applicants must request more than \$750,000 and may not request in excess of \$1,500,000 over the three-year period of performance.

Venture Challenge Build applicants:

- May be piloting a solution to a demonstrated need
- May be implementing a proven solution for a new region or community
- Demonstrate a commitment and ability to collect agreed upon impacts
- Request may not exceed \$750,000 over a 3-year project period
- Provide a 1:1 match

Venture Challenge Scale applicants:

- May be scaling an existing initiative that has established and achieved impacts
- Have a proven track record of successful deployment of programs
- Demonstrate a commitment and ability to collect agreed upon impacts
- Request must be greater than \$750,000 and may not exceed \$1,500,000 over a 3-year project period
- Provide a 1:1 match

ii. Capital Challenge

The Capital Challenge provides operational support for the formation, launch, or scale of investment funds that seek to invest their capital in scalable startups (i.e., venture funds, seed funds, angel funds) or to organizations with a goal to expand capital deployment within a community, region, or regional industry (i.e., angel networks or investor training programs). Funding will primarily support operational and programmatic costs and may not be used as investment capital.

Capital Challenge applicants should:

- Practice equity-based investing, whether through traditional or hybrid models, or be supporting an initiative whose participants practice equity-based investing (in contrast to debt-based investing, which is not supported under the Capital Challenge)
- Evaluate companies for high-growth potential as a central factor of their investment strategy
- Utilize grant funds to catalyze the deployment of capital within their region and/or related regions • Demonstrate a commitment and ability to collect agreed upon impacts
- Request may not exceed \$400,000 over a 3-year project period
- Provide a 1:1 match

Awards: Please see above for individual award information. EDA has been appropriated \$38 million for grants authorized by Section 27 pursuant to the Consolidated Appropriations Act, 2021.

Letter of Intent: Not required.

Proposal Deadline: 11:59 P.M. EASTERN TIME ON THURSDAY, APRIL 29, 2021.

Contact Information: Office of Innovation and Entrepreneurship oi@eda.gov (202) 482-8001
NJ State Agency Contact: Edward Hummel ehummel@eda.gov (215) 316-2124

Grant Program: Measurement Science and Engineering (MSE) Research Grant Programs

Agency: U.S. Department of Commerce NIST 2021-NIST-MSE-01

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=331121>

Brief Description: NIST is soliciting applications for financial assistance for Fiscal Year 2021 (FY21) within the following NIST grant programs:

- (1) the Associate Director for Innovation and Industry Services (ADIIS);
- (2) the Associate Director for Laboratory Programs (ADLP);
- (3) the Communications Technology Laboratory (CTL);
- (4) the Engineering Laboratory (EL);
- (5) Fire Research (FR);
- (6) the Information Technology Laboratory (ITL);
- (7) the International and Academic Affairs Office (IAAO);
- (8) the Material Measurement Laboratory (MML);
- (9) the NIST Center for Neutron Research (NCNR);
- (10) the Physical Measurement Laboratory (PML);
- (11) the Special Programs Office (SPO); and
- (12) the Standards Coordination Office (SCO).

Awards: Various; Grants or cooperative agreements

Letter of Intent: Contact the program director.

Proposal Deadline: Applications will be accepted and considered on a rolling basis as they are received.

Contact Information: Misty L Roosa Management Analyst Phone 301-975-3007

[Agency Contact](#)

Grant Program: FY2021 to FY2023 NOAA Broad Agency Announcement (BAA)

Agency: U.S. Department of Commerce NOAA-NFA-NFAPO-2021-2006626

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=329261>

Brief Description: This Broad Agency Announcement is a mechanism to encourage research, education and outreach, innovative projects, or sponsorships that are not addressed through NOAA's competitive discretionary programs. This announcement is not soliciting goods or services for the direct benefit of NOAA. Funding for activities described in this notice is contingent upon the availability of Fiscal Year 2021, Fiscal Year 2022, and Fiscal Year 2023 appropriations. Applicants are hereby given notice that

funds have not yet been appropriated for any activities described in this notice. Publication of this announcement does not oblige NOAA to review an application beyond an initial administrative review, or to award any specific project, or to obligate any available funds. As an agency with responsibilities for maintaining and improving the viability of marine and coastal ecosystems, for delivering valuable weather, climate, and water information and services, for understanding the science and consequences of climate change, and for supporting the global commerce and transportation upon which we all depend, NOAA must remain current and responsive in an ever-changing world.

