ESPP Funding Opportunities: June 15, 2014

OPPORTUNITIES FOR STUDENTS and RECENT GRADUATES

SBE Doctoral Dissertation Research Improvement Grants (SBE DDRIG) Sociology Program Contact NSF program for submission details NOTE: NSF 11-547 has been archived Doctoral Dissertation Research Improvement proposals will no longer be submitted via the SBE Doctoral Dissertation Research Improvement Grants (DDRIG) solicitation (NSF 11-547). For all future SBE DDRIG competitions, each SBE program that currently participates in this funding opportunity will either include DDRIGs in their current program's funding vehicle or will create a new solicitation for them.

Oct. 15, 2014

OPPORTUNITIES FOR FACULTY

NSF/FDA Scholar-in-Residence at FDA - NSF 10-533

The National Science Foundation (NSF), through the Directorate for Engineering's Division of Chemical, Bioengineering, Environmental, and Transport Systems (CBET), and the U.S. Food and Drug Administration (FDA), through its Center for Devices and Radiological Health (CDRH) have established the NSF/FDA Scholar-in-Residence Program at FDA. This program comprises an interagency partnership for the investigation of scientific and engineering issues concerning emerging trends in medical device technology. This partnership is designed to enable investigators in science, engineering, and mathematics to develop research collaborations within the intramural research environment at the FDA. This solicitation features four flexible mechanisms for support of research at the FDA: 1) Faculty at FDA; 2) Graduate Student Fellowships; 3) Postdoctoral Fellowships; and, 4) Undergraduate Student Research Experiences. Undergraduate student participants supported with NSF funds must be citizens or permanent residents of the United States. *Proposals accepted anytime*

Innovation Corps Sites Program - NSF 14-547 replaces 12-604

The National Science Foundation (NSF) seeks to develop and nurture a national innovation ecosystem that builds upon research to guide the output of scientific discoveries closer to the development of technologies, products and processes that benefit society. In order to contribute to a national innovation ecosystem, NSF is establishing the NSF Innovation Corps Sites Program (NSF I-Corps Sites). Sites are funded at academic institutions, having already existing innovation or entrepreneurial units, to enable them to:Nurture students and/or faculty who are engaged in projects having the potential to be transitioned into the marketplace. I-Corps Sites will provide infrastructure, advice, resources, networking opportunities, training and modest funding to enable groups to transition their work into the marketplace or into becoming I-Corps Team applicants (see NSF Innovation Corps Program, NSF 11-560). Develop formal, active, local innovation ecosystems that contribute to a larger, national network of mentors, researchers, entrepreneurs and investors. The purpose of an I-Corps Site is to nurture and support multiple, local teams to transition their ideas, devices, processes or other intellectual activities into the marketplace. *Closing Date: June 27, 2014 - Second Tuesday in June Annually*

Software Infrastructure for Sustained Innovation - SSE & SSI - NSF 14-520 replaces 13-525
The goal of the Software Infrastructure for Sustained Innovation (SII) program is to transform innovations in research and education into sustained software resources that are an integral part of the cyberinfrastructure. SII is a long-term investment focused on catalyzing new thinking, paradigms, and practices in developing and using software to understand natural, human, and engineered systems. Scientific Software Integration (SSI): SSI awards target larger, interdisciplinary teams

organized around the development and application of common software infrastructure aimed at solving common research problems faced by NSF researchers in one or more areas of science and engineering. SSI awards will result in a sustainable community software framework serving a diverse community or communities. Scientific Software Elements (SSE): SSE awards target small groups that will create and deploy robust software elements for which there is a demonstrated need that will advance one or more significant areas of science and engineering. SSI Proposal Window: June 13 to June 27, 2014

Catalyzing New International Collaborations NSF CNIC 13-605 replaces 12-573

The Catalyzing New International Collaboration (CNIC) program is designed to promote professional development of US Science, Technology, Engineering, and Mathematics (STEM) researchers and to advance their research through international engagement. This program offers support for the initial phase of international collaborations with clear expectations that the next phase will be submission by the US investigators of follow-on proposals to NSF core programs for continued funding of the research initiated with CNIC awards. These include, but are not limited to: research planning visits, initial data gathering activities, proof-of-concept, single or multiple visits within a maximum 12-month time period to plan a new international research collaboration, or exploratory workshops designed to bring together US and non-US-based researchers representing several institutions and focused on a topic specified in the Project Description. *Oct. 22, 2014*

Science, Technology, and Society - NSF STS 12-509 replaces 08-553

The STS Program considers proposals for scientific research into the interface between science (including engineering) or technology, and society. STS researchers use diverse methods including social science, historical, and philosophical methods. Successful proposals will be transferrable (i.e., generate results that provide insights for other scientific contexts that are suitably similar). They will produce outcomes that address pertinent problems and issues at the interface of science, technology and society, such as those having to do with practices and assumptions, ethics, values, governance, and policy.

