

FUNDING OPPs & INFO

For Hajim School Researchers



Feb. 29, 2016

FUNDING OPPORTUNITIES

Limited Submissions (current list and forms)

<http://www.rochester.edu/orpa/funding/limitedsub.html>

National Institutes of Health (NIH)

Team-Based Design in Biomedical Engineering Education (R25)

PAR-16-108

<http://grants.nih.gov/grants/guide/pa-files/PAR-16-108.html>

Deadline: Internal Deadline: March 11, 2016. Only one (1) application per institution is allowed.

NIH Deadlines: Sponsor Application Deadline: Optional Letter of Intent is due April 29, 2016 and the full proposal is due May 31, 2106.

Funding: Direct costs of up to \$20,000 per year may be requested. Programs that include a clinical immersion program outside the academic year and lasting 6 to 10 weeks may request an additional \$20,000 to cover participant costs(see Participant Costs section below), yielding a total of \$40,000 in direct costs. Project durations of up to five years may be requested.

Program Synopsis: The NIH Research Education Program (R25) supports research education activities in the mission areas of the NIH. The over-arching goal of this NIBIB-NICHD R25 program is to support educational activities that complement and/or enhance the training of a workforce to meet the nation's biomedical, behavioral and clinical research needs. To accomplish the stated over-arching goal, this FOA will support creative educational activities with a primary focus on *Courses for Skills Development*. This FOA encourages applications from institutions that propose to establish new or to enhance existing team-based design courses or programs in undergraduate Biomedical Engineering departments or other degree-granting programs with Biomedical Engineering tracks/minors. This FOA mainly targets undergraduate students but may also include first-year graduate students. Courses and programs that address innovative and/or ground-breaking development, multidisciplinary/interdisciplinary education, the regulatory pathway and other issues related to the commercialization of medical devices, and clinical immersion are especially encouraged.

Instructions for submitting internal application: Internal applications must consist of (1) chair's letter, (2) research abstract, (3) biosketch or CV, (4) budget. Send Applications to: Cindy Gary (Hajim) cindy.gary@rochester.edu

This weekly message from Cindy Gary, Assistant Dean for Grants and Contracts, highlights research funding opportunities and announcements that are particularly relevant to Hajim School faculty, staff and students. If you have any questions, please contact cindy.gary@rochester.edu or call 253-5173.)

National Science Foundation

Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science (NSF INCLUDES) 16-544

<http://www.nsf.gov/pubs/2016/nsf16544/nsf16544.htm>

Deadline: Internal Deadline: March 11, 2016

Number of Applications allowed from UR: An organization may serve as the lead institution on only one Design and Development Launch Pilot proposal.

NSF Deadlines Required Preliminary Proposal is due April 15, 2016 and the full proposal is due June 24, 2016.

Funding: \$12.5 million is available to fund 30 - 40 NSF INCLUDES two-year Design and Development Launch Pilot Projects at levels up to \$300,000 each.

Eligibility: The PI must hold a permanent position at the lead institution. The PI must have experience in leading distributed teams and organizations. Collaboration for impact in STEM relevant activities is desirable but not required.

Program Synopsis: Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science (NSF INCLUDES) is a comprehensive national initiative designed to enhance U.S. leadership in science, technology, engineering and mathematics (STEM) discoveries and innovations focused on NSF's commitment to diversity, inclusion, and broadening participation in these fields. NSF INCLUDES supports efforts to develop talent from all sectors of society to build the STEM workforce. The initiative aims to improve the preparation, increase the participation, and ensure the contributions of individuals from groups that have traditionally been underrepresented and underserved in the STEM enterprise, including women, members of racial and ethnic groups, persons with disabilities, and persons with low socio-economic status. Significant advancement of these groups will result in a new generation of promising STEM talent and leadership to secure our nation's future in science and technology. As a comprehensive national initiative, NSF INCLUDES aims to address the various complex equity and inclusion-related challenges and opportunities that characterize the nation's cultural and linguistic diversity, with a specific emphasis on the aforementioned groups. The goal is to achieve national level impact and progress toward STEM inclusion. Viewing this challenge as a social innovation problem, **NSF is particularly interested in using approaches to scaling and growth such as collective impact, networked communities and strategic partnerships.** The objective is to develop networks that involve representative organizations and consortia from different sectors that are committed to a common agenda to solve a specific STEM inclusion problem at scale. The long-term goal of NSF INCLUDES is to support, over the next ten years, innovative models, networks, partnerships, and research that enable the U.S. science and engineering workforce to thrive by ensuring that women, blacks, Hispanics, and people with disabilities are represented in percentages comparable to their representation in the U.S. population. In FY 2016, NSF seeks proposals for Design and Development Launch Pilots to catalyze the formation of NSF INCLUDES Alliances.

