

UM-St. Louis Office of Research Administration
Funding Opportunities: Federal Agencies

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This report contains a sampling of new/updated funding opportunity announcements issued by U.S. federal agencies. For additional opportunities, visit

- Grants.gov (<http://www.grants.gov>)
 - Grant Advisor Plus (<http://www.grantadvisor.com/tgaplus/>)
 - InfoEd (<http://www1.infoed.org/>)
 - UMSL Internal Awards program (<http://www.umsl.edu/services/ora/sponsored-projects/internal.html>)
-

Department of Defense (DOD)

Air Force Research Lab

- Collaborative Research in Multidisciplinary Science & Technology Program Grant
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18170>

The Multidisciplinary Technology Center (MCTC) of AFRL will set up an ongoing partnership by establishing a Collaborative Center in Multidisciplinary Sciences (CCMS). The best fit will be a research team whose expertise strongly complements the AFRL team, as this collaborative effort will be an extension of AFRL's Multidisciplinary Technology Center. Developing a Collaborative Center is expected to increase the agility and responsiveness of AFRL research efforts.

Defense Advanced Research Projects Agency (DARPA)

- Strategic Technology Office Panoptic Analysis of Chemical Traces (PACT) Grant
<http://www07.grants.gov/search/search.do?&mode=VIEW&flag2006=false&oppId=42664>

The PACT program will develop technology capable of analyzing complex gas mixtures without reliance on preconceived libraries of anticipated analytes. PACT will provide automated, high-throughput analysis of atmospheric sampling efforts aimed at producing exhaustive chemical maps of urban and military environments. DARPA is soliciting innovative research proposals in the area of high-throughput chemical analysis of trace gases. Proposed research should investigate innovative approaches that enable revolutionary advances in science, devices, or systems.

Department of the Army

- Advanced Materials and Fabrication for Coherent Superconducting Qubits – Grant
<http://www07.grants.gov/search/search.do?&mode=VIEW&flag2006=false&oppId=42526>

This BAA solicits proposals that will lead to substantially extended coherence times in superconducting qubits.

- DOD Deployment Related Medical Hypothesis Development Award Grant
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18282>

The intent of this award is to provide support for initial exploration of innovative, untested, potentially groundbreaking concepts that may lead to promising new products, pharmacologic agents (drugs or biologics), behavioral interventions, devices, clinical guidance, and/or emerging approaches and technologies for deployment-related health

care issues within the FY08 DRMRP topic areas. Innovation and novelty of concept are important aspects of this award mechanism.

- DOD Deployment Related Medical Research Program Grant
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18281>
The intent of this award is to provide support for the assessment of scientific and/or military field deployment feasibility for promising new products, pharmacologic agents (drugs or biologics), behavioral interventions, devices, clinical guidance, and/or emerging approaches and technologies. These awards are expected to yield potential deployment-related health products, approaches, or technologies positioned for human testing. The products to be developed may be pharmacologic agents (drugs, biologicals), cognitive/behavioral intervention, devices, or clinical guidance. Military relevance is a key feature of this award.
- DOD Deployment Related Medical Research Program Grant
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18283>
This award supports rapid implementation of clinical trials with the potential to have a significant impact on a disease or condition addressed in one of the FY08 DRMRP topic areas. All proposed clinical trials must be responsive to the healthcare needs of deployed members of the Armed Forces and may address prevention, detection, diagnosis, treatment, and/or quality of life. The clinical trial may be designed to evaluate promising new products, pharmacologic agents (drugs or biologics), cognitive/behavioral interventions, devices, clinical guidance, and/or emerging approaches and technologies.

Department of Energy (DOE)

- Clean Coal Power Initiative, Round 3 Grant
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18226>
This CCPI Round 3 Announcement is seeking advanced coal-based projects that have progressed beyond the research and development stage to a point of readiness for operation at a scale that, once demonstrated, can be readily replicated and deployed into commercial practice within the electric power industry. This CCPI announcement is specifically targeting advanced coal-based systems and subsystems that capture and sequester, or put to beneficial reuse, carbon dioxide emissions. The announcement is also open to any coal-based, advanced carbon capture technologies that result in co-benefits with respect to efficiency, environmental, or economic improvements potentially capable of achieving CCPI coal technology performance levels specified in the EPACT 2005, Title IV, Subtitle A, Section 402 (Table 1).
- PRE-COMBUSTION CARBON CAPTURE TECHNOLOGIES FOR COAL-BASED GASIFICATION PLANTS – Topic Area 1: High-Temperature, High-Pressure Membranes Grant
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18242>
Topic Area 1 - High-Temperature, High-Pressure Membranes: Membranes generically refer to a barrier or a medium, which has the potential to effect the selective permeation of the desired gas species at commercially-relevant separation flux, selectivity, and operating conditions. Topic Area 1 solicits membrane-based separation devices approaching theoretical separation selectivity and flux compatible with modern gasifier-WGS reactor product throughput rates.
- PRE-COMBUSTION CARBON CAPTURE TECHNOLOGIES FOR COAL-BASED GASIFICATION PLANTS – Topic Area 2: High-Efficiency Solvents Grant
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18243>
Topic Area 2: High Efficiency Solvents: High efficiency solvents, physical, chemical, or hybrid, refer to capturing CO₂ at high temperature and high CO₂ partial pressures and low energy requirement to restore the solvent, thus reducing capital costs and making the capture of the CO₂ more energy efficient and cost-effective. For Topic Area 2, applications are sought for R D leading to optimal performance of novel, high-efficiency solvents allowing step-change reduction in energy requirements compared to conventional

solvents. Advanced solvents with good absorption and desorption characteristics and those which oxidize slower, and hybrid solvents (mixed chemical-physical solvents) which can combine physical and chemical mechanisms to exceed the CO₂ volumetric capacity of current solvents are of interest.

