

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 first statewide program in the nation, this travel fund provides **reimbursement of incremental child and eldercare expenses incurred as a result of traveling**. Female faculty and post-doctoral scholars in STEM and social science fields at West Virginia universities and colleges, including institutions that are part of the WV Community & Technical College System, are encouraged to apply. The fund is made possible by a 2-year grant from the Elsevier Foundation's New Scholars Program. Funds are administered by the Division of Science and Research at the Higher Education Policy Commission (HEPC). The final deadline of this 3-year program is April 15, 2017. All travel must occur before November 2017. See more at: <http://research.wvu.edu/researchers/funding/internal-grants/wvu-family-travel-program>

Science & SciLifeLab Prize for Young Scientists - The Prize is awarded annually to one young scientist for outstanding life science research for which he/she was awarded a doctoral degree in the previous two years. The topic of the entrant's thesis research must be in one of the following categories: **Cell and Molecular Biology, Genomics and Proteomics, Ecology and Environment, Translational Medicine**. Eligible entrants must have been awarded their doctoral degree in 2015 or 2016, and the subject of their thesis should match one of the Subject Tracks below. The winners from each category will compete for the grand prize. Prize money: US\$30,000 for the grand prize winner, US\$10,000 for each of the category winners. Publication: The grand prize winning essay will be published in Science and essays from the each of the category winners will be published online. Application deadline: **July 15, 2017**.

Student Trainee (Hydrology) GS-1399-05/07 (CI-SH) - The USGS Virginia-West Virginia Water Science Center is seeking graduate level students working towards a degree in physical or natural science, or engineering to gain practical experience in hydrology. As a Student Trainee (Hydrology) you will serve in a trainee capacity, performing routine and recurring development assignments to acquire knowledge and understanding of functions, principles, practices, and methods used in the area of hydrology. This position is year-round. During the school year part-time hours will apply; however, during school breaks and the summer period, full-time hours may apply. The work schedule may be adjusted to meet the needs of the student's schedule. In order to be eligible to receive consideration for this position, you must be able to: (1) report to the duty station location listed in this vacancy announcement, if selected; and (2) be available to work the schedule identified. Closes Wednesday 3/29/2017.

NSF
NIH
NASA
USDA
DOD
DOJ

National Science Foundation

Innovative Technology Experiences for Students and Teachers (ITEST) - ITEST is a program that promotes PreK-12 student interests and capacities to participate in the science, technology, engineering, and mathematics (STEM) and information and communications technology (ICT) workforce of the future. To achieve this objective, ITEST supports the development, implementation, and selective spread of innovative strategies for engaging students in experiences that: (1) increase student awareness of STEM and ICT careers; (2) motivate students to pursue the education necessary to participate in those careers; and/or (3) provide students with technology-rich experiences that develop their knowledge of related content and skills (including critical thinking skills) needed for entering the STEM workforce. ITEST projects may adopt an interdisciplinary focus on multiple STEM domains, focus on a single domain, or focus on one or more sub-disciplines within a domain. ITEST projects must involve students, and may also include teachers. The ITEST program is especially interested in broadening participation of students from

research, a good investment for west virginia

traditionally underrepresented groups in STEM fields and related education and workforce domains. Projects that actively engage business and industry partners to better ensure that PreK-12 experiences foster the knowledge and skill-sets needed for emerging STEM-related occupations are strongly encouraged. ITEST supports two project types: Strategies projects and SPrEaD (Successful Project Expansion and Dissemination) projects. Strategies projects support the design, implementation, and testing of innovative educational experiences that support the objectives of the ITEST program. SPrEaD projects support the wider and broader testing and dissemination of promising strategies to generate evidence and greater understanding of contextual factors that operate to enhance, moderate, or constrain anticipated project impacts. All ITEST projects may include activities designed to inform judgments regarding the feasibility of implementing strategies in typical learning environments associated with formal classrooms, out-of-school settings, or combinations of such environments. The ITEST program also invites proposals for an ITEST Resource Center to provide technical assistance to projects and provide assistance with the outreach activities of the ITEST program. Full Proposal Deadline Date: August 9, 2017.

