

Funding Opportunities

Federal Agencies

NOVEMBER 2007

This report contains a sampling of new/updated funding opportunity announcements issued by U.S. federal agencies. For additional opportunities, visit Grants.gov (www.grants.gov), Grant Advisor Plus (<http://www.grantadvisor.com/>), InfoEd (<http://www1.infoed.org/>), and UMSL Internal Awards program (<http://www.umsl.edu/services/ora/sponsored-projects/internal.html>).

FOA: Funding Opportunity Announcement

Agency for International Development (USAID)

- **FY08 Title II Program Procedures and Proposal Guidelines**
<http://www07.grants.gov/search/search.do?mode=VIEW&oppld=39972>
Pursuant to the Agricultural Trade Development and Assistance Act of 1954 (Public Law 480, as amended), notice is hereby given that the final Food for Peace P.L. 480 Title II Program Policies and Proposal Guidelines (FY 08) are available to interested parties for general viewing. Individuals who wish to access the current guidelines should visit the Food for Peace web site at http://www.usaid.gov/our_work/humanitarian_assistance/ffp/, or contact the Office of Food for Peace, U.S. Agency for International Development, RRB 7.06-102, 1300 Pennsylvania Avenue, NW, Washington, DC 20523-7600.

Department of Agriculture (USDA)

- **Outreach and Assistance for Socially Disadvantaged Farmers and Ranchers Competitive Grants Program**
<http://www.grants.gov/search/search.do?mode=VIEW&flag2006=true&oppld=15744>
Supports a wide range of outreach and assistance activities in farm management, financial management, marketing, application and bidding procedures, and other areas to deliver outreach and technical assistance, to assure opportunities for socially disadvantaged farmers and ranchers to successfully acquire, own, operate, and retain farms and ranches; and assure equitable participation in the full range of USDA programs.
- **International Science and Education Grants Program**
<http://www.grants.gov/search/search.do?mode=VIEW&flag2006=true&oppld=15745>
Supports research, extension and teaching activities to enhance the capabilities of American colleges and universities to conduct international collaborative research, extension and teaching. ISE projects are expected to enhance the international content of curricula; ensure that faculty work beyond the U.S. and bring lessons learned back home; promote international research partnerships; enhance the use and application of foreign technologies in the U.S.; and strengthen the role that colleges and universities play in maintaining U.S. competitiveness.
- **Integrated Research, Education, and Extension Competitive Grants Program - National Integrated Food Safety Initiative Grant**
<http://www.grants.gov/search/search.do?mode=VIEW&flag2006=true&oppld=15788>
Supports food safety projects that demonstrate an integrated approach to solving problems in applied food safety research, education or extension. Various models for integration of applied research, education and extension will be considered for funding. Applications describing multi-state, multi-institutional, multidisciplinary, and multifunctional activities (and combinations thereof) are encouraged. Applicants are strongly encouraged to address at least two of the three functional areas of research, education, and extension (i.e., research and extension, research and education, or extension and education).

Department of Defense (DOD)

Defense Advanced Research Projects Agency (DARPA)

- **MTO - BAA0718 Surface Enhanced Raman Scattering Science and Technology Fundamentals (SERS S&T Fundamentals)**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15506>

Department of the Army

- **Amyotrophic Lateral Sclerosis Research Program (ALSRP) Therapeutic Development Award Grant** <http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15691>

Department of Education (ED)

- **Teaching American History Grant Program CFDA 84.215X Grant**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15656>
The Teaching American History Grant Program supports projects that aim to raise student achievement by improving teachers' knowledge, understanding, and appreciation of traditional American history. Grant awards assist local educational agencies (LEAs), in partnership with entities that have extensive content expertise, to develop, implement, document, evaluate, and disseminate innovative, cohesive models of professional development. By helping teachers to develop a deeper understanding and appreciation of traditional American history as a separate subject within the core curriculum, these programs are intended to improve instruction and raise student achievement.

Department of Energy (DOE)

- **Hydrogen Education Development**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15707>
This FOA is requesting applications for hydrogen education development in three topic areas: Topic 1, State and Local Government Outreach; Topic 2, Early Deployment and Education; and Topic 3, University Programs.
- **Plant Feedstock Genomics for Bioenergy: A Joint Research Solicitation; USDA, DOE**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15647>
Applications are sought for genomics-based research that will lead to the improved use of biomass and plant feedstocks for the production of fuels such as ethanol or renewable chemical feedstocks. Specifically, applications are sought for fundamental research on plants that will improve biomass characteristics, biomass yield, or sustainability. Systems biology approaches to identify genetic indicators enabling plants to be efficiently bred or manipulated, or research that yields fundamental knowledge of the structure, function and organization of plant genomes leading to improved feedstock characterization and sustainability are also encouraged.

Department of Health and Human Services (HHS)

Health Resources & Services Administration

- **Developmental-Behavioral Pediatrics Training Program**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15627>
Funding to enhance behavioral, psychosocial, and developmental aspects of pediatric care. This is to be accomplished through: 1) support for fellows in developmental-behavioral pediatrics preparing for leadership roles as teachers, investigators, and clinicians advancing the field of developmental/behavioral pediatrics; and 2) providing pediatric practitioners, residents, and medical students with essential biopsychosocial knowledge and clinical expertise.
- **Faculty Development: Integrated Technology into Nursing Education & Practice Initiative**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15628>
Provides support to nursing collaboratives for faculty development in the use of information and other technologies in order to expand the capacity of collegiate schools of nursing to educate students for 21st century health care practice. Nursing collaboratives will use healthcare information systems to enhance nursing education and practice, optimize patient safety, and drive improvements in health care quality.

