

FUNDING OPPs & INFO

For Hajim School Researchers



Oct. 13, 2015

WEBINARS, EVENTS

**National Science Foundation WEBINAR
FY 2016 Partnerships for Innovation: Building
Innovation Capacity (PFI:BIC), again focuses on
smart, human-centered service systems**

Registration URL:

<http://www.nsf.gov/eng/iip/pfi/bic.jsp>

**Date: Wednesday, October 14th, 2015 at 1:30 PM -
3:00 PM EDT**

Solicitation NSF 15-610

<http://www.nsf.gov/pubs/2015/nsf15610/nsf15610.pdf>

***Internal limited submission deadline is October 16, 2015 as UR can only submit 2 proposals this round. Instructions for submitting internal application: Internal applications must consist of (1) chair's letter, (2) research abstract, (3) biosketch or CV, (4) budget and be submitted on required forms.**

**National Science Foundation WEBINAR
Emerging Frontiers in Research and Innovation (EFRI)**

Registration URL: http://www.nsf.gov/events/event_summ.jsp?cntn_id=136295

Date: Friday, October 23, 2015 2:30 - 4:00 PM

Solicitation NSF 16-502 – see details below.

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 EVENT
NSF Day at Spelman College in Atlanta Georgia**

http://www.nsf.gov/events/event_summ.jsp?cntn_id=136465&org=NSF

Date: November 3, 2015, 7:30 a.m. to 6:00 p.m.

Location: Spelman College, Atlanta

Synopsis: Ideal for Early career and tenure track faculty. This one-day NSF Day workshop will teach researchers how to better compete for research dollars that enable their projects. Information will be shared via lectures and interactive sessions. This is a behind-the-scenes look at how NSF works and how to submit fundable proposals.

National Institute of Health WEBINARS

NIH is presenting two webinars — one specifically for administrators, the other for faculty — from 2-4 p.m., **Nov. 5 and 6** to give participants useful insights into NIH application submission and peer review processes. **Faculty — especially junior faculty who have not yet successfully applied for an NIH R01 — are encouraged to register for the second webinar on Nov. 6.**

Registration: <http://public.csr.nih.gov/Pages/csrwebinar.aspx>

NY-BEST's Annual Energy Storage Technology Conference

<http://www.ny-best.org/page/ny-best-energy-storage-technology-conference-0>

Date: Thursday, November 12, 2015, 8:00 AM - 6:30 PM

Location: Double Tree, 1111 Jefferson Road, Rochester

*** Keynote Speaker:** Dr. Thomas Russell, Director, U.S. Army Research Laboratory (ARL)

FUNDING OPPORTUNITIES

**Air Force Materiel Command, AFRL - Rome Research Site
Emerging Computing Architectures and Application
BAA-RIK-14-05 CFDA Number: 12.800**

<https://www.fbo.gov/index?s=opportunity&mode=form&id=02f487faf329fb98a11ddaf8c2b1f932&tab=core&tabmode=list&=>

Deadline: white papers to be received by March 1, 2016. This is a two-step open BAA.

Funding: Individual awards will not normally exceed 36 months with dollar amounts normally ranging between \$100K to \$1M per year.

Synopsis: Connect with named technical POC. Of particular interest are emerging technologies that can provide revolutionary computational capabilities which enable greater system adaptability, autonomy and intelligence while improving information availability throughout the C4ISR enterprise. This involves performing research and development in the following technical areas:(1) Quantum Computing; (2) Nanocomputing; (3) Computational Intelligence and Neuromorphic Computing; (4) Resource Analysis of Cognitive Process Flow Used to Achieve Autonomy; (5) High Performance Computing; (6) Modular Embedded Computing Architectures.

National Science Foundation

Dear Colleague Letter: Optics and Photonics (NSF 16-004) – released 10/5/15

<http://www.nsf.gov/pubs/2016/nsf16004/nsf16004.pdf>

National Science Foundation announces a new crosscutting program, PD 15-9102, Optics and Photonics (OP).

Through this Dear Colleague Letter, NSF encourages innovative research proposals on optics and photonics that are relevant to one or more Divisions in the Directorates for Mathematical and Physical Sciences (MPS), Engineering (ENG), Biological Sciences (BIO), and Computer and Information Science and Engineering (CISE). The group will ensure that proposals are reviewed by the most suitable NSF disciplinary program and will coordinate co-review by more than one disciplinary program when appropriate. Investigators should identify OP proposals by including the three characters “OP:” at the beginning of the proposal title. This designation will serve to bring the proposal to the attention of the crosscutting OP working group. * Proposals that would particularly benefit from joint review should be submitted to a primary disciplinary program with secondary disciplinary program(s) in another Division(s) identified in the Proposal Cover Sheet, by the due date of the primary program.