Aug. 1, 2014

Division of Environmental Biology - NSF 14-503

The Division of Environmental Biology (DEB) supports fundamental research on populations, species, communities, and ecosystems. Scientific emphases range across many evolutionary and ecological patterns and processes at all spatial and temporal scales. Areas of research include biodiversity, phylogenetic systematics, molecular evolution, life history evolution, natural selection, ecology, biogeography, ecosystem structure, function and services, conservation biology, global change, and biogeochemical cycles. Research on organismal origins, functions, relationships, interactions, and evolutionary history may incorporate field, laboratory, or collection-based approaches; observational or manipulative experiments; synthesis activities; as well as theoretical approaches involving analytical, statistical, or computational modeling. *Aug 4, 2014*

Collections in Support of Biological Research - NSF 14-564 replaces 13-557

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.

Aug. 11, 2014

Marine Geology and Geophysics - NSF PD-98-1620

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

Aug. 15, 3014

Innovation Corps Sites Program - NSF 14-547 replaces 12-604

The National Science Foundation (NSF) seeks to develop and nurture a national innovation ecosystem that builds upon research to guide the output of scientific discoveries closer to the development of technologies, products and processes that benefit society. In order to contribute to a national innovation ecosystem, NSF is establishing the NSF Innovation Corps Sites Program (NSF I-Corps Sites). Sites are funded at academic institutions, having already existing innovation or entrepreneurial units, to enable them to: Nurture students and/or faculty who are engaged in projects having the potential to be transitioned into the marketplace. I-Corps Sites will provide infrastructure, advice, resources, networking opportunities, training and modest funding to enable groups to transition their work into the marketplace or into becoming I-Corps Team applicants (see NSF Innovation Corps Program, NSF 11-560). Develop formal, active, local innovation ecosystems that contribute to a larger, national network of mentors, researchers, entrepreneurs and investors. The purpose of an I-Corps Site is to nurture and support multiple, local teams to transition their ideas, devices, processes or other intellectual activities into the marketplace.

Closing Date: June 27, 2014 - Second Tuesday in June Annually

Computational and Data-Enabled Science and Engineering (CDS&E) – Division of Chemistry - Chemical Theory, Models and Computational Methods - NSF PD-12-8084

The goal of the CDS&E program is to identify and capitalize on opportunities for major scientific and engineering breakthroughs through new computational and data analysis approaches. The intellectual drivers may be in an individual discipline or they may cut across more than one discipline in various Directorates. The key identifying factor is that the outcome relies on the development, adaptation, and utilization of one or more of the capabilities offered by advancement of both research and infrastructure in computation and data, either through cross-cutting or disciplinary programs.

Sept. 1 - Oct. 31, 2014

Partnerships for Innovation: Accelerating Innovation Research- Technology Translation (PFI: AIR-TT) - NSF 14-569 replaces 13-575

The NSF Partnerships for Innovation (PFI) program within the Division of Industrial Innovation and Partnerships (IIP) is an umbrella for two complementary subprograms, Accelerating Innovation Research (AIR) and Building Innovation Capacity (BIC). Overall, the PFI program offers opportunities to connect new knowledge to societal benefit through translational research efforts and/or partnerships that encourage, enhance and accelerate innovation and entrepreneurship. The subject of this solicitation is PFI: AIR-Technology Translation (PFI: AIR-TT). The PFI: AIR-TT solicitation serves as an early opportunity to move previously NSF-funded research results with promising commercial potential along the path toward commercialization. Projects are supported to demonstrate proof-of-concept, prototype, or scale-up while engaging faculty and students in

entrepreneurial/innovative thinking. WEBINAR: A webinar will be held within 6 weeks of the release date of this solicitation to answer any questions about this solicitation. Details will be posted on the IIP website (http://www.nsf.gov/eng/iip/pfi/air-tt.jsp) as they become available.

Letter of Intent Required - Due Date: September 02, 2014 Full Proposal - Due Date: October 02, 2014

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*

Catalyzing New International Collaborations NSF CNIC 13-605 replaces 12-573

The Catalyzing New International Collaboration (CNIC) program is designed to promote professional development of US Science, Technology, Engineering, and Mathematics (STEM) researchers and to advance their research through international engagement. This program offers support for the initial phase of international collaborations with clear expectations that the next phase will be submission by the US investigators of follow-on proposals to NSF core programs for continued funding of the research initiated with CNIC awards. These include, but are not limited to: research planning visits, initial data gathering activities, proof-of-concept, single or multiple visits within a maximum 12-month time period to plan a new international research collaboration, or exploratory workshops designed to bring together US and non-US-based researchers representing several institutions and focused on a topic specified in the Project Description. *Oct. 22, 2014*

Chemical and Biological Separations - NSF PD-14-1417

The Chemical and Biological Separations (CBS) program supports fundamental research on novel methods and materials for separation processes. These processes are central to the chemical, biochemical, materials, energy, and pharmaceutical industries. A fundamental understanding of the interfacial, transport, and thermodynamic behavior of multiphase chemical systems as well as quantitative descriptions of processing characteristics in the process-oriented industries is critical for efficient resource management and effective environmental protection. The program encourages proposals that address emerging research areas and technologies, have a high degree of interdisciplinary thought coupled with knowledge creation, and integrate education and research. Research topics OF PARTICULAR INTEREST in CBS include fundamental molecular-level work on: Nanostructured materials for separations; Biorenewable resource separation processes; Purification of drinking water; Field (flow, magnetic, electrical) induced separations; Separation of molecular constituents from blood.

