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**Research Opportunities Compiled by:**

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**Opportunity #1**

**Atmospheric System Research  
Department of Energy  
DE-FOA-0000291**

**Description:** The Office of Biological and Environmental Research (BER) of the Office of Science (SC), U.S. Department of Energy (DOE), hereby announces its interest in receiving applications to develop innovative laboratory and observational data analyses and to utilize the resulting knowledge from such analyses to improve cloud and aerosol formulations in global climate models. The intent is to improve the understanding and modeling of cloud and aerosol properties and processes and their impact on the atmospheric radiation balance. The research areas of interest include the development or improvement of algorithms for retrieving the required atmospheric parameters from Atmospheric Radiation Measurement (ARM) instruments; alternatively, developing instrument simulators to facilitate more accurate intercomparison of measurements with modeling data; studies utilizing ARM data and Atmospheric Science Program (ASP) measurements to improve the understanding of cloud, aerosol, and radiation physical processes; and, the translation of process study results to improve or develop formulations for the respective processes to improve climate model simulations. If the application is successful, the research would be part of the Atmospheric System Research (ASR) Program in the Climate and Environmental Sciences Division (CESD). The ASR Program was established in FY2010 by merger of the former ARM Science Program and the ASP; it is one of several DOE programs in the interagency U.S. Global Change Research Program (USGCRP). The mission of ASR <http://asr.science.energy.gov/>, in partnership with the ARM Climate Research Facility (ACRF), is to quantify the interactions among aerosols, clouds, precipitation, radiation, dynamics, and thermodynamics to improve fundamental process-level understanding, with the ultimate goal to reduce the uncertainty in global climate simulations and projections.

**Link to Full Announcement:**

[https://www.fedconnect.net/FedConnect/PublicPages/PublicSearch/Public\\_OpportunitySummary.aspx?doc=DE-FOA-0000291&agency=DOE](https://www.fedconnect.net/FedConnect/PublicPages/PublicSearch/Public_OpportunitySummary.aspx?doc=DE-FOA-0000291&agency=DOE)

**Opportunity #2**

**Recovery (ARRA) CHARN Research Node Centers  
DHHS – HRSA  
HRSA-10-212**

**Description:** The Community Health Applied Research Network (CHARN) is being established in response to the funding opportunities made available under the Recovery Act for Comparative Effectiveness Research (CER) Data Infrastructure. The CHARN will be comprised of four Research Nodes and a Central Data Management Coordinating Center (CDMCC). Research Nodes are health center-led consortia of safety net providers in partnership with one or more academic institutions and will be funded through four separate cooperative agreements. This funding announcement is for four Research Node Centers to support the four Research Nodes. Each Research Node Center will serve as the coordinating arm of the Research Node and will maintain a research partnership with the other affiliate organizations within the Research Node. Support for the Research Node will include arranging and managing the participation of at least 3 affiliates, maintaining scientific and technical personnel for research protocol development and implementation, coordinating intra-node activities, and providing resources for intra-node activities.

**Link to Full Announcement:**

<https://grants.hrsa.gov/webExternal/SFO.asp?ID=BCC67B6F-435F-4FF6-AA78-E01EA0D39783>

**Opportunity #3****Postconviction DNA Testing Assistance Program  
National Institute of Justice  
NIJ-2010-2417**

**Description:** The National Institute of Justice (NIJ) is the research, development and evaluation agency of the U.S. Department of Justice (DOJ) and a component of the Office of Justice Programs (OJP). NIJ provides objective, independent, evidence-based knowledge and tools to enhance the administration of justice and public safety. NIJ solicits proposals to inform its search for the knowledge and tools to guide policy and practice. NIJ is seeking applications from States wishing to receive funding to help defray the costs associated with postconviction DNA testing of forcible rape, murder, and non-negligent manslaughter cases in which actual innocence might be demonstrated. Funds may be used to review such postconviction cases and to locate and analyze biological evidence associated with these cases. Postconviction DNA testing has received considerable attention in recent years. Since the advent of forensic DNA analysis, a number of people convicted of crimes have been subsequently exonerated through DNA analysis of crime scene evidence that was not tested at the time of trial. Additionally, newer technologies have substantially increased the successful DNA analysis of aged, degraded, limited, or otherwise compromised biological evidence. As a result, crime scene samples once thought to be unsuitable for testing in the past may now yield DNA profiles. Moreover, samples that previously generated inconclusive DNA results may now be amenable to reanalysis using newer methods.

**Link to Full Announcement:**

<http://www.ncjrs.gov/pdffiles1/nij/sI000922.pdf>

#### Opportunity #4

#### Enabling Partnerships to Enable Science ("Tools") National Science Foundation – Dear Colleague NSF 10-028

**Dear Colleague:** The Division of Integrative Organismal Systems (IOS) in the Biological Sciences Directorate recognizes the need for resource and tool development to stimulate progress across all areas of biology supported by IOS. Therefore, in FY 2010, IOS is augmenting funding to support the collaborative development of enabling tools and resources. Examples of such needs might include, but are not limited to:

- High-throughput measurements on individual organisms in laboratory and field settings
- High-accuracy measurements in the field
- Wireless data collection
- Imaging of live organisms and associated analysis tools
- Data analysis tools
- Genomic resources

IOS Principal Investigators (PIs) would benefit greatly from new tools and resources that could be developed for use in their research. PIs who are developing tools and resources, and who may wish to collaborate with IOS scientists, often lack strong collaborative connections to potential end-users. This hinders their ability to discuss specific end-user needs as tools are being developed, and limits understanding of the common characteristics of tools and resources that are needed across the discipline. Accordingly, NSF intends to use a Wiki, a social networking vehicle, to facilitate and increase the number of collaborations between end-users and investigators who develop tools and resources, and to promote downstream dissemination and development of outcomes. On the Wiki, principal investigators will be able to describe their needs for tools and resources, and others will be able to describe their expertise and interest in developing such resources.

