Grant Opportunity Alerts: Issue: ORD-GOA-2015-05

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2. Reminder: **NJIT Third Faculty Research Showcase**: February 23, 2015: Updated Program
3. Reminder: **Internal Competition**: NSF-NRT; Due Date to Dean's Office: February 21, 2015.
4. **Grant Opportunities Alerts:**
   Keywords and Areas Included in Funding Opportunities Alerts:
   - NASA: Technology Advance Program
   - NIST: Trusted Identities in Cyberspace, Standards Services Curricula Development
   - National Endowment for the Humanities: Challenge Grants
   - US Department of Education: SEED Grant
   - NSF: NRT, STEM + Computer partnerships
   - National Institute of Health: High End Shared Instrumentation S10, Intellectual and Developmental Disability Center (U54), Next-Generation Invasive Devices for Recording and Modulation in the Human Central Nervous System (UH2/UH3)

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**NJIT Research Cluster Meeting #2 on Water-Energy and Sustainable Systems** on Monday, February 16, 2015 at 11.30 AM in Ballroom A

We have scheduled a series of meetings of Focus Group Clusters for Spring 2015 semester to discuss and evolve with strategic goals for specific external target grant opportunities, infrastructure needs, and development of research resources in respective multidisciplinary and cross-disciplinary areas.

The meeting schedule of the Focus Group clusters is as follows:

1. Life Sciences and Healthcare (Focus Groups 1 and 2): February 2, 11.30 AM – 1.00 PM, Ballroom A
2. Water-Energy and Sustainable Systems (Focus Groups 3 and 4): February 16, 11.30 AM – 1.00 PM: Ballroom A
3. Manufacturing Systems, Nanotechnology and Advanced Materials (Focus Groups 5, 6 and 7): February 20, 11.30 AM – 1.00 PM: Ballroom B
4. Data Science & Information Technology (Focus Groups 8, 9, 10 and 11): February 27, 11.30 AM – 1.00 PM: Ballroom B
5. Trans-disciplinary Areas (Focus Groups 12, 13 and 14): March 2, 11.30 AM – 1.00 PM: Ballroom B

I would like to request Deans, Department Chairs and faculty interested in the respective Research Focus Groups and areas to please join these meetings and actively participate in the discussion on future plans. Please note that additional Research Focus Group meetings will be
NJIT Third Faculty Research Symposium

Event: Third NJIT Faculty Research Symposium: Oral Presentations and Electronic Posters
When: February 23, 2015; 11.00 AM – 7.00 PM
Where: Ballroom A & B, and Gallery, Campus Center

Keynote Speaker: Dr. Tiffani Lash, Program Director, Division of Discovery Science and Technology, National Institutes of Health. Biosketch: http://www.nibib.nih.gov/about-nibib/staff/tiffani-lash

Please join us to network with our new faculty members, Faculty Seed Grant awardees and research center directors to celebrate research accomplishments. For more information on the program, please see the Grant Opportunity: Issue: ORD-GOA-2015-04 or visit the research website http://www.njit.edu/research/

NSF NRT and Internal Competition:

Grant Program: National Science Foundation Research Traineeship Program (NRT)
Agency: National Science Foundation NSF 15-542

Brief Description: The NSF Research Traineeship (NRT) program is designed to encourage the development and implementation of bold, new, potentially transformative, and scalable models for STEM graduate education training. The NRT program seeks proposals that ensure that graduate students in research-based master's and doctoral degree programs develop the skills, knowledge, and competencies needed to pursue a range of STEM careers. The NRT program includes two tracks: the Traineeship Track and the Innovations in Graduate Education (IGE) Track. The Traineeship Track is dedicated to effective training of STEM graduate students in high priority interdisciplinary research areas, through the use of a comprehensive traineeship model that is innovative, evidence-based, aligned with changing workforce and research needs, and scalable. For this solicitation the Traineeship Track has one priority interdisciplinary research theme — Data-Enabled Science and Engineering (DESE); proposals are encouraged also on any non-DESE interdisciplinary research theme that is a national priority. The IGE Track is dedicated solely to piloting, testing, and evaluating novel, innovative, and potentially transformative approaches to graduate education, both disciplinary and interdisciplinary, to generate the knowledge required for their customization, implementation, and broader adoption. Whereas the Traineeship Track promotes building on
the current knowledge base to more effectively train STEM graduate students, the IGE Track supports test-bed projects with high potential to enrich, improve, and extend the knowledge base with attention to transferability and innovation. For both tracks, strategic collaborations with the private sector, non-governmental organizations (NGOs), government agencies, national laboratories, field stations, teaching and learning centers, museums, and academic partners are encouraged.