Awards: Contingent to the availability of funds.

Letter of Intent: Contact the program director.

Proposal Deadline: Applications can be submitted on a rolling basis starting from the publication date of this Broad Agency Announcement up to 11:59:59 p.m., Eastern Daylight Time on September 30, 2023.

Contact Information: Mr. Lamar Dwayne Revis, 301-628-1308, lamar.revis@noaa.gov

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[EPA](#)

Grant Program: Early Career: Measurement and Monitoring Methods for Air Toxics and Contaminants of Emerging Concern in the Atmosphere

Agency: Environmental Protection Agency EPA-G2021-STAR-C2

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=332406>

Brief Description: The U.S. Environmental Protection Agency (EPA), as part of its Science to Achieve Results (STAR) program, is seeking applications proposing research to advance air measurement and monitoring methods for air toxics and contaminants of emerging concern in the atmosphere. Specifically, this RFA seeks research that will provide: 1. advancements in measurement techniques for real time, continuous measurements of concentrations with minimum detection limits below background concentrations or health risk-based thresholds; and 2. advancements in stationary or mobile near source measurement methods for quantifying emission rates of fugitive emissions.

Award: Grant or cooperative agreement up to \$800,000. Anticipated Funding Amount: Approximately \$2.4 million total for all awards

Submission Deadline: Solicitation Closing Date: June 2, 2021, 11:59:59 pm Eastern Time

Contact: Technical Contact: Serena Chung; phone: 202-564-6069; email: chung.serena@epa.gov

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[Department of Energy](#)

Grant Program: Data-Intensive Scientific Machine Learning and Analysis

Agency: Department of Energy Office of Science DE-FOA-0002493

Website: <https://science.osti.gov/ascr/Funding-Opportunities>

Brief Description: The DOE SC program in Advanced Scientific Computing Research (ASCR) hereby announces its interest in research applications to explore potentially high-impact approaches in the development and use of artificial intelligence (AI) and machine learning (ML) for scientific insights from massive data generated by simulation, experiments, and observations.

Awards: DOE anticipates that, subject to the availability of future year appropriations, a total of \$21,000,000 in current and future fiscal year funds will be used to support awards under this FOA.

Letter of Intent: Please see below.

Submission Deadline: Submission Deadline for Pre-Applications: April 23, 2021 at 5:00 PM Eastern Time A Pre-Application is required. Pre-Application Response Date: May 3, 2021 Submission Deadline for Applications: May 27, 2021 at 5:00 PM Eastern Time

Contact: Dr. Steven L. Lee Steven.Lee@science.doe.gov

Grant Program: Data Science to Advance Chemical and Materials Sciences

Agency: Department of Energy DE-FOA-0002474

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=332227>

Brief Description: The DOE SC program in Basic Energy Sciences (BES) announces its interest in receiving new applications from teams of investigators expanding the integration of data science methods with BES research disciplines, to accelerate scientific discovery and overcome difficult challenges in these fields. This FOA is focused on new applications that will take advantage of the rapid growth of data science, including artificial intelligence (AI) and machine learning (ML) methodologies. The FOA will support teams of investigators for synergistic computational, experimental, and theoretical research covered by the research areas in the BES divisions of Chemical Sciences, Geosciences, and Biosciences (CSGB) and Materials Sciences and Engineering (MSE). The focus of the proposed research must be on science-based, data-driven approaches enabling solutions for fundamental basic energy sciences challenges not possible otherwise. The goal of the application should be to integrate novel data science, uncertainty quantification, and other AI and ML approaches with domain sciences to uniquely advance the understanding of fundamental properties and processes relevant to chemical and materials systems and achieve predictability of functions and behavior under dynamic conditions.

Awards: Various; Anticipated Available Funding: \$23,000,000

Letter of Intent: Please see below.