- PRE-COMBUSTION CARBON CAPTURE TECHNOLOGIES FOR COAL-BASED GASIFICATION PLANTS – Topic Area 3: Solid Sorbents with Commercially Relevant Separation Capacity and Regenerable Grant <http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18244>

Topic Area 3: Solid Sorbents with commercially-relevant separation capacity, and regenerable: Physical adsorbents separate CO₂ from a stream by preferentially attracting it to its surface at high pressures through weak interactions such as van der Waals forces, and may form a chemical bond.

- PRE-COMBUSTION CARBON CAPTURE TECHNOLOGIES--Topic Area 4: Advanced Separation Devices for Separating CO₂ or H₂ from Shifted Syngas and Novel Approaches for Pre-Combustion Removal and Capture of the Carbon Content of Fuels for Storage Grant <http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18245>

Topic Area 4 - Advanced separation devices for separating CO₂ or H₂ from shifted syngas and novel approaches for pre-combustion removal and capture for storage of the carbon content of fuels, other than Topic Areas 1, 2, and 3: Topic Area 4 solicits novel ideas on advanced separation devices that can separate hydrogen from the water gas shift mixtures; CO₂ remaining as the retentate, i.e., on the feed side of the separation device at high pressure, or vice versa, i.e., separation of the CO₂ stream and leaving hydrogen as the retentate.

Department of Health and Human Services (HHS)

National Institutes of Health (NIH)

- Aging Research Dissertation Awards to Increase Diversity (R36) Grant <http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18298>

The National Institute on Aging (NIA) announces the reissuance of a Funding Opportunity Announcement (FOA) that provides dissertation awards (R36) in all areas of research within NIA's mandate to increase diversity of the research workforce on research on aging and aging-related health conditions. These awards are available to qualified Predoctoral students in accredited research doctoral programs in the United States (including Puerto Rico and other U.S. territories or possessions).
- Archiving and Development of Social behavioral Datasets in Aging Related Studies (R03) Grant <http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18299>

This Funding Opportunity Announcement (FOA), issued by the National Institute on Aging (NIA) is seeking small grant (R03) applications to stimulate and facilitate data archiving and development related to cognitive psychology, behavioral interventions in the context of randomized controlled trials (RCTs), demography, economics, epidemiology, behavioral genetics and other behavioral research on aging for secondary analysis.
- Centers in Symptom Management Research or Centers in Health Promotion/Disease Prevention: Building Research Teams for the Future (P20) Grant <http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18280>

The National Institute of Nursing Research (NINR) invites applications to establish Exploratory/Developmental Centers for Symptom Management or Exploratory/Developmental Centers for Health Promotion/Disease Prevention (P20). This FOA supports applications to develop interdisciplinary biobehavioral nursing research capacity in Symptom Management Research OR Health Promotion/Disease Prevention Research.
- Chronic Fatigue Syndrome: Pathophysiology and Treatment (R01) <http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18287>

This Funding Opportunity Announcement (FOA) issued by the Office of Research on Women's Health (ORWH) and co-sponsoring Institutes and Centers (ICs) of the National Institutes of Health (NIH) encourages investigator(s)-initiated applications that propose to examine the etiology, diagnosis, pathophysiology, and treatment of chronic fatigue syndrome (CFS), also known as myalgic encephalomyelitis (ME/CFS) in diverse groups and across the lifespan. Innovative applications that address gaps in the understanding of the environmental and biological risk factors, the determinants of heterogeneity among patient populations, and the common mechanisms influencing the multiple body systems that are affected in CFS are encouraged. The NIH is particularly interested in funding interdisciplinary research that will enhance our knowledge of the disease process and provide evidence based solutions to improve the diagnosis, treatment, and quality of life of all persons with CFS.

- Data Analysis and Coordinating Center For Research Training Activities (U01) Grant <http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18229>

This Funding Opportunity Announcement (FOA) issued by the National Human Genome Research, National Institutes of Health, solicits grant applications from institutions and organizations that will collect and analyze data about the career path of individuals who have participated in short-and long-term research training activities which are all focused on increasing the number of underrepresented minorities participating in genome or ethical, legal and social implications (ELSI) research. From the data collected, a series of reports will be generated and presentations made periodically to help the NHGRI and its national advisory council assess whether grantees' activities match anticipated program progress and outcomes.

- Data Coordinating Center for the Collaborative Pediatric Critical Care Research Network (U01) Grant <http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18175>

The Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) invites applications from investigators willing to participate with the NICHD under a cooperative agreement (U01) as the Data Coordinating Center (DCC) in an ongoing multicenter clinical program, the Collaborative Pediatric Critical Care Research Network (CPCCRN) designed to carry out research in pediatric critical care, especially as related to longer term outcomes for children and families.

