NOTE: See previously-posted opportunities available on our funding pages.

Below please find recent grant and related announcements. Please send Jon MacDonagh-Dumler (macdon47@msu.edu) information you think should be included, especially about interdisciplinary environmental conferences.

ESPP Funding Opportunities: May 01, 2013

OPPORTUNITIES FOR STUDENTS AND RECENT GRADUATES

**NSF Earth Sciences Postdoctoral Fellowships  NSF EAR-PF 13-548**

**Full Proposal Deadline:** July 18, 2013

July 18, Annually Thereafter

**Anticipated Type of Award:** Fellowship

**Estimated Number of Awards:** 10 fellowships per year

**Anticipated Funding Amount:** $87,000 per year per fellowship, FY 2014-2015.

The Division of Earth Sciences (EAR) awards Postdoctoral Fellowships to recent recipients of doctoral degrees for research and training in topics relevant to Earth sciences. The fellows must develop and implement 1) research projects that seek to address scientific questions within the purview of EAR programs and 2) plans to broaden participation in Earth sciences. The program supports researchers for a period of up to 2 years with fellowships that can be taken to the institution of their choice (including facilities abroad). Because the fellowships are offered only to postdoctoral scientists early in their career, doctoral advisors are encouraged to discuss the availability of EAR postdoctoral fellowships with their graduate students early in their doctoral programs. Fellowships are awards to individuals, not institutions, and are administered by the Fellows.

A research plan whose focus falls within the scope of any of the EAR disciplines is eligible for support. The list of EAR programs can be found at http://www.nsf.gov/div/index.jsp?div=EAR and include EarthScope, Geobiology and Low Temperature Geochemistry, Geomorphology and Land Use Dynamics, Geophysics, Hydrologic Sciences, Petrology and Geochemistry, Sedimentary Geology and Paleobiology, and Tectonics.

**Research Experiences for Undergraduates (REU)  NSF 13-542**

**Full Proposal Deadline(s):** May 24, 2013 Fourth Friday in May, Annually Thereafter

Deadline for REU Site proposals requiring access to Antarctica. All other REU Site proposals must be submitted to the August REU deadline.
August 28, 2013  Fourth Wednesday in August,  
Annually Thereafter  
Deadline for **ALL OTHER** REU Site proposals except those requiring access to Antarctica

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 multidepartment 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. Students do not apply to NSF to participate in REU activities. Students apply directly to REU Sites or to NSF-funded investigators who receive REU Supplements. To identify appropriate REU Sites, students should consult the directory of active REU Sites on the Web at: http://www.nsf.gov/crssprgm/reu/reu_search.cfm.

**OPPORTUNITIES FOR FACULTY**

**Dear Colleague Letter - United States and United Kingdom Clean Water Collaboration  NSF 13-082**

The **Global Grand Challenges Summit** initiative between the national academies of engineering in the UK, US, and China brings together leading international engineers, future engineers, innovators, and policy makers to share their ideas on solutions to the world’s most pressing challenges. In the context of the Grand Challenges Summit, the UK Engineering and Physical Sciences Research Council (EPSRC) and NSF announce a joint, parallel activity to encourage collaborative research between leading researchers and students from the UK and US.

The Directorate for Engineering (ENG) will consider supplement funding requests for collaborative research with UK-based research groups in the area of clean water. Within clean water research, areas of particular interest include water treatment and purification, water reuse, storm water use, the water-energy nexus, urban water sustainability, and the resilience of water infrastructures. The supplement funding requests must be for existing active NSF awards that are managed by any ENG
program officer. Supplement funding requests must be within the scope of the existing NSF active parent award. The supplement budget request must not exceed $50,000, and the duration of the proposed activities must not exceed one year. Prior to submitting a supplement funding request, an email request for authorization to submit such a supplement request must be sent to the following NSF/ENG program officers:

- Bruce Hamilton, bhamilto@nsf.gov
- Geoffrey Prentice, gprentic@nsf.gov
- Debra Reinhart, dreinhar@nsf.gov

**Widening Implementation & Demonstration of Evidence-Based Reforms – NSF WIDER 13-552**

**Full Proposal Deadline:** July 03, 2013  
**Anticipated Type of Award:** Standard Grant or Continuing Grant  
**Estimated Number of Awards:** 30 to 50  
Grants will be made in 4 tracks.

- **Planning grants:** up to 20 awards  
- **Institutional Implementation grants:** up to 12 awards  
- **Community Implementation grants:** up to 12 awards  
- **Research grants:** up to 10 awards

**Anticipated Funding Amount:** $20,000,000

The chief goal of WIDER is to transform institutions of higher education into supportive environments for STEM faculty members to substantially increase their use of evidence-based teaching and learning practices. Through this process, WIDER seeks to substantially increase the scale of application of highly effective methods of STEM teaching and learning in institutions of higher education, by employing instructional materials and methods that have a convincing evidentiary basis of effectiveness. In particular, WIDER seeks this transformation for high enrollment, lower division courses required for many STEM majors and taken by many other students to fulfill general education distribution requirements.

Included in our broad definition of effective STEM teaching and learning are not only instructional practices in traditional learning environments, but also modern laboratory methods and field research, proven distance education methods (or hybrid designs incorporating both face-to-face and distance methods), and improved approaches to motivating student interest in STEM. In all cases, the primary goal of WIDER is to increase substantially the scale of these improvements within and across the higher education sector.

**AGRICULTURE**

**USDA Agriculture and Food Research Initiative – Foundational Program**  
USDA-NIFA-AFRI-003958  
**Closing Date for Applications:** May 22, 2013
In FY 2013, subject to availability of funds it is anticipated that approximately $136 million will be made available to support new awards within the AFRI Foundational Program.

