Funding Bulletin
September 25th, 2015 (Vol. 2, No. 26)

Funding Information

To receive funding information, please contact funding@wichita.edu.

NOTICE – Notification for the current Funding Bulletin is sent via email. To be added to the electronic mailing list, send an email message to: funding@wichita.edu. Leave the subject line blank. In the message area, type: sub funding bulletin. To unsubscribe, type: unsub funding bulletin.

The selected compilation of funding opportunities is provided by RTT’s Pre-Award Services as a resource for Wichita State University Researchers. We encourage you to utilize the campus subscription to PIVOT to find funding opportunities specifically tailored to your research area based on keywords you provide. PIVOT is easy to use and offers other valuable services that are helpful to researchers. Access is available at: http://pivot.cos.com/home/index or you may contact funding@wichita.edu to have a custom search run.

Click on the links below to go directly to the named section included in this edition’s bulletin

UPCOMING EVENTS
LIMITED SUBMISSIONS
INTERNAL OPPORTUNITIES
ARTS & HUMANITIES
EDUCATION

ENGINEERING, MATHEMATICS & PHYSICAL SCIENCES
HEALTH, LIFE & EARTH SCIENCES
MULTIPLE DISCIPLINES
NEW FACULTY/INVESTIGATOR
SOCIAL & BEHAVIORAL SCIENCES

How to Apply

Proposal development requests should be sent to proposals@wichita.edu. Please click on the following link for information regarding proposal submission at WSU:

http://webs.wichita.edu/?u=WSURESEARCHADMIN&p=/Proposals/PreAwardServices/

Let us know you found it in the RTT Funding Bulletin!!

A bi-weekly publication of the Office of Research and Technology Transfer. For additional information or to request a customized funding opportunity search, please contact funding@wichita.edu.
Upcoming Events

36th Annual Wichita Area Economic Outlook Conference
Thursday, October 1, 7:30 – 11:30 AM
Century II Conference Hall

For a glimpse into the region’s economic future, business leaders are turning to Wichita State University’s Barton School of Business and Center for Economic Development and Business Research (CEDBR), founders of the Wichita Area Economic Outlook Conference. The purpose of the conference is to provide insight into current local and national economies, addressing topics of interest to the community, region and state. A combination of nationally known speakers and local experts will be on hand to provide perspectives on issues affecting business, industry, education and government.

Register Today!
www.agenda.cedbr.org

LIMITED SUBMISSIONS

Limited submission programs have sponsor restrictions on the number of proposals that may be submitted by a single institution and will require institutional screening to determine which applications will be submitted. Karen Davis, Director of Pre-Award Services, is the internal coordinator for limited submission programs. Please notify proposals@wichita.edu, by the internal due date listed in the Funding Bulletin if you wish to submit a limited submission program. There are currently three open limited submission competitions:

(1) ADVANCE: Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers (ADVANCE)
National Science Foundation (NSF)
Due Date: Institutional Transformation Catalyst (IT Catalyst) Track – Internal: 10/2/2015;
Letter of Intent: 10/5/2015; Full Proposal 11/3/2015
Institutional Transformation (IT) Track – Internal 10/19/2015; Letter of Intent: 11/5/2015; Full Proposal 1/20/2016

The goals of the ADVANCE program are (1) to develop systemic approaches to increase the representation and advancement of women in academic STEM careers; (2) to develop innovative and sustainable ways to promote gender equity in the STEM academic workforce; and (3) to contribute to
the development of a more diverse science and engineering workforce. ADVANCE also has as its goal to contribute to and inform the general knowledge base on gender equity in the academic STEM disciplines. There are three tracks: the Institutional Transformation (IT) track is meant to produce large-scale comprehensive change and serve as a locus for research on gender equity and institutional transformation for academic STEM; the Institutional Transformation Catalyst (IT Catalyst) track is meant either to conduct self-assessment or to implement unique strategies – either adapted from those found effective in the IT track or ones designed to be responsive to the unique environments of eligible institutions – and evaluate their effectiveness; the Partnerships for Learning and Adaptation Networks (PLAN) track is meant to provide a larger scale environment for adapting, implementing and creating knowledge about the effectiveness of a particular strategy for change within a context of networked adaptation and learning. PLAN is focused on adaptation/implementation and learning either in particular STEM disciplines (PLAN D) or across institutions of higher education (PLAN IHE). ADVANCE projects support institutional transformation in STEM. STEM includes but is not limited to Arctic and Antarctic sciences, biological sciences, computer and information sciences, engineering, geosciences, mathematics, physical sciences, learning sciences, and social, behavioral and economic sciences. Institutional Transformation and IT Catalyst awards are expected to include all STEM disciplines at the institution submitting the proposal. PLAN awards may include all of STEM or a subset or one discipline. One proposal per organization for Institutional Transformation and Institutional Transformation Catalyst Awards. No limit for PLAN IHE and PLAN D proposals. NSF 14-573


(2) IUSE / Professional Formation of Engineers: Revolutionizing Engineering and Computer Science Departments (RED)
National Science Foundation (NSF)
Due Date: Internal 10/16/2015; Letters of Intent 11/10/2015; Full Proposals 12/15/2015

In FY 2016, the Directorates for Engineering (ENG), Computer and Information Science and Engineering (CISE) and Education and Human Resources (EHR) are continuing a program aligned with the Improving Undergraduate STEM Education (IUSE) framework: REvolutionizing engineering and computer science Departments (herein referred to as RED). This funding opportunity enables engineering and computer science departments to lead the nation by successfully achieving significant sustainable changes necessary to overcome longstanding issues in their undergraduate programs and educate inclusive communities of engineering and computer science students prepared to solve 21st-century challenges. An organization is allowed up to two submissions per competition. NSF 15-607

Partnerships for Innovation: Building Innovation Capacity (PFI:BIC)