- Exceptional, Unconventional Research Enabling Knowledge Acceleration (EUREKA) (R01) Grant <http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18238>

This FOA solicits Research Project Grant (R01) applications from institutions/organizations proposing exceptionally innovative research on novel hypotheses or difficult problems, solutions to which would have an extremely high impact on biomedical or biobehavioral research that is germane to the mission of one or more of the participating NIH Institutes. This FOA is for support of new projects, not continuation of projects that have already been initiated. It does not support pilot projects, i.e., projects of limited scope that are designed primarily to generate data that will enable the PI to seek other funding opportunities.

- Exploratory/Developmental Investigations on Primary Immunodeficiency Diseases (R21) <http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=15454>

The purpose of this Funding Opportunity Announcement (FOA) is to support innovative exploratory/developmental investigations in primary immunodeficiency diseases focusing on ex vivo studies with human specimens and on studies with current or new animal models including novel clinical strategies for detecting, identifying the molecular basis of, or developing innovative therapies for primary immunodeficiency diseases. Investigators who have no prior history of receiving independent NIH funding or no prior history of receiving independent NIH funding in this field are encouraged to apply to this FOA.

- Fogarty International Research Collaboration - Basic Biomedical (FIRCA-BB) Research Award (R03) <http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18165>

This Funding Opportunity Announcement (FOA), the Fogarty International Research Collaboration: Basic Biomedical (FIRCA-BB) Research Award program, facilitates

collaborative basic biomedical research between scientists supported by the National Institutes of Health (NIH) and investigators in low- to middle-income countries (LMIC). All non-AIDS-related biomedical research topics that are supported by the NIH, including basic, clinical, and applied research that does not involve behavioral or social science topics and techniques, are eligible for inclusion under the FIRCA-BB program. For behavioral and social science (BSS) research, see the companion Funding Opportunity Announcement (FOA), the Fogarty International Research Collaboration: Behavioral and Social Sciences (FIRCA-BSS) Research Award program, (PAR-08-223). Special consideration will be given to proposed research that addresses significant global health problems, particularly those of high relevance to an LMIC country or region.

- Fogarty International Research Collaboration - Behavioral and Social Sciences (FIRCA-BSS) Research Award (R03)

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18166>

This Funding Opportunity Announcement (FOA), the Fogarty International Research Collaboration: Behavioral and Social Sciences (FIRCA-BSS) Research Award facilitates collaborative behavioral and social sciences research between scientists supported by the National Institutes of Health (NIH) and investigators in low- and middle-income countries (LMIC). For basic biomedical research, see the companion Funding Opportunity Announcement (FOA), Fogarty International Research Collaboration: Basic Biomedical Sciences (FIRCA-BB) Research Award (PAR-08-222). Special consideration will be given to proposed research that addresses significant global health problems, particularly those of high relevance to an LMIC country or region.

- Functioning of People with Mental Disorders (R01) Grant

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18304>

Although considerable advances have been made in improving the symptoms associated with mental disorders, symptom improvement is often only modestly associated with improvements in daily functioning (i.e., the performance of social, occupational, and instrumental tasks of daily living), and most current treatments have limited impact on the functioning and participation of those with mental disorders. The purpose of this Funding Opportunity Announcement (FOA), issued by the National Institute of Mental Health (NIMH), is the application of biobehavioral science methods and approaches to: a) develop and refine definitions and measures of function, disability, and daily participation relevant to those with mental disorders; b) understand the ecological mechanisms, independent of symptom severity, that contribute to functioning and disability in this population; and c) develop and test novel interventions that specifically and directly target functional capacity and performance deficits of this population. Emphasis will be on the application of basic behavioral processes (e.g., cognition, affect, knowledge, attitudes, motivation, learning, decision-making, interpersonal processes), and environmental parameters (e.g., social support, structural adaptations, community involvement) that influence functional outcome.

- Impact of Health Communication Strategies on Dietary Behaviors: (R01) Grant

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18232>; (R21)

Grant <http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18233>

This funding opportunity announcement (FOA), issued by the National Cancer Institute (NCI), the National Heart, Lung, and Blood Institute (NHLBI), the National Institute of Child Health and Human Development (NICHD), the National Institute on Alcohol Abuse and Alcoholism (NIAAA), the Office of Behavioral and Social Sciences Research (OBSSR), the Office of Dietary Supplements (ODS), the U.S. Food and Drug Administration (FDA), and the Centers for Disease Control and Prevention (CDC), solicits applications for research projects focused on the development and implementation of effective communication strategies related to diet and health. Specifically, this FOA is designed to promote interdisciplinary research, conducted at multiple levels (e.g., individual, community/environment, and policy) and across diverse populations, to evaluate effective communication approaches for changing dietary behaviors.

- Innovative Computational and Statistical Methodologies for the Design and Analysis of Multilevel Studies on Childhood Obesity (R01) Grant
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18292>

This FOA, issued by the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD), National Heart, Lung and Blood Institute (NHLBI), and the Office of Behavioral and Social Sciences Research (OBSSR), National Institutes of Health, solicits Research Project Grant (R01) applications from institutions/organizations that propose to develop, refine, and apply innovative statistical or computational methods for the analysis of multilevel determinants of childhood obesity or for the design of multilevel interventions. Multilevel observational and intervention studies include those that consider the range of biological, family, community, socio-cultural, environmental, policy, and macro-level economic factors that influence diet and physical activity in children. This FOA aims to encourage the development and application of novel methodologies, using secondary or simulated data, that can simultaneously examine factors of energy balance that span more than 3 levels of influence in children.