The [Cognitive Neuroscience Program](#) seeks highly innovative proposals aimed at advancing a rigorous understanding of the neural mechanisms of human cognition. Central research topics for consideration by the program include attention, learning, memory, decision-making, language, social cognition, and emotions. Proposals with animal models are appropriate only if they include a comparative element with human subjects. Full Proposal Deadline Date: August 14, 2017.

The [Collections in Support of Biological Research \(CSBR\)](#) Program provides funds: 1) for improvements to secure and organize collections that are significant to the NSF BIO-funded research community; 2) to secure collections-related data for sustained, accurate, and efficient accessibility to the biological research community; and 3) to transfer ownership of collections. The CSBR program provides for enhancements that secure and improve existing collections, improves the accessibility of digitized specimen-related data, and develop better methods for specimen curation and collection management. Requests should demonstrate a clear and urgent need to secure the collection, and the proposed activities should address that need. Biological collections supported include established living stock/culture collections, vouchered non-living natural history collections, and jointly-curated ancillary collections such as preserved tissues and DNA libraries. Full Proposal Deadline Date: August 14, 2017.

The [Biological Oceanography Program](#) supports research in marine ecology broadly defined: relationships among aquatic organisms and their interactions with the environments of the oceans or Great Lakes. Projects submitted to the program for consideration are often interdisciplinary efforts that may include participation by other OCE Programs. Full Proposal Deadline Date: August 15, 2017.

The [Chemical Oceanography Program](#) supports research into the chemical components, reaction mechanisms, and geochemical pathways within the ocean and at its interfaces with the solid earth and the atmosphere. Major emphases include: studies of material inputs to and outputs from marine waters; orthochemical and biological production and transformation of chemical compounds and phases within the marine system; and the determination of reaction rates and study of equilibria. The Program encourages research into the chemistry, distribution, and fate of inorganic and organic substances introduced into or produced within marine environments including those from estuarine waters to the deep sea. Full Proposal Deadline Date: August 15, 2017.

The primary objective of the [Cultural Anthropology Program](#) is to support basic scientific research on the causes, consequences, and complexities of human social and cultural variability. Anthropological research spans a wide gamut, and contemporary cultural anthropology is an arena in which diverse research traditions and methodologies are valid. Recognizing the breadth of the field's contributions to science, the Cultural Anthropology Program welcomes proposals for empirically grounded, theoretically engaged, and methodologically sophisticated research in all sub-fields of cultural anthropology. Because the National Science Foundation's mandate is to support basic research, the NSF Cultural Anthropology Program does not fund research that takes as its primary goal improved clinical practice or applied policy. Full Proposal Target Date: August 15, 2017 for Senior Research - Fall Funding Cycle and Dissertation Research - Fall Funding Cycle; August 16, 2017 for Scholars - Fall Funding Cycle.

The [Marine Geology and Geophysics](#) program supports research on all aspects of geology and geophysics of the ocean basins and margins, as well as the Great Lakes. The Program includes: Structure, tectonic evolution and volcanic activity of the ocean basins, the continental margins, the mid-ocean ridges, and island arc systems; Processes controlling exchange of heat and chemical species between seawater and ocean rocks; Genesis, chemistry, and mineralogic evolution of marine sediments; Processes controlling deposition, erosion and transport of marine sediments; Past ocean circulation patterns and climates; and Interactions of continental and marine geologic processes. Full Proposal Target Date: August 15, 2017.

The [Physical Oceanography Program](#) supports research on a wide range of topics associated with the structure and movement of the ocean, with the way in which it transports various quantities, with the way the ocean's physical structure interacts with the biological and chemical processes within it, and with interactions between the ocean and the atmosphere, solid earth and ice that surround it. Full Proposal Target Date: August 15, 2017.

The [Political Science Program](#) supports scientific research that advances knowledge and understanding of citizenship, government, and politics. Research proposals are expected to be theoretically motivated, conceptually precise, methodologically rigorous, and empirically oriented. Substantive areas include, but are not limited to, American government and politics, comparative government and politics, international relations, political behavior, political economy, and political institutions. Full Proposal Target Date: August 15, 2017.

