Recent Research Grant and Contract Awards

Congratulations to faculty and staff on receiving research grant and contract awards!

**PI:** Gelu Nita (PI), Alexander Kosovichev (Co-PI) and Vincent Oria (Co-PI)  
**Department:** CSTR-Physics; Computer Science (V. Oria)  
**Grant/Contract Project Title:** Multi-Instrument Database of Solar Flares  
**Funding Agency:** NASA  
**Duration:** 06/23/15-06/22/17

**PI:** Alexander Kosovichev (PI)  
**Department:** CSTR-Physics  
**Grant/Contract Project Title:** Characterization of Sunquake Signatures in Terms of Energy and Momentum, and Their Relationship with the Flare Impulsive Phase  
**Funding Agency:** NASA  
**Duration:** 06/29/15-12/13/17

**PI:** Dale Gary (PI)  
**Department:** Physics  
**Grant/Contract Project Title:** EOVSA Operations in Support of NASA Solar and Heliospheric Missions - HIDEE  
**Funding Agency:** NASA  
**Duration:** 07/01/15-06/17/17

**PI:** Dale Gary (PI), Phil Goode (Co-PI), Wenda Cao (Co-PI) Vasyl Yurchyshyn (co-PI)  
**Department:** CSTR-Physics  
**Grant/Contract Project Title:** High Resolution Studies of the Sun Using the New Solar Telescope (NST); Supplement for Solar Ground-Based Observatory Directors Meeting  
**Funding Agency:** NSF  
**Duration:** 07/01/15-06/30/16
**PI:** Wenge Guo  
**Department:** Mathematical Sciences  
**Grant/Contract Project Title:** New Directions on Large-Scale Multiple Testing  
**Funding Agency:** NSF  
**Duration:** 07/15/13-06/30/16

**PI:** Kevin Belfield  
**Department:** Chemistry and Environmental Sciences  
**Grant/Contract Project Title:** Summer Research Supplement  
**Funding Agency:** US ARO AAS  
**Duration:** 06/15/15-09/15/15

**PI:** Dolcey Chaplin  
**Department:** NJIT Procurement  
**Grant/Contract Project Title:** NJIT PTAC  
**Funding Agency:** USDA  
**Duration:** 08/15/15-07/31/16

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**Events and Announcements**

**Event:** Eighth NJIT International Summer Research Symposium  
**When:** July 30, 2015; 9.00 AM – 12.00 Noon  
**Where:** Campus Center Atrium  
**Brief Description:** NJIT has a strong strategic emphasis on Undergraduate Research and Innovation (URI) with several externally and internally funded undergraduate research, design and innovation programs. The Eighth NJIT International Summer Research Symposium will feature Provost Summer Research Fellowships, Ronald A McNair Post-Baccalaureate Achievement Program, National Science Foundation (NSF) funded Research Experience for Undergraduates (REU) programs in Neural Engineering, Nanotechnology and Quantitative Simulations, Faculty NSF REU Supplement Grants, and Newark Innovation Acceleration Challenge and TechQuest Innovation Competition programs. Additional URI Summer Research Fellowships are funded by PSE&G, Pfeifer Foundation, and donations from URI External Advisory Board members. This summer, there are more than 118 undergraduate students working on different research projects that are advised by NJIT faculty. Students from NJIT and other institutions from Brazil and India will present electronic posters on their summer research projects.

Please join us at the Symposium on July 30 to meet with students and advisors presenting electronic posters on exciting research projects. Your attendance and encouragements will be highly appreciated.
Event: S-STEM 2015 "Flipped" Webinars
When: July 8, 2015 9:00 AM to October 1, 2015 5:00 PM

Brief Description: NSF Scholarships in Science, Technology, Engineering, & Mathematics
This page describes pre-recorded and live webinar presentations by NSF Program Officers about S-STEM NSF 15-581 http://www.nsf.gov/pubs/2015/nsf15581/nsf15581.htm. The goal of these resources is to communicate features of the program and provide an opportunity for Program Officers to respond to questions.

On June 24, 2015 a new solicitation was released for the S-STEM program. Proposals for this round of the solicitation will be due on September 22, 2015 (and then again on May 16, 2016). This page provides links and clarification regarding presentations and webinars for potential principal investigators (PIs) interested in submitting proposals to this round of the S-STEM competition. These presentations and webinars will provide general information on the S-STEM program, but will also emphasize elements that are new or have changed since previous S-STEM solicitations.

These materials will make use of a “flipped classroom” approach. Potential PIs should prepare questions that occur to them while viewing the presentations and then they can ask them in the question and answer sessions.

Narrated Powerpoint Presentations
Seven short presentations with narration on S-STEM are available on the links below. Viewing all 7 presentations requires approximately an hour.
- Overview of the New Program – Powerpoint 1
- Strand 1: S-STEM Institutional Capacity Building – Powerpoint 2
- Strand 2: Single Institution – Powerpoint 3
- Strand 2: Multi-Institution – Powerpoint 4
- Proposal Content Info for New PIs – Powerpoint 5
- Project Description Contents – Powerpoint 6
- Merit Review Criteria – Powerpoint 7

WebEx Question and Answer Sessions
In addition, there will be a series of question and answer sessions in WebEx at a number of different dates and times. They will provide an opportunity to obtain clarification regarding questions that you may have.

All video information will be communicated through a computer on the internet via WebEx. The WebEx session password is S-Stem2015. Each question and answer session will last up to 1 hour. These sessions will occur on the following dates and times:

<table>
<thead>
<tr>
<th>Q &amp; A Session #1</th>
<th>Wednesday, July 15, 2-3 pm (EST)</th>
<th>Link to WebEx Session 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q &amp; A Session #2</td>
<td>Thursday, July 16, 1-2 pm (EST)</td>
<td>Link to WebEx Session 2</td>
</tr>
<tr>
<td>Q &amp; A Session #3</td>
<td>Tuesday, July 21, 3-4 pm (EST)</td>
<td>Link to WebEx Session 3</td>
</tr>
</tbody>
</table>

All audio information will be communicated through the telephone (preferably a landline).

