Funding Opportunities Bulletin
June 2012

This selected compilation of funding opportunities is provided by KUCR Proposal Services as a resource for Kansas University Researchers. We encourage you to utilize the campus subscription to Community of Science (COS) to find funding opportunities specifically tailored to your research area based on keywords you provide. COS is easy to use and offers other valuable services that are helpful to researchers. Access is available at this site: http://www.cos.com/
If you have questions regarding COS, please contact Dan Coonfield at dcoonfie@ku.edu or 864-7404.

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BUSINESS

Paul Samuelson Award for Outstanding Scholarly Writing on Lifelong Financial Security
TIAA-CREF
Due date: Sep 10, 2012 (anticipated)

The award recognizes outstanding scholarly writing on issues related to lifelong financial security. Named in honor of the Noble Laureate and former CREF Trustee, the award is given each year in recognition of an outstanding research publication containing ideas that the public and private sectors can use to maintain and improve Americans' financial well-being. To be considered, an article or a book must be scholarly in nature, written in English, and published between January 1, 2010 and June 30, 2011. Individual papers in an edited volume are welcome. The collected papers in an edited volume, however, are not eligible as a submission. The work must be either theoretical or empirical in nature and must cover a subject directly relevant to lifelong financial security, such as
- retiree health care issues;
- the design of public and private programs providing income or health benefits in retirement;
- the functioning of insurance markets;
- the design of investment products and strategies for pension funds and other long-term savings plans;
- the impact of tax and regulatory policies on savings, retirement, and insurance products and programs; and
- the changing nature of consumption needs and labor market activities over the life cycle.

http://www.tiaa-crefinstitute.org/awards/samuelson.html
Grants
Kazanjian Economics Foundation, Calvin K.
**Due date: Sep 15, 2012 (anticipated)**

While the Foundation maintains a vital interest in the overall efforts to increase economic literacy, the Board of Trustees will give special attention to proposals and projects with national impact that addresses the following issues:

1. The Foundation has an abiding interest in elevating the nation's understanding of the need for economic education. It will support programs that raise various public's participation in economic education and/or create a demand for greater economic literacy.
2. The application of new strategies for teaching economics including online and Web-based instruction is of interest to the Foundation.
3. Projects, policy studies, or programs that encourage measurement of economic understanding more often and/or more effectively are of specific interest.
4. The large number of students at risk of leaving school, and hence never effectively participating in the nation's economic system are of concern to the Foundation. Programs that help otherwise disenfranchised youth and/or young adults with children learn to participate in the economic system are very important to the Foundation.

Those proposing projects should examine the compendium of existing economic education materials and programs catalogued in the Kazanjian Economic Education Reviews before making application.

[http://www.kazanjian.org/grants](http://www.kazanjian.org/grants)

Ph.D. Project
KPMG Peat Marwick Foundation
**Due date: Sep 30, 2012 (anticipated)**

The Ph.D. Project's mission is to create a path by which a large number of African-Americans, Hispanic-Americans, and Native Americans can make the career switch and enter doctoral programs in business. As part of the foundation's commitment to diversify the classroom, which will in turn diversify the workplace, it has teamed with a broad spectrum of companies and organizations that seek to significantly increase the numbers of African-Americans, Hispanic-Americans, and Native Americans on the faculties of U.S. business schools in every business discipline. If selected, the applicant will attend the Ph.D. Project's annual conference for potential doctoral students. Attendance at the conference does not guarantee a scholarship from the KPMG Foundation or from any other sponsor.

Candidates must be U.S. citizens or permanent U.S. residents, a graduate student, and be African-American, Hispanic-American, or Native American.

**Internship Program**  
African Development Bank Group (ADB)  
**Due date: Sep 30, 2012 (anticipated)**

The broad objectives of the program are to:
- provide students with an opportunity to acquire professional and practical experience at the African Development Bank
- provide the Bank with a pool of potential candidates for future recruitment purposes.

However applicants should not expect the internship to lead to immediate employment with the AfDB.

The African Development Bank (AfDB) Group's mission is to help reduce poverty, improve living conditions for Africans and mobilize resources for the continent's economic and social development. With this objective in mind, the institution aims at assisting African countries - individually and collectively - in their efforts to achieve sustainable economic development and social progress.


**EDUCATION**

**Technology and Media Services for Individuals with Disabilities - Educational Materials in Accessible Formats for Students with Visual Impairments and Other Print Disabilities**  
United States Department of Education (ED)  
**Due date: Sep 16, 2012**

The purpose of the Technology and Media Services for Individuals with Disabilities program is to:
1. Improve results for students with disabilities by promoting the development, demonstration, and use of technology;
2. Support educational media services activities designed to be of educational value in the classroom for students with disabilities; and
3. Provide support for captioning and video description that is appropriate for use in the classroom.

The purpose of this priority is to fund a cooperative agreement to support the establishment and operation of a project that will provide free educational materials, including textbooks, in accessible media for visually impaired and print disabled students in elementary, secondary, postsecondary, and graduate schools. (For the purposes of this priority, students with print disabilities means visually impaired and print disabled students unless otherwise noted.) The educational materials and textbooks must be provided in accessible formats that are of high quality and meet industry standards for accessibility and digital rights management. Processes, strategies, and models used in the production, dissemination, and in digital rights management must be user-friendly, efficient, and cost-effective.

Education Research Training
United States Department of Education (ED)
Due date: Sep 20, 2012

The central purpose of the institute's research grant programs is to provide parents, educators, students, researchers, policymakers, and the general public with reliable and valid information about education practices that support learning and improve academic achievement and access to education opportunities for all students. In carrying out its grant programs, the institute provides support for programs of research in areas of demonstrated national need.

Under the education research training competition, NCER will consider only applications for Postdoctoral Research Training in the Education Sciences.


Researcher-Practitioner Partnerships in Education Research
United States Department of Education (ED)
Due date: Sep 20, 2012

Applicants that have the ability and capacity to conduct scientifically valid research are eligible to apply. Eligible applicants include, but are not limited to, nonprofit and for-profit organizations and public and private agencies and institutions, such as colleges and universities. The applicant must have a Data Universal Numbering System (DUNS) number and a Taxpayer Identification Number (TIN); and register both their DUNS number and TIN with the Central Contractor Registry (CCR), the Government's primary registrant database.

http://www.grants.gov/search/search.do?mode=VIEW&oppId=149693

Accelerating the Academic Achievement of Students with Disabilities Research Initiative
United States Department of Education (ED)
Due date: Sep 20, 2012

Applicants that have the ability and capacity to conduct scientifically valid research are eligible to apply. Eligible applicants include, but are not limited to, nonprofit and for-profit organizations and public and private agencies and institutions, such as colleges and universities. The applicant must have a Data Universal Numbering System (DUNS) number and a Taxpayer Identification Number (TIN); and register both their DUNS number and TIN with the Central Contractor Registry (CCR), the Government's primary registrant database.

http://www.grants.gov/search/search.do?mode=VIEW&oppId=149793
Through the grant program on Statistical and Research Methodology in Education (Methods), the Institute supports research to advance education research methods and statistical analyses. The long-term outcome of this research program will be a wide range of methodological and statistical tools that will better enable education scientists to conduct rigorous education research. Research supported through this program must be relevant to education in the United States.

The Institute encourages applications to develop or investigate techniques to increase the generalizability of studies. Oftentimes, evaluations of education interventions are conducted on samples that may not be truly representative of larger populations of policy interest. In some cases, a convenience sample (e.g., schools willing to participate in a study) may be used. In other cases, randomly selected samples may be taken from a small geographical area (e.g., schools within a district), and consequently the results may not generalize to larger geographical areas (e.g., all districts within a state). The Institute is interested in proposals to understand how results from these two types of samples can be generalized to broader populations. Although there has been some work in education on developing weights, based on surveys or other sources of information on the population, to make the estimate of the treatment effect more likely to reflect the effect in the general population, relatively little research has been conducted to address this problem.

When random assignment is not feasible to evaluate the impact of an intervention, nonexperimental comparison group methods (e.g., instrumental variables, propensity score matching, fixed effects models) are typically employed. The Institute strongly encourages research that examines nonexperimental comparison group methods to determine which methods best reduce selection bias in estimates of the effect and the conditions that are necessary for producing such results.

The Institute will also accept applications to conduct methodological research that piggybacks onto an existing study. For example, a researcher might propose to conduct systematic variation of strategies to enhance recruitment and retention of participants or to examine the influence of different consent procedures.

As a final example, the Institute also solicits applications to improve or extend statistical analyses of single case experimental designs (e.g., alternating treatments, multiple baseline designs). Single case experimental designs pose many analytical challenges, such as violations of assumptions of traditional inferential statistics (e.g., independence between observations). Applicants may propose research that continues exploration of various approaches (e.g., hierarchical linear modeling, nonparametric tests, measurement of effect size) for analyzing results from individual single case studies as well as analyzing aggregated single case design data.

As previously noted, the Institute is interested in a wide range of topics and applicants are not limited to the examples described above.
The Institute intends to fund research projects intended to expand and improve the methodological and statistical tools that are available for education researchers conducting research of the type that the Institute funds through its research grant competitions, statistics contracts, and evaluation contracts.

The institute requests projects that will provide findings, resources, and tools of immediate practical use to mainstream education researchers by the end of the project. This includes research on the NAEP which should be directed towards tools or methods for making the analysis and interpretation of NAEP data easier for education decision makers or to permit advanced analytic techniques to be readily applied to NAEP data by mainstream education researchers. Because this grant program is focused on supporting the improvement of the design, analysis, and interpretation of mainstream education research the Institute will not accept applications regarding the use of technologies (e.g., cameras and smart phones) in data collection.


Special Education Research
United States Department of Education (ED)
Due date: Sep 20, 2012

The intent of these grants is to provide national leadership in expanding fundamental knowledge and understanding of education from early childhood education through postsecondary and adult education.

The National Center for Special Education Research (NCSER) will hold four competitions: two competitions for special education research, one competition for special education research training, and one competition for special education research and development centers.

