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: Jan. 1, 2014

OPPORTUNITIES FOR STUDENTS and RECENT GRADUATES

SBE Doctoral Dissertation Research Improvement Grants (SBE DDRIG) – NSF 11-547
Full Proposal Deadline(s): August 16, 2014 for Physical Anthropology
                          August 16, Annually Thereafter
                          February 09, 2014 for Biological Anthropology
                          February 09, Annually Thereafter
                          July 15, 2014 for Biological Anthropology
                          March 16, 2015 for Biological Anthropology
                          February 13, 2014 for Geography & Spatial Sciences
                          Second Thursday in February, Annually Thereafter
                          October 09, 2014 for Geography & Spatial Sciences
                          Second Thursday in October, Annually Thereafter
                          September 15, 2014 for Documenting Endangered Languages
                          September 15, Annually Thereafter
                          January 15, 2014 for Political Science
                          January 15, Annually Thereafter
                          September 16, 2014 for Political Science
                          September 16, Annually Thereafter
                          February 01, 2014 for Science, Technology, and Society
                          February 01, Annually Thereafter
                          August 01, 2014 for Science, Technology, and Society
                          August 01, Annually Thereafter
The National Science Foundation's Division of Behavioral and Cognitive Sciences (BCS), Division of Social and Economic Sciences (SES), National Center for Science and Engineering Statistics (NCSES), and the SBE Office of Multidisciplinary Activities (SMA) award grants to doctoral students to improve the quality of dissertation research. These grants provide funds for items not normally available through the student's university. Additionally, these grants allow doctoral students to undertake significant data-gathering projects and to conduct field research in settings away from their campus that would not otherwise be possible. Proposals are judged on the basis of their scientific merit, including the theoretical importance of the research question and the appropriateness of the proposed data and methodology to be used in addressing the question. Requirements vary across programs, so proposers are advised to consult the relevant program's webpage for specific information and contact the program director if necessary.

**Doctoral Dissertation Improvement Grants in the Directorate for Biological Sciences (DDIG) – NSF 13-568**
Full Proposal Deadline: October 9, 2014
Second Thursday in October, Annually Thereafter

The National Science Foundation awards Doctoral Dissertation Improvement Grants in selected areas of the biological sciences. Proposals must fall within the scope of any of the clusters in the Division of Environmental Biology (DEB) or the Behavioral Systems Cluster in the Division of Integrative Organismal Systems (IOS). These grants provide partial support of doctoral dissertation research for improvement beyond the already existing project. Allowed are costs for doctoral candidates to participate in scientific meetings, to conduct research in specialized facilities or field settings, and to expand an existing body of dissertation research.

A student must have advanced to candidacy for a Ph.D. degree before the submission deadline to be eligible to submit a proposal. A statement that the student has advanced to candidacy for a Ph.D., signed and dated by the department chairperson, graduate dean, or similar administrative official is required. The proposal must be submitted through regular organizational channels by the dissertation advisor(s) on behalf of the graduate student. The student must be enrolled at a U.S. institution, but need not be a U.S. citizen.

**SBE Postdoctoral Research Fellowships (SPRF) – NSF 12-591**
Full Proposal Deadline: October 27, 2014
Last Monday in October, Annually Thereafter

NSF offers postdoctoral research fellowships to provide opportunities for recent doctoral graduates to obtain additional training, to gain research experience under the sponsorship of established scientists, and to broaden their scientific horizons beyond their undergraduate and graduate training. Postdoctoral fellowships are further designed to assist new scientists to direct their research efforts across traditional disciplinary lines and to avail themselves of unique research resources, sites, and facilities, including at foreign locations. NSF seeks to promote the participation of scientists from all segments of the scientific community, including those from under-represented groups, in its
research programs and activities; the postdoctoral period is considered to be an important level of professional development in attaining this goal. The goal of the SBE Postdoctoral Research Fellowship (SPRF) program is to enhance the participation of under-represented groups in science and engineering; promote interdisciplinary research; and encourage doctoral-level scientists (who are not yet in full-time positions) to take advantage of the two-year fellowships to prepare for scientific careers in academia, industry, and government.

**East Asia and Pacific Summer Institutes for U.S. Graduate Students (EAPSI)**

NSF 13-593

Full Proposal Deadline: **November 13, 2014**

Second Thursday in November, Annually Thereafter

NSF and selected foreign counterpart science and technology agencies sponsor international research institutes for U.S. graduate students in seven East Asia and Pacific locations at times set by the counterpart agencies between June and August each year. The Summer Institutes (EAPSI) operate similarly and the research visits to a particular location take place at the same time. Although applicants apply individually to participate in a Summer Institute, awardees become part of the cohort for each location. Applicants must propose a location, host scientist, and research project that is appropriate for the host site and duration of the international visit.