*National Science Foundation (NSF)*

**Due Date: Internal 10/16/2015; Letters of Intent 12/2/2015; Full Proposals 1/27/2015**

Partnerships for Innovation: Building Innovation Capacity (PFI:BIC) supports academe-industry partnerships, which are led by an interdisciplinary academic research team collaborating with at least one industry partner in order to carry out research to advance, adapt, and integrate *technology(ies)* into a *specified, human-centered smart service system*. The selected service system should function as a technology test bed. Partnership projects are unrestricted as to domain knowledge and application areas and should be in the translational, pre-commercialization space, building on fundamental research discoveries with the objective of creating or transforming a “smart(er)” service system that has the potential for significant social and economic impact. This program solicitation is pursuant to program solicitation NSF 14-610. Proposers should review all solicitation requirements carefully before submitting a proposal. Only major revisions to this solicitation are noted below. **Minimum partnership requirement.** One *primary partner* that is either a for-profit or a not-for profit industrial partner (also known as a corporate or a business partner) that *has commercial revenues*. It is essential that a designated minimally-qualifying industrial partner have experience with having brought a product, process, service, or system to the marketplace, thereby providing an informed business perspective to the academe-industry team. **Academic institutions are limited to participation on two (2) proposals as a lead institution, preferably involving distinct application areas. NSF 15-610**


### INTERNAL OPPORTUNITIES

**Multidisciplinary Research Project Awards (MURPA)**

*Wichita State University*

**Due Date: 10/2/2015**

Applications for Multidisciplinary Research Project Awards (MURPA) are due to the Office of Research and Technology Transfer by Oct. 2 at 5:00 p.m. for grant period, choice of Jan 1 – June 15, 2016 OR May 1 – Aug 31, 2016. Multidisciplinary Research Projects are projects that involve two or more investigators from different disciplines that focus different perspectives and capabilities on complex problems that intersect established areas of study. They are intended as seed money to develop pilot data for proposals to be submitted to governmental agencies, foundations or industries. Application
and instructions are available on the research website and may be submitted electronically to proposals@wichita.edu or Campus Box 7.

For more information, visit
MURPA INSTRUCTIONS
MURPA APPLICATION

University Research/Creative Projects (URCA) – Round Two
Wichita State University
Due Date: 10/2/2015

Applications for Round 2 of the University Research/Creative Projects (URCA) are due to the Office of Research and Technology Transfer by Oct. 2 at 5:00 p.m. for grant period Dec 1, 2015 – Dec 31, 2016. URCA grants are to retool or reestablish productive research/creative projects agenda. In areas where external funding is available, the URCA may be used as seed money to develop pilot data. Areas where access to external sources is limited may receive special consideration. Grants may be up to $4,500 awarded in two separate competitions: New - tenure-eligible faculty in their first or second year of probation to initiate research/creative projects, and Established - tenured faculty or probationary faculty in their 3rd (or more) year of probation to retool or re-establish productive research/creative agenda. Application and instructions are available on the research website and may be submitted electronically to proposals@wichita.edu or Campus Box 7.

For more information, visit
URCA INSTRUCTIONS
URCA APPLICATION

ARTS & HUMANITIES

Individual Grants
Asian Cultural Council (ACC)
Due Date: 11/2/2015

Any gifted individual artist or scholar who seeks to grow in his or her craft or field can apply for funding to conduct research and study, receive specialized training, undertake observation tours, or pursue non-commercial creative activity in the United States or among the countries of Asia. When awarding individual grants, the ACC devotes special attention to arranging programs tailored specifically to the
needs and professional objectives of each grantee. Functioning as cultural concierges and ambassadors as well as seasoned mentors, the members of the Council's staff advise grant recipients on cultural resources and activities, prepare their itineraries, schedule meetings, arrange appropriate academic and research affiliations, and encourage grantees to explore interdisciplinary relationships among the arts in both Asian and American contexts.

ACC supports individuals working in the following disciplines:

- Archaeology
- Architecture
- Art History
- Arts Administration
- Arts Criticism
- Conservation
- Crafts
- Curation
- Dance
- Film/Video
- Literature (for projects to and from Japan only)
- Museum Studies
- Music
- Photography
- Theater
- Visual Art

- URL: [http://www.asianculturalcouncil.org/our-programs/individual-grants](http://www.asianculturalcouncil.org/our-programs/individual-grants)

**Organization Grants**

*Asian Cultural Council (ACC)*

**Due Date: 11/2/2015**

The ACC has a venerable tradition of also funding arts, educational, and cultural organizations for projects of exceptional importance to the fostering of cultural dialogue between Asia and the United States or devoted to regional exchange among the countries of Asia. Since ACC's program resources are focused on fellowships to individuals, grants to organizations are usually modest in number and size and generally support the participation of artists, scholars, and specialists from the United States or Asia in activities administered by the applicant organization. ACC supports projects in the following disciplines: archaeology, architecture, art history, arts administration, arts criticism, conservation, crafts, curation, dance, film/video, literature (for projects to and from Japan only), museum studies, music, photography, theater, visual art.

- URL: [http://www.asianculturalcouncil.org/our-programs/organizations](http://www.asianculturalcouncil.org/our-programs/organizations)

**Sparks! Ignition Grants for Museums**

*Institute of Museum and Library Services (IMLS)*

**Due Date: 12/1/2015**

Sparks! Ignition Grants for Museums (“Sparks Grants”) are a special funding opportunity within the IMLS National Leadership Grants for Museums program. These small grants encourage museums to
prototype and evaluate specific innovations in the ways they operate and the services they provide resulting in new tools, products, services, or organizational practices. Applicants may propose activities or approaches that involve risk, as long as the project results - be they success, failure, or a combination thereof - offer valuable information to the museum field and the potential for improvement in the ways museums serve their communities.

- URL: http://www.imls.gov/grants/available/sparks-ignition-grants-museums

ABOG Fellowship for Socially Engaged Art
A Blade of Grass (ABOG)
Due Date: Letters of Interest 11/20/2015

ABOG provides resources to artists who demonstrate artistic excellence and serve as innovative conduits for social change. ABOG evaluates the quality of work in this evolving field by fostering an inclusive, practical discourse about the aesthetics, function, ethics and meaning of socially engaged art that resonates within and outside the contemporary art dialogue.