Under the two special education research competitions, NCSER will consider only applications that address one of the following special education research topics: Early Intervention and Early Learning in Special Education; Reading, Writing, and Language Development; Mathematics and Science Education; Social and Behavioral Outcomes to Support Learning; Transition Outcomes for Special Education Secondary Students; Cognition and Student Learning in Special Education; Professional Development for Teachers and Related Services Providers; Special Education Policy, Finance, and Systems; and Autism Spectrum Disorders.


Education Research
United States Department of Education (ED)
Due date: Sep 20, 2012
The central purpose of the institute's research grant programs is to provide parents, educators, students, researchers, policymakers, and the general public with reliable and valid information about education practices that support learning and improve academic achievement and access to education opportunities for all students. In carrying out its grant programs, the institute provides support for programs of research in areas of demonstrated national need.

Under the two education research competitions, the National Center for Education Research (NCER) will consider only applications that address one of the following education research topics:
1. Cognition and Student Learning
2. Early Learning Programs and Policies
3. Education Technology
4. Effective Teachers and Effective Teaching
5. English Learners
7. Mathematics and Science Education
8. Postsecondary and Adult Education
9. Reading and Writing
10. Social and Behavioral Context for Academic Learning


Special Education Research and Development Centers Program CFDA 84.324C
United States Department of Education (ED)
Due date: Sep 22, 2012 (anticipated)

The Institute supports special education research and development centers (R&D Centers) that are intended to contribute significantly to the solution of special education problems in the United States by engaging in research, development, evaluation, and national leadership activities aimed at improving the education system, and ultimately, student achievement. Each of the R&D Centers conducts a focused program of research in its topic area. In addition, each Center conducts supplemental research within its broad topic area and provides national leadership in advancing evidence-based practice and policy within its topic area.

Under the special education research and development centers competition, NCSER will consider only applications that address the following research topics:
1. Interventions for Families of Students with Autism Spectrum Disorders
2. Interventions for Families of Students with Emotional and Behavioral Disorders

http://www.grants.gov/search/search.do?mode=VIEW&oppId=76313
ENGINEERING & COMPUTER SCIENCE

Research in Engineering Education (REE)
National Science Foundation (NSF)
Due date: Sep 14, 2012

EEC seeks to enable a world-leading system of engineering education, equally open and available to all members of society, that dynamically and rapidly adapts to meet the changing needs of society and the nation's economy. Research areas of interest include, but are not limited to, the following:

1. Diversifying pathways to and through engineering degree programs. Research projects that align with this theme explore how engineering programs can engage and develop students with a broad range of backgrounds, interests, and experiences; investigate how informal or real world experiences germane to engineering - such as military service or being a "maker" - impact, improve, or accelerate learning; or investigate how to fundamentally restructure courses, curricula, or programs to substantially boost student success, especially for underrepresented populations and veterans.

2. Understanding how to increase the diffusion and impact of engineering education research. Research projects are sought that discover how to improve the process by which engineering education research is translated into practice; how to accomplish organizational and cultural change in institutions of engineering education that leads to improved learning outcomes; or identifying and overcoming barriers to widespread adoption of engineering education research. Research projects that partner with other engineering education stakeholders (e.g., private companies, NGOs, or professional societies) to measure the value and impact of engineering education research on practice are also sought.

3. Understanding engineering education in broader, organizing frameworks such as innovation, globalization, complex engineered systems, or sustainability. Research in this theme explores learning from perspectives and contexts that cut across disciplines and in which learners integrate expertise from multiple fields. Research projects that align with this theme include discovering processes to effectively teach engineering students to succeed in such environments or "eco-systems"; discovering key concepts and principles of educating engineers within such frameworks; or exploring factors such as teamwork, communication, or identity formation in such environments.

4. Increasing our understanding of how engineering students learn and the capacity that supports such discovery. Fundamental research is encouraged on how engineering is learned, including engineering epistemologies and identities; and how to evaluate or operationalize aspects of engineering thinking, doing, and knowing.

This program discourages proposals that seek to simply implement and/or evaluate pedagogical innovations that have been previously shown to be effective for engineering students; such projects may be considered in the TUES program of DUE.

An ideal engineering education research project addresses the iterative cycle in which research
questions that advance understanding are informed by practice and the results of research are, in turn, translated into practice. In discussing how the planned work advances understanding, competitive proposals will ground the proposed work in a theoretical framework and frame the project in the context of relevant prior work. The proposal should discuss how the research results are broadly generalizable and transferable; the broader impacts of projects are an important part of NSF’s merit review criteria. Successful projects will identify target audiences as well as effective communication methods to ensure broad dissemination. Competitive proposals also contain appropriate evaluation plans that inform the research effort and allow assessment of the project’s impact and effectiveness.

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503584

**Director's Innovation Initiative Program (Domestic Sources)**
United States Department of Defense (DOD)
**Due date: Sep 16, 2012 (anticipated)**

The DII program is designed to present an opportunity for developers not traditionally associated with the NRO to participate in building the NRO of the 21st century; provide a risk tolerant environment to invest in cutting edge technologies and high payoff concepts relevant to the NRO's mission; and foster innovation and provide seed funding to push the boundaries of technology to dramatically improve the nation's satellite reconnaissance capabilities. The DII Program encourages Offerors to submit ideas that stretch the state-of-the-art and have high potential payoff to the NRO's mission. The DII Program is designed to push the boundary of what is feasible and accepts the likelihood of a high number of technical failures. Although it is hoped that every project will result in success, the risk tolerant philosophy of the DII Program means that the DII Program Office would prefer to see a high risk, high potential payoff project fail technically, rather than a low risk, low potential payoff project succeed and not be continued due to lack of payoff. At the same time, Offerors must also accept the potential for failure and realize that there is no assured continuation path. Additionally, potential Offerors should realize that high technical risk does not equate to unsound scientific and engineering practices. Proposals that are not based upon sound scientific and engineering practices will be quickly rejected. The DII program aims to provide "seed funding" to many different ideas with the goal of identifying promising projects for further development. Further development of a project may occur either within the DII Program or by obtaining continuation funding from outside of the DII Program. A critical aspect of the DII Program is that concise, timely status reports be provided. The DII Program Office uses these reports to inform other potentially interested offices and individuals of the status and progress of DII projects.

https://dii.westfields.net/
Interfacial Processes and Thermodynamics (IPT)
National Science Foundation (NSF)
Due date: Sep 18, 2012

The IPT program supports fundamental research in engineering areas related to interfacial phenomena, mass transport phenomena, and molecular thermodynamics.

Currently, emphasis is placed on molecular engineering approaches at interfaces, especially as applied to the nano-processing of soft materials. Molecules at interfaces with functional interfacial properties are of special interest and have uses in many new technologies, based on nano-fabrication. These interfacial molecules may have biomolecular functions at the micro- and nano-scale. Interfacial materials are generally formed through molecular self-directed, templated, and/or -assembly, and they are driven primarily by thermodynamic intermolecular forces, although may be influenced by flow and electrical forces. In some cases, these interfacial processes may also be supplemented by weak chemical reactions.

Complex simulations of molecular systems are often used in molecular design of interfaces, if possible, in conjunction with experimental comparisons. New theories and complex simulation approaches are supported for determining the transport and thermodynamic properties of fluids and fluid mixtures in biological and other fluids with complex molecules in the bulk phase and at interfaces, in membranes, two-phase mixtures, and in a nanoenvironment. Many of the physical systems involve polymer and surfactant molecules, as well as special biomolecules.

Research is supported in the three fundamental areas that could lead to more economical and environmentally benign processing, improved water quality, and novel functional materials for sensors, in industrial, environmental, and biomedical settings. Nanotechnology plays a critical role in most of these new areas.

Projects are coordinated and jointly supported with other NSF programs, both inside and outside the CBET Division. For example, the program participates strongly in all nano- and cyber-technology activities, encourages support of undergraduates, industry/university (GOALI), and international collaboration. The IPT program is also interested in developing the special materials used in developing new Biosensing Systems and Technologies. In this regard, the IPT program and the Biosensing program may jointly support novel projects related to surface functionalization at the molecular level.

Innovative proposals outside of these specific interest areas can be considered. However, prior to submission, it is recommended that the PI contact the Program Director to avoid the possibility of the proposal being returned without review.

Proposals should address the novelty and/or potentially transformative nature of the concept being proposed, compared to previous work in the field. Also, it is important to address why the proposed work is important in terms of engineering science, as well as to also project the potential impact on society and/or industry of success in the research. The novelty or potentially transformative nature of the research should be included, as a minimum, in the Project Summary of each proposal.
This program supports fundamental research in engineering areas related to novel sensitive, discriminative, low cost, and easy to operate biosensing systems; innovative ideas in the development of novel biorecognition strategies; multifunctional nanomaterials and interfaces with predefined physical, chemical, or biological characteristics for biosensing applications; fundamental study of bio-macromolecules confinement and orientation at the micro- and nano-interfaces for biosensing applications; and molecular sensors capable of monitoring biological structures interaction (protein-protein interactions, cell-to-cell talk, interkingdom signaling, etc.). Proposals outside of these specific interest areas are welcome. In particular, the Interfacial Processing and Thermodynamics Program and this program may jointly support novel projects related to surface functionalization at the molecular level.

The program supports innovative, transformative, and insightful fundamental investigations of original technologies with broad long term impact and applications that require novel use of bio-inspired engineering principles and sophisticated approaches to meet the engineering and technology needs of the nation. The program is targeting research in the area of the monitoring, identification and/or quantification of biological phenomena and will support potential technological breakthroughs that exist at the intersection of engineering, life science and information technology. Projects submitted to the program must advance both engineering and life sciences.

The development of novel principles and approaches will require highly collaborative interactions between engineers, life scientists and experts in nanotechnology, biomaterials, bioinformatics, and the chemical and physical sciences. The program recognizes the important role of education and workforce development specifically relevant to the multidisciplinary nature of the area of biosensing.

The program does not support applications with incremental improvements of existing approaches/technologies, nor does the program support any device development such as point-of-care diagnostic systems or any applied medical technologies.

