

The Division of Science and Research distributes a weekly e-mail update regarding current grant opportunities from a variety of funders, including the National Science Foundation, NASA, National Institute of Health and others. To sign up for alerts, contact [Dr. Jan Taylor](#).

GRANT OPPORTUNITIES

Division of Science and Research

NSF's Experimental Program to Stimulate Competitive Research (NSF EPSCoR) is hosting several **informational webinars on RII Track-2 and RII Track-4 funding opportunities.**

RII Track-2 Focused EPSCoR Collaborations: builds interjurisdictional collaborative teams of EPSCoR investigators in scientific focus areas consistent with NSF priorities. Projects are investigator-driven and must include researchers from at least two RII-eligible jurisdictions. The development of diverse early-career faculty is a critical component of this sustainable Science Technology Engineering and Mathematics capacity. For FY 2017, RII Track-2 FEC proposals are invited on a single topic: Genomes to Phenomes. See solicitation [NSF 17-503](#) for more details.

Join EPSCoR Program Officers on **November 15 or November 16 at 2:00 p.m. EST** for an informational webinar on EPSCoR's RII Track-2 program. WebEx login instructions can be found [here](#).

RII Track-4: provides opportunities for non-tenured investigators to further develop their individual research potential through extended collaborative visits to the nation's premier private, governmental, or academic research centers. Through these visits, the EPSCoR Research Fellows will be able to learn new techniques, benefit from access to unique equipment and facilities, and shift their research toward transformative new directions. The experience gained through the fellowship is intended to provide a foundation for research collaborations that span the recipient's entire career. These benefits to the Fellows are also expected to in turn enhance the research capacity of their institutions and jurisdictions. Full details for RII Track-4 are available in the solicitation, [NSF 17-509](#).

Join EPSCoR Program Officers **November 29 or November 30 at 2:00 p.m. EST** for an informational webinar on EPSCoR's RII Track-4 program. WebEx login instructions can be found [here](#).

NSF
NIH
DOD
EPA
NIST
DOI

National Science Foundation

Collaborative Research in Computational Neuroscience (CRCNS) - Through the CRCNS program, the National Science Foundation (NSF), the National Institutes of Health (NIH), the German Federal Ministry of Education and Research (Bundesministerium für Bildung und Forschung, BMBF), the French National Research Agency (Agence Nationale de la Recherche, ANR), and the United States-Israeli Binational Science Foundation (BSF) support collaborative activities that will advance the understanding of nervous system structure and function, mechanisms underlying nervous system disorders, and computational strategies used by the nervous system. Two classes of proposals will be considered in response to this solicitation: Research Proposals describing collaborative research projects; and Data Sharing Proposals to enable sharing of data and other resources. Domestic and international projects will be considered. As detailed in the solicitation, international components of collaborative projects may be funded in parallel by the participating agencies. Specific CRCNS opportunities for parallel funding are available for bilateral US-German Research Proposals, US-German Data Sharing Proposals, US-French Research Proposals, US-French Data Sharing Proposals, US-Israeli Research Proposals, US-Israeli Data Sharing Proposals, and multilateral proposals involving the United States and 2 or more partnering countries (Germany, France, and/or Israel). Full Proposal Deadline Date: December 19, 2016.

This solicitation describes an Ideas Lab on “[Origin of Life](#).” Ideas Labs are intensive workshops focused on finding innovative solutions to grand challenge problems. The ultimate aim of this Ideas Lab organized by the Directorates for Biological Sciences (BIO) and Geosciences (GEO) at the National Science Foundation (NSF), and the Astrobiology Program at the National Aeronautics and Space Administration is to facilitate the generation and execution of innovative research projects aimed at identifying and funding potentially transformative research to address grand challenge questions in the origin of life. The primary aim of this Ideas Lab is to foster the development of a theoretical framework that encompasses the “metabolism first” and “RNA first” theories for the origin of life by stimulating creative thinking and new research on the earliest events leading to life on early Earth. Understanding plausible pathways for the origin of life will contribute directly to our understanding of the indispensable properties of life on Earth and inform our search for life on other worlds. Full Proposal Deadline Date: December 19, 2016.

