

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

The Division of Science and Research now has an Instagram page! We would love to have pictures of you and your students doing interesting things in the lab or in the field or anywhere you are doing science or even talking about science. These should be candid shots so perfection isn't needed.

Please send a brief description of what you're doing and who is doing it along with the photo. Send your photos to amanda.ramey@wvresearch.org. If you'd like to see what we've already posted, go here: <https://www.instagram.com/wvresearch>.

The **Agriculture and Food Research Initiative (AFRI) - Food and Agricultural Science Enhancement (FASE) and Experimental Program to Stimulate Competitive Research (EPSCoR) Team** is presenting a webinar on how the AFRI FASE & EPSCoR Program works and how it is implemented at NIFA. This webinar will serve as an orientation for those new to the program and an update for returning applicants. There will also be a brief question and answer session. Below are the details on how to join the Adobe Connect meeting:

Date: Wednesday, April 12, 2017

Time: 1:30 p.m. - 3:30 p.m. EST

• AGENDA 1:30 PM- Webinar link opens; 2 PM- Presentation starts; 3 PM Question/Answer session begins; 3:30 PM Webinar ends

Meeting Contact: Sharon Lumpkin

Audio is by phone (please mute your phones until Q/A session): Conference Number(s) 888-844-9904 Participant Code 1466552

Slides are via Adobe Connect To join the meeting: <http://nifa-connect.nifa.usda.gov/afrifaseepscor04122017/>

If you have never attended an Adobe Connect meeting before: Test your connection: http://nifa-connect.nifa.usda.gov/common/help/en/support/meeting_test.htm

The National Institute of Environmental Health Sciences (NIEHS) Superfund Research Program (SRP) invites you to join us for a series of free **Risk e-Learning webinars, Analytical Tools and Methods**, hosted on EPA's Contaminated Site Clean-Up Information (CLU-IN) website. The series will feature innovative analytical tools and methods developed and used by SRP grantees. The presenters will highlight the benefits of these new tools and methods compared to conventional methods. They also will include information about how the technology has helped to facilitate ongoing SRP research.

Session I - Field-Ready Biosensors to Assess Bioavailability and Toxicity will be held Monday, **April 17 from 1:00 – 3:00 pm EDT**. In the first session, researchers will describe their tools to assess bioavailability/toxicity for more effective human and/or environmental monitoring. To register, visit EPA's CLU-IN Training & Events Web page. The second part of the presentation will focus on examples of immunoassay application for human and environmental monitoring, as well as their application in biosensors.

Please mark your calendars for the second session, Techniques for Trace Analysis of Metals and Chemical Metabolites, on Monday, May 22 from 1:00 – 3:00 pm EDT. The webinars are free and open to the public. Please visit the Risk eLearning website for more information about each session, a list of presenters, and links to register.

NSF

NIH

NASA

USDA

DOD

National Science Foundation

The [Decision, Risk and Management Sciences](#) program supports scientific research directed at increasing the understanding and effectiveness of decision making by individuals, groups, organizations, and society. Disciplinary and interdisciplinary research, doctoral dissertation research improvement grants (DDRIGs), and workshops are funded in the areas of judgment and decision making; decision analysis and decision aids; risk analysis, perception, and communication; societal and public policy decision making; management science and organizational design. The program also supports small grants that are time-critical (Rapid Response Research - RAPID) and small grants that are high-risk and of a potentially transformative nature (EARly-Concept Grants for Exploratory Research - EAGER). Full Proposal Target Date: August 18, 2017.

The [Economics](#) program supports research designed to improve the understanding of the processes and institutions of the U.S. economy and of the world system of which it is a part. This program also strengthens both empirical and theoretical economic analysis as well as the methods for rigorous research on economic behavior. It supports research in almost every area of economics, including econometrics, economic history, environmental economics, finance, industrial organization, international economics, labor economics, macroeconomics, mathematical economics, and public finance. Full Proposal Target Date: August 18, 2017.