- Integration of Mouse Models into Human Cancer Research (U01) Grant
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18259>

This Funding Opportunity Announcement (FOA), issued by the National Cancer Institute (NCI), extends the NCI-Mouse Models of Human Cancers Consortium (NCI-MMHCC) for a third project period. The previous periods resulted in generation, validation, and utilization of many novel mouse cancer models. Having successfully attained the original specific program goals, the NCI-MMHCC is poised to enter the next stage that stresses the use of biologically relevant mouse models as effective tools for human research. The overall objective of the NCI-MMHCC is integration of mouse models into basic, translational, epidemiological, and clinical cancer research.

- Metals in Medicine (R01) Grant
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18297>

The objective of this Funding Opportunity Announcement (FOA), issued by the National Institute of General Medical Sciences (NIGMS), National Cancer Institute (NCI), National Institute of Environmental Health Sciences (NIEHS), and the Office of Dietary Supplements (ODS), National Institutes of Health is to encourage research that bridges the areas of inorganic chemistry and medicine. The mechanisms by which organisms control transition metal ions and the roles of these metals in cellular regulation and signaling in health and disease are of principal interest. The interactions of synthetic inorganic complexes with living systems and their components are an additional area of interest. These areas are linked by the need to involve researchers having a deep understanding of inorganic chemistry in medically relevant research. Much of the work is expected to involve collaborations including chemists, biologists, and medical researchers. The results will be relevant to understanding the mechanisms of metal handling by biological systems and the basic cellular roles underlying the nutritional requirement for essential metals. It is expected that this research will also contribute to the identification of new targets for drug discovery, diagnostics, and future therapeutic approaches involving metal complexes, although drug development, per se, is not a focus of the program.

- National Cooperative Drug Discovery and Development Groups (NCDDDG) for the Treatment of Mental Disorders, Drug or Alcohol Addiction (U01/U19) Grant
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18231>

The purpose of the National Cooperative Drug Discovery and Development Group (NCDDDG) Program is to create multidisciplinary research groups or partnerships for the discovery of pharmacological agents to treat and to study mental illness, drug or alcohol addiction. The objectives of this program are to: accelerate innovative drug discovery; develop pharmacologic tools for basic and clinical research on mental disorders, or drug or alcohol addiction; develop and validate models for evaluating novel therapeutics for mental disorders; and support early phase human clinical testing to rapidly assess the safety and efficacy of promising drug candidates and new indications for IND-ready drugs

for the treatment of mental disorders or alcohol addiction. The National Institute of Mental Health (NIMH), the National Institute on Drug Abuse (NIDA), and the National Institute on Alcohol Abuse and Alcoholism (NIAAA) invite applications to advance the discovery, preclinical development, and proof of concept testing of new, rationally based candidate medications to treat mental disorders or drug or alcohol addiction, and to develop novel ligands as tools to further characterize existing or to validate new drug targets. Partnerships between academia and industry are strongly encouraged.

- NINDS Cooperative Program in Translational Research:
 - Multi-Component Research Projects (U54)
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18218>
The goal of this funding opportunity announcement (FOA) is to support pre-clinical development and testing of new therapies for neurological disorders. The program will facilitate solicitation, development, and review of therapy-directed projects to accelerate the translation of basic research discoveries into therapeutic candidates for clinical testing. This program is specifically directed at projects that include therapeutic leads with demonstrated activity against the intended disease target. The program supports pre-clinical optimization and testing of these leads and projects must be sufficiently advanced that an IND or IDE application to the FDA can be submitted by the end of the project period.
 - Resource Centers (U24)
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18222>
The goal of this funding opportunity announcement (FOA) is to implement a program of cooperative agreements that will support milestone-driven resource-related projects focused on providing products and services that are required for the pre-clinical testing of new therapeutics, and that are specific to neurology.
 - Single-Component Research Projects (U01)
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18217>
The goal of this funding opportunity announcement (FOA) is to support pre-clinical development and testing of new therapies for neurological disorders. The program will facilitate solicitation, development, and review of therapy-directed projects to accelerate the translation of basic research discoveries into therapeutic candidates for clinical testing. This program is specifically directed at projects that include therapeutic leads with demonstrated activity against the intended disease target. The program supports pre-clinical optimization and testing of these leads and projects must be sufficiently advanced that an IND or IDE application to the FDA can be submitted by the end of the project period. The program does not support early-stage therapeutic discovery activities such as high throughput screening. The program also excludes clinical research, basic research, and studies of disease mechanism. This is a milestone-driven cooperative agreement program involving participation of NINDS staff in the development of the project plan and monitoring of research progress.
- NINDS Exploratory/Developmental Projects in Translational Research (R21) Grant
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18216>
This Funding Opportunity Announcement (FOA) requests applications for projects intended to complete preliminary steps in the pipeline for the pre-clinical development of therapeutics for neurological disorders. Such projects, if successful, should lead directly to a subsequent project that will include all remaining activities for submission of an Investigational New Drug (IND) or Investigational Device Exemptions (IDE) application to the Food and Drug Administration (FDA). Only Aims required for therapy development can be supported in this program. This program excludes clinical research, basic research and studies of disease mechanism.
- Quantitative Imaging for Evaluation of Responses to Cancer Therapies (U01) Grant
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18169>