Instructions for submitting internal application: Internal applications must consist of (1) chair's letter, (2) research abstract, (3) biosketch or CV, (4) budget. Send Applications to: Cindy Gary (Hajim) cindy.gary@rochester.edu

National Science Foundation

Materials Research Science and Engineering Centers (MRSEC) Preliminary

NSF 16-545

<http://www.nsf.gov/pubs/2016/nsf16545/nsf16545.pdf>

Deadline: Preliminary: July 01, 2016 (Invited Full: December 02, 2016)

Limit on Number of Proposals per Organization = 1.* Lewis Rothberg, UR Director of Materials Science is leading UR application

Limit on Number of Proposals per PI or Co-PI = 1. An individual may be the Principal Investigator (PI) or co-PI for only one preliminary proposal, i.e., no investigator can be listed on the cover page on more than one proposal.

Funding: Estimate of \$23M will be available for the FY 2017 competition for funding approximately 6 to 8 MRSEC awards. \$2.2 million/year to a maximum of \$4.0 million/year for a MRSEC proposal, depending on the number of IRGs.

Synopsis: Provide sustained support of interdisciplinary materials research and education of the highest quality while addressing fundamental problems in science and engineering. MRSECs address research of a scope and complexity requiring the scale, synergy, and inter disciplinaryity provided by a campus-based research center. They support materials research infrastructure in the US, promote active collaboration between universities and other sectors, including industry and international institutions, and contribute to the development of a national network of university-based centers in materials research, education, and facilities. A MRSEC may be located at a single institution, or may involve multiple institutions in partnership. A MRSEC may encompass two to three interdisciplinary research groups (IRGs). Each IRG involves several faculty members (typically 6 to 10) addressing a major topic or area, in which sustained support for interactive effort by the several participants of complementary backgrounds, skills, and knowledge is critical to progress. The IRGs in a center may be thematically related, or they may address different aspects of materials research.

A MRSEC may address any area of research supported by the NSF Division of Materials Research which include 8 programs (known as core or individual investigator programs): Biomaterials (BMAT), Ceramics (CER), Condensed Matter Physics (CMP), Condensed Matter and Materials Theory (CMMT), Electronic and Photonic Materials (EPM), Metals and Metallic Nanostructures (MMN), Polymers (POL), and Solid State and Materials Chemistry (SSMC). For a detailed description of the research supported by the 8 core programs visit <http://www.nsf.gov/materials>. IRGs not well aligned with DMR supported research will not be reviewed.

External

AFOSR

BAA-AFRL-AFOSR-2016-0002

Military Medical Photonics Program (CFDA 12.420)

https://www.fbo.gov/index?s=opportunity&mode=form&id=c662b9245a67b9d794f3698a6a7a554c&ab=core&_cvview=0

Deadline: Pre-proposal inquiries and questions must be received in writing by electronic mail not later than 04 April 2016 Proposal: April 22, 2016

Funding: \$2 million may be made available to fund between two (2) and six (6) proposals submitted under this announcement. The period of performance anticipated is up to three (3) years duration

Synopsis: Unclassified proposals for broad-based research and development aimed at using lasers and other light source technology to develop applications in medicine, photobiology, surgery, and closely related materials sciences, with applications to combat casualty care and other military medical problems. This announcement is primarily directed toward university-based medical institutions; however, all qualified and responsible prime applicants located in the US are eligible to submit proposals. The highest priority will be extended to proposals up to three (3) years duration to be conducted by teams of physicians, biomedical scientists, physical scientists, and engineers. The efforts proposed may be basic or applied research, and must have direct relevance to combat casualty care or other military medical priorities. Applicants must demonstrate substantial experience working to further military medical priorities, including transitioning research into clinical practice and working products. Substantial experience collaborating with military medical centers is also a requirement to establish relevance to combat casualty care or other military medical priorities, and facilitate the transition of research results to meet military needs.