[Partnerships in Astronomy & Astrophysics Research and Education \(PAARE\)](#) - The objective of PAARE is to enhance diversity in astronomy and astrophysics research and education by stimulating the development of formal, long-term, collaborative research and education partnerships among minority-serving institutions and partners at research institutions, including academic institutions, private observatories, and NSF Division of Astronomical Sciences (AST)-supported facilities. Full Proposal Deadline Date: August 18, 2017.

The [Research Experiences for Undergraduates \(REU\) program](#) supports active research participation by undergraduate students in any of the areas of research funded by the National Science Foundation. REU projects involve students in meaningful ways in ongoing research programs or in research projects specifically designed for the REU program. This solicitation features two mechanisms for support of student research: (1) REU Sites are based on independent proposals to initiate and conduct projects that engage a number of students in research. REU Sites may be based in a single discipline or academic department or may offer interdisciplinary or multi-department research opportunities with a coherent intellectual theme. Proposals with an international dimension are welcome. (2) REU Supplements may be included as a component of proposals for new or renewal NSF grants or cooperative agreements or may be requested for ongoing NSF-funded research projects. Undergraduate student participants in either REU Sites or REU Supplements must be U.S. citizens, U.S. nationals, or permanent residents of the United States. Full Proposal Deadline Date: August 23, 2017.

The National Science Foundation [Robert Noyce Teacher Scholarship Program](#) seeks to encourage talented science, technology, engineering, and mathematics (STEM) majors and professionals to become K-12 mathematics and science (including engineering and computer science) teachers. The program invites creative and innovative proposals that address the critical need for recruiting and preparing highly effective elementary and secondary science and mathematics teachers in high-need local educational agencies. The program offers four tracks: Track 1: The Robert Noyce Teacher Scholarships and Stipends Track, Track 2: The NSF Teaching Fellowships Track, Track 3: The NSF Master Teaching Fellowships Track, and Track 4: Noyce Research Track. In addition, Capacity Building proposals are accepted from proposers intending to develop a future Track 1, 2, or 3 proposal. Full Proposal Deadline Date: August 29, 2017.

The [Methodology, Measurement, and Statistics \(MMS\) Program](#) is an interdisciplinary program in the Directorate for Social, Behavioral, and Economic Sciences that supports the development of innovative, analytical, and statistical methods and models for those sciences. MMS seeks proposals that are methodologically innovative, grounded in theory, and have potential utility for multiple fields within the social and behavioral sciences. As part of its larger portfolio, the MMS Program partners with a consortium of federal statistical agencies to support research proposals that further the development of new and innovative approaches to surveys and to the analysis of survey data. Full Proposal Deadline Date: August 31, 2017.

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National Institutes of Health

[Tobacco Centers of Regulatory Science for Research Relevant to the Family Smoking Prevention and Tobacco Control Act \(U54\)](#) - The purpose of this Funding Opportunity Announcement (FOA) is to invite applications for Tobacco Centers of Regulatory Science (TCORS) to support biomedical and behavioral research that will provide scientific

data to inform regulation of tobacco products to protect public health. Research Projects must address the research priorities related to the regulatory authority of the Food and Drug Administration (FDA) Center for Tobacco Products (CTP). The awards under this FOA will be administered by NIH using funds that have been made available through FDA CTP and the Family Smoking Prevention and Tobacco Control Act (P.L. 111-31). Research results from this FOA are expected to generate findings and data that are directly relevant in informing the FDA's regulation of the manufacture, distribution, and marketing of tobacco products to protect public health. Companion Funding Opportunity is [RFA-OD-17-002, U54 Specialized Center- Cooperative Agreements](#). Letter of Intent Due Date(s): While Letters of Intent are normally due one month before the due date, the Letter of Intent for this FOA is due 60 days prior to the application due date. Application Due Date(s): July, 19, 2017.

This funding opportunity announcement (FOA) solicits individual [Mentored Clinical Scientist Research Career Development \(K08\)](#) grant applications from applicant organizations. The overall goal of AHRQ-supported career development programs is to help ensure that a diverse pool of highly trained health services researchers are available in adequate numbers and in appropriate research areas to address the mission and priorities of AHRQ. Application Due Date(s): [Standard dates](#) apply.

