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

**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

- Indian researchers are invited to submit proposals 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 throughput systems for quick measurement and recording of a large population. The measurement should ideally integrate with routine daily activities with minimal added effort or burden to the individual.

Structure

- It is expected that the proposal will need to be evolved in consortia mode in order to harness and integrate inter-disciplinary expertise to implement the programme and realise the end objectives. A typical consortium may involve researchers from academic institutions, research laboratories, non-governmental scientific organisations and industry with diverse background in science, engineering, medicine and clinical trials.

- While consortia may be the preferred mode for implementation of the programme of this kind, individual research projects built around smart and innovative ideas will 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 work plan and ultimate objective.

- The proposal should be science driven but cover the entire length of R&D value chain including prototype demonstration and with a definite intent to commercialise the technology.

Eligibility

- All Indians having adequate research background and affiliation to academic institutions, research laboratories, non-governmental R&D institutions and industry are eligible to apply.

- 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 5 pages, with the following information:-

- Title of the Proposal
- Name of Lead Investigator (Affiliation, Phone, E-mail)
- Names of Other Partners (Affiliation, Phone, E-mail)
- Executive summary (Please address three key questions: What is proposed? How it would be accomplished? and Why will it work?)
- Aims & Objectives
- Deliverables (With yearly milestones)
- Current status (Existing facilities / infrastructure / human resources)
- Existing network / collaborations with the U.S. (If yes, please indicate Names of U.S. Partners, Affiliation, Phone)
- Tentative budget (with broad budget heads)
- Project Duration

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 31st August, 2013 in the prescribed format electronically as a single word or pdf document to: biomed@indousstf.org*

*Note: SERB and IUSSTF propose to hold an Open House Discussion on 11th August, 2013 at New Delhi to address the questions and concerns raised by Stakeholders. In case you are interested to attend the same, please send in your confirmation to biomed@indousstf.org by 5th August, 2013*