- Leadership Training in Nursing**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=15629>
 Funding to provide graduate training of nurses for leadership roles in maternal and child health, including women's health and the care of pregnant women, infants, children, and adolescents in community public health programs. This is to be accomplished by advancing the knowledge and skills of nursing health professionals and enhancing their effectiveness in community public health programs providing maternal and child health services, academia and or clinical settings.
- Nurse Education, Practice and Retention**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=15630>
 Grants are awarded for projects to strengthen and enhance the capacity for nurse education, practice and retention to address the nursing shortage.
- Leadership Training in Social Work**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=15631>
 The purpose of this training program is to provide a national focus on leadership in public health social work education through: Graduate training of public health social workers for leadership roles in service, administration, research, education, and advocacy related to programs providing health and related services for populations of mothers and children and families, including those with special health care needs. Development and dissemination of curricula, teaching models, and other educational resources to enhance MCH content in social work training programs; and Continuing education, consultation and technical assistance in public health social work geared to the needs of the MCH community.
- Minority Faculty Fellowships**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=15632>
 Eligibility includes, among others, schools of optometry, nursing, and graduate programs in behavioral and mental health. Minority Faculty Fellowship Program grants increase the number of under represented minority individuals who are members of the faculty in a health profession school. The grants enable schools to provide a stipend and a training allowance to the faculty fellow. Grantees must: (1) Identify, recruit and select individuals who are underrepresented racial minorities in the health professions for teaching, administration, or research positions at a health professions institution; (2) Provide such individuals with the skills necessary for tenured faculty positions, which may include training in pedagogy, program administration, design and conduct of research, grant writing, and the preparation of articles suitable for publication in peer review journals; (3) Assist individuals in preparation for an academic career by providing services such as counseling; and (4) Provide health services to rural or medically underserved populations. *This program is not included in the President's budget for 2008. Potential applicants for funds should consider this announcement provisional until final Congressional action is taken. Updated information will be available on the HRSA website.
- Leadership Education in Maternal and Child Health Nutrition**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=15633>
 This program provides graduate training for nutritionists to assume leadership roles in improving the nutritional status of women, infants, children, adolescent and families. The training will prepare program participants to become leaders in public health programs, clinical settings and/or academic settings.
- MCH Distance Learning**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=15787>
 This program supports the development, implementation, creative utilization, application and evaluation of distance education opportunities for maternal and child health (MCH) professionals. Consistent with the MCHB Strategic Plan (MCH Training), MCHB is particularly interested in topics such as MCH leadership competencies, cultural competency and family centered care, and best practices in interdisciplinary training. In addition, at least one Distance Learning grant will be targeted towards the translation of new evidence-based knowledge into policy and practice. Projects must provide continuing education to a regional and/or national audience.

- **Adapting Basic Cognitive Measures for Clinical Assessment of Schizophrenia (R01) Grant**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15690>
 Progress in pharmacologic and behavioral treatments for schizophrenia depends in part on developing new and valid approaches for assessing cognitive dysfunction. Specialized behavioral measures are required to characterize the integrity of specific cognitive mechanisms in persons with schizophrenia. This FOA encourages adaptation of measures developed and tested in cognitive science and cognitive neuroscience laboratories for use in clinical assessment.
- **Aging Musculoskeletal and Skin Extracellular Matrix (R21)**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=8546>
 The objective of this funding opportunity is to solicit grant applications for basic research projects to investigate how changes in the extracellular matrix with age affect the function of the tissues of the musculoskeletal system and skin. Projects are encouraged that determine how cellular aging processes lead to altered matrix production and maintenance, and how aging-related altered matrix composition and organization affect the function of these tissues.
- **Alcohol Use Disorders: Treatment, Services Research, and Recovery (R21) Grant**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15710>
 This FOA, issued by the NIAAA, encourages Exploratory/Developmental (R21) grant applications from institutions/organizations that utilize innovative approaches to research on: behavioral and pharmacological treatment for alcohol use disorders; organizational, financial, and management factors that facilitate or inhibit the delivery of services for alcohol use disorders; and/or on the phenomenon of recovery from alcohol use disorders.
- **Angiogenesis in the Nervous System in Health and Disease: (R01) Grant**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15747>; (R21) Grant
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15748>
 The aim of this FOA is to invite applications to study angiogenesis in the nervous system. Specific areas of research this FOA seeks to encourage include study of the mechanisms controlling angiogenic responses to physiological and pathological stimuli, the development and patterning of nervous system vasculature, and the etiology of disorders affecting development and/or ongoing angiogenesis in nervous system vasculature.
- **Centers of Excellence in Chemical Methodologies and Library Development (P50) Grant**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15693>
 The goal of this FOA is to stimulate the establishment and maintenance of multi-investigator research centers whose mission will be to develop efficient, general, state-of-the-art methodologies for the design, synthesis, analysis, and handling of chemical diversity libraries. The CMLD Centers will continue to feature collaborations and team approaches that otherwise would not be established, including individuals from various subdisciplines within the field of chemistry and/or from cognate fields, that will develop novel enabling methodologies. The minimum requirements for a CMLD Center will be three research projects, three faculty-level participants (but not necessarily one per project), and a library synthesis core. In order to promote overall diversity within the CMLD initiative, each applicant must propose at least one methods development research project that is of fundamentally organic synthesis. The library synthesis core must provide samples (10-20 mg per compound) to the NIH Molecular Libraries Small Molecule Repository for high-throughput screening by the Molecular Libraries Probe Production Centers Network.
- **Centers Program for Research on HIV/AIDS and Mental Health (P30) Grant**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15697>
 The Center for Mental Health Research on AIDS at the National Institute of Mental Health supports research Centers that provide Core support for multidisciplinary research programs focused on mental health and HIV/AIDS. The purpose of this Centers Program is to improve and expand research by supporting infrastructure for administrative coordination; subject recruitment, tracking, and retention; quality control and assurance procedures; performing laboratory testing; performing statistical analyses; database management; sponsoring training and education; and scientific and organizational capacity, in order to provide leadership in the integration of multidisciplinary approaches to HIV/AIDS and mental health research, and to expand and develop information-sharing, expertise, technology, and technology transfer in the institutional and clinical communities. The support of this infrastructure will serve to enhance

and extend the effectiveness and public health impact of research related to mental health and HIV/AIDS.