[Development of Appropriate Pediatric Formulations and Pediatric Drug Delivery Systems \(R01\)](#) - This Funding Opportunity Announcement (FOA) encourages grant applications to address different and complementary research needs for the development and acceptability of pediatric drug formulations in different age groups. Development and testing of novel pediatric drug delivery systems is also part of this initiative. Companion Funding Opportunities are: [PAR-17-191, R03 Small Grant Program](#); [PAR-17-192, R21 Exploratory/Developmental Grant](#); [PAR-17-200, R41 Small Business Technology Transfer \(STTR\) Grant - Phase I only](#); and [PAR-17-199, R43 Small Business Innovation Research \(SBIR\) Grant - Phase I only](#). Letter of Intent Due Date(s): 30 days prior to the application due date. Application Due Date(s): [Standard dates](#) apply.

[Genetic Susceptibility and Variability of Human Structural Birth Defects \(R01\)](#) - The purpose of this funding opportunity announcement (FOA) is to support innovative applications that will inform our understanding of structural birth defects through the use of animal models in conjunction with translational/clinical approaches. Applicants are encouraged to take advantage of advances in genetics, biochemistry, molecular, and developmental biology to identify specific genetic, epigenetic, environmental, or gene/environment interactions associated with the susceptibility to and variability of structural birth defects in human populations. Applicants funded through this FOA will join the NICHD Birth Defects Working Group and participate in annual meetings designed to provide a forum to discuss research progress, exchange ideas, share resources, and foster collaborations relevant to the goals of the NICHD's Birth Defects Initiative. Application Due Date(s): June 5, 2017 (new) and July 5, 2017 (renewal, resubmission, revision); October 5, 2017 (new) and November 5, 2017 (renewal, resubmission, revision).

[Mechanisms and Consequences of Sleep Disparities in the U.S. \(R21\)](#) - The purpose of this Funding Opportunity Announcement (FOA) is to promote exploratory and developmental research to understand the underlying mechanisms of sleep deficiencies among health disparity populations and how sleep deficiencies may lead to disparities in health outcomes. Companion Funding Opportunity is [PAR-17-234, R01 Research Project Grant](#). Letter of Intent Due Date(s): 30 days prior to the application due date. Application Due Date(s): July 11, 2017, July 11, 2018, July 11, 2019.

[Innovative Research in Cancer Nanotechnology \(IRCNI\) \(R01\)](#) - This Funding Opportunity Announcement (FOA) encourages applications for the development of innovative research projects in cancer nanotechnology. This initiative, to be known as Innovative Research in Cancer Nanotechnology (IRCNI), is a component of a broader program that is the NCI Alliance for Nanotechnology in Cancer. IRCNI awards are designed to enable multidisciplinary research and transformative discoveries in cancer biology and/or oncology through the use of nanotechnology. Proposed projects should address major barriers in cancer biology and/or oncology using nanotechnology and should emphasize fundamental understanding of nanomaterial and/or nanodevice interactions with biological systems. This scope includes research concerning the delivery of nanoparticles and/or nanodevices to desired and intended cancer targets in vivo and/or characterization of in vitro detection and diagnostic devices. Application Due Date(s): November 21, 2017; May 23, 2018; November 20, 2018; May 23, 2019, November 21, 2019, May 21, 2020.

[Secondary Analysis and Integration of Existing Data to Elucidate the Genetic Architecture of Cancer Risk and Related Outcomes \(R01\)](#) - This funding opportunity announcement (FOA) encourages applications that propose to conduct secondary data analysis and integration of existing datasets and database resources, with the ultimate aim to elucidate the genetic architecture of cancer risk and related outcomes. The goal of this initiative is to address key scientific questions relevant to cancer epidemiology by supporting the analysis of existing genetic or genomic datasets, possibly in combination with environmental, outcomes, behavioral, lifestyle, and molecular profiles data. Applications to this FOA are encouraged to leverage existing genetic data and perform innovative analyses of the existing data. Applications may include new research aims that are being addressed with existing data, new or advanced

methods of analyses, or novel combinations and integration of datasets that allow the exploration of important scientific questions in cancer research. Companion Funding Opportunity is [PA-17-243](#), [R21 Exploratory/Developmental Grant](#). Application Due Date(s): [Standard dates](#) apply.