ABOG funds the following:
- Socially engaged projects in which art is a catalyst for social change.
- Projects that feature artists in leadership roles.
- Dialogue-based projects that emphasize sustainable partnerships with communities.
- Projects in which artists engage community members as equal partners.
- Projects in which co-creation with non-artists is part of the process.

ABOG values process over product: relationship building and problem solving are key goals. ABOG provides funding with minimal restriction, and budget line items may include things like living expenses that are not direct project expenses.

- URL: http://www.abladeofgrass.org/application/guidelines/

Independent Projects Awards
CEC ArtsLink
Due Date: 12/3/2015

Independent Projects awards provide funding to artists and arts managers who propose to undertake projects in the United States in collaboration with a U.S. non-profit arts organization or individual artist. Independent Projects awards must include international travel to the USA. Support is provided to create new work that draws inspiration from interaction with artists and the community in the USA; to
establish mutually beneficial exchange of ideas and expertise between artists, arts organizations and the local community and to pursue artistic cooperation that will enrich creative or professional development or has potential to expand the community's access to the art of other cultures. Projects focusing solely on research, post production or the production of an audio recording are not eligible. Projects involving performances, touring or participation in performing arts festivals can be supported by ArtsLink only if this activity is a component of a more comprehensive proposed project.

- **URL:** [http://www.cecartslink.org/grants/independent_projects/](http://www.cecartslink.org/grants/independent_projects/)

**Collaborative Research Grants**  
*National Endowment for the Humanities (NEH)*  
**Due Date: 12/9/2015**

Collaborative Research Grants support interpretive research undertaken by a team of two or more scholars, for full-time or part-time activities for periods of a minimum of one year up to a maximum of three years. Support is available for various combinations of scholars, consultants, and research assistants; project-related travel; field work; applications of information technology; and technical support and services. All grantees are expected to communicate the results of their work to the appropriate scholarly and public audiences.

**Eligible projects include:**
- research that significantly adds to knowledge and understanding in the humanities;  
- conferences on topics of major importance in the humanities that will benefit scholarly research;  
- archaeological projects that include the interpretation and communication of results (projects may encompass excavation, materials analysis, laboratory work, field reports, and preparation of interpretive monographs); and  
- research that uses the knowledge and perspectives of the humanities and historical or philosophical methods to enhance understanding of science, technology, medicine, and the social sciences.

- **URL:** [http://www.neh.gov/grants/guidelines/collaborative.html](http://www.neh.gov/grants/guidelines/collaborative.html)

**Public Scholar Program**  
*National Endowment for the Humanities (NEH)*  
**Due Date: 2/2/2016**

The Public Scholar program supports well-researched books in the humanities intended to reach a broad readership. Although humanities scholarship can be specialized, the humanities also strive to engage broad audiences in exploring subjects of general interest. They seek to deepen our

A bi-weekly publication of the Office of Research and Technology Transfer. For additional information or to request a customized funding opportunity search, please contact funding@wichita.edu.
understanding of the human condition as well as current conditions and contemporary problems. The Public Scholar program aims to encourage scholarship that will be of broad interest and have lasting impact. Such scholarship might present a narrative history, tell the stories of important individuals, analyze significant texts, provide a synthesis of ideas, revive interest in a neglected subject, or examine the latest thinking on a topic. Books supported by this program must be grounded in humanities research and scholarship. They must address significant humanities themes likely to be of broad interest and must be written in a readily accessible style. Making use of primary and/or secondary sources, they should open up important and appealing subjects for wider audiences. The challenge is to make sense of a significant topic in a way that will appeal to general readers. By establishing the Public Scholar program, NEH enters a long-term commitment to encourage scholarship in the humanities for general audiences. In the early rounds of the competition, NEH especially welcomes applicants who are in the writing stages of their projects or who already have a commitment from a publisher. However, the Public Scholar program also supports projects in the early stages of development. The program is open to both individuals affiliated with scholarly institutions and independent scholars. Upon completion of their book projects, Public Scholar fellowship recipients will be expected to participate in public events, such as serving as keynote speakers at conferences and offering public lectures at book festivals, library and museum programs, or other events aimed at reaching broad audiences. Additional NEH support for such events may become available.

- URL: http://www.neh.gov/grants/research/public-scholar-program

Institutes for Advanced Topics in the Digital Humanities

*National Endowment for the Humanities (NEH)*

*Due Date: 3/10/2016*

These NEH grants support national or regional (multistate) training programs for scholars and advanced graduate students to broaden and extend their knowledge of digital humanities. Through these programs, NEH seeks to increase the number of humanities scholars using digital technology in their research and to broadly disseminate knowledge about advanced technology tools and methodologies relevant to the humanities. The projects may be a single opportunity or offered multiple times to different audiences. Institutes may be as short as a few days and held at multiple locations or as long as six weeks at a single site. For example, training opportunities could be offered before or after regularly occurring scholarly meetings, during the summer months, or during appropriate times of the academic year. The duration of a program should allow for full and thorough treatment of the topic. NEH particularly encourages projects that seek to introduce digital humanities topics to scholars who lack digital expertise. It also encourages applications that propose institutes of a week or less that address specific methodologies that will enable new and established scholars to incorporate advanced computational research techniques in their research projects. Institutes for Advanced Topics in the Digital Humanities may be hosted by colleges, universities, learned societies, centers for advanced
study, libraries or other repositories, and cultural or professional organizations. The host site(s) must be appropriate for the project, providing facilities for scholarship and collegial interaction. Projects that will be held more than once and at different locations are permissible. As a taxpayer-supported federal agency, NEH endeavors to make the products of its awards available to the broadest possible audience. Our goal is for scholars, educators, students, and the American public to have ready and easy access to the wide range of NEH award products. For the Institutes for Advanced Topics in the Digital Humanities program, such products may include digital curricula, websites, and the like. For projects that lead to the development of websites, all other considerations being equal, NEH gives preference to those that provide free access to the public.