The [Smart and Autonomous Systems \(S&AS\) program](#) focuses on Intelligent Physical Systems (IPS) that are cognizant, taskable, reflective, ethical, and knowledge-rich. The S&AS program welcomes research on IPS that are aware of their capabilities and limitations, leading to long-term autonomy requiring minimal or no human operator intervention. Example IPS include, but are not limited to, robotic platforms and networked systems that combine computing, sensing, communication, and actuation. Cognizant IPS exhibit high-level awareness beyond primitive actions, in support of persistent and long-term autonomy. Taskable IPS can interpret high-level, possibly vague, instructions, translating them into concrete actions that are dependent on the particular context in which the IPS is operating. Reflective IPS can learn from their own experiences and those of other entities, such as other IPS or humans, and from instruction or observation; they may exhibit self-aware and self-optimizing capabilities. Ethical IPS should adhere to a system of societal and legal rules, taking those rules into account when making decisions. Knowledge-rich IPS employ a variety of representation and reasoning mechanisms, such as semantic, probabilistic and commonsense reasoning; are cognitively plausible; reason about uncertainty in decision making; and reason about the intentions of other entities in decision making. Full Proposal Deadline Date: December 19, 2016.

[Archaeology and Archaeometry](#) - The goal of the Archaeology Program is to fund research which furthers anthropologically relevant archaeological knowledge. In accordance with the National Science Foundation’s mission such research has the potential to provide fundamental scientific insight. While within the broad range of “archaeology” the focus is on projects judged to be significant from an anthropological perspective, the Program sets no priorities based on time period, geographic region or specific research topic. The Program administers four competitions each of which is described below. It also supports projects submitted under NSF-wide competition guidelines. These include CAREER, EAGER, RAPID and Research Experiences for Undergraduates Supplement requests. Full Proposal Target Date: December 1, 2016 for Archaeometry and December 20, 2016 for Archaeology - Senior Research.

The [Emerging Frontiers in Research and Innovation \(EFRI\)](#) program of the NSF Directorate for Engineering (ENG) serves a critical role in helping ENG focus on important emerging areas in a timely manner. This solicitation is a funding opportunity for interdisciplinary teams of researchers to embark on rapidly advancing frontiers of fundamental engineering research. For this solicitation, we will consider proposals that aim to investigate emerging frontiers in the following two research areas: Advancing Communication Quantum Information Research in Engineering (ACQUIRE); and New Light, EM (Electronic) and Acoustic Wave Propagation: Breaking Reciprocity and Time-Reversal Symmetry (NewLAW). EFRI seeks proposals with transformative ideas that represent an opportunity for a significant shift in fundamental engineering knowledge with a strong potential for long term impact on national needs or a grand challenge. The proposals must also meet the detailed requirements delineated in this solicitation. Preliminary Proposal Deadline Date: December 21, 2016. Full Proposal Deadline Date: March 24, 2017.

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National Institutes of Health

[Research Education: Initiative for Maximizing Student Development \(IMSD\) Program \(R25\)](#) - The NIH Research Education Program (R25) supports research education activities in the mission areas of the NIH. The over-arching goal of this NIGMS R25 program is to support educational activities that enhance the diversity of the biomedical workforce. To accomplish the stated over-arching goal, this FOA will support creative educational activities with a primary focus on research experiences and courses for skills development. Application Due Date(s): January 27, 2017; January 26, 2018; and January 28, 2019.

[NIA Research Centers Coordinating Network \(U24\)](#) - The purpose of this FOA is to support an initial series of activities over a 3-year period to build the foundation for enhanced collaborations across NIA's 6 centers programs. These collaborations are intended to leverage NIA's substantial investments by fostering the development of novel interdisciplinary efforts in aging research. This opportunity will provide resources to build additional infrastructure and establish specific collaborative activities that could include, but are not limited to, information and data exchange, meetings and conferences, pilot studies, research opportunities for beginning investigators, visiting scholar programs, dissemination, and other collaborative efforts. The successful awardee will involve all 6 centers programs. Letter of Intent Due Date is May 8, 2017. Application Due Date is June 8, 2017.

[NICHD Consortium for Research on Pediatric Trauma and Injury Prevention \(R24\)](#) - The purpose of this funding opportunity announcement (FOA) is to encourage multidisciplinary collaborations to target gaps in research on pediatric trauma and injury prevention. The team science approach encouraged by this FOA could be used to generate a research resource, which may include discovery-based or hypothesis-generative approaches, to advance the relevant area of biomedical research or to devise breakthrough ideas, concepts and approaches to therapies in pediatric trauma and injury prevention research. A priority of the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) Pediatric Trauma and Critical Illness Branch is to advance the science related to pediatric trauma and injury research and to support research that generates new knowledge, research resources, and discoveries that promote the prevention of childhood injuries as well as effective treatment, management and rehabilitation. The R24 mechanism is being used to create a consortium of collaborative research teams to address the aforementioned priorities. Teams funded through this initiative will comprise the NICHD Consortium. Letter of Intent Due Date(s): 30 days before application due date. Application Due Date(s): [Standard dates](#) apply.