Oct. 1 - Oct. 30, 2014

Energy for Sustainability - NSF PD 14-7644

This program supports fundamental research and education that will enable innovative processes for the sustainable production of electricity and transportation fuels. Processes for sustainable energy production must be environmentally benign, reduce greenhouse gas production, and utilize renewable resources. Current interest areas are: Biomass Conversion, Biofuels and Bioenergy; Photovoltaic Solar Energy; Wind Energy; and Advanced Batteries for Transportation.

Oct. 1-Oct. 30, 2014 - Oct. 1 - Oct. 20, annually

Environmental Engineering NSF PD 14-1440

The Environmental Engineering program supports fundamental research and educational activities across the broad field of environmental engineering. The goal of this program is to encourage transformative research which applies scientific and engineering principles to avoid or minimize solid, liquid, and gaseous discharges, resulting from human activity, into land, inland and coastal waters, and air, while promoting resource and energy conservation and recovery. Major areas of interest are: Environmental engineering implications of energy and resource consumption; Availability of high quality water supplies; and Fate and transport of contaminants of emerging concern in air, water, and soils.

Oct. 1 - Oct. 30, 2014. Oct. 1- Oct. 30, annually.

Computational and Data-Enabled Science and Engineering (CDS&E) – Directorate for Engineering - Division of Chemical, Bioengineering, Environmental, and Transport Systems and Division of Civil, Mechanical and Manufacturing Innovation - NSF PD-12-8084

The goal of the CDS&E program is to identify and capitalize on opportunities for major scientific and engineering breakthroughs through new computational and data analysis approaches. The intellectual drivers may be in an individual discipline or they may cut across more than one discipline in various Directorates. The key identifying factor is that the outcome relies on the development, adaptation, and utilization of one or more of the capabilities offered by advancement of both research and infrastructure in computation and data, either through cross-cutting or disciplinary programs.

Oct. 1-Oct.31, 2014

Computational and Data-Enabled Science and Engineering (CDS&E) – Division of Chemistry - Chemical Measurement and Imaging - NSF PD-12-8084

The goal of the CDS&E program is to identify and capitalize on opportunities for major scientific and engineering breakthroughs through new computational and data analysis approaches. The intellectual drivers may be in an individual discipline or they may cut across more than one discipline in various Directorates. The key identifying factor is that the outcome relies on the development, adaptation, and utilization of one or more of the capabilities offered by advancement of both research and infrastructure in computation and data, either through cross-cutting or disciplinary programs.

Oct. 1 - Oct. 31, 2014

Computational and Data-Enabled Science and Engineering (CDS&E) – Division of Chemistry - Chemical Theory, Models and Computational Methods - NSF PD-12-8084

The goal of the CDS&E program is to identify and capitalize on opportunities for major scientific and engineering breakthroughs through new computational and data analysis approaches. The intellectual drivers may be in an individual discipline or they may cut across more than one discipline in various Directorates. The key identifying factor is that the outcome relies on the development, adaptation, and utilization of one or more of the capabilities offered by advancement of both research and infrastructure in computation and data, either through cross-cutting or disciplinary programs.

Sept. 1 - Oct. 31, 2014

Computational and Data-Enabled Science and Engineering (CDS&E) – Division of Materials Research - NSF PD-12-8084

The goal of the CDS&E program is to identify and capitalize on opportunities for major scientific and engineering breakthroughs through new computational and data analysis approaches. The intellectual drivers may be in an individual discipline or they may cut across more than one discipline in various Directorates. The key identifying factor is that the outcome relies on the development, adaptation, and utilization of one or more of the capabilities offered by advancement of both research and infrastructure in computation and data, either through cross-cutting or disciplinary programs.

Sept. 1-Oct. 31, 2014

Computational and Data-Enabled Science and Engineering (CDS&E) – Office of Cyber Infrastructure - NSF PD-12-8084

The goal of the CDS&E program is to identify and capitalize on opportunities for major scientific and engineering breakthroughs through new computational and data analysis approaches. The intellectual drivers may be in an individual discipline or they may cut across more than one discipline in various Directorates. The key identifying factor is that the outcome relies on the development, adaptation, and utilization of one or more of the capabilities offered by advancement of both research and infrastructure in computation and data, either through cross-cutting or disciplinary programs.

Oct. 1-Oct. 31, 2014