Submission Deadline: Submission Deadline for Pre-Applications: April 14, 2021 at 5:00 PM Eastern Time A Pre-Application is required Pre-Application Response Date: May 5, 2021 Submission Deadline for Applications: June 1, 2021 at 11:59 PM Eastern Time

Contact: Dr. Raul Miranda Program Manager raul.miranda@science.doe.gov

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[NASA](#)

Grant Program: ROSES 2021: Heliophysics Mission Concept Studies

Agency: NASA NNH21ZDA001N-HMCS

Website: <https://nspires.nasaprs.com/external/solicitations/summary.do?solId=%7B39554337-ED9A-7C4F-EC92-DCB9DC510DDE%7D&path=&method=init>

Brief Description: The Heliophysics Mission Concept Studies (HMCS) program will fund six-month-long mission concept studies that are part of community preparation for the next Solar and Space Physics Decadal Survey. These studies will be conducted by the proposal team, using mission design capabilities included in the proposal, and will result in a final mission concept report delivered to NASA. Additionally, NASA will support awardees submitting and briefing the mission concept to the Decadal Survey Committee ("the Committee" see Section 2.2). Should NASA choose to develop a mission that flows from any selected mission concept study, the responsibility for that mission will be assigned by NASA; there is no expectation that the mission concept study team or participating organizations will necessarily participate in the eventual mission development.

Awards: It is expected that there will be approximately \$2.5 M available to support new mission concept studies selected through this program element.

Notice of Intent: Notices of intent are due April 23, 2021

Proposal Deadline: May 28, 2021

Contact: Jared Leisner Heliophysics Division Science Mission Directorate NASA Headquarters Washington, DC 20546-0001 Telephone: (202) 358-2016 Email: jared.s.leisner@nasa.gov

Grant Program: ROSES 2021: Living With a Star Science

Agency: NASA NNH21ZDA001N-LWS

Website: <https://nspires.nasaprs.com/external/solicitations/summary.do?solId=%7BDD29C108-980F-6F1A-AEC7-CE7375E35007%7D&path=&method=init>

Brief Description: The Living With a Star (LWS) Program emphasizes the science necessary to understand those aspects of the Sun and Earth's space environment that affect life and society. The ultimate goal of the LWS Program is to provide a scientific understanding of the system that leads to predictive capability of the space environment conditions at Earth, other planetary systems, and in the interplanetary medium. Every year the LWS Program solicits Focused Science Topics (FSTs) that address some part of this goal.

This goal poses two great challenges for the LWS program. First, the program seeks to address large-scale problems that cross discipline and technique boundaries (e.g., data analysis, theory, modeling, etc.); and second, the program will identify how this new understanding has a direct impact on life and society. Over time, the Targeted Investigations have provided advances in scientific understanding that address these challenges.

Awards: TBD

Notice of Intent: Please see below

Proposal Deadline: Step-1 proposals are due September 8, 2021, and Step-2 proposals are due November 18, 2021.

Contact: Simon Plunkett Telephone: (202) 358-2034 Email: simon.p.plunkett@nasa.gov

Jeff Morrill Telephone: (202) 358-3744 Email: jeff.s.morrill@nasa.gov

Grant Program: New (Early Career) Investigator Program in Earth Science: not solicited in ROSES-21

Agency: NASA NNH21ZDA001N-NIP

Website: <https://nspires.nasaprs.com/external/solicitations/summary.do?solId=%7BC31820ED-A589-B008-7448-1014FCA16C49%7D&path=&method=init>

Brief Description: The New (Early Career) Investigator Program in Earth science is designed to support outstanding scientific research and career development of scientists and engineers at the early stage of their professional careers. The program welcomes innovative research initiatives and seeks to cultivate diverse scientific leadership in Earth system science. The Earth Science Division (ESD) places particular emphasis on the investigators' ability to promote and increase the use of space-based remote sensing through the proposed research. Proposals with objectives connected to needs identified in most recent Decadal Survey Thriving on our Changing Planet: A Decadal Strategy for Earth Observation from Space are welcomed. The program supports all aspects of scientific and technological research aimed to advance NASA's mission in Earth system science (See the Science Plan at <http://science.nasa.gov/about-us/science-strategy/>). In research and analysis, the focus areas are: • Carbon Cycle and Ecosystems, • Climate Variability and Change, • Water and Energy Cycle, • Atmospheric Composition, • Weather, and • Earth Surface and Interior

Awards: TBD

Notice of Intent: Please see below

Proposal Deadline: This program is NOT soliciting proposals this year. The 'close date' of 02/14/2022 advertised above is not a proposal due date; NSPIRES requires that a specific close date be given. Please see the program element document above for details.