This funding opportunity announcement (FOA) is designed to promote research on quantitative imaging of tumor response to cancer therapies in clinical trial settings, with the overall goal of facilitating clinical decision making. Proposed projects should include the appropriate development and adaptation/implementation of quantitative imaging methods, protocols and software solutions/tools (using existing commercial imaging platforms and instrumentation), and their application in current and planned Phase 1-2 clinical therapy trials. No support for the clinical trials, as such, will be provided under this FOA. The proposed projects must focus on imaging-derived quantitative measurements of responses to drugs and/or radiation therapy, and/or image-guided interventions. It is anticipated that these research goals will require multidisciplinary efforts.

- Reducing Risk Behaviors by Promoting Positive Youth Development: (R01)
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18235>; (R03)
Grant <http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18237>

This purpose of this Funding Opportunity Announcement is to encourage Research Project Grant (R01) applications from institutions/ organizations that propose to enhance our understanding of effective positive youth development programs and the mechanisms responsible for positive health and developmental outcomes. This will be accomplished through the development, implementation, and evaluation of new or improved positive youth development programs, the evaluation of existing successful programs, or the evaluation of effective, evidence-based, gender-inclusive programs that are adapted, translated, or disseminated for new populations of youth and adolescents.

- Revolutionary Genome Sequencing Technologies - The \$1000 Genome: (R01)
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18177>; (R21)
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18178>; (STTR [R41/R42]) <http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18180>

The National Human Genome Research Institute (NHGRI) solicits R01 grant applications to develop novel technologies that will enable extremely low-cost, high quality DNA sequencing. The goal of this initiative is to reduce the cost of sequencing a mammalian-sized genome to approximately \$1000. Applicants may propose to develop full-scale sequencing systems or to investigate challenges underlying key system components. Exploration of methods other than those currently being pursued as potential \$1,000 genome technologies are particularly encouraged. High-risk/high-payoff proposals are appropriate to achieve the goals of this FOA by approximately 2014.

- Ruth L. Kirschstein National Research Service Award (NRSA) Institutional Research Training Grants (T32) <http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18171>

The National Institutes of Health (NIH) will award Ruth L. Kirschstein National Research Service Award (NRSA) Institutional Research Training Grants (T32) to eligible institutions as the primary means of supporting predoctoral and postdoctoral research training to help ensure that a diverse and highly trained workforce is available to assume leadership roles related to the Nation's biomedical, behavioral and clinical research agenda. The primary objective of the T32 program is to prepare qualified individuals for careers that have a significant impact on the health-related research needs of the Nation. This program supports predoctoral, postdoctoral and short term research training programs at domestic institutions of higher education with the T32 funding mechanism. Note that programs solely for short-term research training should not apply to this announcement, but rather the separate (T35) NRSA Short-Term Institutional program exclusively reserved for short-term programs (see PA-08-227).

- Ruth L. Kirschstein National Research Service Award Short-Term Institutional Research Training Grants (T35)
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18172>

The National Institutes of Health (NIH) will award Ruth L. Kirschstein National Research Service Award (NRSA) Short-Term Institutional Research Training Grants (T35) to eligible institutions to develop or enhance research training opportunities for individuals interested in careers in biomedical, behavioral and clinical research. Many of the NIH Institutes and Centers (ICs) use this grant mechanism exclusively to support intensive, short-term

research training experiences for students in health professional schools during the summer. In addition, the Short-Term Institutional Research Training Grant may be used to support other types of predoctoral and postdoctoral training in focused, often emerging scientific areas relevant to the mission of the funding IC. The proposed training must be in either basic, behavioral or clinical research aspects of the health-related sciences. This program is intended to encourage graduate and/or health professional students to pursue research careers by exposure to and short-term involvement in the health-related sciences. The training should be of sufficient depth to enable the trainees, upon completion of the program, to have a thorough exposure to the principles underlying the conduct of research.

- Using Systems Science Methodologies to Protect and Improve Population Health (R21) Grant <http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18173>

This funding opportunity announcement (FOA) is being issued by the Office of Behavioral and Social Sciences Research (OBSSR) of the National Institutes of Health (NIH) with participation from the following NIH components: FIC, NCI, NIA, NICHD, NCCAM, NHLBI, NIEHS, NIMH, NIAAA, NIDCR, NIDA, ODP, and ODS. This FOA solicits Exploratory/Developmental (R21) applications from institutions/organizations that propose to apply one or more specific system science methodologies (identified in Section I.1: Background, of this announcement) to public health and health care systems problems and contribute knowledge that will enhance effective decision making around the development of and prioritization of policies, interventions, and programs to improve population health, especially where resources are limited and only a limited number of programs/policies/interventions can be implemented. Applicants are encouraged to submit projects that tackle policy resistant health problems (i.e., ones in which the effects of planned interventions, programs or policies tend to be delayed, diluted or defeated by responses of the system to the intervention itself) using a systems science methodology.

