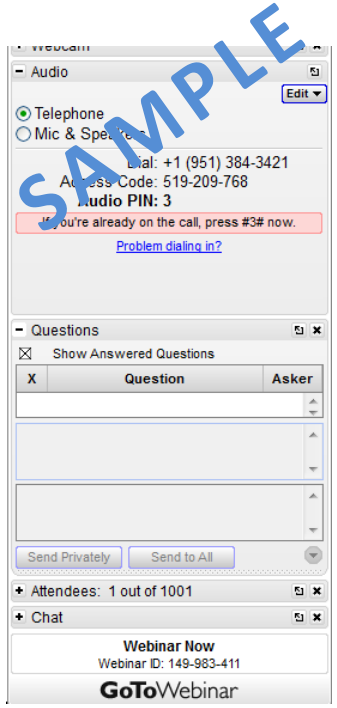
University Industry
Demonstration Partnership

INTERN - A New NSF Funding Opportunity for Graduate Student Support

July 18, 2017 • 1 – 2:30 PM EST

Webinar Logistics

- You should be able to hear me talking now.
- Two Audio Options: Phone or Computer
  - Choose one and connect
  - Pro tip: Don't call in on your phone if your audio is set to "Mic & Speakers"
- Ask questions using the Questions Panel on the right side of your screen ANYTIME.
- The recording of the webinar AND the slides will be available after the series concludes. We will post them and send you a link.



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About the UIDP

- Comprised of leading innovation companies and research universities
- Leverages its members' knowledge of contemporary issues impacting university-industry (U-I) relations and identifying (and evaluating) new approaches to working together
- Singular focus - *improving the value proposition derived from university-industry engagement*

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Contracting Forum

Nov. 13–14

ASU SkySong
Scottsdale, AZ

Register now at uidp.org.

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UIDP 25

Sept. 25 – 28

Wayne State University
Detroit, MI

Register now at uidp.org.

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Presenter

Dr. Prakash Balan is Program Director at the National Science Foundation with the Division of Industrial Innovation and Partnerships. He has over 20 years of broad experience spanning R&D, new technology development and commercialization in both large and small entrepreneurial company environments. He holds 12 US patents, many of which are in full commercial use today. He currently manages a spectrum of NSF industrially focused funding programs that include the Industry University Cooperative Research Centers Program (IUCRC), Grants Opportunity for Academic Liaison with industry Program (GOALI) and the Partnerships for Innovation (PFI) Program, all focused on developing industry-academia collaboration and early stage technology development towards commercialization.

UIDP Webinar

NSF funding opportunities for Graduate Student Internships

Catalyzing new linkages for Graduate Student Preparation for the Workforce

Prakash Balan, pbalan@nsf.gov
Program Director, National Science Foundation

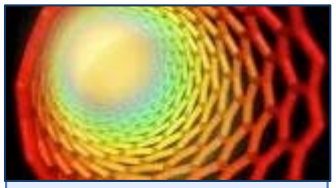
National Science Foundation

NSF's Vision - NSF's vision is a nation that creates and exploits new concepts in science and engineering and provides global leadership in research and education

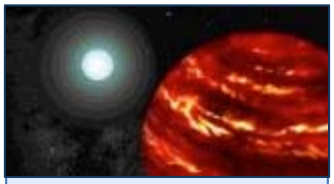
- ~$7.5B Budget
- 220+ Nobel Laureates supported
- Overall: ~362,000 researchers, postdoctoral fellows, trainees, teachers, and students supported
- ~400 startups/small businesses funded each year

NSF Funds All Fields of Science & Engineering

Biological Sciences



Engineering



Mathematical & Physical Sciences

Computer & Information Science & Engineering

Geosciences (including Polar Programs)