USA/Canada dial toll-free: 1-888-889-5127 or Toll: 1-773-799-3447
Participant Passcode: 8754707
State your name with the spelling to the operator to join the meeting in listen-only mode.
Grant Opportunity Alerts

Keywords and Areas Included in Grant Opportunity Alerts:

2015 Rutgers BHI-RUN-NJIT Pilot Grants in Neuroscience: Translational Neuroscience Awards; Basic Neuroscience Awards

NSF: Restricted-Access Research Data Centers (RDCs), National Institute of Health: Nanomaterials Health Implications Research (NHIR); International Research Scientist Development Award (IRSDA); Secondary Analysis of Existing Databases in Traumatic Brain Injury; Networks to Develop Priority Areas of Behavioral & Social Research, NINDS Morris K. Udall Centers of Excellence for Parkinson’s Disease Research

DoD/ONR/AFOSR/ARL: DoD, US Army Investigator Imitated Research, Muscular Dystrophy, Defense University Research Instrumentation Program (DURIP); Multidisciplinary Research Program of the University Research Initiative

National Endowment for Humanities: Fellowship Programs at Independent Research Institutions

Grant Opportunities

2015 Rutgers BHI-RUN-NJIT Pilot Grants in Neuroscience:

Translational Neuroscience Awards; Basic Neuroscience Awards

Grant Program: 2015 Rutgers BHI-RUN-NJIT Pilot Grants in Neuroscience
Agency: BHI, Rutgers University Newark and NJIT
RFP Website: http://www.njit.edu/research/researchers/funding-opps.php

Brief Description: This pilot grant program is organized under the Brain Health Institute, as part of its mission to support neuroscience research across the new Rutgers University. There are two main objectives of these pilot awards: (i) to foster new collaborative, interdisciplinary research in the neurosciences not only across Rutgers but also NJIT, Kessler Foundation Research Center, East Orange VA Medical Center, and (ii) support pilot experiments that will lead to sustained funding from an external agency (e.g., NIH). There are two categories of pilot grants available; each award is limited to $40,000 direct costs and no indirect costs or overhead are allowed. For both type of pilots, collaborative multidisciplinary efforts are encouraged. The deadline for these applications is 5 PM Friday August 31. The two categories of awards are:

(i) **Translational neuroscience awards** – these must address disease mechanisms, focusing on diagnosis, tools or treatments. These can be studies that involve animal models, clinical studies, or basic neuroscience that is relevant to a future clinical application. The clinical relevance must be clearly described in a separate section in the Research Plan. These pilots require 2 faculty Co-PIs from any different entities across Rutgers (i.e., RUN+RBHS, RUNB+RUN, or RUNB +RBHS). Formation of teams that integrate basic and clinical themes with a vision of a future translational impact will have preference. There are 4 translational pilots available; these are funded by the BHI.
(ii) Basic neuroscience awards – These can include a focus on more basic neural mechanisms, or focus on translational neuroscience experiments involving an animal model or clinical studies. These Basic awards must include 2 Co-PIs, at least one of which must be a faculty member at RUN (Four awards available all funded by the RUN Strategic plan fund), or at NJIT (One award available funded by NJIT).

All applications have the same application format, essentially an R21 NIH style application (1 page Specific Aims, 6 page limit for the Research Plan, plus Literature Cited, Budget, Budget Justification, NIH Biosketches for all Key Personnel/Co-PIs, and Resources and Environment).

All types of grants will undergo a dual stage review process, organized by the Brain Health Institute in collaboration with RUN and NJIT. They will have an initial external review to judge scientific quality and assign a priority score by external reviewers (similar to NIH study section review). They then will be reviewed by an internal Rutgers committee to allocate funds consistent with the long-term strategies of developing neuroscience research at Rutgers (similar to an NIH Council Review). One main factor in determining funding will be perceived likelihood that the pilot data generated will lead to external funding.

All pilot awardees will be required to submit a final progress report within 2 months of the end of the award, or with an application for a 2nd year of funding. This report will include publications and grant applications submitted, as well as results obtained and significance of those results. One PI also will be required to orally present results of the studies to a meeting of Rutgers neuroscientists to disseminate the results and produce discussion and interaction.

Awards will be announced by November 2015. We anticipate that additional pilot funding may be available next year; successful applicants from this round can apply for a second year of funding at that point but will compete with new applications as well.

Awards: Direct costs only; $40,000 for one year
Letter of Intent: Not required
Deadlines: November 3, 2015
Contacts:
  Gary Aston-Jones, Ph.D., Director, Brain Health Institute, Rutgers University/Rutgers Biomedical and Health Sciences; bhi@ca.rutgers.edu
  Nabil Adam, Ph.D., Vice Chancellor for Research & Collaborations and Founding Director for Rutgers Institute for Data Science, Learning, and Applications, Rutgers University-Newark adam@adam.rutgers.edu
  Atam P Dhawan, Ph.D., Vice Provost for Research and Development, New Jersey Institute of Technology Dhawan@njit.edu

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National Science Foundation

Grant Program: Restricted-Access Research Data Centers (RDCs)
Agency: National Science Foundation NSF 15-586
RFP Website: http://www.nsf.gov/pubs/2015/nsf15586/nsf15586.htm
Brief Description: Since the 1990s, NSF and the Census Bureau have collaborated on the establishment of Research Data Centers (RDCs). RDCs are secure Census Bureau facilities within which external researchers are given access to confidential micro data in accordance with specific statutory requirements. Because of the nature of the data and statutory legal requirements, research conducted at RDCs takes place under a set of rules and limitations that are considerably more constrained than those prevailing in typical research environments.
The advantage of the Census RDCs, however, is that researchers are able to conduct research that would not be possible without access to respondent-level information.

As of 2014, there were 17 RDC locations. (Information about the current RDCs is available at https://www.census.gov/ces/rdcresearch/.

This solicitation invites proposals for the establishment of a limited number of new RDCs. RDCs are expected to engage researchers from across the social, behavioral, and economic sciences. NSF will provide start-up costs for new RDC facilities. Potential investigators first must contact Census regarding the feasibility of sponsoring an RDC prior to submitting a proposal to NSF.

NSF expects to support a limited number of new RDCs that complement the existing RDCs by expanding access to secure data to a broader segment of the social, behavioral, and economic sciences research community. RDC proposals should address the following topics:

(1) The cross-disciplinary and/or interdisciplinary potential of the proposed RDC. Which social, behavioral, and economic science communities will benefit or have the potential to benefit from the proposed RDC? How does the proposed RDC plan to conduct outreach to bring into the center a broad and diverse range of scholars?