[Establishment of Research Centers to Investigate the FVIII Immune Response in Patients with Hemophilia A \(U54\)](#) - The goal of this Funding Opportunity Announcement (FOA) is to establish up to four Centers for the Investigation of Factor VIII immunogenicity (FVIII Centers). These Centers will utilize cross-disciplinary science and novel technologies to define the basic mechanisms involved in the development of anti-FVIII neutralizing antibodies, also known as FVIII inhibitors, in patients with congenital hemophilia A. Letter of Intent Due Date(s): June 6, 2017. Application Due Date(s): July 6, 2017.

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NASA

[ROSES 2017: Heliophysics Data Environment Enhancements](#) - The basic building blocks of the NASA Heliophysics Data Environment (HPDE) are well-documented, carefully calibrated, and easily used data products, typically the result of the reduction of numbers from spacecraft telemetry to the physical quantities that enter the equations we use to model space plasmas. Many such datasets were produced before the era of standard formats and inexpensive storage devices, and others have been served more recently in a variety of ways from specialized web sites. This call solicits proposals (Data Upgrades) to upgrade datasets that are of continuing value but that do not currently fit easily into the HPDE. Resident Archives will no longer be supported; these are no longer needed as the data from current missions is flowing directly to Final Archives. As detailed in the Heliophysics Scientific Data Management Policy (found at <http://hpde.gsfc.nasa.gov>), which gives further information about the HPDE, the Final Archive for Space Physics data, where the data will be preserved and served for the long-term, is the NASA Space Physics Data Facility (SPDF). Solar data are handled by NASA's Solar Data Analysis Center (SDAC), although the specific archiving arrangements are currently being dealt with on a case-by-case basis. Proposers working with solar data should expect to work with SDAC, the Heliophysics Data and Model Consortium (HDMC), and NASA Headquarters on a long-term plan (The HDMC oversees work under the H-DEE grants.). HDEE17 Step-1 Proposals Due by May 17, 2017. Step-2 Proposals due by July 20, 2017.

[ROSES 2017: Laboratory Analysis of Returned Samples](#) - The goal of the Laboratory Analysis of Returned Samples (LARS) Program is to maximize the science derived from planetary sample-return missions. Activities supported by LARS fall into two categories: (1) development of laboratory instrumentation and/or advanced techniques required for the analysis of returned samples; (2) direct analysis of samples already returned to Earth. All proposed work must be in support of the overarching goals of the Planetary Science Research Program to help ascertain the content, origin, and evolution of the Solar System and the potential for life elsewhere, consistent with the strategy for Planetary Science Exploration embodied in [2014 NASA Science Plan](#). LARS17 Step-1 Proposals Due by Apr 26, 2017. Step-2 proposals due by June 29, 2017.

[ROSES 2017: Cryospheric Science](#) - NASA's Cryospheric Sciences Program supports remote sensing research on the Earth's polar ice sheets to understand their connections to the global system. Increases in ice loss from the glaciers of Antarctica, Greenland, and the Arctic are contributing to sea level rise, while similarly dramatic changes are occurring in sea ice of the Arctic and Southern Oceans. Characterizing these changes to understand the processes controlling them is required to improve our understanding of the Earth system and forecast the impacts of continued change. The Earth's polar ice sheets cover continent-sized areas in the most inaccessible and inhospitable regions of the globe. NASA's capabilities in satellite and aircraft remote-sensing are critical tools for understanding the changes occurring there. CRYO17 NOIs Due by May 16, 2017. CRYO17 Proposals Due by Jun 16, 2017.

[ROSES 2017: Physical Oceanography](#) - The Physical Oceanography Program encompasses science teams supporting satellite altimetry (Ocean Surface Topography Science Team), ocean surface salinity via radiometry (Ocean Surface Salinity Team), sea surface temperature (Sea Surface Temperature Science Team), and ocean vector winds (Ocean Vector Winds Science Team). Proposals focused on one of these variables are better submitted to those competitions. In this program element, NASA is looking for work that cuts across multiple variables and focuses on the ocean's role in climate. PO17 NOIs Due by May 30, 2017. PO17 Proposals Due by Jun 30, 2017.