Innovative proposals outside of these specific interest areas can be considered. However, prior to submission, it is recommended that the PI contact the Program Director to avoid the possibility of the proposal being returned without review.
This program supports fundamental and applied research on
- 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;
- chemical and biochemical phenomena occurring at or near solid surfaces and interfaces;
- electrochemical and photochemical processes of engineering significance or with commercial potential;
- design and optimization of complex chemical and biochemical processes;
- dynamic modeling and control of process systems and individual process units;
- reactive processing of polymers, ceramics, and thin films; and
- interactions between chemical reactions and transport processes in reactive systems, and the use of this information in the design of complex chemical and biochemical reactors.

The program funds research in chemical and biochemical reaction engineering, process design and control, and reactive polymer processing. Within these three areas, research supported is focused as follows:
1. Chemical Reaction Engineering - the area encompasses the interaction of transport phenomena and kinetics in reactive systems and the use of this knowledge in the design of complex chemical and biochemical reactors. Focus areas include non-traditional reactor systems such as membrane reactors, microreactors, and reactions in supercritical fluids; novel activation techniques such as plasmas, acoustics, and microwaves; and multifunctional systems synthesis such as "smart" molecules, "chemical laboratory on a chip," "chemical factory on a chip" concepts, bioreactor design and bioprocess optimization, and fermentation technology. The program also supports new approaches for generating energy from renewable resources as well as optimizing new approaches in all areas such as developing atomic layer deposition for microelectronic devices.

2. Process Design and Control - these areas encompass the design and optimization of complex chemical and biochemical processes and the dynamic modeling and control of process systems and individual process units. High priority research topics include simultaneous product and process design, including bioprocesses; increased plant efficiency by algorithms that communicate across design levels and incorporate multiple criteria such as profitability, safety, operability, environmental sustainability, and societal concerns; and new sensor development to measure composition, product properties, morphology, etc. Systems approaches that span and optimize across multiple scales, from nano to mega, and integrate planning and scheduling and the globalization of the industrial applications are also of interest to the program. Utilization of the latest in cyberinfrastructure resources including hardware at the tera- and peta-scale is encouraged.

3. Reactive Polymer Processing - program scope is limited in the polymerization area to research that integrates synthesis (chemical reaction of monomers to form polymer chains or complexes) and processing steps (steps that orient and anneal polymer melts and affect the long range conformations and consequently their properties). Typical projects are in the areas of emulsion
and miniemulsion polymerization, reaction injection molding, etc. Program focus is on addressing environmental concerns while producing tailor-made molecules and materials.

Innovative proposals outside of these specific interest areas can be considered. However, prior to submission, it is recommended that the PI contact the Program Director to avoid the possibility of the proposal being returned without review.

Proposals should address the novelty and/or potentially transformative nature of the concept being proposed, compared to previous work in the field. Also, it is important to address why the proposed work is important in terms of engineering science, as well as to also project the potential impact on society and/or industry of success in the research. The novelty or potentially transformative nature of the research should be included, as a minimum, in the Project Summary of each proposal.

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=13361

U.S. Nuclear Regulatory Commission Funding Opportunity
United States Nuclear Regulatory Commission (NRC)
Due date: Sep 22, 2012 (anticipated)

The U.S. Nuclear Regulatory Commission (NRC) is an independent agency, established by the Energy Reorganization Act of 1974, tasked with licensing and regulating the USA's civilian use of byproduct, source, and special nuclear material to ensure adequate protection of public health and safety, to promote the common defense and security, and to protect the environment.

The Energy Policy Act of 2005 authorized the NRC Nuclear Education Grant Program to support courses, studies, training, curricula, and disciplines pertaining to nuclear safety, nuclear security, nuclear environmental protection, and other fields that the Commission determines to be critical to the NRC's regulatory mission. The NRC Nuclear Education Grant Program's primary purpose is supporting and developing the educational infrastructure necessary to allow the USA to safely move its nuclear energy initiatives forward.

The NRC currently supports curriculum development in the following technical areas:
1. Nuclear Engineering:
   a. Criticality safety courses for nuclear professionals
   b. Thermal-hydraulics model development
   c. Reactor physics
   d. Nuclear power plant safety
   e. Nuclear power plant design and operations (including operating and emergency operating procedures)
   f. Fuel performance

2. Radiochemistry and Radiobiology

3. Health Physics
a. Health physics modeling
b. Dosimetry and measurements
c. Environmental transport, dissolution, and migration
d. Decontamination and decommissioning
e. Reprocessing, recycle chemistry, and technology courses

4. Materials and Mechanical Engineering
a. Welding principles, and nondestructive examination (NDE) technology
b. Management of aging plants (components and systems)
c. Material corrosion

5. Reliability and Risk Analysis

6. Electrical Engineering
a. Power generation and distribution or electrical components
b. Digital instrumentation and control systems

7. Safeguards and Security
a. Material control and accountability courses
b. Vulnerability analysis

8. Human Factors and Human Reliability
a. Human factors modeling
b. Applied-experimental psychology, specializing in human performance and human factors

9. Fire Protection Engineering
a. Fire Modeling for Fuel Cycle Facilities
b. Fire Modeling for Nuclear Power Plants

10. Nuclear Waste
a. The fuel cycle
b. Nuclear waste forms
c. Disposal methods
d. Chemistry of nuclear waste

11. Computational Methods
a. Application to nuclear safety
b. Model development
c. Computer code development and maintenance
d. Computational methods using alternative computer operating systems

http://www.grants.gov/search/search.do?mode=VIEW&oppId=107353
Transportation Security Innovative Concepts (FY11)
United States Department of Homeland Security (DHS)
**Due date: Sep 30, 2012 (anticipated)**

The Transportation Security Administration (TSA) is interested in receiving proposals for research projects that support the TSA mission of ensuring the safety of the nation's transportation. To this end, TSA seeks research across broad strategic areas which offer potential for advancement and improvement of TSA security operations, technologies, processes, human-factors, and capabilities. TSA is specifically interested in research that will provide for near term improvement of current security operations and capabilities. These areas include but are not limited to:

1. Passenger and Baggage Screening
2. Threat Assessment and Dissemination
3. Cargo Screening
4. Credentialing

Work funded under a BAA may include basic research, applied research, advanced technology development (ATD), prototyping, pilot demonstrations, and testing.

https://www.fbo.gov/index?s=opportunity&mode=form&id=54a7fac83dd55ac213adfc6be406d9a9&tab=core&_cview=1

Synthesis and Processing Science
United States Department of Energy (DOE)
**Due date: Sep 30, 2012**

The mission of the Basic Energy Sciences (BES) program is to support fundamental research to understand, predict, and ultimately control matter and energy at the electronic, atomic, and molecular levels in order to provide the foundations for new energy technologies and to support DOE missions in energy, environment, and national security. The portfolio supports work in the natural sciences by emphasizing fundamental research in materials sciences, chemistry, geosciences, and biosciences. BES-supported scientific facilities provide specialized instrumentation and expertise that enable scientists to carry out experiments not possible at individual laboratories.

The Synthesis and Processing Science subprogram supports basic research to understand the physical phenomena that underpin materials synthesis including diffusion, nucleation, and phase transitions; and for developing new techniques such as in situ diagnostics. The emphasis is on the synthesis of complex thin films and nanoscale materials with atomic layer-by-layer control; preparation techniques for high-quality single crystal and bulk materials with novel physical properties; understanding the contributions of the liquid and other precursor states to the processing of bulk nanoscale materials; and low energy processing techniques for large-scale nanostructured materials. The program includes research that couples experiments and theory for discovery and design of materials. The focus of this activity on materials discovery and design by physical means is complementary to the BES Materials Chemistry and Biomolecular
Materials research activities, which emphasize chemical and biomimetic routes to new materials.

Over the past few years, the activity has evolved an increasing interest in controlling defects in deposition processes, novel synthesis methods for bulk and nanocrystalline growth, understanding nanoscale morphology through nucleation and growth kinetics and mechanisms, and complex chemical and structural materials growth. Over the next several years, these directions are expected to strengthen research in bulk materials growth, deposition, and sintering and added emphasis in the fundamental understanding of the mechanisms for interfacing soft-hard hybrid materials and the organization of these structures. Expansion is planned in research for discovery of novel synthesis methods, especially using extreme environments of field and flux, and research to push the limits of our basic understanding in synthesis and processing related to use-inspired technologies including solid-state lighting, solar energy conversion, hydrogen storage, and electrical energy storage.

http://science.doe.gov/grants/announcements.asp?stat=1

**Information and Intelligent Systems (IIS): Core Programs**

National Science Foundation (NSF)

**Due date: Sep 30, 2012**

CISE's Division of Information and Intelligent Systems (IIS) supports research and education projects that develop new knowledge in three core programs: the Human-Centered Computing program; the Information Integration and Informatics program; and the Robust Intelligence program. IIS is also responsible for managing the review process for proposals in Computer Graphics and Visualization; these proposals may be submitted to any of the three core programs described above.

Proposals submitted to this solicitation must be consistent with one of three project classes defined below. Proposals will be considered for funding within their project classes.

1. **Small Projects** are well suited to one or two investigators (PI and one co-PI or other Senior Personnel) and at least one student and/or postdoc.

2. **Medium Projects** are well-suited to one or more investigators (PI, co-PI, and/or other Senior Personnel) and several students and/or postdocs. Medium project descriptions must be comprehensive and well-integrated, and should make a convincing case that the collaborative contributions of the project team will be greater than the sum of each of their individual contributions. Rationale must be provided to explain why a budget of this size is required to carry out the proposed work. Since the success of collaborative research efforts are known to depend on thoughtful coordination mechanisms that regularly bring together the various participants of the project, a Collaboration Plan is required for all Medium proposals with more than one investigator. The length of and level of detail provided in the Collaboration Plan should be commensurate with the complexity of the proposed project. If a Medium proposal with more than one investigator does not include a Collaboration Plan, that proposal will be returned without review.
3. Large Projects are well-suited to two or more investigators (PI, co-PI(s), or other Senior Personnel), and a team of students and/or postdocs. Large project descriptions must be comprehensive and well-integrated, and should make a convincing case that the collaborative contributions of the project team will be greater than the sum of each of their individual contributions. Large projects will typically integrate research from various areas, either within a cluster or across clusters, or tackle ambitious goals not feasible with smaller projects. Rationale must be provided to explain why a budget of this size is required to carry out the proposed work. Since the success of collaborative research efforts are known to depend on thoughtful coordination mechanisms that regularly bring together the various participants of the project, a Collaboration Plan is required for all Large proposals. The length of and degree of detail provided in the Collaboration Plan should be commensurate with the complexity of the proposed project. If a Large proposal does not include a Collaboration Plan, that proposal will be returned without review.