The U.S. Department of Agriculture (USDA) established the Agriculture and Food Research Initiative (AFRI) under which the Secretary of Agriculture to address food and agricultural sciences in six priority areas, including: 1) plant health and production and plant products; 2) animal health and production and animal products; 3) food safety, nutrition, and health; 4) renewable energy, natural resources, and environment; 5) agriculture systems and technology; and 6) agriculture economics and rural communities.

**BIOLOGY**

**Dimensions of Biodiversity NSF 13-536**

Full Proposal Deadline: May 6, 2013

Anticipated Type of Award: Standard Grant or Continuing Grant

Estimated Number of Awards: 10 Awards contingent on availability of funds

Anticipated Funding Amount: $18,000,000 to $24,000,000

The goal of the Dimensions of Biodiversity campaign is to transform, by 2020, how we describe and understand the scope and role of life on Earth. The campaign promotes novel, integrated approaches to identify and understand the evolutionary and ecological significance of biodiversity amidst the changing environment of the present day and in the geologic past. This campaign takes a broad view of biodiversity, and currently focuses on the integration of genetic, taxonomic/phylogenetic, and functional dimensions of biodiversity. Successful proposals should integrate these three dimensions to understand interactions and feedbacks among them.

Dimensions of Biodiversity FY2013 again includes a partnership with NASA. The partnership will support the use of satellite remote sensing as a tool to address research questions that integrate the genetic, taxonomic/phylogenetic, and functional dimensions of biodiversity.

**Collections in Support of Biological Research - NSF CSBR 13-557**

Full Proposal Deadline(s): July 16, 2013

Second Monday in July, Annually Thereafter

Anticipated Type of Award: Standard Grant or Continuing Grant

Estimated Number of Awards: 10 - 20 per competition

Anticipated Funding Amount: $6,000,000 biennially

The Collections in Support of Biological Research (CSBR) Program provides funds:

1) for improvements to secure, improve, 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 of the collection to the biological research community; and 3) to transfer collection ownership responsibilities.

The CSBR program provides for enhancements that secure and improve existing collections, result in accessible 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.

EDUCATION

**EHR Core Research  NSF 13-555**

Full Proposal Target Date(s):  
- July 12, 2013
- February 04, 2014
- First Tuesday in February, Annually Thereafter

Anticipated Type of Award:  
- Standard Grant or Continuing Grant

Anticipated Number of Awards:  
- 28

Anticipated Funding Amount:  
- $20,000,000

The EHR Core Research (ECR) program establishes a mechanism in the Directorate for Education and Human Resources to provide funding in foundational research areas that are broad, essential and enduring. EHR seeks proposals that will help synthesize, build and/or expand research foundations in the following core areas: STEM learning, STEM learning environments, workforce development, and broadening participation in STEM. We invite researchers to identify and conduct research on questions or issues in order to advance the improvement of STEM learning in general, or to address specific challenges of great importance. Two types of proposals are invited: Core Research Proposals (maximum 5 years, $1.5 million) that propose to study a foundational research question/issue designed to inform the transformation of STEM learning and education and Capacity Building Proposals (maximum 3 years, $300,000) intended to support groundwork necessary for advancing research within the four core areas.

**Nanotechnology Undergraduate Education (NUE) in Engineering  NSF 13-541**

Full Proposal Deadline:  
- May 22, 2013

Anticipated Type of Award:  
- Standard Grant

Estimated Number of Awards:  
- 10

Anticipated Funding Amount:  
- $1,900,000
  
  Each award up to a max. of $200,000 for two years.

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 2013 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. Related funding opportunities are posted on the web site for the National Nanotechnology Initiative, www.nsf.gov/nano.

**Advancing REDD+ Policy and Practice  U.S. Department of State OES-OCC-13-003**

Closing Date for Applications: May 26, 2013  
Expected Number of Awards: 1  
Estimated Total Program Funding: $1,000,000

The Bureau of Oceans and International Environmental and Scientific Affairs (OES), Office of Global Change at the Department of State announces the Request for Applications (RFA) for a cooperative agreement to be titled: **Advancing REDD+ Policy and Practice**. The goal of this program is to influence and strengthen the capacity of practitioners and policy makers on Reducing Emissions from Deforestation and forest Degradation (REDD+) in developing countries through training and educational outreach by producing a number of analytic papers on key REDD+ topics in areas that are relevant both to the United Nations Framework Convention on Climate Change (UNFCCC) and to the implementation of REDD+ such as verification, strategies for financing implementation, and future options for land-based mitigation.

**GEOSCIENCES**

**EarthCube: Developing a Community-Driven Data and Knowledge Environment for the Geosciences  NSF 13-529**

Full Proposal Deadline: May 22, 2013  
Anticipated Type of Award: Standard Grant or Continuing Grant or Cooperative Agreement  
Estimated Number of Awards: 18  
Anticipated Funding Amount: $14,500,000

EarthCube is a community-driven activity sponsored through a partnership between the NSF Directorate of Geosciences and Office of Cyberinfrastructure to transform the conduct of geosciences research and education. EarthCube aims to create a well-connected and facile environment to share data and knowledge in an open, transparent, and inclusive manner, thus accelerating the ability of the geosciences community to understand and predict the Earth system.

This umbrella solicitation for EarthCube allows funding opportunities to be flexible and responsive to emerging community needs and collaborative processes. The EarthCube vision and goals do not change over time, and this section of the solicitation will remain constant. Funding opportunities to develop elements of the EarthCube environment will be described in Amendments to this solicitation. Amendments will appear in the Program Description Section of the solicitation and will include details on the parameters, scope, conditions, and requirements of the proposal call. Researchers who
receive alerts related to solicitation releases will receive notification when the 
EarthCube solicitation is updated with an Amendment.