EDUCATION

Innovative Technology Experiences for Students and Teachers (ITEST)

*National Science Foundation (NSF)*

Due Date: 11/13/2015

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 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

A bi-weekly publication of the Office of Research and Technology Transfer. For additional information or to request a customized funding opportunity search, please contact funding@wichita.edu.
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. **NSF 15-599**


**Barbara Bush Foundation Adult Literacy XPRIZE presented by Dollar General Literacy Foundation**

**X PRIZE Foundation**

**Due Date: 12/10/2015**

The Barbara Bush Foundation Adult Literacy XPRIZE presented by Dollar General Literacy Foundation is a global competition challenging teams to develop mobile applications for existing smart devices that result in the greatest increase in literacy skills among participating adult learners in just 12 months. The solutions will overcome key barriers to literacy learning by improving access, while increasing retention, and scaling to meet demand. The sponsors' vision is to empower nearly 1 in 10 low-literate adults living in the U.S. with the skills they need to improve their lives and realize their dreams. The finalists teams' solutions must demonstrate that they can substantially improve the literacy proficiency of adults reading at or below a third grade level, as measured by the Comprehensive Adult Student Assessment System (CASAS), within a 12-month period. Following solution submissions, five finalist teams will be chosen after an intensive judging process. Each finalist team will then test its mobile software solution with 1,000 field participants.

Field participants will be recruited across two demographics:
- Native English language speakers 18-64 years old
- Non-native English language speakers 18-64 years old

The final five solutions will then be entered into a Cities Competition. In this phase, the solutions will be deployed in participating cities across the country. Cities will compete to encourage the greatest percentage of their low-literate residents to download and use the solutions over a six-month period. The winning city will demonstrate the greatest percentage of application downloads among its low-literate residents.

- **URL:** [http://adultliteracy.xprize.org/](http://adultliteracy.xprize.org/)
Letters of Intent for Early Childhood Programs
Caplan Foundation for Early Childhood
Due Date: Rolling

The Caplan Foundation for Early Childhood supports innovative, creative projects, and programs designed to significantly enhance the development, health, safety, education, and/or quality of life of children from infancy through five years of age. The foundation provides funding in the areas of early childhood welfare, early childhood education and play, and parenting education.

1) Early Childhood Welfare: Children can only reach their full potential when all aspects of their development, intellectual, emotional and physical are optimally supported. Providing a safe and nurturing environment for infants and preschoolers is essential, as is imparting to them the skills of social living in a culturally diverse world. To that end, the foundation supports programs that research best child rearing practices and identify models that can provide creative, caring environments to ensure all children thrive.

2) Early Childhood Education and Play: Research shows that children need to be stimulated as well as nurtured, early in life, if they are to succeed in school, work, and life. That preparation relates to every aspect of a child’s development, from birth to age 5, and everywhere a child learns — at home, in childcare settings, and in preschool. The foundation seeks to improve the quality of both early childhood teaching and learning through the development of innovative curricula and research-based pedagogical standards, as well as the design of imaginative play materials and learning environments.

3) Parenting Education: To help parents create nurturing environments for their children, the foundation supports programs that teach parents about developmental psychology, cultural child-rearing differences, pedagogy, issues of health, prenatal care and diet, as well programs that provide both cognitive and emotional support to parents.

Letters of Intent are accepted on a rolling basis. Upon review, selected applicants will be invited to submit full applications.

- URL: http://earlychildhoodfoundation.org/
ENGINEERING, MATHEMATICS & PHYSICAL SCIENCES

Biomedical Engineering (BME) Program  
National Science Foundation (NSF)  
Due Date: 10/20/2015

The goal of the BME program is to provide opportunities to develop novel ideas into discovery-level and transformative projects that integrate engineering and life sciences in solving biomedical problems that serve humanity in the long-term. BME projects must be at the interface of engineering and life sciences, and advance both engineering and life sciences. The projects should focus on high impact transformative methods and technologies. Projects should include methods, models and enabling tools of understanding and controlling living systems; fundamental improvements in deriving information from cells, tissues, organs, and organ systems; new approaches to the design of structures and materials for eventual medical use in the long-term; and novel methods for reducing health care costs through new technologies. The projects should emphasize the advancement of fundamental engineering knowledge, possibly leading to the development of new methods and technologies in the long-term; and highlight the multi-disciplinary nature of the research, integrating engineering and life sciences. The long-term impact of the projects can be related to fundamental understanding of cell and tissue function, disease diagnosis and/or treatment, improved health care delivery, or product development. The BME program does not support clinical studies, or proposals having as their central theme drug design and delivery or the development of biomedical devices that do not include a living biological component. Furthermore, although research on biomaterials or on cellular biomechanics may constitute a part of the proposed studies, such research cannot be the central theme or key focus area of the proposed work. PD 15-5345


Biophotonics  
National Science Foundation (NSF)  
Due Date: 10/20/2015

The goal of the Biophotonics program is to explore the research frontiers in photonics principles, engineering and technology that are relevant for critical problems in fields of medicine, biology and biotechnology. Fundamental engineering research and innovation in photonics is required to lay the foundations for new technologies beyond those that are mature and ready for application in medical diagnostics and therapies. Advances are needed in nanophotonics, optogenetics, contrast and
targeting agents, ultra-thin probes, wide field imaging, and rapid biomarker screening. Low cost and minimally invasive medical diagnostics and therapies are key motivating application goals. **PD 15-7236**

**Research topics in this program include:**
- **Macromolecule Markers:** Innovative methods for labeling of macromolecules. Novel compositions of matter. Methods of fabrication of multicolor probes that could be used for marking and detection of specific pathological cells. Pushing the envelope of optical sensing to the limits of detection, resolution, and identification.
- **Low Coherence Sensing at the Nanoscale:** Low coherence enhanced backscattering (LEBS). N-dimensional elastic light scattering. Angle-resolved low coherence interferometry for early cancer detection (dysplasia).
- **Neurophotonics:** Studies of photon activation of neurons at the interface of nanomaterials attached to cells. Development and application of biocompatible photonic tools such as parallel interfaces and interconnects for communicating and control of neural networks.
- **Optogenetics:** Novel research in employing light-activated channels and enzymes for manipulation of neural activity with temporal precision. Utilizing nanophotonics, nanofibers, and genetic techniques for mapping and studying in real-time physiological processes in organs such as the brain and heart.