The submission of far-reaching, creative research and education projects is encouraged. Funds will be used to support potentially transformative research with high-impact potential. In this way, CISE will catalyze exciting new research activities with the potential to make significant advances in the state-of-the-art.

Proposals submitted should demonstrate that rich learning experiences will be provided for a diverse population of students, and may propose the development of innovative curricula or educational materials that advance literacy about and expertise in areas supported by CISE.

Proposals that extend beyond the scope of one CISE core program are welcome. In such cases, PIs should identify the most relevant program(s) in the proposal submission process. CISE Program Officers will work with their NSF colleagues to ensure that these proposals are appropriately co-reviewed and considered for funding.

CISE investments in Small, Medium and Large projects complement the directorate's investments in the Expeditions in Computing program, where projects are funded at levels of up to $10,000,000 total for durations up to five years.

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=13707

Workforce Development for Teachers and Scientists
United States Department of Energy (DOE)
Due date: Sep 30, 2012

The mission of the program is to help ensure that DOE and the United States have a sustained pipeline of highly skilled and diverse science, technology, engineering, and mathematics (STEM) workers. This is accomplished through support of undergraduate internships and visiting faculty programs at the DOE laboratories; a graduate fellowship program, which also involves the DOE laboratories; the Albert Einstein Distinguished Educator Fellowship for K-12 teachers, which is administered by WDTS for DOE and for a number of other federal agencies; and
nation-wide, middle- and high-school science competitions that culminate annually in the National Science Bowl® in Washington D.C.

These investments help develop the next generation of scientists and engineers to support the DOE missions, administer its programs, and conduct the research that will realize the nation's science and innovation agenda. Today, DOE's federal and contractor workforce includes more than 30,000 workers with STEM backgrounds; ensuring the availability and readiness of its future workforce is a key responsibility of the DOE.

The priority areas for WDTS include the following:
1. Support of undergraduate internships and visiting faculty programs at the DOE laboratories
2. Support for graduate fellowships for the pursuit of advanced degrees in scientific disciplines that prepare United States students for careers important to the Office of Science mission
3. Support to increase the research competitiveness of faculty members and their students at institutions historically underrepresented in the research community in order to expand the workforce that addresses DOE mission areas.

http://science.doe.gov/grants/announcements.asp?stat=1

FINE ARTS

Undergraduate Scholar Award
Presser Foundation
Due date: Sept 1, 2012

The Presser Foundation is one of the few foundations in the United States dedicated solely to the support of music and music education. Undergraduate schools of music at accredited colleges, universities, and independent institutions of higher education are invited to apply for the opportunity to present this award to an outstanding music major whom they select.

http://www.presserfoundation.org/forms.htm

NEA Arts in Media
National Endowment for the Arts (NEA)
Due date: Sept 6, 2012

Through this category, the NEA seeks to make the excellence and diversity of the arts widely available to the American public through every available media platform including television, radio, the Internet, interactive and mobile technologies, digital games, and satellite. By increasing the accessibility and impact of the arts, the NEA aims to strengthen the creativity of the nation. Grants are available to support the development, production, and national distribution of innovative media projects about the arts (e.g., visual arts, music, dance, literature, design, theater, musical theater, opera, folk and traditional arts, and media arts including film, audio, animation, and digital art) and media projects that can be considered works of art. The NEA is seeking and will give priority to artistically excellent projects that have the potential to reach a
significant national audience, through their primary platform, regardless of the size or geographic location of the applicant organization.

In order to reach the widest possible audience, this category will give priority to projects that include a well-articulated social media strategy.

http://www.arts.gov/grants/apply/html

J.J. Reneaux - Emerging Artist Grant
National Storytelling Network
Due date: Sept 6, 2012

The J.J. Reneaux Emerging Artist Fund supports two different grant programs, both of which provide funds for activities to advance storytelling skills. The Emerging Artist Grant is awarded to a storyteller of major and unique performing talent who has not yet received wide public recognition.

http://www.storynet.org/grants/reneaux-emerging.html

Grants to Individuals
Graham Foundation for Advanced Studies in the Fine Arts
Due date: Sept 15, 2012 (mandatory LOI due date Aug 15)

The foundation makes project-based grants to individuals and produces public programs to foster the development and exchange of diverse and challenging ideas about architecture and its role in the arts, culture, and society. Architecture and related spatial practices engage a wide range of cultural, social, political, technological, environmental, and aesthetic issues. The foundation is interested in projects that investigate the contemporary condition, expand historical perspectives, or explore the future of architecture and the designed environment. The foundation supports innovative, thought-provoking investigations in architecture; architectural history, theory, and criticism; design; engineering; landscape architecture; urban planning; urban studies; visual arts; and related fields of inquiry. The foundation's interest also extends to work being done in the fine arts, humanities, and sciences that expands the boundaries of thinking about architecture and space. In an effort to bridge communities and different fields of knowledge, the foundation supports a wide range of practitioners (such as architects, scholars, critics, writers, artists, curators, and educators). Open discourse is essential to advance study and understanding, therefore the foundation's grantmaking focuses on the public dissemination of ideas. With the foundation's support, the work of individuals reaches new audiences, from specialized to general, and creates opportunities for critical dialogue between various publics.

For individuals, the foundation's priorities are to:
- provide opportunities to create, develop, and communicate a project about architecture and the designed environment that will contribute to their creative, intellectual, and professional growth at crucial or potentially transformative stages in their careers;
- support their efforts to take positions, develop new forms of expression, and engage debate;
- help them communicate their work in the public realm and reach new and wider audiences; and
- support new voices by giving priority to first-time applicants.

Overall the foundation is most interested in opportunities which enable it to provide critical support at key points in the development of a project or career.

Given the foundation's priorities, the foundation believes projects of the greatest potential should fulfill the following criteria:
1. Originality: the project demonstrates an innovative, challenging idea; critical, independent thinking; advanced scholarship; a new or experimental approach
2. Potential for impact: the project makes a meaningful contribution to discourse and/or to the field; expands knowledge; is a catalyst for future inquiry; raises awareness of an understudied issue; promotes diversity in subject matter, participants, and audience
3. Feasibility: the project has clear and realistic goals, timeframe, work plan, and budget
4. Capacity: applicant possesses strong qualifications and/or knowledge; demonstrates ability to carry out the project successfully; has access to necessary resources outside of the grant request

The foundation offers two types of grants to individuals: Production and Presentation Grants and Research and Development Grants.

1. Production and Presentation Grants: These grants assist individuals with the production-related expenses that are necessary to take a project from conceptualization to realization and public presentation. These projects may include, but are not limited to, publications, exhibitions, installations, films, new media projects, and other public programs. Projects must have clearly defined goals, work plans, budgets, and production and dissemination plans.

2. Research and Development Grants: Though the majority of the foundation's grantmaking focuses on Production and Presentation Grants, the foundation recognizes that projects may require support at early stages of formation. Research and Development Grants assist individuals with seed money for research-related expenses such as travel, documentation, materials, supplies, and other development costs. Projects must have clearly defined goals, work plans and budgets. Upon completion of research projects, recipients of Research and Development Grants must complete a research report and provide documentation that can be archived at the foundation and/or presented on the foundation's website.

http://www.grahamfoundation.org/grant_programs?mode=individual

General Grant
Elizabeth Firestone Graham Foundation
Due date: Sept 15, 2012 (mandatory LOI due date Aug 15)

The foundation is dedicated to fostering awareness and appreciation of contemporary visual art, particularly through catalogues and other publications that document art produced by emerging or under-recognized artists. The foundation is also interested in special projects that attempt to
bring together artists and the community and in efforts to provide exposure to contemporary art where it may not otherwise be seen.

Funding is currently available to support direct costs for catalogues and other publications accompanying contemporary art exhibitions and projects, especially those supporting emerging and under-recognized artists and produced by smaller organizations outside the nation's cultural centers. Limited funds are also available for publications related to the grantee organization and its programs or collections.

http://efgfoundation.com/applicationguidlines.html

Professional Development Fellowships in Art History
College Art Association (CAA)
Due date: Sept 30, 2012

CAA's Professional-Development Fellowships support graduate students in visual art and art history. Fellows are honored with a one-time grant to help them with various aspects of their work, whether it be for job-search expenses or purchasing materials for the studio. CAA believes a grant of this kind, without contingencies, can best facilitate the transition between graduate studies and professional careers. These fellowships support promising art historians who are enrolled in Ph.D. programs nationwide. CAA's address is changing effective August 1, 2011, from College Art Association 275 Seventh Avenue, 18th Floor New York, NY 10001 to College Art Association 50 Broadway, 21st Floor New York, NY 10004

http://www.collegeart.org/fellowships/

HUMANITIES

Documenting Endangered Languages
National Science Foundation
Due date: Sept 15, 2012

DEL is a joint funding program of the National Science Foundation (NSF) and the National Endowment for the Humanities (NEH) to develop and advance scientific and scholarly knowledge concerning endangered human languages. Made urgent by the imminent death of roughly half of the approximately 7,000 currently used human languages, DEL seeks not only to acquire scientific data that will soon be unobtainable, but to integrate, systematize, and make the resulting linguistic findings widely available by exploiting advances in information technology.

The participating NSF components are the Division of Behavioral and Cognitive Sciences (BCS) in the Directorate for Social, Behavioral and Economic Sciences (SBE), the Division of Information and Intelligent Systems (IIS) in the Directorate for Computer and Information Science and Engineering (CISE); and the Division of Arctic Sciences (ARC) in the Office of Polar Programs (OPP).
Principal Investigators (PIs) and applicants for fellowships (applicants) may propose projects involving one or more of the following three emphasis areas:

1. Language Description - to conduct fieldwork to record in digital audio and video format one or more endangered languages; to carry out the early stages of language documentation including transcription and annotation; to carry out later stages of documentation including the preparation of lexicons, grammars, text samples, and databases; to conduct initial analysis of findings in the light of current linguistic theory. At least half of the available funding will be awarded to projects involving fieldwork.