Program Manager: Kyle Blake Phone 703 696 7315

All NASA Open Opportunities can be searched at <http://nspires.nasaprs.com/external/>

National Science Foundation

EarthCube - Developing a Community-Driven Data and Knowledge Environment for the Geosciences 16-514

<http://www.nsf.gov/pubs/2016/nsf16514/nsf16514.pdf>

Deadline: March 24, 2016 Prototypes & Capabilities, awards; Research Coordination Networks (RCN) anytime

Funding: 2 awards for Prototypes Awards (36 months in duration and up to \$2,500,000 in total budget); up to 12 for Capabilities (24 and 36 months in duration with budgets between \$500,000 and \$1,700,000); 3-5 awards for Research Coordination Networks(RCNs - maximum of 24 months and a maximum of \$300,000).

Synopsis: EarthCube is a community-driven activity sponsored through a partnership between the NSF Directorate for Geosciences (GEO) and the Directorate for Computer & Information Science & Engineering (CISE) Division of Advanced Cyberinfrastructure (ACI) to transform research in the academic geosciences community. EarthCube aims to create a well-connected and facile environment to share data and knowledge in an open, transparent, and inclusive manner, thus accelerating our ability to understand and predict the Earth system. Achieving EarthCube will require a long-term dialog between NSF and the interested scientific communities to develop cyberinfrastructure that is thoughtfully and systematically built

to meet the current and future requirements of geoscientists. New avenues will be supported to gather community requirements and priorities for the elements of EarthCube, and to capture the best technologies to meet these current and future needs. The EarthCube portfolio will consist of interconnected projects and activities that engage the geosciences, cyberinfrastructure, computer science, and associated communities.

National Institutes of Health

Pre-application for a Biomedical Technology Research Resource (X02)

PAR-14-023

<http://grants.nih.gov/grants/guide/pa-files/PAR-14-023.html>

Deadlines: March 15, 2016; July 15, 2016

Synopsis: This announcement encourages pre-applications for the creation of national Biomedical Technology Research Resources (BTRRs <http://grants.nih.gov/grants/guide/pa-files/PAR-14-021.html>). A BTRR is expected to serve as a resource for the biomedical research community and must have a national impact. Each Resource has three critical components that set it apart from other NIH research Resources. A BTRR must provide (a) service and (b) training to outside investigators and must (c) disseminate the technology and methods it has developed. These efforts require the commitment of significant financial and personnel resources to activities outside of their primary research focus. Providing other investigators with ready access to Resource tools and expertise has a substantial impact on the administration and daily operation of the laboratory. Substantive, ongoing efforts to disseminate technologies and train non-specialists in their use require a fundamentally outward-looking philosophy, as well as enthusiasm for engaging the research community. The goal of these efforts is, so far as is possible, to export the technology and expertise of the Resource into the community, achieving a broader impact on biomedical research than would be possible through the projects in which the Resource can participate directly. Industrial partnerships are welcome when appropriate.

DARPA Signal Processing at RF (SPAR)

DARPA-BAA-16-20

Microsystems Technology Office

<http://www.grants.gov/web/grants/view-opportunity.html?oppId=281657>

Abstract Due Date: 11 March 2016, 1:00PM

Funding: It is anticipated that \$30M of total funding will be awarded across all technical areas approximately partitioned as follows:

- o \$ 17M for Technical Area 1 (TA1) RF Correlation Processing
- o \$ 8M for Technical Area 2 (TA2) Chip-Scale Circulators and Nonreciprocal Components
- o \$ 5M for Technical Area 3 (TA3) STAR Technology Demonstration

Synopsis: DARPA seeks to transform radio frequency (RF) systems by developing RF analog signal processing and nonreciprocal technologies that perform unprecedented levels of in-band interference suppression. The Signal Processing at RF (SPAR) technology aims to mitigate both self and externally generated interfering signals of known and unknown characteristics. The goal of SPAR is to demonstrate novel in-band signal interference mitigation technologies using analog signal processing techniques as well as novel chip-scale circulator approaches.