(2) The fit of the proposed RDC within the existing system. What is the geographic proximity of the proposed RDC to other RDCs? Are there ease of access issues that would make the proposed RDC particularly attractive? Does the proposed RDC have unique elements not available at the existing RDCs?

(3) Readiness of the proposed RDC. What is the demand for an RDC in the proposed site? Are there institutions in the surrounding area whose researchers would make use of the proposed RDC? Are there projects currently in the planning stages or in process that could make immediate use of the proposed RDC? Would these projects meet the Census Bureau’s requirement of providing benefit to Census Bureau and other Federal statistical agency programs?

(4) Governance. How will the proposed RDC be governed? Does the proposed RDC leadership have the qualifications to ensure a well-managed RDC? Is the proposed staffing adequate to handle the work of the RDC?

(5) Resources available to the RDC. Where will the RDC be housed? Is the physical space adequate, accessible, and secure? Is adequate institutional commitment to the RDC demonstrated? Although this topic may be alluded to in the Project Description, the bulk of this information should be included under Facilities, Equipment, and Other Resources. The description should be narrative in nature and must not include any quantifiable financial information.

**Awards:** $100,000 to $300,000
Investigators may request up to $100,000 a year over a one-year to three-year period to cover start-up costs for new RDCs. NSF programs collectively expect to contribute no more than $300,000 per year to new RDC awards, pending availability of appropriations.

**Letter of Intent:** Not Required

**Deadlines:** September 30, 2015

**Contacts:**
- Cheryl L. Eavey, telephone: (703) 292-7269, email: ceavey@nsf.gov
- Nancy A. Lutz, telephone: (703) 292-7280, email: nlutz@nsf.gov
- Thomas J. Baerwald, telephone: (703) 292-7301, email: tbaerwal@nsf.gov
- Patricia E. White, telephone: (703) 292-8762, email: pwhite@nsf.gov
National Institutes of Health

Grant Program: Nanomaterials Health Implications Research (NHIR): Comprehensive Evaluation of Interactions between Engineered Nanomaterials and Biological System (U01)
Nanomaterials Health Implications Research (NHIR): Engineered Nanomaterials Resource and Coordination Core (U24)
Agency: National Institutes of Health
RFA-ES-15-012 U24 Resource-Related Research Projects – Cooperative Agreements
RFA-ES-15-013, U01 Research Project - Cooperative Agreements

Brief Description: The NIEHS Centers for Nanotechnology Health Implications Research (NCNHIR) consortium http://www.niehs.nih.gov/research/supported/dert/programs/nanohealth/index.cfm that is concluding in 2015 was the first effort towards gaining comprehensive and systematic understanding on the ENMs-biological interactions as dictated by ENM physicochemical properties. In this effort as a consortium investigators generated biological response profiles for silver nanomaterials of two different sizes and surface coatings as well as preliminary efforts investigating multi wall carbon nanotubes (MWCNTs) of different aspect ratio and surface chemistry. This FOA will extend these earlier efforts by characterizing biological response profiles for a larger, carefully selected set of ENMs including nanomaterials that are already in market or will be in the near future.

The ENMs listed below were pre-identified based on the needs of regulatory agency members of NNI. All investigators of the NHIR consortium will carry out investigations using only the ENMs from this library and any additional ENMs or physicochemical modifications to some of these ENMs may be considered by the consortium as needs evolve over time.

All materials will be provided by the ERCC in a range of sizes, shapes, and surface chemistries:
- Metals: silver, gold, aluminum, cobalt, copper, iron, molybdenum, zinc, and manganese;
- Metal oxides: aluminum trioxide, cerium trioxide, cobalt oxide, copper oxide, iron oxide, silicon dioxide, titanium dioxide, zinc oxide;
- Carbon nanotubes: SWCNTs, MWCNTs;
- 2D- and 3-D ENMS: Graphene, graphane, silicine, germanane including representative transition metal oxides, halides, and phosphates;
- Metal-metal conjugates; and
- Cellulose.

The objectives of NHIR Consortium are to:
- Produce comprehensive biological response profiles for diverse ENMs using in vitro and in vivo models and relevant routes of exposure to gain understanding on potential molecular, biochemical and pathophysiological alterations at target and secondary organs; and
- Work collaboratively, as appropriate, to integrate efforts and capitalize from other model systems and expertise of NHIR to enrich our knowledge base on ENM-biological interactions.

Applications to this FOA should propose to investigate how physicochemical properties of ENMs dictate biological response profiles at the molecular, cellular, or organ level using physiologically relevant models and routes of exposures. The research applications are also
encouraged to include independent investigations into the contributions of factors such as gender, age, physiological status, genetics, species specificity and pre-existing disease conditions in understanding their influence on biological response. Experimental systems can include, but are not limited to:

- High throughput approaches to identify acute response profiles at multiple time points; these systems should also incorporate cell and tissue variability;
- Omics approaches to identify effects on biological pathways and systems including inflammatory, oxidative stress, or fibrogenic pathways;
- Immunogenic, mutagenic, and carcinogenic potential of ENMs using sub-chronic and chronic exposures;
- Cell integrity and cell-cell communications including autocrine, paracrine and endocrine effects;
- Effects on cellular organelles including cross-talk between cellular compartments;
- Inflamasome activation;
- Perturbations in the endogenous microbiome;
- Effects on bacterial or viral infectivity; or
- Absorption, distribution, metabolism and excretion.

Earlier efforts through the NCNHIR consortium were focused on exposure to ENMs through pulmonary route and this FOA strongly encourages investigations using other routes of exposures such as:

- Dermal,
- Oral,
- Ocular,
- Pulmonary (inhalation only), or
- Intravenous.

Note: Research projects that propose pulmonary route of exposure (using bolus dose administration methods - intratracheal and oropharyngeal aspiration) are of low programmatic priority and will not be considered responsive to this FOA.

Investigators in NHIR will be expected to participate in a collaborative research network that seeks to complement multidisciplinary expertise to gain comprehensive understanding of the interactions between ENM and biological systems across diverse organs (target or secondary) to identify common and unique biological responses and outcomes. This can include, for instance, direct collaborations between members of the consortium to combine expertise and model systems; flexibility to address joint hypotheses; or meta-analysis of data across systems (in vitro and in vivo), exposures, and organs as appropriate.