**URL:** [http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=501025&amp;org=NSF&amp;sel_org=NSF&amp;from=fund](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=501025&amp;org=NSF&amp;sel_org=NSF&amp;from=fund)

**Biotechnology and Biochemical Engineering (BBE)**

*National Science Foundation (NSF)*

**Due Date: 10/20/2015**

The BBE program supports fundamental engineering research that advances the understanding of cellular and biomolecular processes in engineering biology and eventually leads to the development of enabling technology for advanced manufacturing and/or applications in support of the biopharmaceutical, biotechnology, and bioenergy industries, or with applications in health or the environment. A quantitative treatment of biological and engineering problems of biological processes is considered vital to successful research projects in the BBE program. Fundamental to many research projects in this area is the understanding of how biomolecules, cells and cell populations interact in their environment, and how those molecular level interactions lead to changes in structure, function, phenotype, and/or behavior. The program encourages highly innovative and potentially transformative engineering research leading to novel bioprocessing and manufacturing approaches, and proposals that address emerging research areas and technologies that effectively integrate
knowledge and practices from different disciplines while incorporating ongoing research into educational activities. **PD 15-1491**

**Major areas of interest in the program include:**
- Metabolic engineering and synthetic biology for biomanufacturing
- Quantitative systems biotechnology
- Tissue engineering and stem cell culture technologies
- Protein engineering & design
- Single cell dynamics and modeling
- Development of novel "omics" tools for biotechnology applications


**Catalysis and Biocatalysis**  
*National Science Foundation (NSF)*  
**Due Date: 10/20/2015**

The goal of the **Catalysis and Biocatalysis** program is to advance research in catalytic engineering science and promote the development of catalytic materials and reactions that are of benefit to society. Research in this program should focus on new basic understanding of catalytic materials and reactions, utilizing synthetic, theoretical, and experimental approaches. Target applications include fuels, specialty and bulk chemicals, environmental catalysis, biomass conversion to fuels and chemicals, conversion of greenhouse gases, and generation of solar hydrogen, as well as efficient routes to energy utilization. Heterogeneous catalysis and biocatalysis represent the main thrusts of the program. Proposals related to both gas-solid and liquid-solid heterogeneous catalysis are welcome, as are proposals that incorporate concepts from homogeneous catalysis. Biocatalysis proposals should focus on enzymatic catalysis involving engineering of the active site involved in substrate conversion. **PD 15-1401**

**Topic areas that are of particular interest include:**

- Renewable energy-related catalysis (including applications related to biocatalysis, biomass refining, electrocatalysis, and photocatalysis).
- Catalysis aimed at closing the carbon cycle (especially conversion of CO₂, methane, and natural gas to fuels and chemical intermediates).
- Catalytic alternatives to traditionally non-catalytic reaction processes, as well as new catalyst designs for established catalytic processes.
- Environmental catalysis (including energy-efficient and green routes to fuels and chemicals).
- Catalytic remediation of feedstocks, process streams, products, or effluents.
- Commercially scalable methods of catalyst synthesis.
- New catalytic materials and architectures (especially those substituting earth-abundant materials for precious and noble metal catalysts).
- Basic understanding of catalytic materials, reaction pathways, kinetics, and surface mechanisms.
- Durable, poison-resistant, and easily regenerable catalyst formulations and designs.
- Advances in tools for catalyst characterization and theoretical/computational catalysis.


**Process Systems, Reaction Engineering and Molecular Thermodynamics**

*National Science Foundation (NSF)*

**Due Date: 10/20/2015**

The goal of the Process Systems, Reaction Engineering and Molecular Thermodynamics (PRM) program is to advance fundamental engineering research on the rates and mechanisms of important classes of catalyzed and uncatalyzed chemical reactions as they relate to the design, production, and application of catalysts, chemical processes, biochemical processes, and specialized materials that have important impacts on society. The program seeks to advance electrochemical and photochemical processes of engineering significance or with commercial potential, design and optimization of complex chemical and biochemical processes, thermodynamic modeling and experiments that relate molecular dynamics to macroscopic properties and behavior, dynamic modeling and control of process systems and individual process units, reactive processing of polymers/ceramics/thin films, and interactions between chemical reactions and transport processes in reactive systems, for the integration of this information into the design of complex chemical and biochemical reactors. A substantial focus of the PRM program is to impact the chemical manufacturing enterprise by funding projects aimed at zero emissions and environmentally-friendly, smart manufacturing using sustainable materials. Areas that focus on reactors of all types (fuel cells, batteries, microreactors, biochemical reactors, etc.), reactor design in general, and design and control of all systems associated with energy from renewable sources have a high priority for funding. **PD 15-1403**

Nano-Biosensing  
*National Science Foundation (NSF)*  
**Due Date: 10/20/2015**

The Program supports fundamental engineering research on devices and methods for measurement and quantification of biological analytes. Proposals that incorporate emerging nanotechnology methods are especially encouraged. **PD 15-7909**

**Areas of interest include:**
- Proposals on multi-purpose sensor platforms that exceed the performance of current state-of-the-art measurement methods.
- Projects on novel transduction mechanisms and sensor designs suitable for measurement in practical matrix and sample-preparation free approaches. These include error-free detection of pathogens and toxins in food matrices, waterborne pathogens, parasites, toxins, biomarkers in body fluids, and others.
- Proposals that address highly selective bio-recognition elements which exhibit zero false negative responses.
- Nano-biosensors that enable measurement of kinetics and thermodynamics of biomolecular interactions in their native states, transmembrane transport, intracellular transport, and other biological phenomena.
- Fundamental studies on surface functionalization and immobilization of bio-recognition molecules, orientation, activity, stability and effectiveness at biosensor interfaces.


