



Science and Engineering Research Board
Department of Science and Technology
Govt. of India



India-U.S. Grand Challenge: Affordable Blood Pressure Measurement Technologies for Low-Resource Settings in India and the U.S.

SECOND CALL FOR EXPRESSION OF INTENT **(Funding Opportunity Announcement)**

Background

- Hypertension diagnosis and management is a critical healthcare issue. However, the basic underlying approach for the measurement of Blood Pressure has essentially remained the same for the past several decades. This is an obvious area that is ripe for disruptive technological innovation.
- The purpose of this Indo-US Grand Challenge Initiative between Science & Engineering Research Board (SERB), Department of Science & Technology, Government of India and the National Institute of Biomedical Imaging and Bioengineering (NIBIB), NIH, USA is to encourage collaborative research within and between both the countries to propose new approaches to the measurement of Blood Pressure that are unobtrusive or passive, low cost and which can automatically provide frequent data recording and reporting to healthcare workers as well as feed back to the patients.
- SERB and NIBIB are launching two separate and parallel, but fully coordinated, funding opportunity announcements in India and USA respectively to promote research in this area and generate alternate scientific approaches and technological options.
- It is expected that this partnership between the two countries will leverage knowledge and material resources to develop new technologies which are relevant for low resource settings not only in their respective political domain but other similar settings all over the world.

Scope

- Proposals are invited from Indian researchers in academic / research institutions built around new approaches for the measurement of Blood Pressure and resulting in technologies which are simple at the front user end, low cost, reliable, robust and do not need any clinical expertise at the user end. Such technologies may either be focused on minimum interaction devices for personal usage in home environment or high through put systems for quick measurement and recording of a large population.
- Primary focus of the work should be **“accurate measurement”** and **“simplicity & ruggedness”** of the device, doing away the need of cuffs and clinical expertise to carry out the measurement.

Structure

- The proposal should be science driven but cover the entire spectrum of R&D, including prototype demonstration and a definite intent to commercialize the technology.
- While consortia will be the preferred mode for implementation of the programme of this kind, individual research projects built around smart and innovative ideas may also be considered if they demonstrate feasibility of subsequent scaling up and/or integration with bigger networks to impart distinct value addition to the overall objectives of the programme.
- **A typical consortia should be led by an academic institution and/or research laboratory and have the necessary interdisciplinary expertise to implement the envisaged work and realize stated objectives. Industry participation in the consortia is encouraged, with clear technical and financial commitment (including notional / in-kind contribution), for the purpose prototyping, scaling up and subsequent commercialization.**

Eligibility

- All Indians having adequate research background and formal affiliation to academic institutions, research laboratories and non-profit R&D institutions are eligible to submit proposals, as lead investigators.
- Identification of US partners to work on the project is encouraged but not essential at this stage.
- Grantees on both the sides will be required to attend mandatory annual networking meetings and share their work and findings with fellow researchers. These meetings will provide the platform to develop specific collaborations amongst individuals and groups on both the sides.

Expression of Intent

Prospective applicants are required to submit an 'Expression of Intent', not more than 4 pages, with the following information:-

Section-I (One Page)

- Title of the Proposal
- Name of Lead Investigator (Affiliation, Phone, E-mail)
- Names of Other Partners (Affiliation, Phone, E-mail)
- Existing Network with any U.S. Collaborator

Section-II (One Page)

- Objectives
- Project Duration
- Deliverables (with yearly milestones)
- Tentative Budget (with broad budget heads)
- Role and Contribution of Industrial Partner, if any.

Section-III (Two Pages)

- Executive Summary of the Proposed Work.

SERB will later on invite selected candidates from such 'Expressions of Intent' to develop a proper and comprehensive proposal document for subsequent due diligence for ultimate funding.

The Expression of Intent must be submitted by 11th April, 2014 in the prescribed format electronically as a single word or pdf document to: biomed@indoussstf.org