[ROSES 2017: Terrestrial Hydrology](#) - The NASA Terrestrial Hydrology program (THP) has the scientific objective to use remote sensing to develop a predictive understanding of the role of water in land-atmosphere interactions and

to further the scientific basis of water resources management. The importance of water requires no preamble. As a nation and a global community, our ability to measure and predict water in all its forms and locations must improve to better assess and understand our changing environment and demands of human society and ecosystems. Research is sought to make such improvements on our understanding of the land-oriented portion of the water cycle, either by improving and/or exploiting current satellite data, describing requirements of future satellite systems, or improving and/or creating new remote sensing algorithms with an eye towards future satellites. NOI/Step-1 due by 05/24/2017. Proposal due by 07/12/2017.

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U.S. Department of Agriculture

[Agriculture and Food Research Initiative - Water for Food Production Systems Challenge Area](#) - This AFRI Challenge Area focuses on multidisciplinary systems approaches, which integrate new technologies and strategic management that solve water availability and quality challenges in food production systems. The long-term goal of this program is to sustainably increase agricultural productivity and availability of safe and nutritious food while significantly reducing water use and preserving water quality. The projects are expected to transform how abundant, safe, and nutritious food is produced, processed, distributed, and consumed within the limits of available water from traditional and non-traditional sources. Applications are invited from eligible entities to submit integrated Research, Education and/or Extension projects in two specific grant types: Coordinated Agricultural Projects (CAP) and Strengthening (Food and Agricultural Science Enhancement) CAP grants. Letter of Intent: Wednesday, May 17, 2017. Closing Date: Wednesday, August 2, 2017.

[Higher Education Challenge Grants Program](#) - Projects supported by the Higher Education Challenge Grants Program will: (1) address a state, regional, national, or international educational need; (2) involve a creative or non-traditional approach toward addressing that need that can serve as a model to others; (3) encourage and facilitate better working relationships in the university science and education community, as well as between universities and the private sector, to enhance program quality and supplement available resources; and (4) result in benefits that will likely transcend the project duration and USDA support. Closing Date: Tuesday, May 30, 2017.

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Department of Defense

[World Modelers](#) - DARPA is soliciting innovative research proposals in the area of causal modeling, forecasting, and analysis techniques. Proposed research should investigate innovative approaches that enable revolutionary advances in science, mathematics, or technology. Specifically excluded is research that primarily results in evolutionary improvements to the existing state of practice. Proposal Due Date: May 11, 2017, 12:00 noon (ET).

[Dynamic Range-enhanced Electronics and Materials \(DREaM\)](#) - The Dynamic Range-enhanced Electronics and Materials (DREaM) program will exploit new materials and novel device structures to create radio frequency (RF) transistors that enable asymmetric operations in a complex electromagnetic spectrum. FAQ Submission Deadline: May 10, 2017. Proposal Due Date: May 24, 2017.

[Space Vehicles \(RV\) University Grants Program](#) (click on Related Documents tab) - AFRL/RV is seeking U.S. and U.S. Territory universities/colleges to propose grants for space-based basic and applied research that are of interest to the Department of Defense (DoD). Specifically, the objective is to encourage students' and professors' interest in Science, Technology, Engineering and Mathematics (STEM) to help meet long-term national defense needs of the United States for personnel proficient in STEM. The focus of AFRL/RV is on research areas that offer significant and comprehensive benefits to our national war-fighting and peacekeeping capabilities. These areas are organized and managed in five overarching Core Technology Competences (CTCs): Space Electro-Optical and Infrared Sensing (EO/IR), Space Electronics, Space Environmental Impacts and Mitigation, Space Platforms & Operations Technologies, and Space Experiments. The research activities managed within each CTC are summarized in the RFP. This is an open-ended FOA. Thus, this announcement will remain open until replaced by a successor FOA, but not greater than 5 years, or until the ceiling value is expended (whichever occurs first). Proposals are due the 15th of each month. On or about this date, proposal will be collected and disbursed to the appropriate RV awarding areas. Proposals may be submitted at any time during that period. For topic specific restrictions, see topic descriptions

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