In addition to the required cooperative activities detailed below in the Cooperative Agreement Terms and Conditions, the NIEHS expects, and as appropriate will provide supplementary support for, collaborative activities among and between the consortium members to promote research efforts to gain new understanding of the interactions between ENM and biological systems. Such collaborative activities may include:

- Integrating data across projects (using data deposited in the CEBS database) to jointly address new hypotheses such as common response pathways across material properties/cell types/tissues/animal models;
- Collaborating with consortium investigators to develop new sample preparation protocols and testing strategies to accommodate new materials and diverse routes of exposures; and
- Developing novel tools and methods for characterization of ENMs in situ in biological samples;
**Awards:** Budgets are limited to $300,000 direct costs. Application budgets need to reflect the actual needs of the proposed project.

**Letter of Intent:** October 30, 2015

**Deadline:** November 30, 2015, by 5:00 PM local time of applicant organization. All types of non-AIDS applications allowed for this funding opportunity announcement are due on this date.

Applicants are encouraged to apply early to allow adequate time to make any corrections to errors found in the application during the submission process by the due date.

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**Grant Program: International Research Scientist Development Award (IRSDA) (K01)**

**Agency:** National Institutes of Health

**PAR-15-291 K01 Research Scientist Development Award - Research & Training**

**PAR-15-292, K43 International Research Career Development Award**


**Brief Description:** The overall goal of the NIH Research Career Development program is to help ensure that a diverse pool of highly trained scientists is available in appropriate scientific disciplines to address the Nation’s biomedical, behavioral, and clinical research needs. In addition to this opportunity, NIH Institutes and Centers (ICs) support a variety of other mentored career development programs designed to foster the transition of new investigators to research independence. These other programs may be more suitable for particular candidates. NIH also supports non-mentored career development programs for independent investigators. More information about Career programs may be found at the [NIH Extramural Training Mechanisms](http://grants.nih.gov/grants/guide/pa-files/PAR-15-291.html) website. Many of the other research training and career development programs supported by other NIH Institutes and Centers, including mentored career development awards, support global health research and international career development activities for U.S. scientists.

Opportunities to advance global health research careers are central to building a robust global health workforce, yet it remains a challenge for researchers to establish independent international research careers given the requisite time spent away from their home institutions. Prolonged field experience is critical for global health research and for establishing sustained research partnerships, but gaining this field experience can be difficult for junior faculty, who are balancing administrative and teaching requirements, or individuals in standard postdoctoral positions. The International Research Scientist Development Award (IRSDA) program addresses this need and fills an important global health career development gap. The IRSDA program provides opportunities to conduct mentored global health research in LMIC settings and foster long term research collaborations that strengthen global health research.

The objective of the IRSDA program is to prepare qualified advanced postdoctoral research scientists and recently-appointed junior faculty (at least two years beyond conferral of doctoral degree including PhD, MD, DO, DC, ND, DDS, DMD, DVM, ScD, DNS, PharmD or equivalent doctoral degrees) for research careers that will have a significant impact on the health-related research needs of low- and middle-income countries (LMICs). The award will provide salary and research project support for a sustained period of “protected time” (three to five years) for intensive research career development, under the guidance of experienced U.S.-based and LMIC-based mentors, in any health-related discipline that is relevant to the health priorities of the LMIC.

Awardees must spend a minimum of 50% of the cumulative effort over the project period (all years) physically in-country conducting collaborative research at the LMIC.
institution. In addition, in any given year of the award, the recipient must spend a minimum of three months in the LMIC (see In-country requirement under Eligible Individuals in Section III). Awardees are expected to gain increased capabilities in collaborative research (i.e. team science) skills in low-resource settings, advanced research methodology, analysis and data management, research administrative skills, responsible conduct of research, scientific presentation, publication and grants writing. The expectation is that through this sustained period of research career development, awardees will launch independent global health research careers, continue to collaborate with LMIC scientists on research that addresses the health needs of their countries, and become competitive for new research project grant (e.g., R01) funding. The IRSDA is responsive to the FIC Strategic Plan to build research capacity through individuals, institutions and networks by building future research leaders in the U.S. and in LMICs.

Candidates are encouraged to review answers to frequently asked questions about the IRSDA K01 program at IRSDA FAQs, which will be updated on a regular basis. Individuals who are unable to meet the requirement to spend a minimum of 50% of the cumulative effort over the total project period (all years) physically in the LMIC are encouraged to consider other NIH career development awards (see K Kiosk), many of which support global health research in LMICs. Individuals from LMICs (individuals who are not U.S. citizens, non-citizen nationals or permanent residents) are not eligible for the IRSDA but may apply for PAR-15-292 Fogarty Emerging Global Leader Award(K43).

Awards: Award budgets are composed of salary and other program-related expenses; up to 3 years.

Letter of Intent: Not required

Deadline: March 2, 2016; March 2, 2017; March 7, 2018, by 5:00 PM local time of applicant organization. All types of non-AIDS applications allowed for this funding opportunity announcement are due on these dates.

Applicants are encouraged to apply early to allow adequate time to make any corrections to errors found in the application during the submission process by the due date.

**Grant Program: Secondary Analysis of Existing Databases in Traumatic Brain Injury to Explore Outcomes Relevant to Medical Rehabilitation (R21)**

**Agency: National Institutes of Health**

**RFA-HD-16-001 R21 Exploratory/Developmental Research Grant**


**Brief Description:** Over the last 5-10 years several large, multi-site clinical trials in Traumatic Brain Injury (TBI) have completed enrollment; however, no trial (e.g. hypothermia [NABISH], citicholine [COBRIT], progesterone [ProTECT]) has provided promising evidence for a treatment in the acute or subacute stages after injury that had a positive impact on long-term outcome. In many cases, investigator teams have not fully explored the rich datasets after the primary analyses. In order to maximize the likelihood for success for future trials, the field is making concerted efforts to establish large clinical data sets (e.g. TRACK-TBI, FITBIR, TED) from TBI subjects. The motivation for compiling these repositories is to encourage investigators to "mine" data to reveal characteristic injury profiles and outcomes that can inform inclusion criteria and design of effective trials.