Particulate and Multiphase Processes  
*National Science Foundation (NSF)*  
**Due Date: 10/20/2015**

The goal of the Particulate and Multiphase Processes (PMP) program is to support fundamental engineering research on physicochemical phenomena that govern particulate and multiphase systems, including flow of suspensions, drops and bubbles, granular and granular-fluid flows, behavior of micro- and nanostructured fluids, and self-assembly and directed assembly processes that involve particulates. The program encourages transformative research to improve our basic understanding of particulate and multiphase processes with emphasis on research that demonstrates how particle-scale phenomena affect the behavior and dynamics of larger-scale systems. Although proposed research should focus on fundamentals, a clear vision is required that anticipates how results could benefit important applications in advanced manufacturing, energy harvesting, transport in biological systems, biotechnology, or environmental sustainability. Collaborative and interdisciplinary proposals are
encouraged, especially those that involve a combination of experiment and theory or modeling. PD 15-1415

**Major research areas of interest in the program include:**
- Multiphase flow phenomena: Dynamics of suspensions, emulsions, granular materials, and structured fluids (colloids/ferro-fluids), and novel approaches that relate micro- and nanoscale phenomena to macroscale properties and process-level variables.
- Multiphase transport in biological systems: Analysis of physiological processes, applications of functionalized nanostructures in clinical diagnostics and therapeutics.
- Particle science and technology: Aerosols, production of particles and polymer-particle complexes with engineered properties, self-assembly, directed assembly, and template-directed assembly of particles into functional materials and devices.
- Interfacial transport: Dynamics of particles and macromolecules at interfaces, kinetics of adsorption and desorption of nanoparticles and surfactants and their spatial distributions at interfaces, complex molecular interactions at interfaces, formation of interfacial complexes that affect the dynamics of particles.


**Mathematical Sciences Postdoctoral Research Fellowships (MSPRF)**

*National Science Foundation (NSF)*

**Due Date: 10/21/2015**

The purpose of the MSPRF is to support future leaders in mathematics and statistics by facilitating their participation in postdoctoral research environments that will have maximal impact on their future scientific development. There are two options for awardees: Research Fellowship and Research Instructorship. Awards will support research in areas of mathematics and statistics, including applications to other disciplines. **NSF 14-582**

Louis Stokes Alliances for Minority Participation (LSAMP)
National Science Foundation (NSF)
Due Date: 11/4/2015, 11/20/2015 (due date varies by track)

Louis Stokes Alliances for Minority Participation (LSAMP) program assists universities and colleges in their efforts to significantly increase the numbers of students matriculating into and successfully completing high quality degree programs in science, technology, engineering and mathematics (STEM) disciplines in order to diversify the STEM workforce. Particular emphasis is placed on transforming undergraduate STEM education through innovative, evidence-based recruitment and retention strategies, and relevant educational experiences in support of racial and ethnic groups historically underrepresented in STEM disciplines: African Americans, Hispanic Americans, American Indians, Alaska Natives, Native Hawaiians, and Native Pacific Islanders. The LSAMP program provides funding to alliances that implement comprehensive, evidence-based, innovative, and sustained strategies that ultimately result in the graduation of well-prepared, highly-qualified students from underrepresented groups who pursue graduate studies or careers in STEM. In this solicitation, the acronym STEM stands for science, technology, engineering, and mathematics that includes biological sciences (except medicine and other clinical fields); physical sciences (including physics, chemistry, astronomy, and materials science); mathematical sciences (including statistics and data science); computer and information sciences; geosciences (including earth and ocean sciences); engineering; and technology areas associated with the preceding disciplines (for example, biotechnology, chemical technology, nanotechnology, engineering technology, information technology). NSF 15-594


Manufacturing Innovation Institute for Smart Manufacturing: Advanced Sensors, Controls, Platforms, and Modeling for Manufacturing
U.S. Department of Energy (DoE)
Due Date: Concept Papers 11/4/2015; Full Applications 1/29/2016

The Office of Energy Efficiency and Renewable Energy (EERE), within the U.S. Department of Energy (DOE), invests in cutting-edge research, development, and demonstration activities focused on sustainable transportation, renewable power, energy efficiency, and clean energy manufacturing platform technologies. A core thrust for EERE is to enhance U.S. global competitiveness in emerging clean energy industries through the research, development and demonstration of advanced technologies. EERE launched its Clean Energy Manufacturing Initiative (CEMI) in 2013 with the goal of increasing U.S. manufacturing competitiveness in the production of clean energy products and domestic manufacturing across the board by increasing industrial energy productivity. EERE’s Advanced Manufacturing Office plays a central role in CEMI by supporting cross-cutting clean energy manufacturing research and development projects, shared research facilities, and technical assistance.
programs. EERE’s Advanced Manufacturing Office (AMO) partners with private and public stakeholders to support the research, development and deployment of innovative technologies that can improve U.S. competitiveness, save energy, and ensure global leadership in advanced manufacturing and clean energy technologies. AMO supports cost-shared research, development, and demonstration activities in support of cross-cutting next generation technologies and processes that hold high potential to significantly improve energy efficiency and reduce energy-related emissions, industrial waste, and the life-cycle energy consumption of manufactured products. EERE, through AMO, establishes Manufacturing Innovation Institutes for clean energy and energy efficiency. AMO intends to support the research, development, demonstration, and transition to industry the following technologies for Smart Manufacturing through a Manufacturing Innovation Institute in this area: advanced sensing and instrumentation; process monitoring, control, and optimization; advanced hardware and advanced software platforms; and real-time and predictive modeling and simulation technologies. This Funding Opportunity Announcement (FOA) will result in the creation of a Manufacturing Innovation Institute focused on Smart Manufacturing: Advanced Sensors, Controls, Platforms, and Modeling for Manufacturing emphasizing energy intensive/dependent industries and clean energy product manufacturing, referred to going forward in this document as the Smart Manufacturing Institute. DE-FOA-0001263