Contact: Allison Leidner Earth Science Division Science Mission Directorate NASA Headquarters Washington, DC 20546-0001 Telephone: 202-358-0855 Email: Allison.K.Leidner@nasa.gov

Grant Program: Earth Science Applications: Health and Air Quality

Agency: NASA NNH21ZDA001N-HAQ

Website: <https://nspires.nasaprs.com/external/solicitations/summary.do?solId=%7B78D66990-C241-F2F9-5A15-BC02AD87C40D%7D&path=&method=init>

Brief Description: The ESD Applied Sciences Program promotes efforts to discover and demonstrate innovative and practical uses of Earth observations. The Program funds applied science research and applications projects to enable near-term uses of Earth observations, formulate new applications, integrate Earth observations and related products in practitioners' decision-making, and transition the applications. The projects are carried out in partnership with public- and private-sector organizations to achieve sustained use and sustained benefits from the Earth observations. For more information visit the Applied Sciences Program website at <http://AppliedSciences.NASA.gov/>. The Program supports projects that develop and demonstrate improvements to decision-making from the use of an array of Earth observations and related products. The Program considers that Earth observations broadly include a range of products and capabilities, including Earth-observing satellite measurements (NASA in-orbit and planned satellites, as well as foreign, commercial, and other U.S. Government satellites), outputs and predictive capabilities from Earth science models, algorithms, visualizations, knowledge about the Earth system, and other geospatial products. Hereinafter, this set is referred to collectively as "Earth observations".

Awards: \$3M total per year; Expected Range of Award per project: \$250-350K per year

Notice of Intent: Please see below

Proposal Deadline: June 18, 2021

Contact: John Haynes Applied Sciences Program Earth Science Division Science Mission Directorate NASA Headquarters Washington, DC 20546-0001 Telephone: (202) 358-4665 Email: jhaynes@nasa.gov

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National Endowment of Humanities

Grant Program: Digital Projects for the Public

Agency: National Endowment for the Humanities 20210609-MD-MN-MT

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

Brief Description: The Digital Projects for the Public program supports projects that interpret and analyze humanities content in primarily digital platforms and formats, such as websites, mobile applications and tours, interactive touch screens and kiosks, games, and virtual environments. All projects should demonstrate the potential to attract a broad, general, nonspecialist audience, either online or in person at venues such as museums, libraries, or other cultural institutions. Applicants may also choose to identify particular communities and groups, including students, to whom a project may have particular appeal. A recorded webinar for prospective applicants will be posted on this page by April 16, 2021.

Award: Maximum award amount \$30,000 (Discovery grants); \$100,000 (Prototyping grants); \$400,000 (Production grants)

Proposal Deadline: Optional Draft due May 5, 2021; Application due June 9, 2021

Contact: Contact the Division of Public Programs Team; 202-606-8269; publicpgms@neh.gov

Grant Program: Humanities Initiatives

Agency: National Endowment for the Humanities 20210520-AA-AB-AC-AD-AE

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

Brief Description: The National Endowment for the Humanities (NEH) Division of Education Programs is accepting applications for the five Humanities Initiatives programs: Humanities Initiatives at Colleges and Universities, Humanities Initiatives at Hispanic-Serving Institutions, Humanities Initiatives at Historically Black Colleges and Universities, Humanities Initiatives at Tribal Colleges and Universities, and Humanities Initiatives at Community Colleges. The purpose of these programs is to strengthen the teaching and study of the humanities at institutions of higher education by developing new humanities programs, resources (including those in digital format), or courses, or by enhancing existing ones.

Award: Maximum award amount: \$150,000 per award; Available funding: \$3,000,000

Proposal Deadline: May 21, 2021

Contact: Division of Education Programs National Endowment for the Humanities 400 Seventh Street, SW Washington, DC 20506 202-606-2324 hi@neh.gov

Grant Program: Research and Development

Agency: National Endowment for the Humanities 20210518-PR

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 supports projects at all stages of development, from early planning and stand-alone studies, to advanced implementation. Research and Development projects contribute to the evolving and expanding body of knowledge for heritage practitioners, and for that reason, outcomes may take many forms. Projects may produce any combination of laboratory datasets, guidelines for standards, open access software tools, workflow and equipment specifications, widely used metadata schema, or other products.

Research and Development supports work on the entire range of humanities collection types including, but not limited to, moving image and sound recordings, archaeological artifacts, born digital and time-based media, rare books and manuscripts, archival records, material culture, and art. Applicants must demonstrate how advances in preservation and access through a Research and Development project would benefit the cultural heritage community by supporting humanities research, teaching, or public programming.

