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Research Opportunities Compiled by:

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Opportunity #1

**Cooperative Ecosystem Studies Unit
Department of the Interior
10HQPA0037**

Description: The USGS is issuing a funding opportunity to fund research into identifying and evaluating environmental indicators and measures that are predictors of disease. The recipient will examine the relationships between water availability, quality and health indicators including pregnancy outcomes, gastrointestinal disease, parasitic disease, and morbidity and mortality of diarrhea particularly among the very young (children less than 6 years of age) and the elderly. This goal will be undertaken with input from the communities, by use of existing data to evaluate indicators and through the collection and analysis of new information to evaluate indicator stability. People, businesses, industry and society can thrive only if there is a dependable source of high quality water. Overuse of limited aquifers and recent drought threaten water availability and quality throughout Northern Sonora and Southern Arizona.

Link to Full Announcement:

<http://www07.grants.gov/search/announce.do;jsessionid=nkYVLp0Xs1yJKpftJnvCv1nMYYVSxpf2B2FThNsG0spTN28ypff9!-1299818899>

Opportunity #2

Radiochemistry and Radionuclide Imaging Instrumentation Research Department of Energy – Chicago Service Center DE-FOA-0000265

Description: The Office of Biological and Environmental Research (BER) of the Office of Science (SC), U.S. Department of Energy (DOE) advances world-class biological and environmental research programs and scientific facilities for DOE missions in energy, environment, and basic research. The Radiochemistry and Radionuclide Imaging Instrumentation Research program within BER, supports fundamental research for developing new methodologies for real-time, high-resolution imaging of dynamic biological processes in living systems. This research has two integrated goals: First, the research supports the DOE Science mission-related activities in bioenergy and bioremediation; Second, the fundamental methodologies developed under DOE-funded research may serve as tools leading to transformational new technologies for use in nuclear medicine research and applications supported by NIH and industry. Applicants are encouraged to meet these two goals. Responses to this Funding Opportunity Announcement (FOA) should address the development and use of highly innovative radiotracer chemistry or instrumentation technologies for quantitative in vivo measurement of site-specific chemical reactions, their spatial distributions and metabolic perturbations, and ensuing biological processes with a high degree of accuracy and sensitivity. BER hereby announces its interest in receiving applications for research grants in two topic areas,

- Radiochemistry and
- Radionuclide Imaging Instrumentation. In the area of Radiochemistry

BER invites applications for fundamental research to improve synthetic methodology for rapidly and efficiently incorporating radionuclides into a wide range of organic molecules. Approaches should use methods that allow dual or multiple labeling of targeting molecules for dual energy or hybrid imaging techniques in intact living systems and/or in vivo models. Development of microfluidics for synthesis and purification are also appropriate. In the area of Radionuclide Imaging Instrumentation, BER invites applications to design and develop new or improved radionuclide detection and imaging instrumentation. These improvements should significantly increase the accuracy of quantitative assessments of the three dimensional spatial and temporal distribution of radiotracers in living systems, allow the screening of large numbers of intact living systems (e.g. plants), or the screening of cells to identify desirable characteristics. Development of instruments which allow simultaneous examination of biological systems using different modalities to improve understanding is also encouraged. Applications should focus on basic research that will significantly advance the current state of the science underpinning biological systems of importance to the mission of the DOE, and which may also have application in nuclear medicine.

Link to Full Announcement:

https://www.fedconnect.net/FedConnect/PublicPages/PublicSearch/Public_Opportunities.aspx

Opportunity #3

Rehabilitation Research and Training Centers (RRTCs)--Enhancing the Health and Wellness of Individuals with Arthritis CFDA 84.133B-7 Department of Education ED-GRANTS-020210-001

Description: Each funding opportunity description is a synopsis of information in the Federal Register application notice. For specific information about eligibility, please see the official application notice. The official version of this document is the document published in the Federal Register. Free Internet access to the official edition of the Federal Register and the Code of Federal Regulations is available on GPO Access at:

<http://www.access.gpo.gov/nara/index.html> . Please review the official application notice for pre-application and application requirements, application submission information, performance measures, priorities and program contact information.