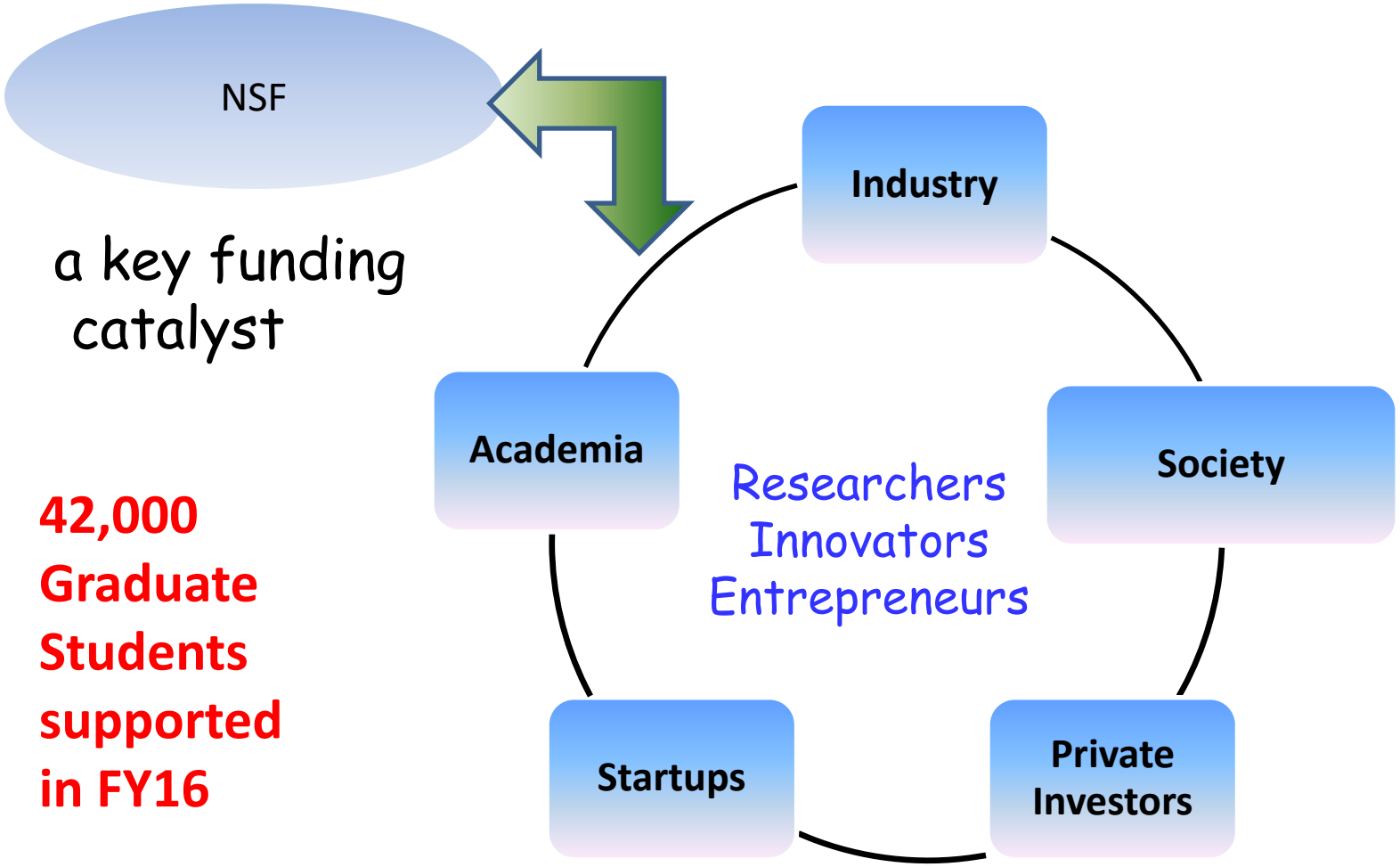
Integrative Activities

Education & Human Resources

Social, Behavioral & Economic Sciences

International Science and Engineering

The NSF Innovation Ecosystem



42,000 Graduate Students supported in FY16

Graduate Students: Key needs in preparing for the work force

Breadth of experiences needed beyond deep domain expertise and academic research expertise

- Business and economics
- Project and time management
- Communication written & oral
- Strategic thinking
- Innovation and entrepreneurship
- Health and Safety
- Law and Ethics

Job market for graduate students

- 55% of Ph.D. STEM Graduates find jobs outside academia!

- 79% of master's degree graduates secure non-academic jobs

https://www.nsf.gov/statistics/2016/nsb20161/#/figure/fig03-10, *Science and Engineering Indicators 2016*.

Jobs for Scientists and Engineers Overall

The majority of job opportunities today are outside academia (educational institutions)

- Business sector (mostly for-profit)– 70%
- Academia/education sector – 19%
- Government service – 11%

Helping Grad Students Unlock opportunity…

- Advisors/Faculty
  - Pursue non-academic collaborative research opportunities
  - Build mentor networks
- Industry
  - Encourage and support trainee/intern activities
  - Advertise opportunities for students
  - Serve in a mentoring role
- Government
  - Provide funding resources and programs to catalyze academia-industry partnerships

Key NSF industrially focused activities Opportunities for Grad Students

- Grant Opportunities for Academic Liaison with Industry (GOALI)
  - Research grants for strong industry-PI research collaborations
- Partnerships for Innovation (PFI)
  - Grants or technology translation with industrial collaboration potential
- Industry-University Cooperative Research Centers (IUCRC)
  - Strong opportunities for Undergraduates/Grad/Post Doc involvement in industrially valued research
- Small Business Innovation Research (SBIR/STTR)
  - Technology development & Commercialization
- iCorps – Innovation Corps
  - Powerful startup business models through customer discovery