Several TBI databases exist as public resources. FITBIR was developed to share data across the entire TBI research field and to facilitate collaboration between laboratories, as
well as interconnectivity with other informatics platforms. The objective of FITBIR states that "sharing data, methodologies, and associated tools, rather than summaries or interpretations of this information, can accelerate research progress by allowing re-analysis of data, as well as re-aggregation, integration, and rigorous comparison with other data, tools, and methods." FITBIR projects that by the end of 2015, data from 5,000 TBI "cases" collected in clinical trials and other research protocols will be available. In rehabilitation research, an important resource is the Traumatic Brain Injury Model System (TBIMS) program. The purposes of TBIMS are to demonstrate the benefits of a coordinated system of neurotrauma and rehabilitation care (there are currently 16 Centers), and to conduct innovative research on all aspects of care for those who sustain traumatic brain injuries. Each Center systematically collects important data about each individual who meets criteria for inclusion in the TBI National Database and sends this information to the TBI National Data Center. The TBIMS database comprises more than 15,000 cases from patients who were discharged from acute care to in-patient rehabilitation.

In addition, investigators and institutions have established data repositories that may yield information on TBI outcomes after specific interventions or in specific populations, such as military personnel, adolescents or children, or college athletes. Several Phase III clinical trials have formed consortia, and have access to rich resources for secondary analysis. These studies include a range of injury severity, interventions and outcome assessments. Data from these studies are available in organized datasets and investigators are eager to access, analyze and publish secondary analyses.

It is vitally important to begin to use the existing datasets as they are intended: through secondary analyses to develop new hypotheses about TBI outcomes; identify particular vulnerabilities in specific populations; explore age, gender or racial differences that may warrant larger studies; discover new treatment/rehabilitation approaches; and reveal correlations among outcomes or outcome domains that can guide future studies. NCMRR’s mission is to foster development of scientific knowledge needed to enhance the health, productivity, independence, and quality-of-life of people with physical disabilities, including those resulting from TBI.

Secondary analyses supported by this FOA can include, but are not limited to:

- Define outcomes related to post-concussion syndrome, from weeks to months or years after injury
- Explore the duration and extent of symptoms after mild to moderate injury that may be targets of treatment/rehabilitation
- Examine the importance of extracranial injury to long-term outcomes and success of treatment
- Determine the behavioral/cognitive outcomes in the chronic phases of TBI related to QOL, employment or other psychosocial measures
- Discern among effects of interventions on long-term vs. intermediate outcomes to better define populations for specific rehabilitation strategies
- Examine responders vs. non-responders to rehabilitation or other treatment to better understand the profiles of injury
- Examine age or gender differences in cognitive or behavioral outcomes that may affect rehabilitation outcome
- Correlate outcomes and occurrence of rehabilitation interventions throughout the post-TBI timeframe
- Demonstrate exacerbation or regression of specific sequelae or symptoms at intermediate/long-term timepoints
• Obtain data on signs of neurodegenerative disorders that appear during longer term follow-up and how these signs may affect rehabilitation outcome
• Explore relations between intensity of emergency, critical, and acute care to long-term disability
• Explore patient characteristics (e.g., psychiatric symptoms, sleep disturbance, cognitive deficits) at longer time frames after TBI (1 yr post-injury) that suggest particular rehabilitation approaches
• Define treatment regimens for individual or groups of cognitive/psychiatric sequelae (e.g. depression/anxiety, anger, suicidal thoughts, substance abuse, sleep disturbance) that persist in longer survival times post-TBI.
• Determine the best classification parameters for initial injury based on evolving clusters of symptoms or sequelae.

NCMRR expects that research teams who apply to this FOA will include statistical and clinical expertise, with senior scientists leading the efforts. The purpose of the project should be to gain information/preliminary data that can inform future studies of rehabilitation therapies for TBI.

**Awards:** Application budgets are limited to a total of $275,000 direct costs for both years; and to no more than $200,000 in any single year

**Letter of Intent:** September 30, 2015

**Deadline:** October 30, 2015, by 5:00 PM local time of applicant organization. All types of non-AIDS applications allowed for this funding opportunity announcement are due on this date. Applicants are encouraged to apply early to allow adequate time to make any corrections to errors found in the application during the submission process by the due date.

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**Grant Program:** Networks to Develop Priority Areas of Behavioral & Social Research (R24)

**RFA-AG-16-008 R24 Resource-Related Research Projects**


**Brief Description:** The National Institute on Aging Division of Behavioral and Social Research (BSR) supports basic social and behavioral research and research training on the processes of aging at both the individual and societal level. A summary of BSR research objectives is available on the NIA website ([http://www.nia.nih.gov/research/dbsr](http://www.nia.nih.gov/research/dbsr)) and in the summary of the 2013 National Advisory Council on Aging Review of the BSR program ([http://www.nia.nih.gov/sites/default/files/sites/default/files/nia_2013_bsr_review_report.pdf](http://www.nia.nih.gov/sites/default/files/sites/default/files/nia_2013_bsr_review_report.pdf)). Though a significant fraction of research supported by BSR in pursuit of the NIA mission falls within a specific discipline or field, BSR encourages interdisciplinary approaches to behavioral and social research. BSR also supports data resources ([http://www.nia.nih.gov/research/dbsr/publicly-available-databases-aging-related-secondary-analyses-behavioral-and-social](http://www.nia.nih.gov/research/dbsr/publicly-available-databases-aging-related-secondary-analyses-behavioral-and-social)), such as the Health and Retirement Study ([http://hrsonline.isr.umich.edu/](http://hrsonline.isr.umich.edu/)), to support analyses that span disciplines. BSR has supported a number of initiatives to seed integrative and interdisciplinary research as well as infrastructure development in areas of behavioral and social science related to aging. Some of these areas require ongoing flexible dynamic infrastructure support to advance the production of high quality research. They also require training new investigators and recruiting the best scientists to aging research to ensure continued growth in these fields.
Scope

Network support includes all activities designed to bring together leading scientists across disciplines and institutions to develop an area or research infrastructure. This program is intended to be flexible and support the creation of innovative networks that will propose activities and bring unique resources together to advance science. Examples of network support activities include, but are not limited to:

- Meetings both large and small to develop program areas and interact on the development of infrastructure
- Small scale pilots to develop data, theoretical frameworks, empirical methods, etc.
- Dissemination and outreach activities
- Educational activities such as intensive summer institutes, series of workshops and related network activities, advanced seminars on methodology, or short term residential opportunities.