- **Computational Tools for Research in Neuroscience, Behavioral Science and Mental Health: STTR [R41/R42]**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=14987>
This Funding Opportunity solicits Small Business Technology Transfer (STTR) grant applications from small business concerns (SBCs) that propose to develop and validate novel, commercializable, computational tools and resources that will aid neuroscientists, behavioral scientists, mental health researchers, or mental health providers in their research or practice. In addition, this FOA solicits grant applications that propose to develop and validate digital approaches that use interactive learning methods to disseminate educational information relevant to mental health, including the areas of behavioral health interventions or assessment tools.
- **Computational Tools for Research in Neuroscience, Behavioral Science and Mental Health: SBIR [R43/R44]**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=14988>
This FOA solicits Small Business Innovation Research (SBIR) grant applications from small business concerns (SBCs) that propose to develop and validate novel, commercializable, computational tools and resources that will aid neuroscientists, behavioral scientists, mental health researchers, or mental health providers in their research or practice. In addition, this FOA solicits grant applications that propose to develop and validate digital approaches that use interactive learning methods to disseminate educational information relevant to mental health, including the areas of behavioral health interventions or assessment tools.
- **Continued Development and Maintenance of Software (R01) Grant**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15724>
Biomedical research laboratories increasingly undertake a software development project to solve a problem of interest specifically related to that laboratory. These software packages sometimes become useful to a much broader community of users that can include translational and clinical researchers. The goal of this program announcement is to support the continued development, maintenance, testing and evaluation of existing software. The proposed work should apply best practices and proven methods for software design, construction, and implementation to extend the applicability of existing biomedical informatics/computational biology software to a broader biomedical research community.
- **ELSI Regular Research Program (R01) Grant**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15741>
This FOA issued by the National Human Genome Research Institute, National Institutes of Health, encourages Research Program Grant (R01) applications from institutions/organizations that propose to study the ethical, legal and social implications (ELSI) of human genome research.
- **ELSI Small Research Grant Program (R03) Grant**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15742>
This FOA issued by the National Human Genome Research Institute, National Institutes of Health, encourages Small Research Grant (R03) applications from institutions/organizations that propose to study the ethical, legal and social implications (ELSI) of human genome research. This announcement is specifically designed to: 1) encourage the development of small, focused research projects by legal, historical, ethics, humanities, social sciences and behavioral scholars; 2) support exploratory studies that may provide preliminary findings or pilot data for larger research proposals; 3) support the secondary analysis of existing data; 4) support the development of new methodologies; and 5) stimulate and facilitate the entry of promising new investigators into ELSI Research.
- **Exploratory Studies in Cancer Detection, Diagnosis, and Prognosis (R21)**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=8796>
The objective of this FOA is to encourage grant applications for exploratory (R21) grants from individuals who are interested in testing new ideas that may advance progress in cancer detection, diagnosis, and prognosis.
- **Integrative Prevention Research for Alcohol Users At-Risk for HIV/AIDS (R21) Grant**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15709>

This FOA issued by the National Institute on Alcohol Abuse and Alcoholism, National Institutes of Health, encourages Exploratory/Developmental Research Project Grant (R21) applications from institutions/ organizations that propose to integrate basic behavioral research and intervention research for the prevention of alcohol-related HIV/AIDS risk.

- **Integrative Prevention Research for Alcohol Users At-Risk for HIV/AIDS (R01) Grant**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15700>

This FOA issued by the National Institute on Alcohol Abuse and Alcoholism, National Institutes of Health, encourages Research Project Grant (R01) applications from institutions/ organizations that propose to integrate basic behavioral research and intervention research for the prevention of alcohol-related HIV/AIDS risk.

- **NIDCD Research Grants for Translating Basic Research into Clinical Tools for Human Health:** (R01) Grant <http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15793>; (R21) Grant <http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15794>

The NIDCD is encouraging applications which translate basic research findings into clinical tools for better human health in the NIDCD mission areas of hearing, balance, smell, taste, voice, speech and language. The intent of this FOA is to provide a new avenue for basic scientists, clinicians and clinical scientists to jointly initiate and conduct translational research projects. The scope of this FOA includes a range of activities to encourage translation of basic research findings which will impact the diagnosis, treatment and prevention of communication disorders. Multi-institutional, multi-disciplinary, and academic-industrial collaborations studies are encouraged. This FOA is not intended for outcome studies, the extension of ongoing clinical research studies, the optimization of current clinical protocols, or pre-translational studies.

- **NIDCR Clinical Trial Planning Grant (R21)**

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=8550>

The goal of this program announcement is to provide support for the development of a comprehensive research protocol for large-scale, multicenter clinical trials. This planning grant provides early peer review of the proposed clinical trial in terms of its rationale, general design, organizational structure and implementation plan. The planning grant is used to support the development of a detailed Manual of Procedures (MOP) and can include preliminary studies to refine study procedures or to document recruitment potential of clinical sites.

- **Nutrition and Diet in the Causation, Prevention, and Management of Heart Failure (R21)**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=8309>

The purpose of this FOA is to encourage submission of investigator-initiated research applications on the role of nutrition and diet in the causation, prevention, and treatment of cardiomyopathies and heart failure. Basic, translational, and applied interdisciplinary research applications with rigorous hypothesis-testing designs for projects in animals or humans are of interest. The overall goal is to develop a satisfactory science base for preventive approaches in high-risk individuals and for rational nutritional management of patients in various stages of heart failure.