Environmental Protection Agency (EPA)

- Forecasting Ecosystem Services from Wetland Condition Analyses Grant <http://www07.grants.gov/search/search.do?&mode=VIEW&flag2006=false&oppId=42538>

Please note that the research grants issued under this rfa will likely involve the collection and interpretation of geospatial information. The U.S. Environmental Protection Agency (EPA), as part of its Science to Achieve Results (STAR) program, is seeking applications to develop relationships between wetland ecological condition indicators and ecosystem services delivery.

- National Risk Management Research Laboratory Advanced Decentralized Water/Energy Network Design for Sustainable Infrastructure Grant <http://www07.grants.gov/search/search.do?&mode=VIEW&flag2006=false&oppId=42672>

The objective of this research effort is to produce, evaluate, and summarize the cost, performance, and long-term reliability of coupling energy and water conservation technologies, modeling capabilities, and decision-support tools to reduce and optimize energy consumption in the treatment, conveyance, and use of water while utilizing water in the most efficient manner possible and in turn, increasing water supplies by virtue of reusing wastewater, stormwater, and preventing excess runoff. Outputs are sought that will include technical reports, journal articles, expert workshops, design models, and decision-support templates of benefit to the user community that consists of drinking water and wastewater utilities, state enforcement agencies, regulators, consulting engineers, and the academic community.

- NOVEL APPROACHES FOR ASSESSING EXPOSURE FOR SCHOOL-AGED CHILDREN IN LONGITUDINAL STUDIES Grant <http://www07.grants.gov/search/search.do?&mode=VIEW&flag2006=false&oppId=42659>

These awards may involve the collection of geospatial information. A key issue faced by researchers conducting large population studies of children's environmental health is the challenge of assessing exposure. Traditional exposure assessment methods depend on

questionnaires and multiple environmental samples, but these tend to be costly and create a burden of time and effort for both study participants and researchers. There is also little information about how exposures change over time as children age and begin to spend more time outside the home in places such as child care locations, schools and playgrounds. Research is needed to assess whether there are differences in nonresidential environments that may lead to changes in exposure estimates and/or classifications for children. The U.S. Environmental Protection Agency (EPA), as part of its Science to Achieve Results (STAR) program, is soliciting applications proposing research to develop and evaluate novel, innovative approaches for classifying exposure for children 2 to 11 years of age to toxic chemicals in their environment for use in large-scale longitudinal exposure assessment and epidemiological studies.

Institute of Museum and Library Services (IMLS)

- **Connecting to Collections Statewide Planning Grants Grant**
<http://www07.grants.gov/search/search.do?mode=VIEW&flag2006=false&oppId=42592>
The agency invites proposals for statewide, collaborative planning grants to address the recommendations of the Heritage Health Index (HHI), which found the collections held in the public trust by libraries, museums, and archives to be at great risk. The report offered four recommendations for collecting institutions: that they provide safe conditions for their collections; that they develop an emergency plan; that they assign responsibility for collections care; and that they marshal public and private support for and raise public awareness about collections care. These planning grants are intended to engage institutions with responsibility for collections stewardship within a state, commonwealth, or territory in consultation and planning for ways to address the HHI recommendations most relevant for their state.
- **Institute of Museum and Library Services Museums for America Grant**
<http://www07.grants.gov/search/search.do?mode=VIEW&flag2006=false&oppId=42696>
Museums for America is the Institute's largest grant program for museums, supporting projects and ongoing activities that build museums' capacity to serve their communities. Museums for America grants strengthen a museum's ability to serve the public more effectively by supporting high-priority activities that advance the institution's mission and strategic goals. Museums for America grants are designed to be flexible: funds can be used for a wide variety of projects, including: ongoing museum work, research and other behind-the-scenes activities, planning, new programs, purchase of equipment or services, and activities that will support the efforts of museums to upgrade and integrate new technologies. Grants are awarded in the following categories: Engaging Communities (Education, Exhibitions, and Interpretation); Building Institutional Capacity (Management, Policy, and Training); and Collections Stewardship.

National Aeronautics and Space Administration (NASA)

- **ANNOUNCEMENT OF OPPORTUNITY FOR THE STAND ALONE MISSIONS OF OPPORTUNITY NOTICE Grant**
<http://www07.grants.gov/search/search.do?mode=VIEW&flag2006=false&oppId=42649>
This Announcement of Opportunity (AO) solicits investigations that address the science objectives of the Science Mission Directorate's (SMD) astrobiology, lunar science, and planetary science programs and the Exploration Science Mission Directorate's (ESMD) fundamental space biology program.
- **ROSES 2008: Outer Planets Research Grant**
<http://www07.grants.gov/search/search.do?mode=VIEW&flag2006=false&oppId=42674>
This NASA Research Announcement (NRA) solicits proposals for supporting basic and applied research and technology across a broad range of Earth and space science program elements relevant to one or more of the following NASA Research Programs: Earth Science, Heliophysics, Planetary Science, and Astrophysics. This ROSES NRA covers

all aspects of basic and applied supporting research and technology in space and Earth sciences, including, but not limited to: theory, modeling, and analysis of SMD science data; aircraft, stratospheric balloon, and suborbital rocket investigations; development of experiment techniques suitable for future SMD space missions; development of concepts for future SMD space missions; development of advanced technologies relevant to SMD missions; development of techniques for and the laboratory analysis of both extraterrestrial samples returned by spacecraft, as well as terrestrial samples that support or otherwise help verify observations from SMD Earth system science missions; determination of atomic and composition parameters needed to analyze space data, as well as returned samples from the Earth or space; Earth surface observations and field campaigns that support SMD science missions; development of integrated Earth system models; development of systems for applying Earth science research data to societal needs; and development of applied information systems applicable to SMD objectives and data.