The purpose of the RRTC program is to improve the effectiveness of services authorized under the Rehabilitation Act of 1973, as amended, through advanced research, training, technical assistance, and dissemination activities in general problem areas, as specified by NIDRR. Such activities are designed to benefit rehabilitation service providers, individuals with disabilities, and the family members or other authorized representatives of individuals with disabilities. Additional information on the RRTC program can be found at: <http://www.ed.gov/rschstat/research/pubs/res-program.html#RRTC> .

Link to Full Announcement:

<http://edocket.access.gpo.gov/2010/pdf/2010-2184.pdf>

Opportunity #4

NIJ 2010 Building and Enhancing Criminal Justice Researcher-Practitioner Partnerships
National Institute of Justice
NIJ-2010-2427

Description: NIJ is interested in funding multiple projects in support of criminal justice researcher-practitioner partnerships, as well as capturing, in detail, relevant accounts of these collaborations. Such partnerships have frequently been encouraged in solicitations for research. However, this solicitation specifically aims to support activities that capture and build on these efforts and that provide opportunities for creating, enhancing, and sustaining criminal justice researcher-practitioner partnerships that will lead to better criminal justice policy, practice, and research. For the purpose of this solicitation, a practitioner or criminal justice practitioner refers to those persons working in public-, private-, or community-based agencies related to law enforcement; corrections, including parole, probation, and offender reentry; the criminal judicial system; or crime victim services. Similarly, practice-based organizations or agencies refers to public-, private-, or community-based criminal justice agencies.

Link to Full Announcement:

<http://www.ncjrs.gov/pdffiles1/nij/sl000899.pdf>

Opportunity #5

NIJ Ph.D. Graduate Research Fellowship Program FY 2010
National Institute of Justice
NIJ-2010-2429

Description: The NIJ Ph.D. Graduate Research Fellowship (GRF) program provides awards for research on crime, violence, and other criminal justice-related topics to accredited universities that support graduate study leading to research-based doctoral degrees. NIJ invests in doctoral education by supporting universities that sponsor students who demonstrate the potential to successfully complete doctoral degree programs in disciplines relevant to the mission of NIJ. Applicants sponsoring doctoral students in policy and health sciences or in an education field are eligible to apply only if the doctoral research dissertation is in an NIJ-supported discipline (i.e., social and behavioral sciences, operations technology, information and sensors research and development, and investigative and forensic sciences).

Link to Full Announcement:

<http://www.ncjrs.gov/pdffiles1/nij/sl000923.pdf>

Opportunity #6

Notice of Limited Competition Availability of Recovery Act Funds for NCMHD Competitive Revision Applications to Support Comparative Effectiveness Research for Eliminating Disparities (CERED) DHHS – NIH NOT-MD-10-002

Description: The National Center on Minority Health and Health Disparities (NCMHD) in partnership with the Office of Minority Health (OMH), Office of Public Health and Science, Department of Health and Human Services (HHS) announces the availability of \$7.0 million in FY 2010 for institutions/organizations with active NCMHD-supported Exploratory Centers of Excellence (P20) and Comprehensive Centers of Excellence (P60) grants to submit revision applications (formerly termed competitive supplements) to support the establishment of Centers of Excellence for conducting Comparative Effectiveness Research for Eliminating Disparities (CERED). Support for these revision applications will come from funds provided through the American Recovery and Reinvestment Act of 2009 (“Recovery Act” or “ARRA”), Public Law 111-5 for comparative effectiveness research (CER). The Recovery Act was signed into law on February 17, 2009 with the purpose of stimulating the American economy through job preservation and creation, infrastructure investment, energy efficiency and science, and other means. The Recovery Act appropriated \$1.1 billion to support CER. Of that total, \$400 million is to be allocated at the discretion of the Secretary of HHS for a variety of comparative effectiveness research projects and related activities. This funding opportunity for revisions is one part of the overall HHS Recovery Act investment strategy, as described at www.hhs.gov/recovery and will be funded from the \$400 million allocated to the Secretary. This Notice is a collaboration between OMH, Office of Public Health and Science and NCMHD, National Institutes of Health and will jointly evaluate the scientific progress of the participants in this initiative following standard NIH policies and procedures.

For the purposes of this funding opportunity, the definition of comparative effectiveness research will adhere to that adopted by the Federal Coordinating Council, which can be found at <http://www.hhs.gov/recovery/programs/cer/execsummary.html>: “Comparative effectiveness research is the conduct and synthesis of research comparing the benefits and harms of different interventions and strategies to prevent, diagnose, treat and monitor health conditions in ‘real world’ settings. The purpose of this research is to improve health outcomes by developing and disseminating evidence-based information to patients, clinicians, and other decision-makers, responding to their expressed needs, about which interventions are most effective for which patients under specific circumstances.