- **Prefrontal Cortical Influences on Brain Systems Supporting Complex Mental Function:** (R01) Grant <http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15694>; (R21) Grant <http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15695>

This FOA solicits R01 grant applications that propose to use novel electrophysiological, molecular, genetic and/or imaging techniques in animals to examine the fundamental mechanisms by which regions in the mature and developing prefrontal cortex interact with other cortical and sub cortical systems to give rise to sophisticated behavior and complex mental function (e.g., cognition, emotion, reward, motivation). This FOA seeks applications employing sophisticated approaches that enable precise spatio-temporal manipulation of circuits to better understand how the prefrontal cortex influences the function of these brain networks and their development. It is expected that applications will use non-human primates where the anatomical and functional homology of the prefrontal cortex with humans has been relatively well established. The use of rodents to develop novel approaches to manipulate prefrontal circuitry and examine associated complex behaviors will be considered if these techniques have the clear potential for near-term translation to non-human primates.

- **Programs of Excellence in Scientifically Validated Behavioral Treatment (R25) Grant**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15733>
 Supports curriculum development to train clinician-scientists who can develop, test, and rapidly translate into practice innovative learning-based treatments in the addictive and mental disorders. Program goals are to recognize and enhance current clinical training programs that teach and develop research-based clinical practices and to provide a model for clinician education nationwide.
- **Research on Research Integrity (R03)**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15607>
 This FOA solicits Small (R03) grant applications that propose exploratory research on research integrity, encouraging studies of limited scope that use widely accepted approaches and methods within established disciplines. The Office of Research Integrity (ORI) expects to foster research in areas of study having limited published data to identify clear evidence of problem areas that would benefit from further investigation.
- **Research on Research Integrity (R21)**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15605>
 This FOA solicits Exploratory/Developmental (R21) grant applications that propose exploratory research on research integrity, fostering research in areas of study having limited published data to identify clear evidence of problem areas that would benefit from further investigation.
- **Research on Social Work Practice and Concepts in Health: (R01)**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=12222>; (R03)
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=8456>; (R21)
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=8457>
 The ultimate goal of this FOA is to encourage the development of empirical research on social work practice, concepts and theory as these relate to the NIH public health goal of improving health outcomes for persons with medical and behavioral disorders and conditions.
- **Retirement Economics (R21)**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=8459>
 The research objectives of this FOA include, but are not limited to: (1) the determinants of retirement behavior, (2) the variation in work patterns in later life, (3) the evolution of health and economic circumstances of individuals through retirement and into later life, (4) time use and life satisfaction before and during retirement, (5) the implications of retirement trends, (6) retirement expectations, (7) international comparisons of retirement and (8) the development of innovative retirement modeling techniques.
- **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&oppld=3165>
 Awarded to eligible institutions to develop or enhance research training opportunities for individuals interested in careers in biomedical and behavioral research.
- **Ruth L. Kirschstein National Research Service Awards for Individual Predoctoral Fellows (F31)** <http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=11139>
 The objective of this FOA is to help ensure that highly trained scientists will be available in adequate numbers and in appropriate research areas to carry out the Nation's biomedical, behavioral, and clinical research agenda. The participating Institutes of the National Institutes of Health (NIH) provide individual predoctoral research training fellowship awards to promising doctoral candidates who have the potential to become productive, independent investigators in research fields relevant to the missions of these participating NIH Institutes and Centers.
- **Structural Analyses of the Ligand-Binding Properties of Taste and Smell Receptors (R21)**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=9402>
 This FOA is designed to foster innovative collaborative research to characterize the structural properties of taste and smell receptors. Additional emphasis is placed on the characterization of the interactions among odors, pheromones, and taste substances with their cognate receptors, and the identity of the critical ligand-receptor binding sites that determine sensitivity and selectivity. One aim of this FOA is to encourage collaborations among chemosensory molecular biologists and biochemists with expertise in the isolation and characterization of membrane proteins, and biophysicists familiar with crystallography, NMR and other analytical tools used in structural analyses.

- **Structural Interventions, Alcohol Use, and Risk of HIV/AIDS: (R21)**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=11144>; (RO3)
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=11147>
 This FOA issued by NIAAA solicits Exploratory/Developmental Research Grant (R21) applications from institutions/ organizations that propose to investigate the effectiveness of structural interventions that reduce the risk of HIV/AIDS transmission by changing the environment of alcohol use. Although a variety of structural and environmental interventions have been employed successfully to reduce other drinking-related problems, there has been little research that extends such efforts into the realm of HIV/AIDS risk reduction.
- **Superfund Basic Research and Training Program (P42) Grant**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15731>
 SBRP grants will support coordinated, multi-project, multi- and interdisciplinary research programs to address the mandates legislated under the Superfund Amendments and Reauthorization Act of 1986. These mandates include the development of 1) methods and technologies to detect hazardous substances in the environment; (2) advanced techniques for the detection, assessment, and evaluation of the effect on human health of hazardous substances; (3) methods to assess the risks to human health presented by hazardous substances; and (4) basic biological, chemical, and physical methods to reduce the amount and toxicity of hazardous substances. The objective for the SBRP is to develop a holistic research agenda for the protection of human health. This is accomplished by the establishment of interdisciplinary programs that link and integrate biomedical research with related engineering, hydrogeologic, and ecologic components within the context of unique scientific themes developed by the applicant.
- **Translational Research in Muscular Dystrophy (U01)**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=3307>
 The National Institute of Neurological Disorders and Stroke and the National Institute of Arthritis and Musculoskeletal and Skin Diseases solicit applications for translational research projects in muscular dystrophy. Several emerging pathways to treatment of muscular dystrophy show promise, ranging from palliative therapies that can markedly delay onset or progression of the disease to genetic or stem cell approaches that may reverse or eliminate the condition. The objective of this initiative is to encourage the pursuit of a broad range of translational research strategies for therapeutic development in muscular dystrophy.