**Limited Number of Submission:** 3 (total)

**Limit on Number of Proposals per Organization:** 2 for the Traineeship Track, 1 for the Innovations in Graduate Education Track

Each institution may submit two Traineeship Track proposals and one Innovations in Graduate Education Track proposals. If an institution submits only one Traineeship Track proposal, it can be on either DESE or another theme. If an institution submits two Traineeship Track proposals, *at least one* must be a DESE proposal. In either case (DESE or non-DESE), the traineeship theme of a Traineeship Track proposal must be interdisciplinary.

**Letter of Intent:** March 25, 2015 and December 22, 2015; Applies to both tracks

**Full Proposal Submission Deadline:** May 06, 2015 and February 22, 2016 Applies to both tracks

**Internal Competition:** Pre-proposal for five pages for internal competition must be submitted with the following sections for internal review. Please follow the instructions for pre-proposals on each section as described in the last year NSF announcement NSF 14-548 available on the website [http://www.nsf.gov/pubs/2014/nsf14548/nsf14548.htm#prep](http://www.nsf.gov/pubs/2014/nsf14548/nsf14548.htm#prep)

1. Cover sheet (not included in the page limit)
2. Project Summary (1-page limit)
3. Project Description (4-page limit)
   a. List of Core Participants
   b. Theme, Vision and Goals
   c. Education and Training
   d. Major Research Efforts
   e. Broader Impact
   f. Recruitment, Mentoring and Retention
4. Budget and Matching Resources (not included in the page-limit)

**Internal Competition Deadlines:**

Proposals Due to College Deans: February 21
Recommendations on Proposals (1 per college) to be forwarded to Vice Provost for Research: February 27
Announcement of Selected Proposal for Institutional Submission: March 3, 2015

**NASA**

**Grant Program:** Technology Advancing Partnerships Call At John F. Kennedy Space Center

**Agency:** NASA Kennedy Space Center
Brief Description: The National Aeronautics and Space Administration (NASA) at John F. Kennedy Space Center is releasing a Cooperative Agreement Notice (CAN) for the Technology Advancing Partnerships (TAP) Call. Upon its release date, February 11, 2015, this CAN will be available electronically through the NASA Solicitation and Proposal Integrated Review and Evaluation System (NSPIRES) by selecting "solicitations" (nspires.nasaprs.com). Participation is open to all U.S. organizations including educational institutions, industry and nonprofit institutions. Proposal due date is May 8, 2015. The electronic submission of each proposal's Proposal is required by the due date for proposal submission. This solicitation leading to the award of a Cooperative Agreement is issued pursuant to Title 14 CFR Part 1260 for educational and nonprofit institutions and 14 CFR part 1274 for commercial organizations. Notwithstanding the posting of this opportunity at FedBizOpps.gov, Grants.gov, or at both sites, NASA reserves the right to determine the appropriate award instrument for each proposal selected pursuant to this announcement. Designate the appropriate technical points of contact as appropriate, such as: Direct questions specifically regarding this solicitation to: KSC-TAPchallenge@mail.nasa.gov National Aeronautics and Space Administration (NASA) Kennedy Space Center (KSC) is releasing this CAN for proposals to enhance identified technology needs. This effort will seek a potential partner who will provide service in support of developing technology. The cooperative agreement award recipient is expected to cooperatively share in the development cost of the technology that meets the specified NASA interest, and interact with the appointed KSC contact on a regular basis.

Awards: $75,000

Letter of Intent: Not Required

Deadline: May 8, 2015  All proposals in response to this CAN shall be submitted electronically via NSPIRES. Electronic proposals must be submitted in its entirety by May 8, 2015.

