

March 15, 2014

Below please find recently-announced grant and other announcements. Previously-posted grants are available on our [funding pages](#).

Please send information you think should be included, especially about interdisciplinary environmental conferences, to [espp@msu.edu](mailto:espp@msu.edu)

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## **ESPP Funding Opportunities: March 15, 2014**

### **OPPORTUNITIES FOR STUDENTS and RECENT GRADUATES**

#### **Atmospheric and Geospace Sciences Postdoctoral Research Fellowships (AGS-PRF) - NSF 14-509 Replaces NSF 11-521**

The Division of Atmospheric and Geospace Sciences (AGS) awards Postdoctoral Research Fellowships (PRF) to highly qualified investigators within 3 years of obtaining their PhD to carry out an independent research program. The research plan of each Fellowship must address scientific questions within the scope of AGS disciplines. The program supports researchers for a period of up to 2 years with Fellowships that can be taken to the institution or national facility of their choice. 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 establish them in leadership positions within the Atmospheric and Geospace Sciences community. Because the Fellowships are offered only to postdoctoral scientists early in their careers, doctoral advisors are encouraged to discuss the availability of AGS Postdoctoral Research Fellowships with their graduate students early in their doctoral programs. Fellowships are awards to individuals, not institutions, and are administered by the Fellows.

*Closing date: Jan. 12, 2015. Second Monday in January annually thereafter.*

### **OPPORTUNITIES FOR FACULTY**

#### **2014 Broad Agency Announcement - Engineer Research and Development Center W912HZ-14-BAA-01**

The U.S. Army Engineer Research and Development Center (ERDC) has issued a Broad Agency Announcement (BAA) for various research and development topic areas. The ERDC consists of the Coastal and Hydraulics Lab (CHL), the Geotechnical and Structures Lab (GSL), the Environmental Lab (EL) and the Information Technology Lab (ITL) in Vicksburg, Mississippi; the Cold Regions Research and Engineering Lab (CRREL) in Hanover, New Hampshire; the Construction Engineering

Research Lab (CERL) in Champaign, Illinois; and the Topographic Engineering Center (TEC) in Alexandria, Virginia. The ERDC is responsible for conducting research in the broad fields of hydraulics, dredging, coastal engineering, instrumentation, oceanography, remote sensing, geotechnical engineering, earthquake engineering, soil effects, vehicle mobility, self-contained munitions, military engineering, geophysics, pavements, protective structures, aquatic plants, water quality, dredged material, treatment of hazardous waste, wetlands, physical/mechanical/ chemical properties of snow and other frozen precipitation, infrastructure and environmental issues for installations, computer science, telecommunications management, energy, facilities maintenance, materials and structures, engineering processes, environmental processes, land and heritage conservation, and ecological processes.

*Jan. 31, 2015*

#### **Agriculture and Food Research Initiative: Foundational Program - USDA-NIFA-AFRI-004412**

The AFRI Foundational Program is offered to support research grants in the six AFRI priority areas to continue building a foundation of knowledge critical for solving current and future societal challenges. The six priority areas are: Plant Health and Production and Plant Products; Animal Health and Production and Animal Products; Food Safety, Nutrition, and Health; Renewable Energy, Natural Resources, and Environment; Agriculture Systems and Technology; and Agriculture Economics and Rural Communities. Single-function Research Projects, multi-function Integrated Projects and Food and Agricultural Science Enhancement (FASE) Grants are expected to address one of the Program Area Priorities (see Foundational Program RFA for details).

*Sept. 29, 2014*

#### **Agriculture and Food Research Initiative: Water for Agriculture Challenge Area - USDA-NIFA-AFRI-004468**

NIFA initiates a new challenge area to address critical water resources issues such as drought, excess soil moisture, flooding, quality and others in an agricultural context. Funding will be used to develop management practices, technologies, and tools for farmers, ranchers, forest owners and managers, public decision makers, public and private managers, and citizens to improve water resource quantity and quality. NIFA's approach will link social, economic, and behavioral sciences with traditional biophysical sciences and engineering to address regional-scale issues with shared hydrological processes and meteorological and basin characteristics.

*Aug. 13, 2014*

#### **Nanotechnology Undergraduate Education (NUE) in Engineering - NSF 14-541**

This solicitation aims at introducing nanoscale science, engineering, and technology through a variety of interdisciplinary approaches into undergraduate engineering education. The focus of the FY 2014 competition is on nanoscale engineering education with relevance to devices and systems and/or on the societal, ethical, economic and/or environmental issues relevant to nanotechnology.

*May 27, 2014*

#### **Cooperative Studies Of The Earth's Deep Interior (CSEDI) - NSF 11-548 Replaces NSF 06-578**

The Division of Earth Sciences (EAR) invites the submission of proposals for collaborative, interdisciplinary studies of the Earth's interior within the framework of the community-based initiative known as Cooperative Studies of the Earth's Deep Interior (CSEDI). Funding will support basic research on the character and dynamics of the Earth's mantle and core, their influence on the evolution of the Earth as a whole, and on processes operating within the deep interior that affect or are expressed on the Earth's surface.

