
**Indo-US Grand Challenge
Initiative
On
Affordable Blood Pressure
Measurement Technologies**

**A
Joint Initiative
Between
SERB (India) and NIBIB (USA)**

Hypertension

- Leading Cause of Mortality
- A Silent Killer
 - Heart
 - Brain
 - Eyes
 - Kidneys

Burden of Cardiovascular Disease

- USA
 - 600,000 Deaths due to Heart Disease (Every Year)
 - 348,000 Hypertension as Primary or Contributing Cause
- India
 - 25% Deaths due to Heart Disease
 - Twice as much as the Next Category (10% - Reciprocity Disease)

Background

- Grand Challenges Meeting
 - New Delhi (2011)
 - NIBIB / DBT
- Hypertension seen as a Real Opportunity for Technological Intervention
 - Emphasis on Underserved Population
- Joint Statement by DST and NIBIB
 - January, 2013
 - Mumbai

Defining Parameters

- Low Cost
- Simple and Easy to Use
- Robustness
- Reliability
- Free of Maintenance
- No Need for Clinical Expertise
- Integration with Data Logging Devices for Recording and Feedbacks

Broad Premises

- Minimal Interaction Devices for Personal Usage in Home Environment
- High Throughput Systems for Quick Measurement and Recording of a Large Population

Entire R&D Value Chain

- Good Fundamental Science
- Proof of Concept
- Prototype Development
- Scale up and Commercialization

Implementation Methodology

- Separate and Parallel but Fully Coordinated Programmes in India and USA Funded by SERB and NIBIB, respectively
- Joint Annual Meetings between Grantees on both sides to Develop Collaborative Studies beginning Second Year
- Joint Funding Opportunity beginning Third Year generally available but not strictly restricted to Original Grantees
- New Individuals / Groups can join on need basis to augment Intellectual Resources and Compliment Original Groups

General Approach

- Institutional Consortiums
 - Academic Institutions
 - Research Laboratories
 - NGOs
 - Industry
- Interdisciplinary Expertise
 - Scientists
 - Engineers
 - Medical Professionals
 - Product Designers
- Individual Projects
 - Bright – Smart Ideas
 - Viability of Scaling up Later
 - Integration with other Major Initiatives to Impart Enhanced Value Addition to Final Deliverables

Resource Allocation

- Programme Duration
 - Five Years
- Monetary Allocation
 - NIBIB - USD 2 million per year
 - SERB - INR Rs.10 crore per year

Thank You