2. Infrastructure - to digitize and otherwise preserve and provide wider access to such documentary materials, including previously collected materials and those concerned with languages which have recently died and are related to currently endangered languages; to create other infrastructure, including workshops and conferences to make the problem of endangered languages more widely understood and more effectively addressed.

3. Computational Methods - to further develop standards and databases to make this documentation of a certain language or languages widely available in consistent, archiveable, interoperable, and Web-based formats; to develop computational tools for endangered languages, which present an additional challenge for statistical tools (taggers, grammar induction tools, parsers, etc.) since they do not have the large corpora for training and testing the models used to develop those tools; to develop new approaches to building computational tools for endangered languages, based on deeper knowledge of linguistics, language typology and families, which require collaboration between theoretical and field linguists and computational linguists (computer scientists).

Accomplishing the goals of the DEL program may require multidisciplinary research teams and comprehensive, interdisciplinary approaches across the sciences, engineering, education, and humanities, as appropriate. Interdisciplinary research combining the expertise of scientists expands the rewards of language documentation. In each emphasis area, DEL encourages collaboration across academic disciplines and/or communities. For example, a DEL project might pair linguists with computer scientists, geographers, anthropologists, educators and others as appropriate. Examples of community collaborations might include scholars working in well-defined partnerships with native speaker communities. DEL also encourages investigators to include in their projects innovative plans for training native speakers in descriptive linguistics and new technologies which support the documentation of endangered languages. The DEL program is also interested in contributing to a new generation of scholars through targeted supplements, which support both graduate and undergraduate research experience. DEL gives high priority to projects that involve actually recording in digital audio and video format endangered languages before they become extinct.

Proposed projects may range from a single investigator working for six months to a team of investigators working for three years.

Documentation is a key complement to language revitalization efforts, but DEL does not support other aspects of projects to revive or expand the actual use of endangered languages. Tribal groups interested in the full range of language revitalization activities should also contact the
Native Language Program of the Administration for Native Americans in the Administration for Children and Families of the U.S. Department of Health and Human Services.

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=12816

**Enduring Questions**
National Endowment of the Humanities

**Due date: Sept 15, 2012**

The NEH Enduring Questions grant program supports the development of a new course that will foster intellectual community through the study of an enduring question. This course will encourage undergraduates and teachers to grapple with a fundamental question addressed by the humanities, and to join together in a deep and sustained program of reading in order to encounter influential thinkers over the centuries and into the present day.

What is an enduring question? The following list is neither prescriptive nor exhaustive but serves to illustrate.
1. What is good government?
2. What is the value of work?
3. What is friendship?
4. What is evil?
5. Are there universals in human nature?
6. What are the origins of the universe?

Enduring questions are questions to which no discipline, field, or profession can lay an exclusive claim. In many cases they predate the formation of the academic disciplines themselves. Enduring questions can be tackled by reflective individuals regardless of their chosen vocations, areas of expertise, or personal backgrounds. They are questions that have more than one plausible or compelling answer. They have long held interest for young people, and they allow for a special, intense dialogue across generations. The Enduring Questions grant program will help promote such dialogue in today's undergraduate environment.

The course is to be developed by one or more (up to four) faculty members, but not team taught. Enduring Questions courses must be taught from a common syllabus and must be offered during the grant period at least twice by each faculty member involved in developing the course. The grant supports the work of a faculty member in designing, preparing, and assessing the course. It may also be used for ancillary activities that enhance faculty-student intellectual community, such as visits to museums and artistic or cultural events. An Enduring Questions course may be taught by faculty from any department or discipline in the humanities or by faculty outside the humanities (e.g., astronomy, biology, economics, law, mathematics, medicine, psychology), so long as humanities sources are central to the course.

An NEH Enduring Questions course
- must focus on an explicitly stated question, pursued in a disciplined and deliberate manner;
- must draw on works from a range of historical periods, with a preference for reading works in their entirety or in substantial portions;
- may draw on artworks (e.g., music, plays, films, paintings, sculptures);
- must reflect intellectual pluralism, anticipating more than one plausible or compelling answer to the question at hand;
- may draw solely from Western or non-Western traditions, or combine various traditions;
- must be open to students regardless of major or concentration; and
- must have institutional support, as evidenced by a letter from the president, provost, dean, program chair, or department chair, attesting (1) that the college or university supports the course, (2) that the course is new, and (3) that it will be offered at least twice during the grant period by each faculty member involved in developing the course.

Enduring Questions grants may not be used for
- team-taught courses;
- redevelopment of previously offered courses;
- improvement of multiple courses;
- development of curricular or pedagogical methods or theories;
- preparation of courses for graduate students;
- textbook research or revision;
- projects that seek to promote a particular political, religious, or ideological point of view;
- projects that advocate a particular program of social action;
- works in the creative and performing arts (e.g., painting, writing fiction or poetry, dance performance, etc.); or
- doctoral dissertations, theses, or any other research pertaining to a graduate degree program.

The Enduring Questions program welcomes projects that respond to the theme of Bridging Cultures, an agency-wide initiative encouraging exploration of cultures from around the globe, as well as the myriad subcultures within America's borders and their influence on American society. Such projects could focus on cultures internationally or within the United States. NEH welcomes projects that enhance understanding of diverse countries, peoples, and cultural and intellectual traditions worldwide. Bridging Cultures projects might also investigate how Americans have approached and attempted to surmount seemingly unbridgeable cultural divides, or examine the ideals of civility and civic discourse that have informed this quest.

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 Enduring Questions grant program, such products may include online course materials. For projects that lead to the development of Web-based resources, all other considerations being equal, NEH gives preference to those that provide free access to the public.


Digital Humanities Start-Up Grants
National Endowment for the Humanities (NEH)
Due date: Sept 27, 2012
The National Endowment for the Humanities (NEH) invites applications to the Digital Humanities Start-Up Grants program. This program is designed to encourage innovations in the digital humanities. By awarding relatively small grants to support the planning stages, NEH aims to encourage the development of innovative projects that promise to benefit the humanities. Proposals should be for the planning or initial stages of digital initiatives in any area of the humanities.

Digital Humanities Start-Up Grants may involve
- research that brings new approaches or documents best practices in the study of the digital humanities;
- planning and developing prototypes of new digital tools for preserving, analyzing, and making accessible digital resources, including libraries' and museums' digital assets;
- scholarship that examines the philosophical implications and impact of the use of emerging technologies;
- innovative uses of technology for public programming and education utilizing both traditional and new media; and
- new digital modes of publication that facilitate the dissemination of humanities scholarship in advanced academic as well as informal or formal educational settings at all academic levels.

Innovation is a hallmark of this grant category. All applicants must propose an innovative approach, method, tool, or idea that has not been used before in the humanities. These grants are modeled, in part, on the "high risk/high reward" paradigm often used by funding agencies in the sciences. NEH is requesting proposals for projects that take some risks in the pursuit of innovation and excellence.

Digital Humanities Start-Up Grants should result in plans, prototypes, or proofs of concept for long-term digital humanities projects prior to implementation. Two levels of awards will be made in this program. Level I awards are small grants designed to fund brainstorming sessions, workshops, early alpha-level prototypes, and initial planning. Level II awards are larger grants that can be used for more fully-formed projects that are ready to begin implementation or the creation of working prototypes. Applicants must state in their narrative which funding level they seek. Applicants should carefully choose the funding level appropriate to the needs of the proposed project.

All grantees are expected to communicate the results of their work to appropriate scholarly and public audiences.

Successful applicants will be expected to create a "lessons learned" white paper. This white paper should document the project, including lessons learned, so that others can benefit from the grantees' experience. This white paper will be posted on the NEH website.

http://www.neh.gov/grants/guidelines/digitalhumanitiesstartup.html
Summer Stipends
National Endowment for the Humanities
Due date: Sept 27, 2012

Summer Stipends support individuals pursuing advanced research that is of value to humanities scholars, general audiences, or both. Recipients usually produce articles, monographs, books, digital materials, archaeological site reports, translations, editions, or other scholarly resources. Summer Stipends support full-time continuous work on a humanities project for a period of two months. Summer Stipends support projects at any stage of development.

The Summer Stipends program welcomes projects that respond to NEH's Bridging Cultures initiative. Such projects could focus on cultures internationally or within the United States. International projects might seek to enlarge Americans' understanding of other places and times, as well as other perspectives and intellectual traditions. American projects might explore the great variety of cultural influences on, and myriad subcultures within, American society. These projects might also investigate how Americans have approached and attempted to surmount seemingly unbridgeable cultural divides, or examine the ideals of civility and civic discourse that have informed this quest.

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 grant products. For the Summer Stipends program, such products may include digital resources, 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.

http://www.neh.gov/grants/research/summer-stipends

INTERNATIONAL AREA STUDIES

Travel Grants
United States Indonesia Society (USINDO)
Due date: Sept 1, 2012

The United States-Indonesia Society awards grants to fund travel to Indonesia or to the United States. These grants are awarded to promote academic and other exchanges between the two countries. USINDO Travel Grants are open to U.S. and Indonesian citizens seeking to travel to Indonesia or the United States to conduct field research or other professional projects, including conferences.

The society particularly welcomes applications from graduate and undergraduate students who are interested in the social sciences - economics, history, political economy, government, international relations and religious studies. However, USINDO will seriously consider applications in any field of study.

http://www.usindo.org/usindo-grants/travel-grants
Public Project Grants
American-Scandinavian Foundation
Due date: Sept 15, 2012

The ASF promotes the cultures of the Nordic countries in the United States and American culture in the Nordic countries by encouraging programs that will enhance public appreciation of culture, art, and thought. In establishing priorities, the foundation considers the lasting benefits that may be achieved by any grant, and favors projects where its contribution will complement support from other sources.

http://www.amscan.org/public.html

Conference/Seminar/Workshop Grants
Chiang Ching-Kuo Foundation for International Scholarly Exchange (CCKF)
American Region
Due date: Sept 15, 2012

The foundation's grants provide support for research on Chinese Studies in the humanities and social sciences. The foundation will consider applications from institutions for grants to hold conferences, workshops, or seminars on specific subjects related to the foundation's goals and objectives. Applicants should submit the names of all participants, as well as titles of papers to be presented. The academic background of the participants and the significance of the meeting will be key factors in the evaluation process. In principle, the foundation does not provide funding for annual meetings. The foundation's application form requests all applicants to indicate the field of specialization for their projects. If the project is multidisciplinary, applicants should specify.

http://www.cckf.org.tw/e-americaCS.htm

International Affairs Fellowship in Japan
Council on Foreign Relations (CFR)
Due date: Sep 30, 2012 (anticipated)

In 1997, the Council on Foreign Relations established the International Affairs Fellowship in Japan, sponsored by Hitachi, Ltd., to enable a number of outstanding young American leaders and thinkers to expand their intellectual and professional horizons through an extended period of research or related professional activity in Japan. The program seeks to contribute to American understanding of Japan and to improved communication among emerging leaders in the two countries.

