REQUEST FOR RESEARCH PROPOSALS

Research grants available.

The NSF I-Corps Hub Northeast Region is pleased to announce support for research on technology innovation, commercialization and entrepreneurship.

Small (up to $5000) research grants are available on a competitive basis to researchers interested in conducting research projects in collaboration with the NSF I-Corps Hub Northeast Region. We are interested in research that will result in academic publication and projects that advance practice in meaningful ways. We are particularly interested in research proposals in two areas: 1) deep tech ventures founding and 2) inclusive innovation, described below.

Topic 1 - Deep Tech Venture Founding

To maintain our national leadership in innovation and technology entrepreneurship, it is important that we conduct robust research on technology commercialization and the development of deep tech ventures. Current research supporting technology commercialization and innovative small business development lacks clarity on evidence-based best practices and there is a lack of research on team level and program level outcomes (Huang-Saad, Fay, & Sheridan, 2017). This solicitation offers a unique opportunity for research to be conducted utilizing Hub partners and affiliates. Specifically, collecting data as teams are formed, as well as during and after the training program will allow for the exploration of many themes. Research questions include (but are not limited to) the following:

- What human and social capital factors are significant in the development of deep tech ventures?
- What are the financing patterns of deep tech ventures that participate in the I-Corps program?
- Does the level of financial capital matter in the development of deep tech ventures?
- It has been demonstrated in previous studies that team dynamics matter when developing new ventures. How do deep tech ventures teams form and what influence do team dynamics have on entrepreneurial outcomes?
- What are the various factors that contribute to "successful" outcomes in the I-Corps program?
- What is the best approach to matching technical leads with entrepreneurial leads?

Topic 2 - Inclusive Innovation

A second area of inquiry is inclusive innovation. Inclusive innovation is the idea that the creation and commercialization of technology innovations should include people from many different backgrounds and identities. Effective inclusive innovation initiatives use research-based approaches to increase participation of women and underrepresented minorities in developing and commercializing technology innovation.

It has been well established in the academic literature and in reports that utilize government data that there is a lack of diversity in technology innovation and entrepreneurship (Babes-Vroman et al., 2017;

Babeş-Vroman, Tjang, & Nguyen, 2018; Beyer, 2014; Falkner, Szabo, Michell, Szorenyi, & Thyer, 2015; Gicheva & Link, 2015; Inouye, Robinson, & Joshi, 2019; A. M. Joshi, Inouye, & Robinson, 2018; Nager, Hart, Ezell, & Atkinson, 2016; Payton & Berki, 2019). There are two compelling reasons that having diverse deep tech venture teams in the I-Corps™ program is important. From an economic perspective, the United States cannot maintain its innovation edge if only one group of Americans are involved in developing the innovation. To remain competitive, investments must be made in efforts and programs that diversify STEM-related studies and occupations and that promote inclusive innovation activity.

From an innovation perspective, technology entrepreneurship needs diverse teams. Diversity within groups and teams enables them to be more creative and generate higher quality or more defensible decisions, particularly in uncertain and novel situations, such as the pursuit of science and innovation (A. Joshi & Roh, 2009; Smith-Doerr, Alegria, & Sacco, 2017) —which is at the heart of the I-Corps™ program. Given that there is no consensus on a pathway forward to increase diversity, the participation of women and underrepresented minorities in the I-Corps™ program will be left to chance. Moreover, I-Corps™ will miss the opportunity to achieve its full potential to make a significant contribution to the creation of an entrepreneurship community that embraces talented technology entrepreneurs regardless of race/ethnicity or gender.

Research questions for this topic include (but are not limited to) the following:
- What are the best-practices for promoting diversity in deep tech entrepreneurship?
- How do NSF I-Corps Hubs utilize STEM pipelines to promote deep tech entrepreneurship as a pathway for diverse participants in STEM fields?
- How does team composition and diversity impact team outcomes in technology commercialization?
- How or to what extent are marginal groups considered in the outcomes or effects of the innovations being produced?

Other topics may be considered if the researcher can make a reasonable case for its relevance to the NSF I-Corps Hub Northeast Region.

HOW TO APPLY
Interested researchers should prepare the following documentation for review by a committee of research faculty and I-Corps advisors.

- Title of proposed research project
- Brief description of research project (~100 words)
- Brief bio of the lead researcher and the team working on the project (upload 1-2 pages)
- A research proposal detailing the theoretical background, method and a timeline for the project (upload no more than 1500 words)
- A statement on how the funds would be used (~500 words)

Please submit all proposals via the online portal at http://www.tinyurl.com/icorpshubne-research by September 30 at 11:59 pm.

Questions about this RFP should be directed to Linda Edouard at lce24@business.rutgers.edu