- To provide this information, comparative effectiveness research must assess a comprehensive array of health-related outcomes for diverse patient populations and subgroups.
- Defined interventions compared may include medications, procedures, medical and assistive devices and technologies, diagnostic testing, behavioral change, and delivery system strategies.
- This research necessitates the development, expansion, and use of a variety of data sources and methods to assess comparative effectiveness and actively disseminate the results.”

Priority-Setting Process and Inputs for Use of ARRA OS Funds

There were four main inputs for priorities for ARRA OS comparative effectiveness research funds: public input, an internal Departmental workgroup, the Federal Coordinating Council (FCC) report, and the Institute of Medicine (IOM) report. The FCC identified the following as minimum threshold criteria which must be met to be considered for funding:

- 1) Included within statutory limits of ARRA and the Council’s definition of comparative effectiveness research;
- 2) Potential to inform decision-making by patients, clinicians or other stakeholders;
- 3) Responsiveness to expressed needs of patients, clinicians or other stakeholders;
- 4) Feasibility of research topic (including time necessary for research).

The Comparative Effectiveness Research-Coordination and Implementation Team (CER-CIT) will require the use of the FCC’s prioritization criteria for scientifically meritorious research and investments for all projects funded with OS ARRA funds. These criteria are:

- 1) Potential impact (based on prevalence of condition, burden of disease, variability in outcomes, costs, potential for increased patient benefit or decreased harm),
- 2) Potential to evaluate comparative effectiveness in diverse populations and patient sub-groups and engage communities in research,
- 3) Addresses existing uncertainty within the clinical and public health communities regarding management decisions and variability in practice,
- 4) Addresses a need or is unlikely to be addressed through other organizations,
- 5) Potential for multiplicative effect.

Finally, investments funded from this appropriation must address at least one of the following topic areas:

- 1) One of the 100 IOM recommendations;
<http://www.iom.edu/~media/Files/Report%20Files/2009/ComparativeEffectivenessResearchPriorities/Stand%20Alone%20List%20of%20100%20CER%20Priorities%20-%20for%20web.ashx>
- 2) An issue within one the MMA 14 Priority Conditions identified by AHRQ (pursuant to Section 1013 of the Medicare Prescription Drug Improvement and Modernization Act of 2003) which are not currently addressed; and/or
- 3) Fall into one of the AHRQ identified evidence gaps.

A current list of priority conditions includes:

- Arthritis and non-traumatic joint disorders
- Cancer
- Cardiovascular disease, including stroke and hypertension
- Dementia, including Alzheimer's disease
- Depression and other mental health
- Developmental delays, attention-deficit hyperactivity disorder, and autism
- Diabetes mellitus
- Functional limitations and disability
- Infectious diseases including HIV/AIDS
- Obesity
- Peptic ulcer disease and dyspepsia (digestive system conditions)
- Pregnancy including preterm birth
- Pulmonary disease/asthma
- Substance abuse disorders

Link to Full Announcement:

<http://grants1.nih.gov/grants/guide/notice-files/NOT-MD-10-002.html>

Opportunity #7**DoD Prostate Cancer Exploration-Hypothesis Development Award
Department of Defense - Dept. of the Army -- USAMRAA
W81XWH-10-PCRP-EHDA**

Description: The PCRP Exploration – Hypothesis Development Award was introduced in FY03. Since then, 665 applications have been received, and 115 have been recommended for funding. The Exploration – Hypothesis Development Award supports the exploration of highly innovative, untested, high-risk/high-gain concepts, theories, paradigms, and/or methods that address an important problem in prostate cancer. Results of studies conducted through this award may provide the scientific rationale upon which a new hypothesis can be based, or initial proof-of-principle of an innovative hypothesis. This award is designed to provide investigators the opportunity to pursue serendipitous observations that may reveal entirely new avenues for investigation. Presentation of preliminary data is not allowed. However, logical reasoning and a sound scientific rationale for the proposed work must be provided. Because these awards are designed for preliminary investigations, projects involving human subjects or specimens will not be supported unless they are exempt under 32 CFR 219.101(b) or eligible for expedited review (32 CFR 219.110 or 21 CFR 56.110). Additional information on the protection of human subjects and exempt or expedited review status may be found at [https://www.bids.tswg.gov/TSWG/bids.nsf/5DD5E2BA50F02C18852572B1005F5B8B/\\$file/Title_32_CFR_Part_219.pdf](https://www.bids.tswg.gov/TSWG/bids.nsf/5DD5E2BA50F02C18852572B1005F5B8B/$file/Title_32_CFR_Part_219.pdf)). Applications proposing studies that do not qualify for exempt or expedited review status will be administratively withdrawn.