*Sept. 22, 2014*

#### **Critical Techniques and Technologies for Advancing Big Data Science & Engineering (BIGDATA) - NSF 14-543 Replaces NSF 12-499**

This solicitation invites two types of proposals: Foundations (F): those developing or studying fundamental techniques, theories, methodologies, and technologies of broad applicability to Big Data problems; and Innovative Applications (IA): those developing techniques, methodologies and technologies of key importance to a Big Data problem directly impacting at least one specific application. This solicitation is a part of a larger national Big Data Initiative, which covers a wide range of topics: big data infrastructure; education and workforce development; and multi-disciplinary collaborative teams and communities that address complex scientific, biomedical and engineering grand challenges.

*June 9, 2014*

### **Cyber-Innovation for Sustainability Science and Engineering (CyberSEES) NSF 14-531**

The Cyber-Innovation for Sustainability Science and Engineering (CyberSEES) program aims to advance interdisciplinary research in which the science and engineering of sustainability are enabled by new advances in computing, and where computational innovation is grounded in the context of sustainability problems. In the SEES context, a sustainable world is one where human needs are met equitably without harm to the environment or sacrificing the ability of future generations to meet their own needs.

*April 8, 2014 and Feb. 3, 2015.*

### **Sustainability Research Networks Competition - NSF 14-534**

The goal of the Sustainability Research Networks (SRN) competition is to bring together multidisciplinary teams of researchers, educators, managers, policymakers and other stakeholders to conduct collaborative research that addresses fundamental challenges in sustainability. The 2014 SRN competition will fund research networks with a focus on urban sustainability. Proposals should identify an ambitious and nationally important theme in urban sustainability, present a creative and innovative research agenda that builds upon existing work in this area, and describe how a network of researchers and other stakeholders will be supported that integrates a variety of disciplines, sectors and backgrounds in order to create new perspectives and yield significant new understanding and knowledge.

*April 29, 2014*

### **Advancing Informal STEM Learning (AISL) - NSF 13-608**

The Advancing Informal STEM Learning (AISL) program seeks to advance new approaches to and evidence-based understanding of the design and development of STEM learning in informal environments; provide multiple pathways for broadening access to and engagement in STEM learning experiences; advance innovative research on and assessment of STEM learning in informal environments; and develop understandings of deeper learning by participants. The AISL program supports five types of projects: (1) Pathways, (2) Research in Service to Practice, (3) Innovations in Development, (4) Broad Implementation, and (5) Conferences, Symposia, and Workshops.

*Nov. 14, 2014*

### **Science of Learning Centers (SLC) - NSF PD 07-7278**

The Science of Learning Centers program (SLC) offers awards for large-scale, long-term Centers that create the intellectual, organizational and physical infrastructure needed for the long-term advancement of Science of Learning research. It supports research that harnesses and integrates knowledge across multiple disciplines to create a common groundwork of conceptualization, experimentation and explanation that anchor new lines of thinking and inquiry towards a deeper understanding of learning. The Program is currently only accepting proposals for Workshops, EARly-concept Grants for Exploratory Research (EAGER), Rapid Response Grants (RAPID), and Supplements to NSF awards (including those funded by other programs).

*Full proposals accepted anytime*

### **Antarctic Research - NSF 13-527**

The National Science Foundation's Antarctic Sciences Section supports research that expands fundamental knowledge of the region as well as research that relies on the unique characteristics of the Antarctic continent as a platform from which to support research. Antarctic fieldwork will only be supported for research that can only be performed or is best performed in Antarctica. The Antarctic Sciences Section strongly encourages research using existing samples, models, and data as well as research at the intersection between disciplines.

*04-15-2014, Annually Thereafter*

### **GeoPRISMS Program - NSF 12-537**

GeoPRISMS will investigate the coupled geodynamics, earth surface processes, and climate interactions that build and modify continental margins over a wide range of timescales. These interactions cross the shoreline and have applications to margin evolution and dynamics, construction of stratigraphic architecture, accumulation of economic resources, and associated geologic hazards and environmental management. Further information and a science plan for the program detailing each initiative and the associated thematic studies, as well as the overarching themes, can be found on the GeoPRISMS website at <http://www.geoprisms.org/>.

*07-01-2014, July 1, Annually Thereafter*

### **Arctic Research Opportunities NSF 13-592 Replaces NSF 10-597**

The goal of the NSF Section for Arctic Sciences, Division of Polar Programs (PLR), is to gain a better understanding of the Arctic's physical, biological, geological, chemical, social and cultural processes; the interactions of oceanic, terrestrial, atmospheric, biological, social, cultural, and economic systems; and the connections that define the Arctic. The Arctic Sciences and other NSF programs support projects that contribute to the development of the next generation of researchers and scientific literacy for all ages through education, outreach, and broadening participation in science, technology, engineering, and mathematics. Program representatives from polar and other non-polar NSF programs that support arctic research coordinate across NSF, including joint review and funding of arctic proposals and mutual support of special projects with high logistical costs.

*October 20, 2014*