Department of Justice (USDJ)

- **Biometric Technologies Concept Paper Solicitation Grant**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15715>
 NIJ is seeking applications for funding the development and evaluation of biometric technologies, or novel applications of biometric technologies, that will reduce crime, enhance law enforcement and corrections officers' ability to correctly identify cooperative and uncooperative individuals, and confirm the identity of individuals in the justice system.
- **Body Armor for Law Enforcement and Corrections Concept Paper Solicitation**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15706>
 NIJ is seeking applications for funding to develop, test, evaluate, and demonstrate technologies in the area of soft body armor (armor with an areal density of 1.1 pounds per square foot or less). Specific areas of interest include: A. Advanced ballistic-resistant materials. B. Nondestructive evaluation of soft body armor. C. Life-cycle exposure protocols and equipment for ballistic-resistant body armor. D. Advanced soft body armor designs. E. Cooling technologies for body armor wearers. F. Evaluation of armor size and gender specification performance. G. Evaluation of clay-backing alternatives for ballistic testing.
- **Communications Technology Concept Paper Solicitation Grant**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15664>
 NIJ is seeking applications to research, develop, and evaluate emerging communication technology solutions for criminal justice agencies. Specific areas of interest include: 1. Cellular detection, location, isolation and defeat. 2. Locator technologies for personnel and equipment assets. 3. Software Defined Radio (SDR) technology. 4. Cognitive radio technology. 5. In-building communications coverage technologies and related information. 6. Alternative, cost-effective technologies for interconnection of repeater sites for voice that also enable wireless data services. 7. Non terrestrial technologies (satellite and airborne). 8. Mobile hybrid

technology for wireless broadband data (i.e., multiprotocol and multiband technology that seamlessly finds best route and operational band).

- **Electronic Crime and Digital Evidence Recovery Concept Paper Solicitation Grant**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=15714>
NIJ is seeking applications for funding to research, develop, and demonstrate emerging digital evidence recovery technology solutions for law enforcement agencies. Specific areas of interest include: 1. Data-carving tools. 2. Peer-to-peer investigative tools for decentralized networks. 3. Comprehensive data acquisition and analysis tools for small-scale devices (e.g., BlackBerrys®, Palm® devices, cell phones, personal data assistants). 4. Comprehensive tools, methods, and cost-effective solutions to address the need for increased data storage capability to accommodate an increasing image archive and the large volume of data produced in computer forensic examinations. 5. Imaging tools for networks and network-attached devices.
- **Forensic DNA Research and Development Concept Paper Solicitation Grant**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=15665>
NIJ is seeking applications for research and development that can enhance the forensic uses of DNA technology. This solicitation focuses on technologies that result in faster, more robust, more informative, less costly, or less labor-intensive identification, collection, preservation, and/or analysis of DNA evidence collected from crime scenes. Priority will be given to proposals focusing on the following: 1. General improvements to the “front end” of the forensic DNA analysis process. 2. Physical separation of the components of a mixture. 3. Body-fluid/cell-type identification and characterization. 4. Identification and/or characterization of biological marker systems that have the potential to reveal additional or more powerful information about the source of the biological evidence. 5. Improved tools for examining aged, degraded, limited, damaged, inhibited, or otherwise compromised DNA evidence. 6. Species differentiation. 7. Novel methods for genetic profiling.
- **Geospatial Technology Concept Paper Solicitation Grant**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=15699>
NIJ is seeking applications for funding research, development, testing, and evaluation initiatives that address the geospatial technology needs of State and local criminal justice and other collaborating agencies. Additionally, NIJ may support—for uses within the law enforcement operational environment—the application of new technologies not developed specifically for law enforcement.
- **Information-Led Policing Research, Technology Development, Testing, and Evaluation Concept Paper Solicitation Grant**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=15701>
NIJ is seeking applications for funding the research, development, testing, and evaluation of information and data technologies that can be used to increase the effectiveness of State and local law enforcement agencies. NIJ is especially interested in applications in one of the following areas: Research and Development • Entity resolution/correlation tools using the Justice Reference Architecture (JRA) and the National Information Exchange Model (NIEM). • Positive identification (ID) technologies and standards for information sharing. • Data analysis tools for multidiscipline data sharing systems. • Real-time geospatial data integration, correlation, and analysis. Testing and Evaluation • Proof-of-concept for matching, scoring, and filtering data for law enforcement. NIJ seeks studies that have the potential to reduce or prevent crime or improve law enforcement policy and practice.
- **Less Lethal Technologies Concept Paper Solicitation**
<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=15677>
NIJ seeks applications for research and development leading to the adoption into practice of safer, more effective less lethal devices by law enforcement and corrections agencies. Such devices are designed for use by law enforcement and corrections officers when: • Lethal force is not appropriate. • Lethal force is justified, but lesser force may be effective. • Lethal force is justified, but its use could cause injury to bystanders or damage to property or the environment. Such devices may achieve the desired effect by temporarily incapacitating, confusing, or delaying an individual. NIJ is interested in both development of such devices and in necessary underlying research leading to such development.

- **Research and Development in Forensic Anthropology and Forensic Odontology Concept Paper Solicitation Grant**

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=15666>

NIJ is seeking applications for funding research and development that can enhance anthropological and odontological methods and/or tools for forensic applications. Priority will be given to applications focusing on the following areas: 1. Identification of remains in mass fatality events. 2. Age and sex determination. 3. Forensic artistry and facial/body reconstruction. 4. Methods for detection of human remains. 5. Identification of ethnicity and/or cultural origins. 6. Novel methods that can enhance forensic tools available for odontologists and dental anthropologists. 7. Biogeochemical markers that can provide information about the origins of skeletal remains. Please Note: Applications focusing on forensic DNA will not be accepted under this solicitation. NIJ offers a separate solicitation for forensic DNA research and development.