National Endowment for the Arts (NEA)

- NEA International Arts Journalism Institute, FY2009 Grant

<http://www07.grants.gov/search/search.do?&mode=VIEW&flag2006=false&oppId=42662>

The NEA Arts Journalism Institutes were launched in 2004 to improve the quality and quantity of arts coverage and criticism in specific arts disciplines. Previous institutes have provided intensive professional training for journalists who cover dance, theater, musical theater, classical music, and opera. This institute will be in the visual arts with a focus on American art of the last 150 years. This institute also introduces an international component. The NEA is collaborating with the U.S. Department of State's Bureau of Educational and Cultural Affairs (ECA) on an institute that will involve 20-24 journalists/media commentators. Half of the participants will be from regions such as the Middle East, the Far East, and North Africa; half from the United States. All international participants will be fluent in English, both spoken and written; will have experience as print or media journalists and/or as educators in the field of critical writing; and will be expected to offer a presentation on the visual arts of their country during the institute. The U.S. participants are expected to have substantial experience in reporting on or critiquing the visual arts. As with the other NEA Arts Journalism Institutes, this institute is designed to enhance the ability of participants to make informed critical judgments and to report with acuity on trends in the arts, thereby developing audiences for and increasing understanding and appreciation of American art. With its international component, this institute is also designed to promote cultural understanding. The participating journalists from abroad will bring knowledge, perspectives, and outlooks different from those of their American counterparts. The exchange of ideas and expertise between professional colleagues from different countries should provide an added dimension to each participant's experience as they improve their knowledge and understanding of the excellence, vitality, and diversity of American art of the past 150 years. In addition, better informed arts coverage in both the United States and abroad should enhance readers' understanding and appreciation of American art.

- NEA Literature Fellowships: Translation Projects, FY2010 Grant

<http://www07.grants.gov/search/search.do?&mode=VIEW&flag2006=false&oppId=42657>

Through fellowships to published translators, the Arts Endowment supports projects for the translation of specific works of prose, poetry, or drama from other languages into English. We encourage translations of writers and of work which are not well represented in English translation. All proposed projects must be for creative translations of published literary material into English. The work to be translated should be of interest for its literary excellence and value. Priority will be given to projects that involve work that has not yet been translated into English. Competition for fellowships is rigorous. Potential applicants should consider carefully whether their work will be competitive at the national level. We Do Not Fund Individuals who previously have received three or more Creative Writing or Translation Fellowships from the National Endowment for the Arts. Individuals who have received any Creative Writing or Translation Fellowship from the National

Endowment for the Arts within the past five years. Scholarly writing. (Writers who are engaged in scholarly work may wish to contact the National Endowment for the Humanities.) Vanity publication or self-publication. Work toward academic degrees.

National Endowment for the Humanities (NEH)

- Collaborative research Grant

<http://www07.grants.gov/search/search.do?&mode=VIEW&flag2006=false&oppId=42581>

Collaborative Research Grants support original research undertaken by a team of two or more scholars or research coordinated by an individual scholar that, because of its scope or complexity, requires additional staff and resources beyond the individual's salary. Eligible projects include: research that significantly adds to knowledge and understanding in the humanities; conferences on topics of major importance in the humanities that will benefit ongoing research; archaeological projects that include the interpretation and communication of results (projects may encompass excavation, materials analysis, laboratory work, field reports, and preparation of interpretive monographs); translations into English of works that provide insight into the history, literature, philosophy, and artistic achievements of other cultures; and research that uses the knowledge, methods, and perspectives of the humanities to enhance understanding of science, technology, medicine, and the social sciences. These grants support full-time or part-time activities for periods of one to three years. Support is available for various combinations of scholars, consultants, and research assistants; project-related travel; field work; applications of information technology; and technical support and services. All grantees are expected to communicate the results of their work to the appropriate scholarly and public audiences. Providing Access to Grant Products As a taxpayer-supported federal agency, the NEH endeavors to make the products of its grants 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 Collaborative Research program, such products may include monographs, excavation reports, multi-authored volumes, Web sites, and the like. For projects that lead to the development of Web sites, all other considerations being equal, the NEH gives preference to those that provide free access to the public.

- Digital Humanities Start-Up Grants Grant

<http://www07.grants.gov/search/search.do?&mode=VIEW&flag2006=false&oppId=42673>

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 prototyping 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 facilitating 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 start the first stage of implementation or the creation of working prototypes. Applicants must state in their narrative which funding level they seek. The Endowment will be setting aside funds for each of the two levels and more awards will be made in the Level I category. Applicants should carefully choose the funding level appropriate to the needs of the

proposed project. See Section III, Award Information, for more details. Digital Humanities Start-Up Grants support full-time or part-time activities for periods up to eighteen months. Support is available for various combinations of scholars, consultants, and research assistants; project-related travel; and technical support and services.