National Science Foundation Optics and Photonics (OP)

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505213

Optics and Photonics (OP) program is an NSF-wide activity that involves multiple Divisions within the Directorate for Mathematical and Physical Sciences (MPS), the Directorate for Engineering (ENG), the Directorate for Biological Sciences (BIO), and the Directorate for Computer and Information Science and Engineering (CISE). The appropriate contact for the OP program is the Program Director and the list is available via the link.

The importance and timeliness of fundamental research in optics and photonics has been emphasized by recent publications, including:

- Optics and Photonics: Essential Technologies for Our Nation
- Building a Brighter Future with Optics and Photonics
- Science Opportunities in Optics and Photonics
- *Dear Colleague Letter – Optics and Photonics*

The Optics and Photonics (OP) program is designed to address the critical national need to enhance the support of basic and early applied research in optics and photonics. The OP program is a crosscutting NSF activity; by providing a common program for submission and review of proposals in this important area, it seeks to promote activities that significantly accelerate optics and photonics research. If there are strong collaborations with industry, please see the Grant Opportunities for Academic Liaison with Industry (GOALI) program solicitation, which can be used in conjunction with this effort.

Following are descriptions of areas of optics and photonics research emphasis within Divisions of the Directorate for Mathematical and Physical Sciences (MPS), the Directorate for Engineering (ENG), the Directorate for Biological Sciences (BIO), and the Directorate for Computer and Information Science and Engineering (CISE). Proposals to the OP program must be submitted to one of the relevant Divisional programs indicated in the following.

Directorate for Computer and Information Science and Engineering

-Computer and Network Systems (CNS)

<http://www.nsf.gov/pubs/2015/nsf15572/nsf15572.pdf> : CNS programs deadlines: Small Project deadline = November 18, 2015; Medium = September 16, 2016; Large = September 24, 2016

- [Computer Systems Research](#) (part of CNS core program)
- [Networking Technology and Systems](#) (part of CNS Core program – highlighted areas include optical networking)

Directorate for Engineering

-Chemical, Bioengineering, Environmental, and Transport Systems (CBET):

- [Biophotonics](#) (October 20, 2015)

-Electrical, Communications, and Cyber Systems (ECCS): ECCS programs are:

- [Electronics, Photonics, and Magnetic Devices \(EPMD\)](#) (November 2, 2015)
- [Communications, Circuits, and Sensing Systems \(CCSS\)](#) (November 2, 2015)

Directorate for Biological Sciences

- Biological Infrastructure (DBI):

- [Instrument Development for Biological Research](#) (July 29, 2016)

Directorate for Mathematical and Physical Sciences

- Astronomy (AST)

- [Astronomy and Astrophysics Research Grants](#) (November 16, 2015)
- [Advanced Technologies and Instrumentation](#)

- Chemistry (CHE) Relevant CHE programs are:

- [Chemical Measurement and Imaging](#) (November 2, 2015)
- [Macromolecular, Supramolecular and Nanochemistry](#) (November 2, 2015)
- [Chemical Structure, Dynamics and Mechanisms \(CSDM-A\)](#) (September 30, 2016)
- [Chemical Structure, Dynamics and Mechanisms \(CSDM-B\)](#) (September 30, 2016)
- [Chemical Theory, Models and Computational Methods](#) (September 30, 2016)
- [Chemical Catalysis](#) (September 30, 2016)

-Materials Research (DMR). Relevant DMR programs – all deadlines October 31, 2015:

- [Biomaterials \(BMAT\)](#)
- [Ceramics \(CER\)](#)
- [Condensed Matter and Materials Theory \(CMMT\)](#)
- [Condensed Matter Physics \(CMP\)](#)
- [Electronic and Photonic Materials \(EPM\)](#)
- [Metals and Metallic Nanostructures \(MMN\)](#)
- [Polymers \(POL\)](#)
- [Solid State and Materials Chemistry \(SSMC\)](#)

-Mathematical Sciences (DMS): DMS programs are:

- [Applied Mathematics](#) (November 15, 2015)
- [Computational Mathematics](#) (December 1, 2015)
- [Statistics](#) (November 7, 2015)

-Physics (PHY): Relevant PHY programs are:

- [Atomic, Molecular and Optical Physics - Experiment](#) (October 28, 2015)
- [Atomic, Molecular and Optical Physics - Theory](#) (October 28, 2015)
- [Computational Physics](#) (December 3, 2015)
- [Gravitational Physics - Experiment](#) (October 28, 2015)
- [NSF/DOE Partnership in Basic Plasma Science and Engineering](#) (November 19, 2015)
- [Quantum Information Science](#) (December 3, 2015)

GOALI

Grant Opportunities for Academic Liaison with Industry (GOALI) 12-513

<http://www.nsf.gov/pubs/2012/nsf12513/nsf12513.pdf>

Deadline: Proposals Accepted Anytime, but generally fall into the unsolicited program review window. GOALI proposers must communicate with a specific program director in the disciplinary area of the proposed research for guidance on proposal submission

Funding:

*Program 1: Industry - University Collaborative Projects (Full proposals or requests for supplemental funding) – typically <\$100,000 per year and pays for university research/educational activities. The university grant may support activities of faculty and his/her students and research associates in the industrial setting. NSF funds cannot be used by the industrial research partner.

** Program 2: Faculty and Students in Industry (requests for supplemental funding to existing NSF awards). Faculty-in-Industry awards will typically range from \$30,000 to \$75,000 for up to one year; Postdoctoral Industrial Fellowship \$75,000 (inclusive) for a 12-month period.

*** Program 3: Industry Engineers and Scientists in Academe (requests for supplemental funding to existing NSF awards). Supplement awards are for a maximum of \$75,000 for up to one year.

Synopsis: Industry involvement and participation is required for GOALI funded projects. A co-investigator or co-advisor from industry is required in a collaborative project or industrial fellowship/traineeship. GOALI promotes university-industry partnerships by making project funds or fellowships/traineeships available to support an eclectic mix of industry-university linkages. Special interest is focused on affording the opportunity for: Faculty, postdoctoral fellows, and students to conduct research and gain experience in an industrial setting; Industrial scientists and engineers to bring industry's perspective and integrative skills to academe; and Interdisciplinary university-industry teams to conduct research projects. This solicitation targets high-risk/high-gain research with a focus on fundamental research, new approaches to solving generic problems, development of innovative collaborative industry-university educational programs.

**National Science Foundation
Emerging Frontiers in Research and Innovation (EFRI) program 16-502**

<http://www.nsf.gov/pubs/2016/nsf16502/nsf16502.pdf>

* **Emerging Frontiers and Multidisciplinary Activities (EFMA) Office will hold an information workshop on October 23,**

2015 : http://www.nsf.gov/events/event_summ.jsp?cntn_id=136295

Deadline: LOI Required - November 09, 2015; Preliminary - January 14, 2016;
Selected Full - April 08, 2016

Funding: ~\$2M per award (13 4-year award with anticipated funding of \$26M)

Synopsis: EFRI seeks proposals with transformative ideas that represent an opportunity for a significant shift in fundamental engineering knowledge with a strong potential for long term impact on national needs or a grand challenge. All EFRI projects to include a "Broadening Participation Plan" For this solicitation, we will consider proposals that aim to investigate emerging frontiers in the following two research areas:

Advancing Communication Quantum Information Research in Engineering (ACQUIRE) Thrust. This emerging engineering area and the ensuing interdisciplinary activities will leverage established Quantum Information Science (QIS) and will impact fields such as materials science, mathematics, physics and engineering in the next decade. The lessons learned from QIS research will accelerate engineering of systems on a chip, and help define goals for successfully addressing the scientific and engineering challenges of ACQUIRE , as further outlined in Thrust Areas 1-3. Each of the proposals in response to this EFRI solicitation must address at least two of the three thrusts outlined below:

1. Develop reproducible room temperature single photon sources and detectors on a chip
2. Develop low-energy quantum devices such as repeaters, memories, and other photonics
3. Develop scalable quantum entangled Qbits, robust and secure communication links, and demonstrate a fiber-based quantum circuit network, with noise correction algorithms

New Light and Acoustic Wave Propagation: Breaking Reciprocity and Time-Reversal Symmetry (NewLAW). This emerging technical area and the ensuing interdisciplinary activities should be coordinated by engineering-led teams that include contributions from researchers in material, mathematical and physical sciences. Highly innovative proposals are sought that build upon established and emerging research in non-reciprocity and topologically protected wave propagation, and that impact fields such as acoustics, mechanics, electromagnetics, opto-mechanics, material science, and dynamics and control. The exploration of concepts over a broad range of scales is expected to lead to new findings that support the design of “topologically nontrivial” photonic, electronic and acoustic systems. Projects should include relevant activities in the following three thrust areas, with clear innovation in at least one: 1) modeling, 2) analysis, design and control, and 3) fabrication, testing and characterization. Highly interdisciplinary projects are sought that pursue breakthroughs in the following three thrusts:

1. Modeling
2. Analysis, design and control
3. Fabrication, testing and characterization

National Science Foundation I-Corps Teams

<http://www.nsf.gov/pubs/2012/nsf12602/nsf12602.pdf>

Upcoming deadline: December 15, 2015

Funding : Up to \$50,000 per 6 month award. Recovery of indirect costs (F&A) is limited to \$5,000.