- **Research and Development in the Area of Controlled Substances Detection and Analysis Concept Paper Solicitation Grant**

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=15716>

NIJ is seeking applications for funding research and development of tools that can enhance the detection and analysis of controlled substances for criminal justice purposes. Priority will be given to proposals focusing on the following topics: • New tools to detect controlled substances. • Novel chemical methods for the resolution of stereoisomeric controlled substances. • Methods to identify impurity, byproduct, precursor, and intermediate ratios in controlled substances. • Expert systems to improve analysis throughput. • Novel methods to identify new illicit substances. • Novel methods to identify common and new manufacturing methods of controlled substances.

- **Research and Development in the Forensic Analysis of Fire and Arson Evidence Concept Paper Solicitation Grant**

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=15698>

NIJ is seeking applications for funding for research and development in fire and arson investigation for criminal justice purposes. This solicitation is aimed at improving the ability of forensic analysts and investigators to locate and identify probative evidence from fire scenes and to enhance the ability of crime laboratories to analyze fire evidence. NIJ is particularly interested in the following areas: 1. New or improved tools and technologies to aid in interpreting a fire scene. 2. Improved understanding of chemical signatures found at fire scenes (e.g., burn pattern analysis). 3. Improvements in the laboratory analysis of fire debris.

- **Personal Protective Equipment Concept Paper Solicitation Grant**

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=15712>

NIJ is seeking applications for funding to research, develop, and demonstrate technologies that will enhance the safety of law enforcement officers and other criminal justice practitioners. Specific areas of interest include: 1. Improved protective uniforms for motorcycle officers. 2. Officer-deployable traffic control devices. 3. Less toxic materials for latent fingerprint identification/examination. 4. Assessment of long-term workplace exposure to hazardous materials. 5. Traffic-light-mounted sensors to warn motorists of approaching emergency vehicles. 6. Decontamination of service weapons following pathogen exposure.

- **Sensors and Surveillance Technologies Call for Concept Papers**

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=15678>

NIJ solicits proposals to inform its search for the knowledge and tools to guide policy and practice. NIJ is seeking applications for funding research and development of sensor and surveillance technologies to address specific needs in criminal justice. NIJ is particularly interested in the following three areas: 1. Concealed weapons detection (CWD) at a safe distance. 2. Through-the-wall surveillance (TWS) for locating and/or tracking individuals within buildings. 3. Other novel sensor or surveillance technologies, applications, or support functions for specific criminal justice applications. Applicants should clearly identify in their application title and abstract the area to which they are applying (CWD, TWS, or novel).

Department of the Interior (DOI)

U. S. Geological Survey

- **National Spatial Data Infrastructure Cooperative Agreements Program (NSDI CAP) Grant**
<http://www07.grants.gov/search/search.do?mode=VIEW&oppld=39934>

The purpose of the National Spatial Data Infrastructure Cooperative Agreements Program (NSDI CAP) is to fund innovative projects in the geospatial data community to build the infrastructure necessary to effectively discover, access, share, manage, and use digital geographic data.

Environmental Protection Agency (EPA)

- **Source Reduction - Electronics Standards Development Grant Program**

<http://www.grants.gov/search/search.do?mode=VIEW&flag2006=true&oppld=15736>

This competitive announcement is expected to result in the award of one cooperative agreement to support pollution prevention/source reduction and/or resource conservation in the procurement of electronic products, through the development of new environmental standards for electronic products.

National Aeronautics and Space Administration (NASA)

- **ROSES 2007: Terrestrial Hydrology Grant**

<http://www.grants.gov/search/search.do?mode=VIEW&flag2006=true&oppld=15730>

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.

National Endowment for the Arts (NEA)

- **NEA Universal Design Leadership Project FY08 Grant**

<http://www07.grants.gov/search/search.do?mode=VIEW&oppld=39956>

The Arts Endowment seeks to enter into a Cooperative Agreement with an organization that will carry out a project to increase understanding, acceptance, and practice of universal design within the design profession and by the American public. Proposed projects should focus on extending the appeal of universal design from the disability community into the mainstream of American design and American society. The project should educate designers and others including developers, city planners, and consumers on this important issue.

National Endowment for the Humanities (NEH)

- **America's Historical and Cultural Organizations Planning Grants**

<http://www.grants.gov/search/search.do?mode=VIEW&flag2006=true&oppld=15725>

Supports traveling or long-term museum exhibitions, library-based projects, interpretation of historic places or areas, interpretive Web sites, or other project formats that creatively engage audiences in exploring humanities ideas and questions. Planning grants can be used to plan, refine, and develop the content and interpretive approach of a project.

- **America's Historical and Cultural Organizations Implementation Grants**

<http://www.grants.gov/search/search.do?mode=VIEW&flag2006=true&oppld=15726>

Supports traveling or long-term museum exhibitions, library-based projects, interpretation of historic places or areas, interpretive Web sites, or other program formats that creatively engage audiences in exploring humanities ideas and questions.

- **Interpreting America's Historic Places Planning Grants**

<http://www.grants.gov/search/search.do?mode=VIEW&flag2006=true&oppld=15790>

As part of the NEH's We the People program, Interpreting America's Historic Places grants support public humanities projects that exploit the evocative power of historic places to address themes and issues central to American history and culture, including those that advance knowledge of how the founding principles of the United States have shaped American history and culture for more than two hundred years. Interpreting America's Historic Places planning grants support planning that leads to the interpretation of a single historic site or house, a series of sites, an entire neighborhood, a town or community, or a larger geographical region.

- **Interpreting America's Historic Places Implementation Grants**

<http://www.grants.gov/search/search.do?mode=VIEW&flag2006=true&oppld=15791>

As part of the NEH's We the People program, Interpreting America's Historic Places grants support public humanities projects that exploit the evocative power of historic places to address themes and issues central to American history and culture, including those that advance knowledge of how the founding principles of the United States have shaped American history and culture for more than two hundred years. Interpreting America's Historic Places projects may interpret a single historic site or house, a series of sites, an entire neighborhood, a town or community, or a larger geographical region.