[Addressing the Etiology of Health Disparities and Health Advantages Among Immigrant Populations \(R01\)](#) - The purpose of this Funding Opportunity Announcement (FOA) is to support innovative research to understand uniquely associated factors (biological, behavioral, sociocultural, and environmental) that contribute to health disparities or health advantages among U.S. immigrant populations. Companion Funding Opportunities are: [PA-17-042](#), [R21 Exploratory/Developmental Research Grant](#); [PA-17-044](#), [R21 Exploratory/Developmental Research Grant](#); and [PA-17-043](#), [R01 Research Project Grant](#). Application Due Date(s): [Standard dates](#) apply.

[Focused Technology Research and Development \(R01\)](#) - This initiative will support projects that focus solely on development of technologies with the potential to enable biomedical research. Projects should be justified in terms of potential biomedical impact, but should not include any application to specific biomedical research questions. Companion Funding Opportunity is [PAR-17-046](#), [R21 Exploratory/Developmental Grants](#). Application Due Date(s): [Standard dates](#) apply.

The purpose of the [NIH Blueprint Diversity Specialized Pre-doctoral to Postdoctoral Advancement in Neuroscience \(D-SPAN\) Award \(F99/K00\)](#) is to support a defined pathway across career stages for outstanding graduate students who are from diverse backgrounds underrepresented in neuroscience research. This two-phase award will facilitate completion of the doctoral dissertation and transition of talented graduate students to strong neuroscience research postdoctoral positions, and will provide career development opportunities relevant to their long-term career goal of becoming independent neuroscience researchers. Letter of Intent Due Date(s): 30 days prior to the application due date. Application Due Date is April 8, 2017.

[Coordination Center for the CTSA Program \(U24\)](#) - This funding opportunity announcement (FOA) invites applications for a Coordination Center (CC) that will support activities of the Clinical Translational Science Award (CTSA) Program. The CTSA Program supports high quality translational and clinical research locally, regionally and nationally and fosters innovation in research methods, informatics, training, and career development. The CTSA Program is evolving into an innovative national consortium of medical research institutions that comprises "hubs" — working together to support translational science and improve the research process in order to get more treatments to more patients more quickly. It is expected that the CTSA Program CC will facilitate collaboration and consortium activities. Specifically, the CTSA Program CC will be responsible for providing an environment of excellence, developing and applying innovative approaches to collection, analysis, use and sharing of various types of data for strategic management of the CTSA Program, and creating an effective collaboration, coordination, and communication infrastructure to support scientific, training, governance, workgroup, and other types of consortium activities within the CTSA Program. Letter of Intent Due Date is December 31, 2016. Application Due Date January 31, 2017.

[Selective Cell and Network Vulnerability in Aging and Alzheimer's Disease \(R01\)](#) - The goal of this FOA is to define and characterize neural cell populations, neural circuits, and brain networks and regions that are vulnerable to brain aging and Alzheimer's disease (AD). Understanding mechanisms underlying selective vulnerability from cells to networks in AD is critical to fully define the disease process and to develop effective therapies. Letter of Intent Due Date(s): 30 days before application due date. Application Due Date(s): [Standard dates](#) apply.

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Department of Defense

[DoD Hearing and Balance Research Award](#) (bottom of the list) - The FY17 JPC-8/CRM RP Hearing and Balance Research Award is intended to provide support for research of exceptional scientific merit that has the potential to make a significant impact on improving the function, wellness, and overall quality of life for injured military Service members, Veterans, their caregivers and family members, and the American public. To address Sensory Systems Requirements as defined in the CRM RP Initial Capabilities Document and the Combat Casualty Care Research Program Capability Based Assessment, the Hearing and Balance Research Award Programmatic Panel identified the following four major Capability Gaps for FY17: Lack of knowledge of the prevalence, incidence, natural history, occupational and gender-related differences of tinnitus and its possible relation to individual blast/noise exposure; Lack of standardized metrics for hearing and/or vestibular assessment and monitoring in clinical and operational environments; Lack of understanding of the primary/secondary (e.g., mechanical/injury progression) effects of blast exposure leading to the neuronal dysfunction of auditory and/or vestibular systems; and Lack of knowledge and effective strategies and products for hearing and/or vestibular restoration. Pre-Application Submission Deadline: 5:00 p.m. Eastern time (ET), December 12, 2016. Invitation to Submit an Application: January 20, 2017. Application Submission Deadline: 11:59 p.m. ET, March 29, 2017.