Grant Program: National Strategy for Trusted Identities in Cyberspace (NSTIC) Pilots Cooperative Agreement Program

Agency: National Institute of Standards and Technology 2015-NIST-NSTIC-01


Brief Description: NIST is soliciting applications from eligible applicants to pilot online identity solutions that embrace and advance the NSTIC vision of an Identity Ecosystem Framework. Specifically, the Federal government seeks to initiate and support pilots that address the needs of individuals, private sector organizations, and all levels of government in accordance with the NSTIC Guiding Principles that identity solutions will be (1) privacy-enhancing and voluntary, (2) secure and resilient, (3) interoperable, and (4) cost-effective and easy-to-use. Pilots that maximize their contribution to the development of the broader Identity Ecosystem Framework through public forums such as the Identity Ecosystem Steering Group (IDESG) (see page 6) are encouraged. NIST will fund projects that are intended to demonstrate or deploy new solutions, models, and frameworks that either do not exist or are not widely adopted in the marketplace today.

Awards: $1,000,000 to $2,000,000 per year per project for up to two (2) years

Letter of Intent: Not Required

Full Proposal Deadline: April 16, 2015
Grant Program: NIST Standards Services Curricula Development (SSCD) Cooperative Agreement Program

Agency: National Institute of Standards and Technology 2015-NIST-SSCD-01
RFP Website: http://gsi.nist.gov/global/docs/FY15FFO.pdf
Brief Description: The NIST SSCD Cooperative Agreement Program provides financial assistance to support curriculum development for the undergraduate and/or graduate level. These cooperative agreements support the integration of standards and standardization information and content into seminars, courses, and learning resources. The recipients will work with NIST to strengthen education and learning about standards and standardization.
Awards: Approximately $350,000 may be available to fund two (2) to eight (8) projects in the $25,000 - $75,000 range with project performance periods of up to eighteen (18) months.
Letter of Intent: Not Required
Full Proposal Deadline: May 13, 2015

National Endowment for the Humanities

Grant Program: Challenge Grants
Agency: National Endowment Grants for the Humanities
RFP Website: http://www.neh.gov/grants/challenge/challenge-grants
Brief Description: The mission of the NEH Office of Challenge Grants is to advance knowledge and understanding in the humanities by strengthening the institutional base of humanities teaching, scholarly research, public programming, and other humanities activities. Challenge grants are capacity-building grants, intended to support significant humanities activities of high intellectual quality and to help institutions secure long-term support for their humanities programs.
Through these grants many organizations and institutions have been able to increase their humanities capacity and secure the permanent support of an endowment. Grants may be used to establish or enhance endowments or spend-down funds that generate expendable earnings to support and enhance ongoing program activities. Challenge grants may also provide capital directly supporting the procurement of long-lasting objects, such as acquisitions for archives and collections, the purchase of equipment, and the construction or renovation of facilities needed for humanities activities. Funds spent directly must be shown to bring long-term benefits to the institution and to the humanities more broadly. Grantee institutions may also expend up to 10 percent of total grant funds (federal funds plus matching funds) to defray costs of fundraising to meet the NEH challenge. Because of the matching requirement, these NEH grants also strengthen the humanities by encouraging nonfederal sources of support. Applications are welcome from colleges and universities, museums, public libraries, research institutions, historical societies and historic sites, scholarly associations, state humanities councils, and other nonprofit humanities entities. Programs that involve collaboration among multiple institutions are eligible as well, but one institution must serve as the lead agent and formal applicant of record.
Awards: Up to $500,000
Letter of Intent: Not Required
Full Proposal Deadline: May 05, 2015
US Department of Education

Grant Program: Office of Innovation and Improvement (OII): Supporting Effective Educator Development (SEED) Grant Program CFDA Number 84.367D

Agency: US Department of Education

RFP Website: [http://www2.ed.gov/programs/edseed/index.html](http://www2.ed.gov/programs/edseed/index.html)

Brief Description: The Supporting Effective Educator Development (SEED) Grant Program provides funding for grants to national non-profit organizations for projects that are supported by at least moderate evidence to recruit, select, and prepare or provide professional enhancement activities for teachers, principals, or both.