National Science Foundation (NSF)

- **Chemistry Research Instrumentation and Facilities Grant**

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15795>

The Division of Chemistry of the National Science Foundation (NSF), under the umbrella of the Chemistry Research Instrumentation and Facilities Program (CRIF), has provided support to research institutions and consortia for the establishment of regional or national instrumentation facilities, the purchase of departmental research instrumentation, and the development of state-of-the-art equipment. In FY05, the instrumentation facilities component of the CRIF Program was expanded to address the growing importance of cyber-enabled chemistry in the research endeavor. Preference will be given to cyber-enabled chemistry proposals that are distinct from the projects represented by the FY05 and FY06 awards (CHE-0535542; CHE-0535640; CHE-0535656; CHE-0535710; CHE-0625419; CHE-0626111; CHE-0626305; CHE-0626354). The Chemistry Research Instrumentation and Facilities: Cyberinfrastructure and Research Facilities (CRIF:CRF) Program provides funding to build a foundation for cyber-enabled chemical research and education, and to establish and support multi-user instrumentation research facilities with unique capabilities in the chemical sciences. This is structured to enable NSF, through its Division of Chemistry, to respond to a variety of needs for infrastructure to support basic research and education in chemistry.

- **Discovery Research K-12 Grant**

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15734>

The Discovery Research K-12 (DR-K12) program seeks to enable significant advances in K-12 student and teacher learning of the STEM disciplines through research about, and development and implementation of, innovative resources, models, and technologies for use by students, teachers, and policy makers. Activities funded under this solicitation begin with a research question or hypothesis about K-12 STEM learning or teaching; develop, adapt, or study innovative resources, models, or technologies; and demonstrate if, how, for whom, and why their implementation affects learning. This solicitation calls for proposals that are responsive to either the Contextual Challenges strand or the Frontier Challenges strand. The former invites proposals that address the more immediate and pressing challenges facing K-12 STEM education at the national level. The latter anticipates opportunities for the future and supports initiatives on the frontiers of knowledge which challenge existing assumptions about learning and teaching within or across STEM fields, envision needs of learners in 10 to 15 years, and consider new and innovative ways to reach learners. Within these strands, the program calls for full research and development projects, exploratory projects, and synthesis projects.

- **Electronics, Photonics and Device Technologies (EPDT)**

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=7634>

The Electronics, Photonics and Device Technologies (EPDT) program seeks to improve the fundamental understanding of devices and components based on the principles of electronics, photonics, magnetics, organics, electro-optics, electromechanics, and related physical phenomena. The program invests in advancing the frontiers of spin electronics, molecular electronics, bioelectronics, silicon nanoelectronics and beyond, nonsilicon electronics, flexible electronics, optoelectronics, microwave photonics, MEMS/NEMS, power electronics, and mixed signal devices. EPDT further supports related topics in quantum engineering and novel electromagnetic materials-based device solutions, RF integrated circuits, and reconfigurable antennas needed for telecommunications, telemedicine, and other wireless applications. ECCS will continue its support of tools for manipulation and measurement with nanoscale precision. Areas of interest include: Bioelectronics, Flexible Electronics, MEMS/NEMS, Micromagnetics, Microelectronics, Microwave Photonics, Molecular Electronics, Nano-Electronics/Photonics/Magnetics, Optoelectronics, Power Electronics, Sensors and Actuators,

Spin Electronics. ECCS will provide additional emphasis on emerging areas such as: Diagnostic and Implantable Devices.

- **Infrastructure Materials Applications and Structural Mechanics**

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=7661>

The Infrastructure Materials and Structural Mechanics programs supports research to advance the knowledge base on: properties and application of advanced structural materials; repair, retrofit, and rehabilitation of structural components; and durability of structural materials and components, including effects derived from interaction with the natural and constructed environment; innovations and constitutive characterization of new construction materials; and the behavior of infrastructure materials and structural components.

- **Integrative Hybrid and Complex Systems (IHCS)**

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=1255>

The Integrative, Hybrid and Complex Systems (IHCS) program supports innovative research in areas that integrate device concepts and systems principles in the design, development and implementation of new nano/micro/macro hybrid and complex systems with engineering solutions for domain specific applications. Hybrid systems incorporating both continuous and discrete representations are of increasing interest in the study of distributed networks. Proposals are sought that address fundamental research issues associated with modeling, design, simulation and development of engineering systems with applications in telecommunications, homeland security, biotechnology and manufacturing.

- **Major Research Instrumentation Program Grant**

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15759>

This program is designed to increase access to scientific and engineering equipment for research and research training in our Nation's organizations of higher education, research museums, and non-profit research organizations. It seeks to improve the quality and expand the scope of research and research training in science and engineering, and to foster the integration of research and education by providing instrumentation for research-intensive learning environments. The MRI program encourages the development and acquisition of research instrumentation for shared inter- and/or intra-organizational use and in concert with private sector partners. The MRI program assists in the acquisition or development of major research instrumentation that is, in general, too costly for support through other NSF programs. For proposals over \$2 million, requests must be for the acquisition of a single instrument. For proposals requesting \$2 million or less, investigators may seek support for instrument development or for acquisition of a single instrument, a large system of instruments, or multiple instruments that share a common or specific research focus.

- **Manufacturing Enterprise Systems**

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=10771>

This program addresses research on design, planning and control of operations in manufacturing enterprises, from shop floors to the associated procurement and distribution supply chains. Contributions should impact and extend the range of analytical and computational techniques addressed to extended enterprise operations, and/or advance novel models offering policy insights or the prospect of implementable solutions. Among the categories of research supported are the following: Analytical and computational tools and systems for planning, monitoring, control, and scheduling of manufacturing and distribution operations; methods for personnel planning; methods for evaluation, comparison, and optimization of designs for manufacturing systems and facilities, especially in the presence of massive uncertainty and risk about the operating environment.