The [Sociology Program](#) supports basic research on all forms of human social organization -- societies, institutions, groups and demography -- and processes of individual and institutional change. The Program encourages theoretically focused empirical investigations aimed at improving the explanation of fundamental social processes. Included is research on organizations and organizational behavior, population dynamics, social movements, social groups, labor force participation, stratification and mobility, family, social networks, socialization, gender roles, and the sociology of science and technology. The Program supports both original data collections and secondary data analysis that use the full range of quantitative and qualitative methodological tools. Theoretically grounded projects that offer methodological innovations and improvements for data collection and analysis are also welcomed. Click here for information on [Strengthening Qualitative Research through Methodological Innovation and Integration](#). The Sociology Program also funds doctoral dissertation research to defray direct costs associated with conducting research, for example, dataset acquisition, additional statistical or methodological training, meeting with scholars associated with original datasets, and fieldwork away from the student's home campus. See the [Sociology Program Doctoral Dissertation Improvement Awards Solicitation](#) for more information on this opportunity. Full Proposal Target Date: August 15, 2017.

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National Institutes of Health

[Maximizing the Scientific Value of the NHLBI Biorepository: Scientific Opportunities for Exploratory Research \(R21\)](#) - This Funding Opportunity Announcement (FOA) will support meritorious exploratory research relevant to the NHLBI mission (<http://www.nhlbi.nih.gov/about/org/mission>) using the existing biospecimen collections that are stored in the NHLBI Biologic Specimen Repository (Biorepository), thereby maximizing the scientific value of the stored collections and providing researchers with an opportunity to generate preliminary data for subsequent research proposals. Letter of Intent Due Date(s): 30 days prior to the application due date. Application Due Date(s): February 17, 2017; October 17, 2017; February 15, 2018; October 17, 2018; February 15, 2019; October 17, 2019.

[Advancing the Science of Geriatric Palliative Care \(R01\)](#) - This Funding Opportunity Announcement (FOA) encourages research grant applications focused on palliative care in geriatric populations. This FOA covers studies in a variety of settings including hospitals (and specific sites within hospitals including specialty medical or surgical wards, intensive care units, and emergency departments), post-acute care settings, outpatient clinics and doctors' offices, patients' homes and other residential settings, assisted living facilities, nursing homes, hospices, and other healthcare or community settings. This FOA encourages both prospective studies and analyses of existing datasets, health and medical records, claims data, or other sources. Leveraging ongoing cohorts, intervention studies, networks, data and specimen repositories, and other existing research resources and infrastructure are encouraged. Study designs may include observational approaches, quasi-experimental designs, and interventional studies. Companion Funding Opportunity is [PA-17-226, R21](#) Exploratory/Developmental Grant. Application Due Date(s): [Standard dates](#) apply.

[Hearing Health Care for Adults: Improving Access and Affordability \(R21\)](#) - This FOA encourages exploratory and developmental research applications for research on hearing health care in adults in support of improving access and affordability. Further research is needed to strengthen the evidence base with a goal of delivering better hearing health care outcomes in adults. Companion Funding Opportunity is [PA-17-202, R01](#) Research Project Grant.

[NIOSH Small Research Program \(R03\)](#) - The purpose of this grant program is to develop an understanding of the risks and conditions associated with occupational diseases and injuries, to explore methods for reducing risks and for preventing or minimizing exposure to hazardous conditions in the workplace, and to translate significant scientific findings into prevention practices and products that will effectively reduce work-related illnesses and injuries. Application Due Date(s): [Standard dates](#) apply.

[Mentored Research Scientist Development Award \(K01\)](#) - The purpose of the K01 is to provide support and 75% "protected time" for an intensive, supervised (mentored) career development experience in occupational health and

safety research leading to research independence. The goal of the NIOSH Mentored Research Scientist Development Award (K01) is to help ensure the availability of an adequate numbers of highly trained scientists and educators to address occupational safety and health critical issues. Application Due Date(s): [Standard dates](#) apply.

Human-Animal Interaction (HAI) Research (R21) - This Funding Opportunity Announcement (FOA) invites grant applications for research to examine 1) the impact of HAI on typical and atypical child development and health; 2) the evaluation of animal-assisted intervention for children and adults with disabilities or in need of rehabilitative services; 3) the effects of animals on public health, including cost effectiveness of involving animals in reducing and preventing disease. Companion Funding Opportunities are [PAR-17-231](#), [R01](#) Research Project Grant and [PAR-17-230](#), [R03](#) Small Grant Program. Letter of Intent Due Date(s): 30 days prior to the application due date. Application Due Date(s): June 27, 2017, March 30, 2018, March 30, 2019.