- National Digital Newspaper Program Grant

<http://www07.grants.gov/search/search.do?&mode=VIEW&flag2006=false&oppId=42655>

NEH is soliciting proposals from institutions to participate in the National Digital Newspaper Program (NDNP). Ultimately, over a period of approximately 20 years, NDNP will create a national, digital resource of historically significant newspapers from all the states and U.S. territories published between 1836 and 1922. This searchable database will be permanently maintained at the Library of Congress (LC) and be freely accessible via the Internet.

- Scholarly Editions Grant

<http://www07.grants.gov/search/search.do?&mode=VIEW&flag2006=false&oppId=42580>

Scholarly Editions Grants support the preparation of editions of pre-existing texts and documents that are currently inaccessible or available in inadequate editions. Projects must be undertaken by a team of at least one editor and one other staff member. Grants typically support editions of significant literary, philosophical, and historical materials, but other types of work, such as musical notation, are also eligible. Applicants should demonstrate familiarity with the best practices recommended by the Association for Documentary Editing or the Modern Language Association Committee on Scholarly Editions. Editions produced with NEH support contain scholarly and critical apparatus appropriate to the subject matter and format of the edition. This usually means introductions and annotations that provide essential information about the form, transmission, and historical and intellectual context of the texts and documents involved. Proposals for editions of foreign language materials in the original language are eligible for funding, but proposals for editions of translated materials should be submitted to the Collaborative Research program.

National Science Foundation (NSF)

- Arctic Research Opportunities Grant

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18277>

The National Science Foundation (NSF) invites investigators at U.S. organizations to submit proposals to conduct research about the Arctic. Arctic research includes field and modeling studies and data analysis. Arctic research is supported at NSF by the Office of Polar Programs (OPP), Arctic Sciences Division (<http://www.nsf.gov/div/index.jsp?div=ARC>), in the Office of the Director, as well as by a number of other programs within the Foundation. The goal of the NSF Division of Arctic Sciences is to gain a better understanding of the Arctic's physical, biological, geological, chemical, social and cultural processes, and the interactions of ocean, land, atmosphere, biological, and human systems in the Arctic.

- Proactive Recruitment in Introductory Science and Mathematics Grant

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18239>

The goal of the program in Proactive Recruitment in Introductory Science and Mathematics is to strengthen the nation's scientific competitiveness by increasing the numbers of well-prepared, successful U.S. undergraduate majors and minors in science and mathematics. The program will fund innovative, potentially transformational partnerships between the mathematical sciences and other science or engineering disciplines that widen the cross section of the mathematical sciences to which freshman and sophomore students are exposed and that provide these students increased opportunities for research experiences involving the mathematical sciences.

- Social and Behavioral Dimensions of National Security, Conflict, and Cooperation Grant

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18164>

The National Science Foundation (NSF) and the Department of Defense (DoD) are initiating a university-based social and behavioral science research activity, as part of The Minerva Initiative launched by the Secretary of Defense, that focuses on areas of strategic importance to U.S. national security policy. NSF and DoD intend: 1) to develop the DoD's social and human science intellectual capital in order to enhance its ability to address future challenges; 2) to enhance the DoD's engagement with the social science community; and 3) to deepen the understanding of the social and behavioral dimensions of national security issues. In pursuit of these objectives, NSF and DoD will bring together universities, research institutions, and individual scholars and will support disciplinary, interdisciplinary and collaborative projects addressing areas of strategic importance to national security policy. Proposals are to be submitted directly to NSF as described in the solicitation.

- Solar Energy Initiative Grant

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18286>

The purpose of the CHE-DMR-DMS Solar Energy Initiative is to support interdisciplinary efforts by groups of researchers to address the scientific challenges of highly efficient harvesting, conversion, and storage of solar energy. Groups must include three or more co-Principal Investigators; one must have demonstrated high expertise in chemistry, a second in materials research, and a third in mathematical sciences. The goal here is to create a new modality of linking the mathematical with the chemical and materials sciences to develop transformative paradigms in an area of much activity but largely incremental advances. Successful proposals will offer potentially transformative projects and new concepts based on the integrated expertise and synergy from the three disciplinary communities.

- Solid State and Materials Chemistry Grant

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=18236>

This multidisciplinary program supports basic research in solid state and material chemistry that comprises the elucidation of the atomic and molecular basis for material development, and the combination of experiment with theory and/or simulation. General areas of interest include but are not limited to innovative approaches to the design, synthesis and characterization of novel organic, inorganic, hybrid, and multi-functional materials, and multi-component material systems exhibiting new phenomena and/or providing new scientific insights into structure/composition/property relationships in the solid state. Special consideration is given to original synthetic routes, characterization of new material phenomena or superior behavior, interfacial material system structures and properties, and unraveling the relationships between structure/composition (e.g. hybrid or self- or programmed-assembled materials) and properties (e.g. charge and ionic transport, exciton diffusion, chemical reactivity and selectivity). Present emphasis includes novel hybrid and multifunctional materials, environmentally-safe materials and materials for efficient energy harvesting, conversion and storage.