An EAPSI award provides U.S. graduate students in science, engineering, and education: 1) first-hand research experiences in Australia, China, Japan, Korea, New Zealand, Singapore, or Taiwan; 2) an introduction to the science, science policy, and scientific infrastructure of the respective location; and 3) an orientation to the society, culture, and language. It is expected that EAPSI awards will help students initiate professional relationships to enable future collaboration with foreign counterparts.

The NSF award includes participation in the Pre-Departure Orientation, summer stipend of $5,000, and roundtrip airplane ticket to the host location. EAPSI partner agencies pay in-country living expenses during the Summer Institutes.

**OPPORTUNITIES FOR FACULTY**

**DECISION MAKING:**

**Building Community and Capacity for Data-Intensive Research in the Social, Behavioral, and Economic Sciences and in Education and Human Resources (BCC-SBE/EHR) – NSF 14-517**

Full Proposal Deadline: **March 03, 2014**

As part of NSF's Cyberinfrastructure Framework for 21st Century Science and Engineering (CIF21) activity, the Directorate for Social, Behavioral, & Economic Sciences (SBE) and the Directorate for Education and Human Resources (EHR) seek to enable research communities to develop visions, teams, and capabilities dedicated to creating new, large-scale, next-generation data resources and relevant analytic techniques to advance fundamental research for the SBE and EHR areas of research.
Successful proposals will outline activities that will have significant impacts across multiple fields by enabling new types of data-intensive research. Investigators should think broadly and create a vision that extends intellectually across multiple disciplines and that includes - but is not necessarily limited to - the SBE or EHR areas of research.

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

Full Proposal Deadline(s): March 12, 2014 for Research Coordination Networks
March 12, 2014 for Building Blocks

EarthCube is a community-driven activity sponsored through a partnership between the NSF Directorate of Geosciences and the Directorate for Computer & Information Science & Engineering Division of Advanced Cyberinfrastructure to transform research in the academic geosciences community. EarthCube aims to create a well-connected and facile environment to share data and knowledge in an open, transparent, and inclusive manner, thus accelerating our ability to understand and predict the Earth system.

This umbrella solicitation for EarthCube allows funding opportunities to be flexible and responsive to emerging 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.

EarthCube Research Coordination Networks (RCN) are intended to advance geosciences cyberinfrastructure through interaction, discussion and planning between geoscientists and cyberinfrastructure experts. RCNs provide opportunities for academic geosciences communities to organize, seek input, come to consensus and prioritize data, modeling, and technology needs. Other opportunities exist to realize cyberinfrastructure development and build tools and services. Outcomes must be tangible and directed towards moving geoscientists closer to shared goals. RCNs are an important information and feedback mechanism within the EarthCube process. Results from these projects will influence the direction of EarthCube, including architecture and geosciences-wide cyberinfrastructure developments.

EarthCube Building Blocks will provide value to the entire EarthCube enterprise by contributing to one or more of the following:

- Integration of existing technology components to extend capabilities to a broader set of geoscientists than are currently served;
- Creation or modification of cyberinfrastructure to overcome barriers or inefficiencies as identified by the geosciences community in documents such as the geosciences domain workshop reports; and
- Introduction of modern or novel cyberinfrastructure into the geosciences that has the potential to transform cyberinfrastructure across all geosciences,
and that is demonstrated with improvements for identified academic geosciences communities and their facilities. EarthCube Building Blocks projects may include demonstrations of software, middleware, techniques to serve and deliver data, or other cyberinfrastructure capabilities, as well as the creation of networks or resources such as test beds, inventories or implementation of standards. The most compelling Building Blocks will be those that best serve the needs of academic geoscientists in more than one domain and that closely involve geoscientists, and their recognized community organizations in the planning, development and testing of cyberinfrastructure. Diverse participation of students and early-career researchers is essential. Successful proposals will demonstrate collaborative and community-oriented solutions, as well as innovative combinations of technology that can potentially be implemented across the entire geosciences community.