The networking, education, and infrastructure-building activities required for these efforts are rarely covered under an individual grant, and often do not fit the timelines for typical support mechanisms. In many instances the researchers that can support a successful network in an emerging area span multiple disciplines and are rarely located at a single institution. Therefore, this FOA is designed to provide research resources to develop networks in specific high priority areas of behavioral and social research in aging as well as to address the network development needs of researchers interested in advancing interdisciplinary aging-relevant research programs and innovative infrastructure development in the social and behavioral sciences. For the purposes of this FOA, aging-relevant research is that which addresses issues of importance to the well-being and health of either mid-life or older adults, and can include data spanning the entire life course.

A goal of Network projects is to disseminate network resources to the field at large. These resources can include (but are not limited to) meeting papers/summaries, tools or guides to support research or data enhancement, and data sets ranging from public-access "user-friendly" research data; meta-data, macro data or other aggregations of data to support research; and harmonized versions of existing data or instruments.

The application should be designed to have a substantial impact on the progress and quality of behavioral and social research of relevance to aging by virtue of the proposed activities. Networks are intended to serve the broader community of behavioral and social researchers engaged in aging-relevant research in the designated scientific area, and are consequently unlikely to be limited to a single institution.

Networks may propose to support small scale pilot projects. Network funding for pilot projects should either advance broad network goals or support preliminary studies with potential to form the basis for independent research applications consistent with network goals.

The NIA encourages potential applicants to contact Scientific/Research staff listed in Section VII to discuss potential network development programs prior to submission of an application. The NIA encourages network applicants to support activities that will foster diversity of the scientific workforce.

Responsiveness Criteria

Responsive applications to this FOA will propose network activities (described above) in one of the three areas identified in the Purpose section. Applications in other areas will not be deemed responsive to this announcement and will not be reviewed.

Investigators seeking support for traditional scientific meetings should use PA-13-347 "NIH Support for Conferences and Scientific Meetings (Parent R13/U13)". Investigators who wish to seek support for a pre- and post-doctoral research training program should use PA-14-
015 "Ruth L. Kirschstein National Research Service Award (NRSA) Institutional Research Training Grant (Parent T32)".

**Awards:** Application budgets may not exceed $175,000 per year in direct costs and need to reflect actual needs of the proposed project. Up to 5 years.

**Letter of Intent:** December 14, 2015

**Deadline:** January 14, 2016, by 5:00 PM local time of applicant organization. All types of non-AIDS applications allowed for this funding opportunity announcement are due on this date. Applicants are encouraged to apply early to allow adequate time to make any corrections to errors found in the application during the submission process by the due date.

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**Grant Program: NINDS Morris K. Udall Centers of Excellence for Parkinson's Disease Research (P50)**

Agency: National Institutes of Health

RFA-NS-16-002 P50 Specialized Center


**Brief Description:** The NINDS Udall Centers of Excellence for Parkinson's Disease Research program was established in tandem with the Morris K. Udall Parkinson’s Disease Research Act of 1997 (P.L. 105-78), legislation passed to honor the distinguished Representative from Arizona who died in 1998 after a long battle with PD. NINDS Udall Centers have since identified and characterized candidate and disease-associated genes, examined neurobiological and neuropathological mechanisms underlying PD, established improved PD models, developed and tested potential therapeutics, and explored novel avenues of clinical research.

In 2015, there are nine Udall Centers across the United States. The overarching goal of the NINDS Udall Centers of Excellence program is to establish a network of Centers that work collaboratively as well as independently to define the causes of and discover improved treatments for PD. Udall Centers pursue high-impact, synergistic research projects while serving as national leaders in PD research, and local resources for research career enhancement and outreach to the PD patient/advocacy community. Another important goal is to further advance PD research through broad sharing of data and research resources developed through this Centers program. The NINDS Udall Centers program prioritizes innovative and integrative research with significant potential for discovery. Udall Center applications are expected to identify and address an overall research theme that defines a critical challenge in PD research, emphasize novel ideas and approaches, as well as to utilize state-of-the-art technologies and a team-based approach to achieve stated goals. The overall theme of each Center, proposed research projects, and cores will inform the etiology, pathogenesis or treatment of PD; investigations on related synucleinopathies may be included if such studies directly address the identified PD research challenge.

Each applicant team may submit the combination of research projects (basic, translational, clinical) that best address the stated theme. Basic research has served and will continue to serve as the foundation of discovery in the Udall Centers program: applicants are encouraged to include basic research projects, as well as to continue to build upon this vital foundation with studies that translate basic and clinical research observations into improved treatments for PD. Inclusion of a translational research project is optional but encouraged; such projects should provide initial proof-of-concept that a proposed therapeutic agent has sufficient biological activity to warrant further development for the treatment of PD. Clinical research projects include patient-oriented research with a specific focus on understanding
disease mechanisms. When formulating their applications, applicants are encouraged to consider the research recommendations resulting from the NINDS conference, "Parkinson’s Disease 2014: Advancing Research Improving Lives."

The Specialized Center (P50) mechanism supports interdisciplinary research activities. Programmatic requirements include: three or more Research Projects, an Administrative Core, at least one integrated Research Core that is essential to and accelerates the progress of two or more Research Projects, a mission statement for and description of career enhancement of Center investigators, and a plan for periodic outreach activities to the local patient/advocacy community. If at least one Clinical Research Project is proposed, a corresponding Clinical Research Core must also be included within the application. Proposed studies must be feasible and justified within the budget limits described elsewhere in this announcement.

The following activities are beyond the scope of this FOA:

- Pilot research projects.
- Clinical trials.
- Research, discovery or method development Aims within Cores.

Responsive applications will demonstrate proven ability (renewals) or considerable potential (new applications) to: address critical challenges in PD research; contribute unique knowledge and scientific advances to the Udall Centers program; collaborate effectively with existing Centers; and serve as national leaders in PD research. Related, supportive factors include, but are not limited to, broad sharing of data and resources, career enhancement activities for Center investigators, and meaningful community outreach activities. Although new Centers are not expected to have pre-existing collaborations with established Centers, potential areas of shared interest with active NINDS Udall Centers should be considered and included in the application.

NINDS funding decisions will focus primarily on scientific merit, i.e., on those applications that are most likely to make innovative contributions to PD research and that demonstrate the potential to collaborate effectively across the Centers program. The NINDS will also consider the full scope of Udall Center programmatic activities when making funding decisions; applications proposing goals identical to or largely overlapping with active Udall Centers will receive lower program priority. In addition, the NINDS may also consider whether proposed research addresses recommendations from the NINDS conference "Parkinson’s Disease 2014: Advancing Research, Improving Lives."