Awards: Total funding available: $24,000,000

Letter of Intent: March 12, 2015

Full Proposal Deadline: April 13, 2015

NSF

Grant Program: STEM + Computing Partnerships (STEM+C)

Agency: NSF 15-537


Brief Description: The STEM+C Partnerships program seeks to significantly enhance the learning and teaching of science, technology, engineering, mathematics (STEM), and computing by K-12 students and teachers, through research on, and development of, courses, curriculum, course materials, pedagogies, instructional strategies, or models that innovatively integrate computing into one or more STEM disciplines, or integrate STEM content into the teaching and learning of computing. In addition, STEM+C seeks to build capacity in K-12 computing education with foundational research and focused teacher preparation. Projects in the STEM+C Partnerships program should build on research in STEM education and prior research and development efforts that provide theoretical and empirical justification for proposed projects. Pre-service and in-service teachers who participate in STEM+C projects are expected to enhance their understanding and teaching of STEM and computing content, practices, and skills.

STEM+C invites creative and innovative proposals that address emerging challenges in the learning and teaching of STEM and computing. The program offers proposers two tracks: (1) Integration of Computing in STEM Education and (2) Computing Education Knowledge and Capacity Building. The second track is discipline-specific and may be expanded to include additional disciplines in future releases of the solicitation.

Awards: Standard Grants

Anticipated Funding Amount: $43,000,000

Letter of Intent: Not required

Deadline: Full Proposal Deadline(s): Full Proposal Due: April 14, 2015

National Institutes of Health

Grant Program: High-End Instrumentation (HEI) Grant Program (S10)

Agency: NIH (several institutes) PAR-15-118
This FOA seeks applications from institutions that meet the qualifications for a multi-prevention, treatment, a research center cooperative agreements designed to advance the diagnosis, errors found in the application during the submission process by the due 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.

-**Awards:** Applications will be accepted that request a single, commercially available instrument or integrated system which costs at least $600,000. There is no upper limit on the cost of the instrument, but the maximum award is $2,000,000. Since the cost of the various instruments will vary, it is anticipated that the size of the award also will vary.

**Letter of Intent:** Not required

**Deadline:** May 29, 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: Intellectual and Developmental Disabilities Research Centers 2015 (U54)**

**Agency:** NIH RFA-HD-15-033


**Brief Description:** The purpose of this Funding Opportunity Announcement (FOA) is to seek applications for the *Eunice Kennedy Shriver* Intellectual and Developmental Disabilities Research Centers (IDDRCs). This Funding Opportunity Announcement (FOA) invites applications for research center cooperative agreements designed to advance the diagnosis, prevention, treatment, and amelioration of intellectual and developmental disabilities (IDD). This FOA seeks applications from institutions that meet the qualifications for a multi-


**Brief Description:** The purpose of this funding opportunity is to continue the High End Shared Instrumentation Grant (HEI) Program administered by ORIP. The objective of the program is to make available to institutions expensive research instruments that can only be justified on a shared-use basis and that are needed for NIH-supported projects in basic, translational or clinical areas of biomedical/behavioral research. The HEI program provides funds to purchase or upgrade a single item of expensive, specialized, commercially available instrument or an integrated instrumentation system. An integrated instrumentation system is one in which the components, when used in conjunction with one another, perform a function that no single component could provide. The components must be dedicated to the system and not used independently.

Types of supported instruments include, but are not limited to: x-ray diffractometers, nuclear magnetic resonance (NMR) and mass spectrometers, electron and confocal microscopes, protein and DNA sequencers, biosensors, cell sorters, and biomedical imagers.

The HEI program will not support requests for:

- an instrument with a base cost of less than $600,000;
- multiple instruments bundled together or a series of complementary related instruments which share a common research focus;
- software, unless it is integral to the operation of a piece of equipment;
- purely instructional equipment, institutional administrative management systems, clinical management systems;
- instruments used for clinical (billable) care;
- general purpose equipment or an assortment of instruments to furnish a research facility, equipment for routine sustaining infrastructure (such as, standard machine shop equipment, standard computer networks, autoclaves, hoods and equipment to upgrade animal facilities).

The HEI program supports instruments for research purposes only.

**Awards:** Applications will be accepted that request a single, commercially available instrument or integrated system which costs at least $600,000. There is no upper limit on the cost of the instrument, but the maximum award is $2,000,000. Since the cost of the various instruments will vary, it is anticipated that the size of the award also will vary.