New NSF Support

Non-Academic Research Internships for Graduate Students (INTERN)

- INTERN Dear Colleague Letter (DCL): https://www.nsf.gov/pubs/2017/nsf17091/nsf17091.jsp

- Offered as supplemental funding to any active NSF Research Grant

- Supported in FY18 and FY19

INTERN DCL – Highlights

- Internships for NSF funded Graduate Students on research assistantships
- Up to 6 months per internship
- Host organization describes internship/mentoring plan
- Need an IP agreement governing internship activities
- INTERN DCL support funds go to the academic institution

The Opportunity

- To pursue new activities aimed at acquiring professional development experience that will enhance their preparation for multiple career pathways after graduation

- Augment research assistantships with additional non-academic research internship activities and training opportunities that will complement their academic research training.

Internship Activities Supported in…

- Industry laboratories or industry research and development groups
- Start-ups and small businesses
- Government agencies and National Laboratories
- Policy think-tanks
- Non-profit organizations

Eligibility

- Graduate student is supported on an active NSF award
- Graduate students must have completed at least one year in their graduate programs
- Making satisfactory progress towards the completion of their degrees
- International Students are eligible

Period of Support

- Up to six months of support for an internship
- Up to two supplemental requests may be made on a grant
  - allows the student two internship periods up to six months each (i.e., a maximum of 12 months per student).

Funding Amount

Not to exceed $50,000 per student per six month period or 20% of the original award total (whichever is lower)

Rolling Submissions & Deadlines

- In FY 2018, all submissions received on or before **June 1st, 2018** will be reviewed

- In FY 2019, all submissions must be received by **June 3rd, 2019**

- Supplemental funding requests may be submitted at any time but no later than the deadlines stated above in each fiscal year.

Allowable Expenses

- Travel, tuition and fees, health insurance, additional stipend and temporary relocation costs for the graduate student
- Spousal and dependent travel are not permitted.
- OK to request indirect costs in accordance with institution's approved/negotiated indirect cost rate.

Proposal - Nuts and Bolts!

- Two-page summary describing the internship - include a concise statement from the student describing how the activity will better prepare him/her to enter the workforce.
- One-page resume of the student with the following information:
- Letter of collaboration/mentorship from the host organization

- PI Letter:
  - Include a statement confirming that neither the graduate student nor the PI has a financial interest in the organization hosting the internship.
  - Confirm that the student meets the eligibility requirements
  - describe how the proposed internship activity will contribute to the student's graduate education experience and how it may impact time to degree.

IP Agreement

- IP Agreement : The NSF awardee and the organization hosting the graduate student must agree in advance as to how intellectual property (IP) rights will be handled.

- A signed agreement on IP (including publication and patent rights) must be submitted before the supplemental funding will be awarded.

- . NSF is responsible neither for the agreement reached nor the IP information exchanged between the NSF awardee and the host organization.

Value Propositions – To Universities

- Student training recruitment and placement
- Sustainable relationships with industry
- Building partners for collaborations
- Better showcasing of faculty research programs
- Seeding industry with alumni and building networks

Value Propositions – To Industry

- Access to students / talent pipeline
- Discover and network with faculty
- Stronger and sustainable university relationships

Key Value Propositions – Graduate Students

- Communication skills
- Better exposure to real world challenges
- Better understanding of professional work practices and operations
- Exposure to legal, business, financial, human capital issues in the workplace
- Time and project management skills
- A better understaning of career options

How to Apply

- Submit the supplemental funding request via Fastlane
- A PI on an NSF grant should contact his/her cognizant program director prior to submission
- Requests will be reviewed internally by NSF Program Directors

What Next?

- Advertise the INTERN DCL widely within your university
- Alert NSF funded Principal Investigators about the opportunity
- Engage with the cognizant Program Director of the NSF Grant
- Help Employers engage your university's Grad Student talent through Internships
- Build new relationships with Industry and beyond

Ask Early, Ask Often!

Contact the cognizant Program Officer

Thank you!

Questions?

Prakash Balan, Ph.D
Pbalan@nsf.gov
703-292-5341

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Thank you for participating in today's webinar.

Please take a minute to respond to the survey that will pop up at the end of the webinar regarding your experience.

For more information, please visit https://www.nsf.gov/pubs/2017/nsf17091/nsf17091.jsp or contact Dr. Prakash Balan at pbalan@nsf.gov.