- URL: https://eere-exchange.energy.gov/#Foa7d7bd9b-c3b2-45c5-8111-55384aaf6393

HEALTH, LIFE & EARTH SCIENCES

Collaborative Sciences Award
American Heart Association
Due Date: Letters of Intent 11/5/2015; Full Applications 2/10/2016

The objective of the Collaborative Sciences Award is to foster innovative, new collaborative approaches to research projects which propose novel pairings of investigators from at least two broad disciplines. The proposal must focus on the collaborative relationship, such that the scientific objectives could not be achieved without the efforts of at least two co-principal investigators and their respective disciplines. The combination and integration of studies may be inclusive of basic, clinical, population and/or translational research. Applications by existing collaborators are permitted, provided that the proposal is for a new idea or new approach that has not been funded before. Research broadly related to cardiovascular function and disease and stroke, or to related clinical, basic science, bioengineering or biotechnology, and public health problems, including multidisciplinary efforts. Proposals are
encouraged from all basic disciplines as well as epidemiological, behavioral, community and clinical investigations that bear on cardiovascular and stroke problems.

- **URL:** [http://my.americanheart.org/professional/Research/FundingOpportunities/ForScientists/Inter-2015---Collaborative-Sciences-Award_UCM_460459_Article.jsp](http://my.americanheart.org/professional/Research/FundingOpportunities/ForScientists/Inter-2015---Collaborative-Sciences-Award_UCM_460459_Article.jsp)

**EarthScope**  
*National Science Foundation (NSF)*  
**Due Date: 11/13/2015**

EarthScope is an Earth science program to explore the 4-dimensional structure of the North American continent. The EarthScope Program provides a framework for broad, integrated studies across the Earth sciences, including research on fault properties and the earthquake process, strain transfer, magmatic and hydrous fluids in the crust and mantle, plate boundary processes, large-scale continental deformation, continental structure and evolution, and composition and structure of the deep Earth. In addition, EarthScope offers a centralized forum for Earth science education at all levels and an excellent opportunity to develop cyberinfrastructure to integrate, distribute, and analyze diverse data sets. EarthScope is committed to supporting the most meritorious research in any relevant area, including interdisciplinary and multidisciplinary research, as well as research involving international collaboration. **NSF 15-578**  
The program will support proposals to conduct scientific research and/or education and outreach activities within North America that:

1) Make use of capabilities provided through, and/or data and/or models derived from, GAGE, SAGE, and/or SAFOD and  
2) Further the scientific and educational goals of EarthScope.


**Pilot Study Program**  
*Marsha Rivkin Center for Ovarian Cancer Research*  
**Due Date: 12/1/2015**

Funding is often difficult to find for discovery work leading up to the most innovative scientific theories. In order to foster these novel ideas, each year, the Center funds promising pilot studies in ovarian cancer. The discoveries from these studies in turn lay the groundwork for major research initiatives. Data gathered from these studies often allow scientists to in turn further pursue research ideas through
highly competitive national government grants necessary to complete these projects. Funding is open to investigator-initiated projects in all areas of ovarian cancer research. In addition, projects designed to analyze data from already funded clinical trials will be considered.

- URL: [http://www.marsharivkin.org/research/apply.html](http://www.marsharivkin.org/research/apply.html)

**SBIR Technology Transfer (R42/R44)**

*National Institutes of Health (NIH)*

**Due Dates: Standard NIH due dates apply**

This Funding Opportunity Announcement (FOA) encourages Small Business Innovation Research (SBIR) grant applications from small business concerns (SBCs) for projects to transfer technology out of the NIH intramural research labs into the private sector. If selected for SBIR funding, the SBC will be granted a royalty-free, non-exclusive patent license agreement for internal research use for the term of and within the field of use of the SBIR award to technologies held by NIH with the intent that the SBC will develop the invention into a commercial product to benefit the public. *Colleges and universities are eligible to partner.* PA-15-354


**NINDS Neuroscience Development for Advancing the Careers of a Diverse Research Workforce (R25)**

*National Institutes of Health (NIH) - National Institute of Neurological Disorders and Stroke (NINDS)*

**Due Date: Applications 1/25/2016 (Letters of Intent due 30 days prior to application due date)**

The purpose of the FOA is to invite applications for mentoring and professional activities to advance the careers and neuroscience development of diverse neuroscience researchers. The goal of the NINDS Neuroscience Development for Advancing the Careers of a Diverse Research Workforce (NDACDRW) is to support mission relevant development and/or implementation of programs to: (1) increase the pool of Ph.D.-level research scientists from diverse backgrounds underrepresented in biomedical research who are neuroscience researchers- participation is limited to graduate, post-doctoral and/or junior-faculty career levels only; and (2) facilitate career advancement/transition of the participants to the next step of their neuroscience careers. NINDS support for R25 program relies equally on scientific merit and programmatic considerations. Consequently, we recommend that potential applicants contact program officials at NINDS before preparing an application.

MULTIPLE DISCIPLINES

NIH/NSF Ecology and Evolution of Infectious Diseases (EEID)
National Institutes of Health (NIH) / National Science Foundation (NSF)
Due Date: 11/18/2015

The Ecology and Evolution of Infectious Diseases program supports research on the ecological, evolutionary, and socio-ecological principles and processes that influence the transmission dynamics of infectious diseases. The central theme of submitted projects must be quantitative or computational understanding of pathogen transmission dynamics. The intent is discovery of principles of infectious disease transmission and testing mathematical or computational models that elucidate infectious disease systems. Projects should be broad, interdisciplinary efforts that go beyond the scope of typical studies. They should focus on the determinants and interactions of transmission among humans, non-human animals, and/or plants. This includes, for example, the spread of pathogens; the influence of environmental factors such as climate; the population dynamics and genetics of reservoir species or hosts; the cultural, social, behavioral, and economic dimensions of disease transmission. Research may be on zoonotic, environmentally-borne, vector-borne, or enteric diseases of either terrestrial or freshwater systems and organisms, including diseases of animals and plants, at any scale from specific pathogens to inclusive environmental systems. Proposals for research on disease systems of public health concern to developing countries are strongly encouraged, as are disease systems of concern in agricultural systems. Investigators are encouraged to develop the appropriate multidisciplinary team, including for example, modelers, bioinformaticians, genomics researchers, social scientists, economists, epidemiologists, entomologists, parasitologists, microbiologists, bacteriologists, virologists, pathologists or veterinarians, with the goal of integrating knowledge across disciplines to enhance our ability to predict and control infectious diseases. NSF 14-592