[FY17 Funding Opportunity Announcement for Navy and Marine Corps Science, Technology, Engineering & Mathematics Education, Outreach and Workforce Program](#) - The ONR seeks a broad range of proposals for augmenting existing or developing innovative solutions that directly maintain, or cultivate a diverse, world-class STEM workforce in order to maintain the U.S. Navy and Marine Corps' technological superiority. The goal of any proposed effort must provide solutions that will establish and maintain pathways of diverse U.S. citizens who are interested in uniformed or civilian DoN (or Navy and Marine Corps) STEM workforce opportunities. As the capacity of the DoN Science and Technology (S&T) workforce is interconnected with the basic research enterprise and STEM education system, ONR recognizes the necessity to support efforts that can jointly improve STEM student outcomes and align with Naval S&T current and future workforce needs. This announcement explicitly encourages projects that improve the capacity of education systems and communities to create impactful STEM educational experiences for students including active learning approaches and incorporating 21st century skills. Projects must aim to increase student engagement in STEM and persistence of students in STEM degrees, while improving student technical capacity. ONR encourages proposals to utilize current STEM educational research for informing project design and advancing our understanding of how and why students choose STEM careers and opportunities of naval relevance. While this announcement is relevant for any stage of the STEM educational system, funding efforts will be targeted primarily toward the future and current DoN (naval) STEM workforce in High School, all categories of Post-Secondary institutions, the STEM research enterprise, and efforts that enhance the current naval STEM workforce and its mission readiness. This announcement will remain open until 31 December 2017 or until replaced by a successor FOA, whichever occurs first. Two Funding Calls for white paper pre-proposals will occur in this FOA. Please consider each range of dates and potential funding in context of when a project start date may occur and submit under the appropriate response date window. White paper pre-proposals submitted in each Funding Call will be reviewed in that Funding Call only. • Funding Call 1 of 2 will occur from the public release of this FOA until 3 January 2017. White paper pre-proposals submitted under these dates will be considered for FY17 funding potential. • Funding Call 2 of 2 will occur from 1 May 2017 to 31 August 2017. White paper pre-proposals will be considered for FY18 funding potential. White paper pre-proposals will be considered as they are submitted. Therefore, Offerors are encouraged to submit early in the cycle as there is no guarantee of available program funding. Full proposals will be considered under the same FOA as submitted white papers.

The [Insect Allies](#) program will develop a platform technology for delivering enhanced crop traits within a single growing season by delivering a modified virus to target plants by a mobile insect vector. Proposal Abstract Due Date – December 6, 2016. Proposal Due Date/BAA Closing Date – January 17, 2017. Any other relevant date(s) – Proposers Day, November 18, 2016 <https://fbo.gov/spg/ODA/DARPA/CMO/DARPA-SN-16-73/listing.html>.

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U.S. Environmental Protection Agency

[Freshwater Harmful Algal Blooms](#) - The U.S. Environmental Protection Agency (EPA), as part of its Science to Achieve Results (STAR) program, is seeking regular and early career applications proposing innovative research on the prediction, prevention, control and mitigation of freshwater Harmful Algal Blooms (HABs) as well as the drivers, life cycle patterns, and fate of and effects from less-common, less-studied, and emerging freshwater HAB species and toxins. Solicitation Closing Date: January 4, 2017, 11:59:59 pm Eastern Time.

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National Institute of Standards and Technology

[NIST Consortium for Semiconductor and Future Computing Research Grant Program](#) - NIST is soliciting proposals for financial assistance from eligible applicants to support basic research, in a consortium-based setting, focused on the long-term research needs of industry in the area of future computing and information processing. There is a critical need for scientific and engineering advances in novel computing paradigms with long-term impact on the semiconductor, electronics, computing, and defense industries. The proposed activities should advance the physical and materials aspects of future computing technologies with a focus on alternatives that provide low latency, low energy per operation, improved data/communication bandwidth, and higher clock speed. Activities should include innovative research in devices, circuits, architectures, metrology or characterization to enable future computing paradigms. Applicants should create mechanisms for extended collaboration with NIST researchers. Applications must be received at Grants.gov no later than 11:59 p.m. Eastern Time, Friday, January 13, 2017.

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Department of the Interior

[Desalination and Water Purification Research Program Fiscal Year 2017 Research & Laboratory Scale Projects](#) (click on Related Documents tab) - Through DWPR, research sponsors partner with Reclamation to address a broad range of desalting and water purification needs. Reclamation is interested in research where the benefits are widespread but where private-sector entities are not able to make the full investment and assume all the risks. Reclamation is also interested in research that has a national significance – where the issues are of large-scale concern and the benefits accrue to a large sector of the public. The objective of this Funding Opportunity Announcement (FOA) is to invite private industry, universities, water utilities, and other research sponsors to submit proposals to cost share research and laboratory scale projects that address DWPR program goals and objectives. Research & laboratory scale projects are typically bench scale studies involving small flow rates less than 2 gallons per minute. They are used to determine the viability of a novel process, new materials, or process modifications. Research at this stage often involves a high degree of risk and uncertainty. Application due date: Wednesday January 18, 2017 at 4:00 pm Mountain Standard Time (MST).

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