NIDCR Dental Specialty and PhD Program (DSPP)(K12) - The Dental Specialty and PhD Program (DSPP) FOA encourages applications for institutional research career development (K12) programs from organizations that propose to develop outstanding clinician scientists through an integrated program of advanced clinical training in a recognized dental specialty and supervised research training leading to a PhD in biomedical or behavioral science, or in another field applicable to dental, oral and craniofacial research. The program should accelerate the process of early career dentist scientists in achieving competencies in both clinical and research areas and facilitate the transition to an independent and productive research career dedicated to improving dental, oral and craniofacial health. Letter of Intent Due Date(s): June 3, 2017. Application Due Date(s): July 3, 2017.

Intensive Longitudinal Analysis of Health Behaviors: Leveraging New Technologies to Understand Health Behaviors (U01) - This Funding Opportunity Announcement (FOA) encourages applications to support Research Projects studying factors that influence key health behaviors at the individual level, using intensive longitudinal data collection and analytic methods. The network will also assess how study results can be leveraged to introduce innovations into longstanding behavioral theories to advance the field of theory-driven behavior change interventions. Companion Funding Opportunity is [RFA-OD-17-005](#), [U24](#) Resource-Related Research Projects – Cooperative Agreements. Letter of Intent Due Date(s): September 5, 2017. Application Due Date(s): [Standard dates](#) apply.

Integration and Validation of Emerging Technologies to Accelerate Cancer Research (R33) - This Funding Opportunity Announcement (FOA) is associated with the Beau Biden Cancer MoonshotSM Initiative that is intended to accelerate cancer research. The purpose of this FOA is to promote research on the advanced development and rigorous validation of new enabling technologies/tools/capabilities with a transformative potential for cancer research and clinical oncology. Letter of Intent Due Date(s): 30 days prior to the application due date. Application Due Date(s): May 10, 2017.

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NASA

Atmospheric Composition: Laboratory Research - The principal area of research solicited through this program element is for laboratory investigations that supply basic spectroscopic, chemical, and physical measurements that are currently needed to interpret NASA-generated atmospheric composition data sets. In particular, laboratory studies that contribute to a process level understanding of atmospheric variability as discerned from space-based measurements, such as performed by the Aura suite of instruments, as well as from the broad range of complementary suborbital measurements, are solicited. Step-1 proposal due 30 Mar 2017. Step-2 proposal due 26 May 2017.

The overall objective of **Making Earth System Data Records for Use in Research Environments (MEaSUREs)** solicitations is to select projects providing Earth science higher level data products and services driven by NASA's Earth science goals. MEaSUREs may include infusion or deployment of applicable science tools that contribute to data product quality improvement, consistency, merging or fusion, or understanding. An Earth System Data Record (ESDR) is defined as a unified and coherent set of observations of a given parameter of the Earth system, which is optimized to meet specific requirements in addressing science questions. These data records are critical to understanding Earth System processes; are critical to assessing variability, long-term trends, and change in the Earth System; and provide input and validation means to modeling efforts. Emphasis is placed into linking together multiple satellites into a constellation, developing the means of utilizing a multitude of data sources to form coherent time series, and facilitating the use of extensive data in the development of comprehensive Earth system models. This ROSES element provides an opportunity for the research community to participate in the development

and generation of data products, which complement and augment the NASA produced and distributed Earth science data products available to the research community and other stakeholders. Proposals responsive to this call MUST utilize at least one satellite data set, preferably NASA sponsored data set. MEASURES NOIs Due by Apr 21, 2017. MEASURES Proposals Due by May 22, 2017.

Advanced Component Technology - The Advanced Component Technology (ACT) program seeks proposals for technology development activities leading to new component- and subsystem-level space-based and airborne measurement techniques to be developed in support of the Science Mission Directorate's Earth Science Division. The ACT program is managed by the NASA's Earth Science Technology Office (ESTO). ESTO supports the development of a range of advanced technologies to meet future Earth science measurements and activities addressing the full science measurement process, from instruments needed to make observations, to data systems and information products that make those observations useful. The goals of the ACT program are to research, develop, and demonstrate component- and subsystem-level technology development that:

- Enable new Earth observation measurements, and
- Reduce the risk, cost, size, volume, mass, and development time of Earth observing instruments.