National Science Foundation

Cyberlearning and Future Learning Technologies 14-526

<http://www.nsf.gov/pubs/2014/nsf14526/nsf14526.pdf>

Full-Proposal Deadlines and Target Dates:

Integration (INT) Projects: Letter of Intent (required) May 9, 2016, Full proposals: July 11, 2016

Exploration Projects (EXPs): December 16, 2016

Capacity-Building Projects (CAPs): March 26, 2016, July 29, 2016 & December 2, 2016

Funding: NOTE: Multiple categories: INT - \$2,500,000 over 4 to 5 years; Exploration Projects – Up to \$550,000 over 2-3 years typical, CAP project funding varies

Synopsis: INT – Their purpose is to integrate several technologically-sophisticated efforts that have already shown promise, incorporate promising technologies and their uses into the lives of learners or organizations, or extend a promising innovation in ways that would allow it to be used by a larger population or variety of learners, and to answer foundational research questions related to learning that can only be answered in the context of an integration such as that proposed; these ARE NOT scale-up projects or effectiveness studies.

Capacity-Building Projects (CAPs), including conferences, workshops, and partnership-building activities that are aimed towards addressing important Cyberlearning issues.

Office of the Director of National Intelligence

Intelligence Advanced Research Projects Activity - IARPA

Crowdsourcing Evidence, Argumentation, Thinking and Evaluation (CREATE)

IARPA-BAA-15-11

<http://www.iarpa.gov/index.php/research-programs/create>

Deadline: April 18, 2016 (revised)

Funding: Phase 1 will last 20 months, while Phases 2 and 3 will last 17 months each, for a total of 4.5 years

Synopsis: Seeks proposals to develop, and experimentally test, systems that use crowdsourcing and structured analytic techniques (STs) to improve analytic reasoning. These systems will help people better understand the evidence and assumptions that support-or conflict with-conclusions. Secondly, they will also help users better communicate their reasoning and conclusions. STs hold promise for increasing the logical rigor and transparency of analysis. They can help reveal underlying logic and identify unstated assumptions. Yet they are not widely used in the Intelligence Community or elsewhere-possibly because current versions are cumbersome or require too much time. Crowdsourcing has the potential to solve these problems by dividing the labor, allowing dispersed groups of analysts to contribute information and ideas where they have comparative advantages. Crowdsourcing can help analysts identify and understand alternative hypotheses, arguments, and points of view. Crowdsourcing of structured techniques may facilitate rational deliberation by integrating different perspectives, so that analysis can effectively benefit from "crowd wisdom."

Research Areas: Microelectronics, Nondestructive analysis, Nanoscale imaging, Hardware assurance

National Science Foundation

Joint DMS/NIGMS Initiative to Support Research at the Interface of the Biological and Mathematical Sciences (DMS/NIGMS) 16-543

<http://www.nsf.gov/pubs/2016/nsf16543/nsf16543.htm>

Deadline: September 14, 2016

Funding: Award sizes are expected to range from \$100,000 to \$400,000 per year (total costs) with durations of 3-5 years

Synopsis: In this initiative, the National Institute of General Medical Sciences (NIGMS) and the National Science Foundation's Division of Mathematical Sciences (NSF/DMS) join together to promote research at the interface of the biological and mathematical sciences. The expertise of DMS in the mathematical and statistical sciences and the complementary expertise of NIGMS in biological and biomedical research are expected to create new opportunities in support of quantitative biological research. This program is designed to support research in mathematics and statistics on questions in the biological and biomedical sciences. A direct relationship between a biological application and the mathematical and/or statistical work is expected. Research collaborations that include scientists from both the life sciences community and the mathematical and statistical sciences communities are encouraged. Both new and existing collaborations will be supported. Proposals from individual investigators will need to make the case that the individual has expertise in both fields. Investigators are strongly encouraged to talk with an NIGMS and/or NSF contact person before submitting a proposal