The NINDS is dedicated to improving the quality of NINDS-supported preclinical and clinical research through rigorous study design and transparent reporting. There is increasing awareness among the PD and other neurological disease communities that assessment of the predictive value of preclinical research is improved when sufficient information is made available regarding study design, execution, analysis and interpretation of results. Udall Center applicants are strongly encouraged to consider these elements when describing supportive data and to address these issues directly in the design of proposed studies.

**Awards:** Applicants may request up to $1,000,000 direct costs per year (exclusive of facilities and administrative costs of subcontracts with collaborating institutions) with the following exception: applications containing a translational project and/or clinical component (i.e., a clinical research project plus a clinical core) may request up to $1,500,000 direct costs per year.

**Letter of Intent:** November 15, 2015

**Deadline:** December 15, 2015, by 5:00 PM local time of applicant organization. All types of non-AIDS applications allowed for this funding opportunity announcement are due on this date.
Late applications are not permitted in response to this FOA. Applicants are encouraged to apply early to allow adequate time to make any corrections to errors found in the application during the submission process by the due date.

DoD/US Army/Office OF Naval Research/Air Force Office of Scientific Research

Grant Program: DoD Duchenne Muscular Dystrophy Investigator-Initiated Research Award
Agency: US Army Medical Research Acquisition Activity W81XWH-15-DMDRP-IIRA
RFP Website:  http://cdmrp.army.mil/funding/foa/15dmdrpiira_pa.pdf

Brief Description: Applications to the Fiscal Year 2015 (FY15) Duchenne Muscular Dystrophy Research Program (DMDRP) are being solicited for the Defense Health Agency, Research, Development, and Acquisition (DHA RDA) Directorate, by the U.S. Army Medical Research Acquisition Activity (USAMRAA). As directed by the Office of the Assistant Secretary of Defense for Health Affairs, the DHA RDA Directorate manages and executes the Defense Health Program (DHP) Research, Development, Test, and Evaluation (RDT&E) appropriation. The executing agent for this Program Announcement/Funding Opportunity is the Congressionally Directed Medical Research Programs (CDMRP). The DMDRP was initiated in 2011 to provide support for research of exceptional scientific merit and to promote the understanding, diagnosis, and treatment of DMD. Appropriations for the DMDRP from FY11 through FY14 totaled $13.6 million (M). The FY15 appropriation is $3.2M.

The vision of the FY15 DMDRP is to extend and improve the function, quality of life, and lifespan for all individuals diagnosed with DMD. As such, the DMDRP is seeking to better support the development of drugs, devices, and other interventions and promote their effective clinical testing. Additionally, DMDRP supports the efforts of the National Institutes of Health Muscular Dystrophy Coordinating Committee (MDCC) to update the Action Plan for the Muscular Dystrophies, which prioritizes the needs to improve treatments and reduce the disease burden for muscular dystrophy including Duchenne.

FY15 DMDRP Focus Areas
All applications to the FY15 DMDRP Funding Opportunities must address at least one of the following Focus Areas:

- Cardiopulmonary studies
- Clinical studies and novel interventions that could improve clinical care and quality of life in the near term, such as:
  - Comorbidity studies
  - Endocrine and bone issues
  - Gastrointestinal issues
  - Cognitive function
- Discovery and qualification of pharmacodynamic, prognostic, and predictive biomarkers, e.g., as drug development tools, indicators of disease progression, response to treatment, or clinical trial outcomes (see Section I.C., Biomarker Studies for further description).
- Assessment of clinical trial outcomes (invasive and noninvasive methods), such as:
  - Molecular, functional, imaging, etc.
  - Evaluating surrogate markers
- Evaluating potential composite scores for outcomes assessment
- Patient-centered outcomes, e.g., quality of life, activities of daily living
• Extension or expansion of preclinical translational data in support of the therapeutic development path (including independent replication and comparative studies)

C. Award Information
The DMDRP Investigator-Initiated Research Award (IIRA) supports translational research that will accelerate the movement of promising ideas in DMD into clinical applications. Translational research may be defined as an integration of basic science and clinical observations with the specific goal of developing new therapies. While the ultimate goal of translational research is to move an observation forward into clinical application, translational research is most effective as a two-way continuum between the bench and the bedside. Within this continuum, the IIRA supports mid-stage or later translational research projects, including early- phase, proof-of-principle clinical trials and correlative studies to better inform the development of drugs, devices, and other interventions. Research projects may also include preclinical studies utilizing animal models, human subjects, or human anatomical substances.

Studies proposed under this award should not include:
• Target discovery
• Drug screening
• Mechanism of action studies
• Hypothesis-driven pathophysiology studies

Biomarker Studies
For projects addressing the FY15 DMDRP Focus Area of “discovery and qualification of pharmacodynamic, prognostic, and predictive biomarkers,” a biological marker, or biomarker, is defined as a characteristic that is objectively measured and evaluated as an indicator of normal biologic processes, pathogenic processes, or biological responses to a therapeutic intervention.1 For the purpose of this award, biomarker qualification is defined as the evidentiary fit-for- purpose process of correlating a biomarker with the effects of an agent on biological processes and clinical endpoints.2 Alternatively, biomarker validation refers to the process of ensuring that a biomarker or technology (e.g., imaging) will be accurately and reliably measured through the performance characteristics of a biomarker assay.3 The DMDRP encourages the study of biomarkers that can be detected through minimally invasive procedures (e.g., blood, urine, tissue, imaging, etc.). Examples of biomarkers may include signatures of genetic or epigenetic changes, specifically expressed genes, proteins, or metabolites, and molecular, physiological, and/or imaging entities, among others.

Awards: The anticipated direct costs budgeted for the entire period of performance will not exceed $575,000. Associated indirect costs can be budgeted in accordance with the organization’s negotiated rate. No budget will be approved by the Government exceeding $575,000 direct costs or using an indirect rate exceeding the organization’s negotiated rate.