Notices of Intent are requested by April 19, 2017, and proposals are due by June 19, 2017.

ROSES 2017: Fire Impacts on Regional Emissions and Chemistry - The NASA Tropospheric Composition Program (TCP) is soliciting proposals for participation in an airborne campaign to be conducted in the continental U.S. during July, August, and into mid- September of 2019 to improve our understanding of the transport of and chemical transformations in biomass burning plumes and their impact on air quality. A single comprehensively instrumented research aircraft is required to accomplish this research. In this airborne campaign, the NASA DC-8 may provide observations from near surface up to ~12 km. A FIREChem white paper, which describes the scientific background, science questions, and experimental approach, can be found at:

https://espo.nasa.gov/FIREChem_White_Paper. FIREChem primary observations will emphasize in situ measurements of trace gas and aerosol composition mixing ratios, aerosol particle properties, and meteorological parameters, as well as remotely sensed lidar observations of ozone and aerosol optical depth. The primary goal of this mission is to improve our understanding of the detailed composition of fire emissions, factors affecting their transport, and chemical transformations in biomass burning plumes and their impact on air quality. Proposals are due June 16, 2017.

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U.S. Department of Agriculture

Agriculture and Food Research Initiative - Food Safety Challenge Area - This AFRI Challenge Area promotes and enhances the scientific discipline of food safety, with an overall aim of protecting consumers from microbial and chemical contaminants that may occur during all stages of the food chain, from production to consumption. This requires an understanding of the interdependencies of human, animal, and ecosystem health as it pertains to foodborne pathogens. The long-term outcome for this program is to support the development and deployment of science based knowledge to improve the safety and nutritional quality of food without sacrificing flavor, acceptability, and affordability. In order to achieve this outcome, this program will support multi-function Integrated Research, Education, and/or Extension Projects, and Food and Agricultural Science Enhancement (FASE) Grants that address the Program Area Priority, Effective Mitigation Strategies for Antimicrobial Resistance. Closing Date: Wednesday, June 21, 2017.

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Department of Defense

3D Visualization (click on Package, then click Preview, then click Download Instructions from the pop-up) - NSWC Crane is interested in funding research of advanced 3D Visualization renderings from dynamic (moving) platforms. This proposed research is to assess techniques currently utilized in a static environment and determine approaches to utilize several moving platforms in creating the 3D visualization of the scene. **Full Proposal Due:** April 19, 2017, **Eastern Daylight Time** 14:00.

Forensic Analysis of Microelectronics (click on Package, then click Preview, then click Download Instructions from the pop-up) - NSWC Crane is interested in funding research to determine capabilities of mass spectrometry in forensic analysis of organic and inorganic compounds associated with microelectronics. **Full Proposal Due:** April 19, 2017, **Eastern Daylight Time** 14:00.

Fiscal Year (FY) 2018 Department of Defense Multidisciplinary Research Program of the University Research Initiative (MURI) - The MURI program supports basic research in science and engineering at U.S. institutions of higher education 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. DoD's basic research program invests broadly in many specific fields to ensure that it has early cognizance of new scientific knowledge. Topics of interest for all branches of the service are listed in the BAA. White Papers: 01 Aug 2016 (Monday) 11:59 Eastern Daylight Time. Full Proposals: 15 Nov 2016 (Tuesday) 11:59 Eastern Standard Time.

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Department of Justice

NIJ FY17 Post-conviction Testing of DNA Evidence - NIJ seeks proposals for funding to assist in defraying the costs associated with post-conviction DNA testing in cases of violent felony offenses (as defined by State law) in which actual innocence might be demonstrated. Funds may be used to identify and review such post-conviction cases and to locate and analyze associated biological evidence. This supports the DOJ mission to ensure fair and impartial administration of justice for all Americans. While successful exonerations to correct injustice are notable program outcomes, the careful review, consideration and closing of cases subjected to post-conviction DNA testing that do not ultimately demonstrate innocence also work to advance the public's interest that justice has been fairly applied. Applications Due: May 9, 2017.

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