The goal of the fellowship is to strengthen the United States-Japan relationship by expanding American understanding of Japan and enhancing communication among Americans and
Japanese on global problems. In this context, the program seeks to address the continuing imbalance in opportunities for Americans and Japanese to get to know each other's societies and cultures.

Tens of thousands of Japanese come to the United States each year to study and work, but only a small number of Americans study or work in Japan. Although this imbalance is difficult to redress on a quantitative basis, the fellowship program seeks to have a positive impact by giving Americans with great leadership capacity the opportunity to gain an in-depth understanding of Japan and to develop close relationships with their Japanese counterparts.

[http://www.cfr.org/about/fellowships/iaf.html](http://www.cfr.org/about/fellowships/iaf.html)

**MEDICINE AND LIFE SCIENCES**

**Enhancing Zebrafish Research with Research Tools and Techniques (R01)**
National Science Foundation (NSF)
**Due date: Aug 19, 2013 (letter of intent); Sep 19, 2013 (full proposal)**

This FOA encourages investigator-initiated applications designed to exploit the power of the zebrafish as a vertebrate model for biomedical and behavioral research. Applications proposing to develop new research tools or techniques that are of high priority to the zebrafish community and that will advance the detection and characterization of genes, pathways, and phenotypes of interest in development and aging, organ formation, neural processes, behavior, sensory processing, physiological processes, and disease processes are welcome. This effort stems from an NIH initiative developed by the Institutes and Centers of the Trans-NIH Zebrafish Coordinating Committee (TZCC) under the co-chairmanship of NICHD and NIDDK.


**Biotechnology, Biochemical, and Biomass Engineering (BBBE)**
National Science Foundation (NSF)
**Due date: Sep 18, 2012**

The Biotechnology, Biochemical, and Biomass Engineering (BBBE) program supports fundamental engineering research that advances the understanding of cellular and biomolecular processes (in vivo, in vitro, and/or ex vivo) and eventually leads to the development of enabling technology and/or applications in support of the biopharmaceutical, biotechnology, and bioenergy industries, or with applications in health or the environment. Quantitative assessments of bioprocesses are considered vital to successful research projects in the BBBE program.

Fundamental to many research projects in this area is the understanding of how biomolecules and cells interact in their environment, and how those molecular level interactions lead to changes in structure, function, phenotype, and/or behavior. The program encourages proposals that address emerging research areas and technologies that effectively integrate knowledge and practices from different disciplines, and effectively incorporate ongoing research into educational
activities.

Research projects of particular interest in BBBE include, but are not limited to:
- metabolic engineering and synthetic biology,
- quantitative systems biotechnology,
- tissue engineering and stem cell culture technologies,
- protein engineering/protein design, and
- development of novel "omics" tools for biotechnology applications.

Proposals in the areas of nanobiotechnology, fermentation, cell culture, recombinant DNA, and enzyme technology will still be accepted, given that they represent highly innovative and potentially transformative research in these areas. Proposals outside of these specific interest areas will be considered; however, the PI should contact the Program Director prior to submission to avoid the possibility of the proposal being returned without review.

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=501024

Biophotonics
National Science Foundation (NSF)
Due date: Sep 18, 2012

Biophotonics applies photonics technology to the fields of medicine, biology and biotechnology. Basic research and innovation in photonics that is very fundamental in science and engineering is needed to lay the foundation 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 goals.

Examples of topics are:
1. Macromolecule Markers - Innovative methods for labeling of macromolecules, new compositions of matter/methods of fabrication of multi-color probes such as might be used for marking and detection of specific pathological cells and push the envelope of optical sensing to the limits of detection, resolution, and identification
2. Low Coherence Sensing at the Nanoscale - Low coherence enhanced backscattering (LEBS), n-dimensional elastic light scattering, and angle-resolved low coherence interferometry for early cancer detection (dysplasia)
3. 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
4. Micro- and Nano-photonic - Development and application of nanoparticle fluorescent quantum-dots; sensitive, multiplexed, high-throughput characterization of macromolecular properties of cells; nanomaterials and nanodevices for biomedicine
SOPHE/CDC Student Fellowship in Injury Prevention and Control
Society for Public Health Education (SOPHE)
Due date: Sep 20, 2012 (anticipated)

SOPHE is accepting applications for one-year student fellowships in injury prevention and control, funded by the CDC's National Center for Injury Prevention and Control. This fellowship is designed to recognize, assist, and train students working on projects in either unintentional injury prevention or violence prevention from the perspective of health education or the behavioral sciences.

Proposed projects may be related to surveillance, risk factor identification, or intervention development, evaluation, or dissemination. Projects related to the development or use of theory in injury prevention also are acceptable. Proposed projects for unintentional injury prevention should address injuries related to home and leisure or transportation (e.g., fires, bicycles, sports, falls, alcohol, or motor-vehicles). Proposed projects for violence prevention must emphasize and apply the public health approach. Projects may address violence against women, including dating violence, sexual violence, intimate partner violence; child maltreatment, such as child abuse, neglect or sexual abuse; suicide; or youth violence prevention, including media influence and bullying. Occupation-related injuries will not be considered for this fellowship. Proposed projects may be new or ongoing. For their final project, recipients must prepare a poster and/or oral presentation for the SOPHE Annual Meeting. Submission of a presentation abstract will also be required.

ApoE Therapeutics Innovation Program
Alzheimer's Drug Discovery Foundation (ADDF)
Due date: Sep 21, 2012 (letter of intent); Oct 05, 2012 (full proposal)

The ADDF and the Robert A. and Renée E. Belfer Family Foundation established this program to accelerate the development of novel therapeutics specifically designed to target apoE pathological mechanisms. Although only approximately 20% of humans are APOE ε4 carriers, these individuals account for up to 65% of all Alzheimer's disease cases. Therapies that target apoE are critically needed now. Recent scientific advances have made this a possibility. This program will allow the ADDF to substantially build on its strategic investment in apoE drug discovery and development and will support both pre-clinical and clinical stage programs.
Innovative Research Grant  
Arthritis Foundation – USA  
Due date: Sep 26, 2012 (anticipated)

The mission of the Arthritis Foundation is to improve lives through leadership in the prevention, control and cure of arthritis and related diseases. Applications that are dedicated to an arthritis project that will stimulate real interchange across disciplines leading to advances in the prevention, control and cure of arthritis will be considered highly relevant. The IRG program exists to stimulate new approaches to solving arthritis, particularly in Rheumatoid Arthritis (RA), Osteoarthritis (OA), and Juvenile Arthritis (JA). The ultimate goal of the program is to improve the lives of people touched by these diseases. The program supports basic and clinical research of independent investigators. The foundation invites projects that will develop novel approaches to advanced drug targeting technology in order to achieve better outcomes in RA, OA and JIA.

In 2011, the grants are focused on specific questions relevant to rheumatoid arthritis, osteoarthritis, and juvenile arthritis. Research proposals that involve an especially high degree of innovation and novelty or represent a special opportunity to address unique and relevant research questions are encouraged.

Applicants for these IRGs should keep in mind that the goals of this research program are to promote development of personalized medicine and best practices for patients with RA and JA; encourage discovery and development of new interventions for OA; and gain a better understanding of the pathogenesis of arthritis. These goals have been selected on the basis of what is perceived by patients with arthritis as having the greatest potential for developing new interventions for patients with arthritis. Proposals should be responsive to these primary goals as well as the more specific questions listed below.

Research projects targeted to the following specific areas are requested.

1. RA - Projects are invited that will (a) identify new biomarkers that predict either development of RA, have a correlation with disease progression, help estimate response to treatment, or provide warning of the likelihood of adverse responses to interventions (examples include autoantibody systems, new genetic markers, and imaging technologies that contribute to disease detection or prognostication, etc.); or (b) identify new environmental triggers for RA or lead to a better understanding of how known environmental triggers or host-environmental interactions promote emergence of RA.

2. OA - Projects are invited that will (a) identify the circumstances and mechanisms whereby joint motion and mechanical stress either promote joint health or lead to joint failure; (2) elucidate how post translational modifications in proteins and other novel triggers of inflammation contribute to biomarker development and/or to the pathogenesis of OA; or (3) increase our understanding of pain and/or provide new approaches to pain control for patients with osteoarthritis.

3. JA - For the purposes of this RFA, JA refers to all inflammatory pediatric rheumatic disorders including juvenile idiopathic arthritis (JIA), juvenile dermatomyositis, childhood systemic lupus
Mechanistic Research on CAM Natural Products (R01)
National Institutes of Health (NIH)
**Due date: Sep 30, 2012 (letter of intent); Nov 01, 2012 (full proposal)**

This Funding Opportunity Announcement (FOA), issued by the National Center for Complementary and Alternative Medicine (NCCAM) in collaboration with the Office of Dietary Supplements (ODS), invites Research Project Grant (R01) applications to study the potential mechanisms of action of promising CAM natural products (NPs). Natural products are widely used by Americans for health purposes. Knowledge about the active components, their molecular and cellular targets, as well as markers of potential beneficial or harmful biological effects are critical pieces of preliminary information needed to insure maximally informative clinical efficacy studies on these products. Research on the development of improved methodology for the isolation and characterization of constituents of natural products and on their determination in the natural matrix will also be supported under this initiative.