Research and Development projects are encouraged to address one or more of the following areas of special interest:

- **Preserving our audiovisual and digital heritage**
- **Conserving our material past**
- **Protecting our cultural heritage**

- **Serving under-represented communities**

For more information about the program, you may refer to the pre-recorded [webinar](#). Please note, the webinar was recorded in 2020 and therefore deadlines are outdated. An updated pre-recorded webinar for 2021 will be posted by March 4, 2021.

Award: Maximum award amount Tier I provides awards up to \$75,000; Tier II provides awards up to \$350,000

Proposal Deadline: Application due May 18, 2021

Contact: Division of Preservation and Access Team 202-606-8570; preservation@neh.gov

Grant Program: Awards for Faculty

Agency: National Endowment for the Humanities 20210414-HB

Website: <https://www.neh.gov/divisions/research>

Brief Description: The Division of Research supports scholarly research that advances knowledge and understanding of the humanities. Through twelve annual funding opportunities, awards are made to scholars—individuals, collaborative teams, or institutions—working on research projects of significance to specific humanities fields and to the humanities as a whole. The projects that the division supports are as diverse as America itself: editions of the Dead Sea Scrolls, the history of “The Star Spangled Banner,” and the autobiography of Mark Twain.

While Research Programs is the only NEH division to make awards to individuals, institutional grants are also available. **Collaborative Research** supports projects by teams of scholars. **Scholarly Editions and Scholarly Translations** provides funding for time-intensive editing projects such as the [Papers of George Washington](#), and **Fellowship Programs at Independent Research Institutions** provides American scholars access to unique collections at American centers for humanities research around the world.

Award: Various

Proposal Deadline: Application due April 18, 2021

Contact: Division of Research Programs: (202) 606-8200 research@neh.gov

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Private Foundations

U.S-Israel Binational Science Foundation (BSF)

Grant Program: NSF-BSF Joint Funding Research Grants; BSF Research Grants; Start-Up Research Grants

Agency: U.S-Israel Binational Science Foundation (BSF)

Website: <https://www.bsf.org.il/funding-opportunities/>

Brief Description: In 2012, the BSF signed an umbrella Memorandum of Understanding with the U.S. National Science Foundation (NSF), for cooperation in joint funding of collaborative U.S.-Israeli scientific research. Consequently, the BSF signed a series of specific Memorandum of Understanding (MOU) and Letter of Intent (LOI) with a number of NSF units, for the joint funding of collaborative research programs. Presently, BSF has joint programs with all of the NSF grant making directorates and in each, with all or most divisions.

- **Foundational Research in Robotics.** This program has no deadline. You can find more details in our call for proposals [here](#).

- **Cyber-Physical Systems-** This program has no deadline. You can find more details in our call for proposals [here](#).
- **Mathematical and Scientific Foundations of Deep Learning.** Deadline for application by the U.S. partner to the NSF is May 12, 2021 and by the Israeli partner to the BSF is May 18, 2021. You can find more details in our call for proposals [here](#).

Awards: Various

Letter of Intent: Not required

Proposal Deadline: Please see the CFPs above.

Contact: Anton Post, PhD, Executive Director, U.S. – Israel Binational Science Foundation; bsf.org.il@responder.co.il

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[Streamlyne Question of the Week](#)

Question: **Can I change project start and end dates after I have submitted for approval?**

Answer: When a proposal is routed for approval certain information is locked to ensure that the information at the various approval levels (department, college, and university) remains constant. This is intended to guarantee that the authority of academic leadership (e.g., chairs and deans) is recognized in the system.
The start and end dates are included in the data that is locked. If you need to change the dates of a proposal already submitted for approval, you will have to recall the proposal, make the necessary changes, and resubmit for approval.

More FAQs on Streamlyne: Please visit <https://research.njit.edu/streamlyne>

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[Proposal Submission and Streamlyne Information](#) [Internal Timeline for Successful and Timely Proposal Submission](#)

Due to the COVID-19 outbreak, PIs are strongly advised to prepare proposals well in advance of agency deadlines. Every effort will be made to meet agency deadlines following the NJIT Research Continuity Plan (<https://research.njit.edu/njit-research-continuity-plan>).

The NJIT Proposal Submission Guidelines and Policy posted on the website <https://research.njit.edu/proposal-submission-guidelines> provides the expected institutional timeline for proposal submission. Streamlyne User Manuals are posted on <https://research.njit.edu/streamlyne>. For contact information on proposal submission, pre-award services and post-award grant management, please visit research website <https://research.njit.edu/researchers> and <https://research.njit.edu/contact>.

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