Letter of Intent: Pre-Application Required

Pre-Application Deadline: 5:00 p.m. Eastern time (ET), July 22, 2015
Invitation to Submit an Application: September, 2015
Application Submission Deadline: October 21, 2015
RFP Website:  http://www.grants.gov/search-grants.html?fundingCat

Brief Description:  This announcement seeks proposals to purchase instrumentation in support of research in areas of interest to the DoD, including areas of research supported by the Army Research Office (ARO), the Office of Naval Research (ONR), and the Air Force Office of Scientific Research (AFOSR), hereafter referred to collectively as “the administering agencies.” The research areas of interest to the administering agencies are available for reference on-line at the following addresses:

  Army Research Office:
  http://www.aro.army.mil/  (select “Broad Agency Announcements” in the “For the Researcher” section) See the most recent ARO Core Broad Agency Announcement for Basic and Applied Scientific Research.

  Office of Naval Research:

  Air Force Office of Scientific Research:

For detailed information regarding technical goals, potential proposers are advised to refer to the websites cited above. They also are encouraged to contact DoD program managers listed at those sites before submitting proposals, in order to explore research areas that are of mutual interest to the proposers and DoD administering agencies. A proposal may be submitted to more than one administering agency; however, only one administering agency will fund the proposal, if selected, under the 2016 DURIP.

A central purpose of the DURIP is to provide equipment to enhance research-related education. Therefore, proposals must address the impact of the equipment on the institution’s ability to educate students through research, in disciplines important to DoD missions.

Awards:  Through this DURIP competition, the DoD intends to award approximately $52 million for FY 2016, subject to the availability of funds. These funds will be awarded via grants made by the administering agencies. Grants will be for the purchase of research equipment costing $50,000 or more, which typically cannot be purchased within the budgets of single-investigator awards. With few exceptions (see section III.4.b.ii) an individual award may not exceed $1,500,000 in DoD funding. It is estimated that 180 awards will be made across the administering agencies, ranging from $50,000 to $1,500,000, with an approximate average award of $290,000.

Letter of Intent:  Not Required

Deadline:  September 25, 2015, by 4:00 PM EST.

Applicants are encouraged to apply early to allow adequate time to make any corrections to errors found in the application during the submission process by the due date.
Grant Program: 2016 Department of Defense Multidisciplinary Research Program of the University Research Initiative
RFP Website: http://www.grants.gov/search-grants.html?fundingCat
Brief Description: This publication constitutes a Funding Opportunity Announcement (FOA) as contemplated in Department of Defense Grant and Agreement Regulation (DoDGRAs) 22.315(a). A formal Request for Proposals (RFP), solicitation, and/or additional information regarding this announcement will not be issued. The Department of Defense (DoD) Multidisciplinary University Research Initiative (MURI), one element of the University Research Initiative (URI), is sponsored by the DoD research offices. Those offices include the Office of Naval Research (ONR), the Army Research Office (ARO), and the Air Force Office of Scientific Research (AFOSR) (hereafter collectively referred to as "DoD agencies"). DOD's MURI program addresses high risk basic research and attempts to understand or achieve something that has never been done before. The program was initiated over 25 years ago and it has regularly produced significant scientific breakthroughs with far reaching consequences to the fields of science, economic growth, and revolutionary new military technologies. Key to the program's success is the close management of the MURI projects by Service program officers and their active role in providing research guidance. The DoD agencies will not issue paper copies of this announcement. The DoD agencies involved in this program reserve the right to select for award all, some or none of the proposals submitted in response to this announcement. The DoD agencies provide no funding for direct reimbursement of proposal development costs. Technical and cost proposals (or any other material) submitted in response to this FOA will not be returned. It is the policy of the DoD agencies to treat all proposals as sensitive competitive information and to disclose their contents only for the purposes of evaluation.

Awards will take the form of grants. Therefore, proposals submitted as a result of this announcement will fall under the purview of the Department of Defense Grant and Agreement Regulations (DoDGRAs) and OMB Circulars.

The MURI program supports basic research in science and engineering at U.S. institutions of higher education (hereafter referred to as "universities") that is of potential interest to DoD. The program is focused on multidisciplinary research efforts where more than one traditional discipline interacts to provide rapid advances in scientific areas of interest to the DoD. As defined by the DoD, "basic research is systematic study directed toward greater knowledge or understanding of the fundamental aspects of phenomena and of observable facts without specific applications towards processes or products in mind. It includes all scientific study and experimentation directed toward increasing fundamental knowledge and understanding in those fields of the physical, engineering, environmental, and life sciences related to long-term national security needs. It is farsighted high payoff research that provides the basis for technological progress." (DoD 7000.14-R, vol. 2B, chap.5, para. 050201.B.). DoD's basic research program invests broadly in many specific fields to ensure that it has early cognizance of new scientific knowledge.

**Awards:** The Total amount of funding for five years available for grants resulting from this MURI FOA is estimated to be approximately $145 million dollars pending out-year appropriations. MURI awards are $1M- $2.5M per year, with the actual amount contingent on availability of funds, the specific topic, and the scope of the proposed work. Typical annual funding is in the $1.25M to $1.5M range.

**Letter of Intent:** White Paper September 8, 2015

**Full Proposal Due Date:** October 7, 2015, 4:00 p.m.
National Endowment for Humanities

Grant Program: Fellowship Programs at Independent Research Institutions
Agency: National Endowment for Humanities 20150813-RA
RFP Website: http://www.neh.gov/grants/research/fellowship-programs-independent-research-institutions

Brief Description: Grants for Fellowship Programs at Independent Research Institutions (FPIRI) support fellowships at institutions devoted to advanced study and research in the humanities. Recognizing that at times scholars need to work away from their homes and institutions, the FPIRI program sponsors fellowships that provide scholars with research time, a stimulating intellectual environment, and access to resources that might otherwise not be available to them.

Fellowship programs may be administered by independent centers for advanced study, libraries, and museums in the United States; American overseas research centers; and American organizations that have expertise in promoting research in foreign countries. Individual scholars apply directly to the institutions for fellowships. A list of currently funded institutions is available.

In evaluating applications consideration is given to the library holdings, archives, special collections, and other resources—either on site or nearby—that institutions make available to fellows. FPIRI grants provide funding for humanities fellowships of four to twelve months. The fellowships are held at the U.S. grantee institutions or—in the case of overseas research centers and organizations—abroad.

Award: FPIRI grants support fellowship stipends at a rate of $4,200 per month and a portion of the costs of selecting the fellows, up to $7,000. Indirect costs are not allowed in this program. Award Ceiling: $400,000

Letter of Intent: Not Required
Deadline: August 13, 2015