**PHYSICAL SCIENCES AND MATHEMATICS**

Supplemental Outreach Awards for ROSES Investigators
National Aeronautics and Space Administration (NASA)
**Due date: Aug 03, 2012 (notice of intent); Sep 16, 2012 (full proposal)**

The NASA Science Mission Directorate's (SMD's) vision for Education and Public Outreach is: To share the story, the science, and the adventure of NASA's scientific explorations of our home planet, the solar system, and the universe beyond, through stimulating and informative activities and experiences created by experts and delivered effectively and efficiently to learners of many backgrounds via proven conduits, thus providing a return on the public's investment in NASA's scientific research.

This solicitation element is for project activities that utilize SMD content and contribute to achieving SMD Outreach objectives. The scope of the supplemental Outreach awards includes all aspects of public outreach. Efforts promoting participation of underrepresented groups in Earth and space science studies are encouraged. NASA SMD Outreach Portfolio Project Activity Categories include...
- activities to increase interest in science, engineering, and technology careers relevant to NASA SMD;
- activities to increase understanding by the general public of SMD science, engineering, and technologies;
- activities to increase participation of citizen scientists in SMD education opportunities; and
- activities to increase public engagement in improving science, technology, engineering, and mathematics education in the United States.

It should be noted that this program element is only one of several ways that SMD invests in education and public outreach. Proposers are encouraged to take advantage of SMD E/PO investments in products, dissemination mechanisms, and opportunities to work with ongoing mission and nonmission E/PO project activities. Proposed project activities should not duplicate existing efforts, but should complement existing E/PO project activities embedded in missions or other ongoing project activities.

Efforts that may be proposed to other SMD E/PO opportunities will not be considered under this program element. Examples of opportunities that are not solicited include: competitive research support for faculty and early career scientists sponsored under ROSES, graduate research support sponsored under the NASA Earth and Space Science Fellowship Program, and education and outreach activities embedded in flight missions.

http://nspires.nasaprs.com/external/index.do

Applied Mathematics
United States Department of Energy (DOE)

Due date: Sep 30, 2012

The mission of the Advanced Scientific Computing Research (ASCR) program is to discover, develop, and deploy computational and networking capabilities to analyze, model, simulate, and predict complex phenomena important to the Department of Energy (DOE). A particular challenge of this program is fulfilling the science potential of emerging multi-core computing systems and other novel "extremescale" computing architectures, which will require significant modifications to today's tools and techniques.

The Applied Mathematics subprogram supports basic research leading to fundamental mathematical advances and computational breakthroughs across DOE and Office of Science missions. Applied Mathematics research includes and supports efforts to develop robust mathematical models, algorithms and numerical software for enabling predictive scientific simulations of DOE-relevant complex systems. Important areas of supported research include:
- novel numerical methods for the scalable solution of large-scale, linear and nonlinear systems of equations;
- innovative approaches for analyzing and extracting insight from large-scale data sets;
- efficient techniques for characterizing, propagating, and/or quantifying uncertainties and errors in next-generation solver, optimization, simulation, analysis, and other codes; and
- multiscale methods for continuous and/or discrete systems that efficiently account for physics and subcomponent interactions across vastly different time and length scales.

http://science.doe.gov/grants/index.asp

**General Plasma Science: Experiment and Theory**  
United States Department of Energy (DOE)  
**Due date: Sep 30, 2012**

The Fusion Energy Sciences (FES) mission is to expand the fundamental understanding of matter at very high temperatures and density and to build the scientific foundation needed to develop a fusion energy source. This is accomplished by studying plasma and its interactions with its surroundings across wide ranges of temperature and density, developing advanced diagnostics to make detailed measurements of its properties and dynamics, and creating theoretical and computational models to resolve the essential physics principles.

The General Plasma Science program is directed toward research that addresses fundamental issues in plasma science and engineering not directly related to fusion energy. This research strengthens the fundamental underpinnings of the discipline of plasma physics that complements burning plasma science and reaches beyond into many basic and applied physics areas. The focus of this program continues to be on fundamental issues of plasma science and engineering that can have impact in other areas or disciplines in which improved understanding of the plasma state is needed. General plasma science is a broad, multidisciplinary field that spans many science issues such as interaction of waves with plasmas, magnetic reconnection and particle acceleration, physics of non-neutral plasmas and antimatter, chaos, turbulence, and structure in plasmas. Areas of interest include but are not limited to
- astrophysical, solar, and space plasmas,
- plasmas in biological and environmental science,
- plasma modification, synthesis and processing of materials,
- dusty, non-neutral and antimatter plasmas,
- advanced plasma diagnostics, and
- advanced methods for plasma modeling and simulation

http://science.doe.gov/grants/announcements.asp?stat=1

**Mechanical Behavior and Radiation Effects**  
United States Department of Energy (DOE)  
**Due date: Sep 30, 2012**

The mission of the Basic Energy Sciences (BES) program is to support fundamental research to understand, predict, and ultimately control matter and energy at the electronic, atomic, and molecular levels in order to provide the foundations for new energy technologies and to support DOE missions in energy, environment, and national security. The portfolio supports work in the natural sciences by emphasizing fundamental research in materials sciences, chemistry,
The Mechanical Behavior and Radiation Effects subtopic supports basic research to understand defects in materials and their effects on the properties of strength, structure, deformation, and failure. Defect formation, growth, migration, and propagation are examined by coordinated experimental and modeling efforts over a wide range of spatial and temporal scales. Topics include deformation of ultra-fine scale materials, radiation-resistant material fundamentals, and microstructural design for increased strength, formability, and fracture resistance in energy relevant materials. The goals are to understand the fundamentals of defect behavior that will allow the development of predictive models for the design of materials having superior mechanical properties and radiation resistance.

Due to the importance of defects from radiation damage and mechanical strain in self-assembly, physical behavior and chemical reactions, it is imperative to understand these interactions and synergies at a fundamental level. With the emerging importance of nanoscale structures with high surface-to-volume ratios, it is appropriate to take advantage of the new, unprecedented capabilities to fabricate and test tailored structures down to the nanoscale, taking advantage of more powerful parallel computational platforms and new experimental tools.

Radiation is increasingly being used as a tool and a probe to gain a greater understanding of fundamental atomistic behavior of materials. Incoming fluxes can be uniquely tuned to generate a material's response that can be detected in situ over moderate length and time scales. Materials also sustain damage after long times in high-radiation environments typical of current and projected nuclear energy reactors and in geological waste storage. As nuclear energy is projected to play a larger role in US energy production, fundamentals of the unit processes that lead to long-term damage need to be addressed.

http://science.doe.gov/grants/announcements.asp?stat=1

Physical Behavior of Materials
United States Department of Energy (DOE)
Due date: Sep 30, 2012

The mission of the Basic Energy Sciences (BES) program is to support fundamental research to understand, predict, and ultimately control matter and energy at the electronic, atomic, and molecular levels in order to provide the foundations for new energy technologies and to support DOE missions in energy, environment, and national security. The portfolio supports work in the natural sciences by emphasizing fundamental research in materials sciences, chemistry, geosciences, and biosciences. BES-supported scientific facilities provide specialized instrumentation and expertise that enable scientists to carry out experiments not possible at individual laboratories.

This subprogram supports basic research on the behavior of materials in response to external
stimuli, such as temperature, electromagnetic fields, chemical environments, and the proximity effects of surfaces and interfaces. Emphasis is on the relationships between performance (electrical, magnetic, optical, electrochemical, and thermal) and the crystal structure and defects in the material. Included within the activity is research to establish the relationship of crystal and defect structures to diffusion and transport phenomena, phase equilibria, and kinetics of reactions. Basic research is also supported to develop new instrumentation, including in situ experimental tools, to probe the physical behavior in real environments encountered in energy applications.

The long term goals of this program are to understand the relationships between material properties and response to external stimuli. This can be achieved by determining structure over multiple length scales, with emphasis at the atomic level, and by understanding the response of nanometer and larger features to those external stimuli. Studies of the physical response of a single nanometer-scale feature needs to be related to the macroscopic behavior of the material. This can often be done with modeling, but further advances are necessary to fully couple the length scales from atomic to macroscopic scale. Developing and applying novel experimental, theoretical, and modeling techniques to address these problems will be emphasized. Increased investment in plasmonics, metamaterials and organic electronic materials will be considered. This program also seeks to foster theory, modeling, and simulation activities that address charge and energy transfer; electronic structure calculation; exciton dynamics and transport; and spin dynamics in energy relevant materials.

http://science.doe.gov/grants/announcements.asp?stat=1

**Theoretical Condensed Matter Physics**  
United States Department of Energy (DOE)  
**Due date: Sep 30, 2012**

The mission of the Basic Energy Sciences (BES) program is to support fundamental research to understand, predict, and ultimately control matter and energy at the electronic, atomic, and molecular levels in order to provide the foundations for new energy technologies and to support DOE missions in energy, environment, and national security. The portfolio supports work in the natural sciences by emphasizing fundamental research in materials sciences, chemistry, geosciences, and biosciences. BES-supported scientific facilities provide specialized instrumentation and expertise that enable scientists to carry out experiments not possible at individual laboratories.

This subprogram supports theoretical condensed matter physics research with emphasis on the theory, modeling, and simulation of electronic correlations. Major research areas include nanoscale science, quantum transport, superconductivity, magnetism, and optics. Development of theory targeted at materials discovery and aiding the design and interpretation of experimental research supported by BES is also emphasized.

The program will continue to emphasize the development of our understanding of matter on the atomic scale, expanding to address properties of materials at nanometer length scales. A rich
future exists in basic science and applications surrounding highly correlated materials as well as novel superconductors. This research is motivated by the newest science of materials, as well as by the potential for impact on longstanding problems for energy technologies and for fundamental physics, including understanding of the physics of microstructure.

http://science.doe.gov/grants/announcements.asp?stat=1

SOCIAL SCIENCES

Graduate Student paper Competition
American Anthropological Association (AAA)
Due date: Sept 1, 2012

The Council on Anthropology and Reproduction (CAR), an interest group of the Society for Medical Anthropology, offer an annual award competition for the best graduate student paper on anthropology and reproduction. Submissions from all anthropological sub disciplines are encouraged.