Potential applicants are strongly encouraged to register for the Wiki to take advantage of the opportunity to network with potential collaborators. The Wiki will be accessible at <https://extwiki.nsf.gov/signup.action> for first-time users who must register for an account. Once registered, users will be directed to the main page of the NSF Wiki. From the main page menu, users should click the link for this activity to access the Home page for "Tools." Users will then need to read and agree to the Terms and Conditions for use of the "Tools" Wiki space before gaining access. Registered users with an account may access the "Users and Developers Comments" page at <https://extwiki.nsf.gov/display/tools/USER+and+DEVELOPER+Comments>

Interested investigators are encouraged to submit Grants for Rapid Response Research (RAPID) or Early Concept Grants for Exploratory Research (EAGER), which include tool and resource development projects derived from collaborative interactions initiated on the Wiki, to any program or cluster in IOS (see Grant Proposal Guide at [http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=ggp](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=ggp)).

Development of tools and resources may be part of a hypothesis-driven project or may be the focus of an entire project.

The guidelines for RAPID and EAGER proposals should be reviewed carefully prior to submission to ensure that the proposed research fits the criteria for these funding opportunities. Specifically, RAPID proposals must address projects "...having a severe urgency with regard to availability of, or access to data, facilities, or specialized equipment...", as described in the Grant Proposal Guide. The Grant Proposal Guide states, "The EAGER funding mechanism may be used to support exploratory work in its early stages on untested, but potentially transformative, research ideas or approaches. This work may be considered especially `high risk-high payoff' in the sense that it, for example, involves radically different approaches, applies new expertise, or engages novel disciplinary or interdisciplinary perspectives." Principal investigators must contact the program officer in IOS whose expertise is most germane to the proposed project prior to submission of either a RAPID or EAGER proposal. NSF is particularly interested in projects that establish new and appropriate collaborations to develop the tools and resources. The most competitive proposals will include a compelling rationale describing how development of the resources or tools will result in significant scientific progress in one or more areas of organismal biology.

This is not a special competition or new program. Relevant proposals are to be submitted to an existing cluster/program in IOS. Applicable programmatic areas may be found on the cluster web pages accessible from the IOS home page at <http://www.nsf.gov/div/index.jsp?div=IOS>.

RAPID and EAGER proposals received by June 1, 2010 will receive full consideration for funding. RAPID proposals will receive expedited review and funding decisions consistent with the urgent nature of such requests. The review

process will follow standard practices for RAPIDS and EAGERS as described in the Grant Proposal Guide. We look forward to discussing your ideas.

**Link to Full Announcement:**

[http://www.nsf.gov/pubs/2010/nsf10028/nsf10028.txt?WT.mc\\_id=USNSF\\_179](http://www.nsf.gov/pubs/2010/nsf10028/nsf10028.txt?WT.mc_id=USNSF_179)

### **Opportunity #5**

#### **Collaborative Research for Molecular and Genomic Studies of Behavior in Animal Models (R01)**

**DHHS – NIH**

**PA-10-125**

**Description:** The purpose of this Funding Opportunity Announcement (FOA), issued by the National Institute of General Medical Sciences (NIGMS) and the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD), National Institutes of Health, is to facilitate collaborative research, involving behavioral scientists and investigators with expertise in molecular biology and/or genomics, which addresses questions about the mechanisms of behavior in animal models. Applications from multiple PIs are encouraged. This FOA will utilize the R01 mechanism.

**Link to Full Announcement:**

<http://grants.nih.gov/grants/guide/pa-files/PA-10-125.html>

### **Opportunity #6**

#### **Epigenetic Factors Associated with Symptoms and Complications of Chronic Disorders (R01)**

**DHHS – NIH**

**RFA-NR-10-004**

**Description:** The National Institute of Nursing Research (NINR) invites applications to stimulate research that addresses underlying epigenetic factors in symptom expression and complications resulting from chronic disorders. It is anticipated that the findings from this research will help

- 1) identify individuals at the highest risk for developing severe symptoms and complications secondary to chronic disorders,
- 2) maximize symptom management, and
- 3) reduce, prevent, or reverse the occurrence of complications

This FOA will utilize the R01 award mechanism and runs in parallel with a FOA of identical scientific scope, RFA-NR-10-005, that encourages applications under the Competitive Revision mechanism. A total of \$1.25 M has been committed to this FOA for 2010. It is anticipated that 2-3 R01 awards will be funded.

**Link to Full Announcement:**

<http://grants.nih.gov/grants/guide/rfa-files/RFA-NR-10-004.html>

### **Opportunity #7**

#### **Epigenetic Factors Associated with Symptoms and Complications of Chronic Disorders (Competitive Revision R01)**

**DHHS – NIH**

**RFA-NR-10-005**

**Description:** The National Institute of Nursing Research (NINR) invites applications to stimulate research that addresses underlying epigenetic factors in symptom expression and complications resulting from chronic disorders. It is anticipated that the findings from this research will help

- 1) identify individuals at the highest risk for developing severe symptoms and complications secondary to chronic disorders,
- 2) maximize symptom management, and
- 3) reduce, prevent, or reverse the occurrence of complications

This FOA will utilize the Competitive Revision award mechanism and runs in parallel with a FOA of identical scientific scope, RFA-NR-10-004, that encourages applications under the R01 mechanism. A total of \$750K has been committed to this FOA for 2010. It is anticipated that 2-3 Competitive Revision awards will be funded.

**Link to Full Announcement:**

<http://grants.nih.gov/grants/guide/rfa-files/RFA-NR-10-005.html>