NEW FACULTY/INVESTIGATOR

Emerging Research Grants
Hearing Health Foundation (HHF)
Due Date: Letters of Intent 11/2/2015

Hearing Health Foundation supports research in the following areas:

- **Central Auditory Processing Disorder**: Four grants will be awarded for innovative research that will increase our understanding of the causes, diagnosis, and treatment of central auditory processing disorder (CAPD), an umbrella term for a variety of disorders that affect the way the brain processes auditory information.

- **Hyperacusis**: Two grants will be awarded that is focused on innovative research (e.g., animal models, brain imaging, biomarkers, electrophysiology) that will increase our understanding of the mechanisms, causes, diagnosis, and treatments of hyperacusis and severe forms of loudness intolerance. Research that explores distinctions between hyperacusis and tinnitus is of special interest.

- **Ménière’s Disease**: Two grants will be awarded for innovative research that will increase our understanding of the inner ear and balance disorder Ménière’s disease.

- **Tinnitus**: One grant will be awarded for innovative research that will increase our understanding of the mechanisms, causes, diagnosis, and treatment of tinnitus. Projects investigating the prevention, treatment, and/or alleviating tinnitus are encouraged to apply.

Hearing Health Foundation (HHF) awards grants once a year for the project period of July 1 - June 30. A grant represents a mutual joining of interests on the part of HHF, the grantee, and his/her associated institution in the pursuit of a common objective furthering hearing and balance science. HHF Emerging Research Grants are intended primarily for promising researchers who are in the early stages of their careers. The primary purpose of this award is to enable the investigator to become established or produce quality research that will allow him/her to successfully compete for NIH Grants or grants from other sources. Applications will be considered for research directed to investigation of specified research topic areas of the auditory and vestibular systems to be listed in the Request for Application; both fundamental and clinical research proposals are welcome. HHF grants up to **$30,000 per year** for each research project and provides a maximum of one year of support. Second year applications are no longer eligible. **Priority is given to new investigators in the field of hearing and balance and to projects that are likely to open new lines of inquiry.** New and innovative projects developed by established scientists will also be considered.

- **URL**: [http://hearinghealthfoundation.org/emerging-research-grants](http://hearinghealthfoundation.org/emerging-research-grants)
American Publication Grant
American Association of University Women (AAUW)
Due Date: 11/15/2015

These grants provide support to women scholars to prepare research manuscripts for publication, and independent researchers to prepare research for publication. Preference will be given to applicants whose work supports the vision of AAUW: to break through educational and economic barriers so that all women have a fair chance. Time must be available for eight consecutive weeks of final manuscript preparation. All applicants must demonstrate that the support will result in a reduction of their ongoing work-related activities. The grants are not for preliminary research. Activities undertaken during the grant period can include drafting, editing, or modifying manuscripts; replicating research components; responding to issues raised through critical review; and other initiatives to increase the likelihood of publication. It must be an original publication and cannot be co-authored.

- URL: http://aauw-ampub.scholarsapply.org/

SOCIAL & BEHAVIORAL SCIENCES

Grants
Group Foundation for Advancing Mental Health
Due Date: 11/1/2015

Funds are available from the Group Foundation for Advancing Mental Health to support research that demonstrates the effectiveness of group psychotherapy. The Group Psychotherapy Foundation is seeking research-focused, rather than program-focused, applications.

- URL: http://www.agpa.org/Foundation/research-grants

Projects that Address Homelessness
William G. McGowan Charitable Fund
Due Date: Open

The William G. McGowan Charitable Fund has issued a Request for Proposals in support of projects that proactively address the problems faced by homeless individuals. The fund will award grants in support of initiatives that seek to correct circumstances contributing to homelessness, as well as initiatives
designed to help eradicate the condition of homelessness in the long term. Programs must include education or job training, as well as job placement and retention counseling, and provide evidence-based support services to help remove barriers to self-sufficiency for homeless individuals. Other support services may include mental health and substance abuse support; life skills, parenting, and/or personal budgeting training; and post-program participant follow up. To be eligible, applicants must be a registered 501(c)3 charitable organization located in one of the foundation’s geographic focus areas (Colorado, Illinois, Kansas, Nevada, New York, or Pennsylvania); be able to document a record of past success in program delivery; and have a demonstrated, quantifiable track record of delivering support services that get homeless individuals on a pathway to stabilization and self-sufficiency. In addition, applicants must be able to define the key measurables, benchmarks, and accountability standards for project participants and demonstrate the ability to track and record long-term outcomes for program effectiveness and sustainable change. Visit the McGowan Charitable Fund website for complete program guidelines and application instructions.

- URL: http://www.williammgmcgowanfund.org/pdf/Homelessness%20RFP.pdf

**Fund for the Advancement of the Discipline (FAD)**

**American Sociological Association (ASA)**

**Due Date: 12/15/2015, 6/15/2016**

The American Sociological Association invites submissions for the Fund for the Advancement of the Discipline (FAD) awards. Supported by the American Sociological Association through a matching grant from the National Science Foundation, the goal of this project is to nurture the development of scientific knowledge by funding small, groundbreaking research initiatives and other important scientific research activities such as conferences. FAD awards provide scholars with “seed money” for innovative research that has the potential for challenging the discipline, stimulating new lines of research, and creating new networks of scientific collaboration. The award is intended to provide opportunities for substantive and methodological breakthroughs, broaden the dissemination of scientific knowledge, and provide leverage for acquisition of additional research funds.

- URL: http://www.asanet.org/funding/fad.cfm