Criteria on which the papers will be judged:
- Ethnographic richness based on original fieldwork
- Anthropological methodology
- Linkage of work to literature in anthropology and reproduction
- Effective use of theory and data
- Originality/Creativity
- Organization, quality of writing, and coherence of argument

http://sites.google.com/site/anthrorepro/Home/prizes/student-paper-prizes

Political Science Program
National Science Foundation (NSF)
Due date: Sep 16, 2012

The program supports scientific research that advances knowledge and understanding of citizenship, government, and politics. Research proposals are expected to be theoretically motivated, conceptually precise, methodologically rigorous, and empirically oriented. Substantive areas include, but are not limited to, American government and politics, comparative government and politics, international relations, political behavior, political economy, and political institutions. In recent years, program awards have supported research projects on bargaining processes; campaigns and elections, electoral choice, and electoral systems; citizen support in emerging and established democracies; democratization, political change, and regime transitions; domestic and international conflict; international political economy; party activism; and political psychology and political tolerance. The program also has supported research experiences for undergraduate students and infrastructural activities, including methodological innovations, in the discipline.
ACLS Fellowship Program
American Council of Learned Societies (ACLS)
Due date: Sept 28, 2012 (anticipated)

The program invites research applications in all disciplines of the humanities and related social sciences. Appropriate fields of specialization include, but are not limited to, American studies; anthropology; archaeology; art and architectural history; classics; economics; film; geography; history; languages and literatures; legal studies; linguistics; musicology; philosophy; political science; psychology; religious studies; rhetoric, communication, and media studies; sociology; and theater, dance, and performance studies. Proposals in the social science fields listed above are eligible only if they employ predominantly humanistic approaches (e.g., economic history, law and literature, political theory). Proposals in interdisciplinary and cross-disciplinary studies are welcome, as are proposals focused on any geographic region or on any cultural or linguistic group. The ultimate goal of the project should be a major piece of scholarly work by the applicant. ACLS does not fund creative work (e.g., novels or films), textbooks, straightforward translation, or pedagogical projects.

Comparative Perspectives on Chinese Culture and Society
American Council of Learned Societies (ACLS)
Due date: Sep 28, 2012 (anticipated)

In this cycle of competitions ACLS is soliciting proposals in the humanities and related social sciences that adopt an explicitly cross-cultural or comparative perspective. ACLS invites submission of projects that, for example, compare aspects of Chinese history and culture with those of other nations and civilizations, explore the interaction of these nations and civilizations, or engage in cross-cultural research on the relations among the diverse and shifting populations of China. Proposals are expected to be empirically grounded, theoretically informed, and methodologically explicit.

The program will support collaborative work of three types:
1. Planning Meetings: Grants will be offered for one-day meetings to plan conferences or workshops, or for less structured explorations, e.g., brainstorming sessions.
2. Workshops: Grants will be offered for workshops designed to promote discussion and the exchange of ideas on newly available or inadequately researched data or texts in a collegial, seminar-like setting. Workshops are not mini-conferences with the presentation of formal papers describing work already done.
3. Conferences: Grants will be offered for formal research conferences intended to produce significant new research that will be published in a conference volume. Proposals for conferences should normally be more elaborate than proposals for planning meetings or workshops.
The program aims to promote interchange among scholars who may not otherwise have the opportunity to work together. Accordingly, proposals will not be supported for activities of scholars from one institution or that fall within an institution's normal range of colloquia, symposia, or seminar series. The program will not support regularly scheduled meetings, conventions, or parts thereof. Proposals must include at least one scholar from Taiwan as a participant.

The program aims to encourage collective efforts by groups of scholars who are prepared to work together on a limited set of issues. Accordingly, efforts should be made at the earliest possible stage of projects to ensure that the eventual set of conference papers is intellectually coherent and not a loose collection of essays on topics only tangentially related.


**Kistler Prize**  
Foundation for the Future  
**Due date: Sep 30, 2012 (anticipated)**

The Kistler Prize was created out of concern for the long-term future of humanity. The purpose of the Kistler Prize is to acknowledge and encourage scientific research that demonstrates the connections between current genetic trends in human populations and the long-term impact on the viability and survivability of the human race, society, and culture.

http://www.futurefoundation.org/awards/kpr_process.htm

**MULTIPLE DISCIPLINES**

**Research on Gender in Science and Engineering (GSE)**  
National Science Foundation (NSF)  
**Due date: Sep 04, 2012 (letter of intent); Oct 11, 2012 (full proposal)**

The Research on Gender in Science and Engineering program supports efforts to understand and address gender-based differences in science, technology, engineering, and mathematics (STEM) education and workforce participation through research, the diffusion of research-based innovations, and extension services in education that will lead to a larger and more diverse domestic science and engineering workforce. Typical projects will contribute to the knowledge base addressing gender-related differences in learning and in the educational experiences that affect student interest, performance, and choice of careers; how pedagogical approaches and teaching styles, curriculum, student services, and institutional culture contribute to causing or closing gender gaps that persist in certain fields. Projects will communicate and apply findings, evaluation results, and proven good practices and products to a wider community.

The Research on Gender in Science and Engineering program has been funding these objectives since 1993, under the prior names "Program for Women and Girls" (PWG), "Program for Gender
Equity in Science, Mathematics, Engineering and Technology" (PGE), and "Gender Diversity in STEM Education" (GDSE). The program continues to seek to broaden the participation of girls and women in all fields of STEM education, but also considers gender more broadly to include research and diffusion activities focused on men and boys who are underrepresented in STEM fields.

The program does not currently fund intervention or education projects that directly serve students as their primary purpose, or that focus solely on evaluating a student intervention. Research projects may involve an intervention with students as subjects only if the intervention is an integral part of creating a context for gathering data and if the findings from the intervention would substantially answer the research questions posed within the context of theory, concepts or frameworks of interest. There should be meaningful control or comparison groups also included in the design when appropriate. Those wishing to undertake direct intervention or education service projects or evaluations are encouraged to search the NSF website and other publications for appropriate funding programs.

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5475

Catalysis and Biocatalysis
National Science Foundation (NSF)
Due date: Sep 18, 2012

Due to the ubiquitous presence of catalysis in the many aspects of goods and services impacting our lives, this program has many potential directions for funding support. Programs in this area encompass a blend of fundamental and innovative applied research drivers. All programs are hypothesis-driven, and the experimental programs aimed at resolving the issues frequently combine a variety of approaches. Chemical engineering and chemistry are intertwined. Proposals that receive funding in this program may include any number of the following broad scopes:
1. Catalyst Synthesis, Characterization, Behavior and Performance
2. Kinetics and Mechanisms of Key Catalytic Reactions
3. Catalysis at Surfaces or in Reactor Process Streams
4. Synthesis and Fabrication of Component Materials and Catalyst Composites
5. Modeling and Fundamental Studies of a Catalyst or Catalytic Process

These approaches apply equally to classical inorganic or carbon catalysts as well as to enzymatic or biocatalysts. Specialized materials synthesis procedures may be necessary to provide active catalysts in any of the studies. Applications-driven studies, such as biomass conversion catalysis, electrocatalysis and photocatalysis, involving energy interconversion devices or systems employing catalysts are highly desired.

Most studies will focus on the catalysis of one or more chemical reactions with products including molecules used for fuels, energy sources, feedstocks, fine chemicals, bulk chemicals and specialized materials. While proposals will be accepted in any of the above areas, national needs suggest heightened interest be given to proposals relating to processes and catalysts for
conversions of biomass to fuels and chemicals, for development of renewable energy sources and for transition to green or environmentally benign products and processes. Submissions investigating unique nanoparticle or biomimetic catalysis are welcome.

Projects are coordinated and may be jointly funded with other CBET and NSF divisional programs. Proposals developing technology involving catalysis plus separation or catalysis plus reaction engineering or catalysis plus renewable energy systems may be submitted to this program requesting that joint funding be explored. The program has high interest in industry/university collaborations as outlined in the GOALI program. EAGER proposals are recognized as useful vehicles to ultimately develop full proposals. Support of undergraduates, workshops and travel are opportunities to further research goals. CAREER proposals are enthusiastically received. All of these activities have specific rules pertaining, and should be discussed with the Program Director prior to submission.

Innovative proposals outside of these specific interest areas can be considered. However, prior to submission, it is recommended that the PI contact the Program Director to avoid the possibility of the proposal being returned without review.

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=13360

Emerging Frontiers in Research and Innovation 2012 (EFRI-2012)
National Science Foundation (NSF)
Due date: Sep 30, 2012 (letter of intent); Mar 30, 2013 (full proposal)

The ENG at NSF has established the Office of Emerging Frontiers in Research and Innovation (EFRI) to serve a critical role in focusing on important emerging areas in a timely manner. The EFRI Office is launching a new funding opportunity for interdisciplinary teams of researchers to embark on rapidly advancing frontiers of fundamental engineering research. For this solicitation, EFRI will consider proposals that aim to investigate emerging frontiers in the following three specific research areas:
1. Flexible Bioelectronics Systems (BioFlex)
2. Origami Design for Integration of Self-assembling Systems for Engineering Innovation (ODISSEI)
3. Photosynthetic Biorefineries (PSBR)

This solicitation will be coordinated with the Directorate for Mathematical and Physical Sciences (MPS) and the Directorate for Biological Sciences (BIO) within NSF. Additionally, interest within other Federal agencies, specifically Air Force Office of Scientific Research (AFOSR), may lead to an interagency effort in support of certain PSBR and ODISSEI projects. Proposals submitted under the PSBR and ODISSEI topics may be shared with interested representatives from AFOSR.

EFRI seeks proposals with transformative ideas that represent an opportunity for a significant shift in fundamental engineering knowledge with a strong potential for long term impact on national needs or a grand challenge.
As a reminder, each proposal that requests funding to support postdoctoral researchers must include, as a supplementary document, a description of the mentoring activities that will be provided for such individuals.

ENG promotes diversity in all aspects of its programs. In order to address the need to enhance diversity in all fields of engineering, EFRI is requiring all projects to include a Broadening Participation Plan as part of EFRI 2012 solicitation. The goal is to increase the participation of underrepresented groups in the field of engineering and in engineering research. This is not only to promote diversity in the human resources engaged in the EFRI projects but also to expand diversity of thought, ideas, and approaches to defining and solving important research questions.

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=13708