Synopsis: NSF I-Corps Team (12-602) opportunity for NSF awardees within last 5 years. Eligibility to Apply : Applicants must have received a prior award from NSF (in a scientific or engineering field relevant to the proposed innovation) that is currently active or that has been active within five years from the date of the I-Corps

Teams proposal submission. The prior award could range from a modest single-investigator award to a large, distributed center and also includes awards involving students such as REU Sites.

*The required lineage from a prior NSF award has been clarified to explicitly name, in addition to the Principal Investigator (PI), Co-PIs, Senior Personnel, Post Docs, Professional Staff or others who were supported under an NSF award.

Internal Funding Opportunities UR Technology Development Fund

<http://www.rochester.edu/tdf/>

Deadline: October 16 (pre-proposals)

Funding: Awards range from \$40,000 to \$100,000 to support projects of approximately one year in duration. TDF funding supports technical and administrative staff salaries, equipment, and supplies. It does not fund faculty salaries or overhead.

Synopsis: The first step is a pre-proposal submission via email which is evaluated by the Technology Development Fund Screening Committee. Within two weeks, the Screening Committee chooses a subset of the applications for a full proposal submission and an oral presentation which are due and scheduled approximately 2 and 4 weeks after notification for submission, respectively. After oral presentations, the Screening Committee identifies those projects deemed best to satisfy the commercialization criteria for review and, with the Executive Committee, grants the awards. Best efforts will be made to announce awards by the end of December. Contact Omar Bakht @ Omar_Bakht@URMC.Rochester.edu with questions.

Internal Limited Submission NSF Major Research Instrumentation (MRI) 15-504

Link to program solicitation/guidelines:
<http://www.nsf.gov/pubs/2015/nsf15504/nsf15504.pdf>

Internal Deadline: October 30, 2015. Instructions for submitting internal application: Internal applications must consist of (1) chair's letter, (2) research abstract, (3) biosketch or CV, (4) budget and be submitted on required forms.

Funding: \$100,000 - \$4M

Program Synopsis: MRI serves to increase access to shared scientific and

engineering instruments for research and research training in our Nation's institutions of higher education, not-for-profit museums, science centers and scientific/engineering research organizations. The program provides organizations with opportunities to acquire major instrumentation that supports the research and research training goals of the organization and that may be used by other researchers regionally or nationally.

Contact Cindy if you have any questions. Internal decisions for one of the 2 acquisition, or 1 development slot will be made by December 1, 2016. UR Selected full proposals are due to NSF January 13, 2016.

NSF Partnerships for Innovation: Building Innovation Capacity (PFI:BIC) 15-610

<http://www.nsf.gov/pubs/2015/nsf15610/nsf15610.htm>

Internal Deadline: October 16, 2015. Instructions for submitting internal application: Internal applications must consist of (1) chair's letter, (2) research abstract, (3) biosketch or CV, (4) budget and be submitted on required forms.

Funding: Awards may be up to \$1,000,000 with an award duration of three (3) years.

Synopsis: The Partnerships for Innovation: Building Innovation Capacity (PFI:BIC) program supports academe-industry partnerships which are led by an interdisciplinary academic research team collaborating with a least one industry partner. In this program, there is a heavy emphasis on the quality, composition, and participation of the partners, including the appropriate contributions for each role. These partnerships focus on the integration of technologies into a specified human-centered service system with the potential to achieve transformational change, satisfying areal need by making an existing service system smart(er) or by spurring the creation of an entirely new smart service system. The selected service system should function as a test bed. Service systems are socio-technical configurations of people, technologies, organizations, and information designed to create value by fulfilling the needs of those participating in the system. A "smart" service system is a system that amplifies or augments human capabilities to identify, learn, adapt, monitor and make decisions. The system utilizes data received, transmitted, or processed in a timely manner, thus improving its response to future situations. These capabilities are the result of the incorporation of technologies for sensing, actuation, coordination, communication, control, etc.

Contact Cindy if you have any questions. Internal decisions for one of the 2 slots by Nov 5 as REQUIRED LOI are due December 02, 2015; Full Proposal Deadline: January 27, 2016.