**Letter of Intent:** Not required

**Deadline:** May 29, 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.
disciplinary program of IDD research that will include: 1) Cores that facilitate interdisciplinary and translational research in IDD, and support IDD-related projects funded by other sources; and 2) at least one specific research project related to one of five focus themes identified as an area of research need in IDD. Funds for the majority of research projects using these core facilities come from independent sources including Federal, State, and private organizations.

This initiative will support IDDRCs through the U54 (Specialized Center-Cooperative Agreement) mechanism. The U54 mechanism will also allow the research community, in collaboration with the NICHD, to respond to emerging needs within the IDD field. The goals of the IDDRC program include the promotion of collaborative, multidisciplinary and interdisciplinary research programs that will not only provide core facilities and support for research in IDD, but will also advance the development of therapeutics and interventions for these conditions.

The missions of the IDD Branch at NICHD are broad and include research on the etiology, pathophysiology, epidemiology, diagnosis and evaluation, prevention, and treatment or amelioration of IDD. The research conducted by the IDDRCs in the past has mirrored this breadth and has covered a wide spectrum of scientific approaches ranging from laboratory research on fundamental processes of normal and abnormal development to clinical, biomedical, behavioral, and biobehavioral studies in persons with IDD. During the past 50 years, the IDDRCs have been highly productive, and solutions to some of the major challenges associated with IDD have emerged from multidisciplinary, collaborative, and integrated approaches.

**Awards:** Support for the entire IDDRC should not exceed $1.3 million in total costs per year.

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

**Deadline:** April 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. 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:** BRAIN Initiative: Next-Generation Invasive Devices for Recording and Modulation in the Human Central Nervous System (UH2/UH3)

**Agency:** NIH **UH2/UH3 Phase Innovation Awards Cooperative Agreement**


**Brief Description:** This funding opportunity will utilize a UH2/UH3 cooperative agreement mechanism to support non-clinical testing (formerly pre-clinical testing) to enable IRB approval and/or a successful IDE submission necessary to conduct a small clinical study, and the subsequent small clinical study (e.g., Early Feasibility Study, see [http://www.fda.gov/downloads/MedicalDevices/DeviceRegulatoryInformation/GuidanceDocuments/UCM279103.pdf](http://www.fda.gov/downloads/MedicalDevices/DeviceRegulatoryInformation/GuidanceDocuments/UCM279103.pdf) for details/definition). For NSR clinical studies that do not require an IDE, IRB approval is considered sufficient. **This funding opportunity supports nonclinical testing and clinical studies to answer key questions about the function or final design of a device. This final device design may require most, if not all, of the non-clinical testing on the path to more advanced clinical trials and market approval. The clinical study is expected to provide information that cannot be practically obtained through additional nonclinical assessments (e.g., bench top or animal studies) due to the novelty of the device or its intended use, yet is critical to enable next-generation diagnostic or therapeutic devices.** Activities that can be supported in this program include implementation
of clinical prototype devices, design verification and validation activities, demonstration of non-clinical safety and efficacy, pursuit of U.S. regulatory approval for clinical study, and a single small clinical study. As applicants must have comprehensive supporting data, including proof-of-concept demonstration with a near final prototype in a relevant animal model prior to entry, innovation will in part be judged on presenting a credible path towards an IDE or an NSR clinical study.

All projects will have two phases, UH2 and UH3. The initial UH2 phase will support nonclinical testing to support to the filing of an IDE for an SR study or to obtain IRB approval for an NSR clinical study. All projects will start at the UH2 phase, but the length of UH2 phase will depend on the maturity of the project at entry. Only those UH2 projects that have met specific criteria (see below) will transition to the second UH3 phase after NIH administrative review. The UH3 phase will support a small clinical study.

An additional companion BRAIN FOA (RFA-NS-15-008) is anticipated to fund projects that are sufficiently developed to move directly to the UH3 clinical studies. This FOA is milestone-driven and involves NIH program staff’s participation in developing the project plan, monitoring the research progress, and making go/no-go decisions. NIH staff will also provide assistance to academic investigators in familiarizing them with the clinical device development process and the criteria needed to advance therapeutic leads and diagnostics to the clinic. The expectations of the program are in line with those of industry in regards to advancing devices through the translational developmental pipeline. As such, an inherent high rate of attrition is expected within this program.

**Awards:** Standard awards

**Letter of Intent:** Not Required

**Deadline:** April 14, 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 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.