**Geoinformatics (GI) – NSF 11-581**

Full Proposal Deadline: July 01, 2015
July 1, Every Other Year Thereafter

The Division of Earth Sciences (EAR) will consider proposals for the development of cyberinfrastructure for the geosciences (Geoinformatics). EAR seeks the development and implementation of enabling information technology with impacts that extend beyond an individual investigator or small group of investigators and that facilitates the next generation of geosciences research. Proposals to this solicitation may seek support for community-driven development and implementation of databases; tools for data integration, interoperability, and visualization; software development and code hardening; and data-intensive/new computing methodologies that support the enhancement of geosciences research and education activities. The efforts supported by this solicitation do not overlap with, but are complementary to, EarthCube. The goal of EarthCube is to transform the conduct of research in the geosciences by supporting community-created cyberinfrastructure that integrates knowledge management across the geosciences. The Geoinformatics solicitation will support efforts to create the underlying knowledge base and utilities that will be integrated, over time, through EarthCube.

**ECOSYSTEMS:**
**Geography and Spatial Sciences Program (GSS) – NSF 12-570**

Full Proposal Deadline(s): **February 13, 2014** for DDRI proposals
Second Thursday in February, Annually Thereafter

**September 04, 2014** for Regular proposals
First Thursday in September, Annually Thereafter

**October 9, 2014** for DDRI proposals
Second Thursday in October, Annually Thereafter

The GSS Program sponsors research on the geographic distributions and interactions
of human, physical, and biotic systems on the Earth's surface. Investigations are encouraged to propose plans for research about the nature, causes, and consequences of human activity and natural environmental processes across a range of scales. Projects on a variety of topics (both domestic and international) qualify for support if they offer promise of contributing to scholarship by enhancing geographical knowledge, concepts, theories, methods, and their application to societal problems and concerns. GSS encourages projects that explicitly integrate undergraduate and graduate education into the overall research agenda.

GSS provides support for projects using a set of different funding mechanisms:
1. Regular research awards.
2. Doctoral dissertation research improvement (DDRI) awards.
3. Faculty early-career development (CAREER) awards.
4. Awards for conferences, workshops, group-travel support, and community-development activities.
5. Research coordination network (RCNs) awards.
6. Rapid-response research (RAPID) awards.

EDUCATION & COMMUNICATIONS:

Advancing Informal STEM Learning (AISL) – NSF 13-608
Full Proposal Deadline(s): January 14, 2014
November 14, 2014
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.

Alliances for Graduate Education and the Professoriate (AGEP) – NSF 14-505
Full Proposal Deadline: February 05, 2014 for AGEP-Transformation
February 12, 2014 for AGEP-KAT and AGEP-BPR
AGEP is committed to the national goal of increasing the numbers of underrepresented minorities (URMs), including those with disabilities, entering and completing science, technology, engineering, and mathematics (STEM) graduate education and postdoctoral training to levels representative of the available pool. URMs include: African Americans, Hispanic Americans, American Indians, Alaska Natives, Native Hawaiians and other Pacific Islanders. Increased URM participation in advanced STEM education and training is critical for supporting the development of a diverse professional STEM workforce especially a diverse STEM faculty who serve as the
intellectual, professional, personal, and organizational role models that shape the expectations of future scientists and engineers. To achieve this long term goal, the AGEP program will support the development, implementation, study, and dissemination of innovative models and standards of graduate education and postdoctoral training that are designed to improve URM participation, preparation, and success. AGEP projects must focus on URM U.S. citizens in STEM graduate education, and/or postdoctoral training, and their preparation for academic STEM careers at all types of institutions of higher education. STEM professional development more broadly may be included in projects with a strong and compelling argument. AGEP is interested in proposals that include any or all STEM fields supported by NSF including the social, behavioral and economic sciences, and multi-, cross-, or inter-disciplinary STEM fields.

OTHER THEMES OF SUSTAINABILITY:

**Environmental Chemical Sciences (ECS) – NSF PD 09-6882**

Full Proposal Window:  **October 01 - 31, 2014**  
October 01 - 31, Annually Thereafter

The Environmental Chemical Sciences (ECS) Program supports basic research in chemistry that promotes the understanding of natural and anthropogenic chemical processes in our environment. Projects supported by this program enable fundamentally new avenues of basic research and transformative technologies. The program is particularly interested in studying molecular phenomena on surfaces and interfaces in order to understand the inherently complex and heterogeneous environment. Projects utilize advanced experimental, modeling and computational approaches, as well as developing new approaches. Topics include studies of environmental surfaces and interfaces under laboratory conditions, the fundamental properties of water and water solutions important in environmental processes, dissolution, composition, origin and behavior of molecular scale systems under a variety of naturally occurring environmental conditions, chemical reactivity of synthetic nanoparticles and their molecular level interactions with the environment, and application of theoretical models and computational approaches to discover and predict environmental phenomena at the molecular scale.