- **Materials Processing and Manufacturing**

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=7640>

Novel processing methodologies or the processing of new materials can open up opportunities for new product development, for research leading to next-generation machines, for improvements in product performance and cost, and for minimizing the environmental impact through the complete life-cycle. The MPM Program advances the fundamental knowledge base that is needed for the realization of desired product attributes through the application of the systematic integration of processing - material- performance relationships. It supports analytical and experimental research that leads to the generation of such fundamental

knowledge. MPM also supports research activities that incorporate connectivity of this materials processing knowledge to sensing systems for process control.

- **Methodology, Measurement, and Statistics (MMS)**

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=9673>

The MMS Program is an interdisciplinary program that supports the development of innovative methods and models for the social and behavioral sciences. This program interacts with the other programs in the Directorate for Social, Behavioral, and Economic Sciences (SBE), as well as other programs in the Foundation, most notably the Statistics and Probability Program in the Directorate for Mathematical and Physical Sciences (MPS). In general, MMS seeks proposals that are interdisciplinary in nature, methodologically innovative, and grounded in theory. The MMS Program welcomes proposals in the following areas: general research and infrastructure activities; mid-career research fellowships; research on survey and statistical methodology; and doctoral dissertation research.

- **NanoManufacturing**

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=7641>

The NanoManufacturing Program was established in 2001 to promote fundamental research and education at the nanoscale and to transfer developments in nanoscience and nanotechnology discoveries from the laboratory to industrial application with prominent societal impacts. The program emphasizes scale-up of nanotechnology for high rate production, reliability, robustness, yield, efficiency and cost issues for manufacturing products and services. NanoManufacturing capitalizes on the special material properties and processing capabilities at the nanoscale, and promotes integration of nanostructures to functional micro devices and meso/macroscale architectures and systems, as well as the interfacing issues across dimensional scales. The program covers interdisciplinary research and promotes multi-functionality across all energetic domains, including mechanical, thermal, fluidic, chemical, biochemical, electromagnetic, optical etc. The focus of NanoManufacturing is in a systems approach, encompassing nanoscale materials and structures, fabrication and integration processes, production equipment and characterization instrumentation, theory/modeling/simulation and control tools, biomimetic design and integration of multiscale functional systems, and industrial application. The program places special emphasis in NanoManufacturing education and training of the workforce, involvement of socio-economic sciences, addressing the health, safety and environmental implications, development of manufacturing infrastructure, as well as outreach and synergy of the academic, industrial, federal and international community.

- **Operations Research**

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=10775>

The Operations Research program (OR) seeks to support research leading to fundamental advances in the science of models and algorithms arising in the study of operations of large scale systems. This program will support research in three main directions: optimization, simulation and stochastic models, and novel enterprise-wide models based on integrating OR methodology with advanced high-end computing. Overall emphasis of the program is on research that improves modeling and computational capabilities in OR. Proposals must also make the case for potential impact on relevant engineering, managerial and/or scientific applications.

- **Pan-American Advanced Studies Institutes Program Grant**

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15711>

The Pan American Advanced Study Institutes (PASI) Program is a jointly supported initiative between the DOE and the NSF. Pan American Advanced Studies Institutes are short courses ranging in length from ten days to one month duration, involving lectures, demonstrations, research seminars and discussions at the advanced graduate and post-doctoral level. PASIs aim to disseminate advanced scientific and engineering knowledge and stimulate training and cooperation among researchers of the Americas in the mathematical, physical, and biological sciences, and in engineering fields. Whenever feasible, an interdisciplinary approach is recommended.

- **Postdoctoral Fellowships in Polar Regions Research Grant**

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppld=15667>

The Postdoctoral Fellowships in Polar Regions Research program supports training and research for recent doctoral degree recipients in any aspect of scientific study of the Antarctic and/or the Arctic within the Office of Polar Programs (OPP) program areas. The program also provides travel grants to those eligible for fellowships for the purpose of meeting prospective mentors and colleagues, presenting seminars, discussing mutual research and/or education interests, evaluating facilities and professional development opportunities, and initiating collaborative relationships. The fellowship program develops and trains recent Ph.D.s (especially those new to polar research) with concomitant goals to promote scientific research in polar regions; support innovative research in emerging areas; encourage interdisciplinary research; support and promote awareness of International Polar Year research and education activities; foster activities that create broader impacts for science and society; and increase the participation of under-represented groups in polar regions research.

- **Power, Controls and Adaptive Networks**

<http://www.grants.gov/search/search.do?&mode=VIEW&flag2006=true&oppId=10666>

The PCAN program supports creative research and education underlying the analysis and design of intelligent engineering networks for control, communications, computation and energy. Proposals leading to improved methods for multi-scale modeling, learning, optimization, reliability, security and robustness of complex dynamical systems are of interest. Distributed networks occur in telecommunications, Internet, power and energy, transportation and manufacturing. Adaptive, learning and self-organizing principles offer potential for improved performance of networks with uncertain models and changing characteristics. Topics of interest include adaptive dynamic programming, reinforced learning, pattern recognition, and intelligent agents to develop brain-like networked architectures performing real-time learning using sensors and actuators. The program also invites proposals dealing with control theory in bioelectronics, including molecular biology, genomics, biotechnology and robotics. In addition, areas of interest include computational video and imaging, integrated sensor networks, autonomic communication networks, quantum computing, embedded control, and measurement and control of micro-scale and nano-scale devices and systems. The program also covers all aspects of transmission, distribution and generation of electric power, including operations, communications, reliability, electric machines, power electronics and drives. The program further includes integration of renewable and distributed energy systems, such as fuel cells, solar cells, wind power and micro-turbines into large power networks. Understanding of regulatory and economic structures for power grids and critical infrastructures is needed to support the 21st Century economy. The program supports the development of innovative architectures for multi-scale modeling. Areas of interest include: Adaptive Dynamic Programming; Embedded, Distributed and Adaptive Control; Power and Energy Networks; Quantum Modeling and Simulation of Devices and Systems; Sensing and Imaging Networks; and Telerobotics.