Link to Full Announcement:

<http://www07.grants.gov/search/announce.do;jsessionid=nkYVLp0Xs1yJKpftJnvCv1nMYYVSxpf2B2FThNsG0spTN28ypff9I-1299818899>

Opportunity #8

DoD Prostate Cancer Research Program Impact Award Department of Defense - Dept. of the Army -- USAMRAA W81XWH-10-PCRP-IA

Description: This funding opportunity requires the submission of a pre-proposal (pre-application). Pre-proposal submissions are described in the Program Announcement and are due no later than 5:00 p.m. Eastern time (ET), March 17, 2010. Application submissions are by invitation only, following pre-proposal screening. The PCRP Impact Award mechanism is being offered for the first time in FY10. This award will support research projects specifically focused on making a major impact on one critical issue in prostate cancer: Reducing or eliminating the over-treatment of primary prostate cancer. Projects funded by this award will, if successful, ultimately change the standard of practice for decision-making in the treatment of primary prostate cancer. Studies conducted under the Impact Award may involve the development of surveillance mechanisms, including improvements in current clinical and diagnostic tools to monitor prostate cancer patients. Proposed projects may include basic, translational, or clinical research, including clinical trials, provided the overall project is hypothesis-based and focused on the problem of prostate cancer over-treatment. It is expected that clinical studies would include longitudinal follow-up to differentiate, at the time of diagnosis, between patients whose disease is indolent and those whose disease will progress to the lethal phenotype. It is anticipated that studies supported by the Impact Award will facilitate assessment of the decision-making process for early stage prostate cancer using clinically relevant endpoints such as progression and need for treatment. Research proposed under the Impact Award may include, but is not limited to, the following topic areas that will address the over-treatment of primary prostate cancer:

- Active surveillance (e.g., to standardize inclusion/exclusion criteria)
- Biomarkers • Genetic Analysis
- Improved staging and grading, to include imaging
- Optimal measures for decision making pre- and post biopsy
- Optimal measures for follow-up and assessment of progression
- Cancer care outcomes research (e.g., quality of life, survivorship) and surveillance

Principal Investigators (PIs) applying for the Impact Award are expected to establish a multi-disciplinary study team that may include a variety of clinical specialists to effectively address the proposed question. A robust statistical plan and statistical expertise should be included in the proposed investigation. Due to this award's emphasis on impact, applications must include preliminary data to support feasibility of the study. Any preliminary data provided should be from the laboratory of the PI or member(s) of the research team. Research involving human subjects, including clinical trials, is permitted under this Program Announcement/Funding Opportunity. If the proposed study involves clinical research (including clinical trials), it is expected that regulatory approval will be obtained and the research initiated within the first year of the award. Refer to the General Application Instructions, Appendix 5, for additional information about studies involving human subjects, human subjects data, or human anatomical substances. DOD FY10 Prostate Cancer Impact Award 4 It is the responsibility of the PI to clearly and explicitly articulate how the project addresses the following important aspects of the Impact Award: Research Question: Research proposed under the Impact Award must specifically address the reduction or elimination of over-treatment of primary prostate cancer. The proposed work must be based on a sound overall research strategy and may be from any discipline or combination of disciplines. If the study proposed is addressed from a population-based perspective, applications should include a clearly defined population and evidence of appropriate access to the population. Impact: The proposed research must have the potential to revolutionize clinical care of prostate cancer such that the over-treatment of primary disease will be significantly reduced or eliminated.

Link to Full Announcement:

<http://www07.grants.gov/search/announce.do;jsessionid=nkYVLp0Xs1yJKpftJnvCv1nMYYVSxpf2B2FThNsG0spTN28ypff9!-1299818899>