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**INDO-U.S. VACCINE ACTION PROGRAM (VAP) INITIATIVE ON TUBERCULOSIS (TB) RESEARCH:  
 REGIONAL PROSPECTIVE OBSERVATIONAL RESEARCH FOR TUBERCULOSIS**

**APPLICATION FOR THE COOPERATIVE GRANTS PROGRAM (CGP)**

**DEADLINE FOR LETTERS OF INTENT: FRIDAY, JUNE 15, 2012 5:00 PM US EASTERN DAYLIGHT TIME (EDT)**

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## COMPETITION SNAPSHOT

**Announcement Release Date: April 16, 2012**

**Deadline for Letters of Intent: June 15, 2012**

**Results of the LOI assessment (via e-mail): Rolling basis, depending upon submission date (But not later than July 13, 2012)**

**Deadline for Receipt of Full Proposals (by invitation only): September 14, 2012**

**Proposal Review Completed by: November 15, 2012**

**Earliest Anticipated Start Date(s): December 3, 2012**

**General Research Area: Tuberculosis clinical or biomedical research**

**How to Apply: Eligible Applicants must submit a Letter of Intent (LOI) to [TBCohort@crdfglobal.org](mailto:TBCohort@crdfglobal.org) (Please see Section II.B. – p.6). Organizations that fail to submit a LOI will **NOT** be eligible to submit a full grant proposal.**

### ***I. Background***

#### ***A. Introduction***

This announcement invites applications from Indian and U.S.-based investigators working in the field of Tuberculosis (TB) clinical or biomedical research, to submit collaborative Indian-U.S. research proposals as outlined in this announcement. The vision or aim of this initiative is to build and enhance biomedical and clinical research capacity in India by establishing long term longitudinal cohorts of TB patients and their contacts (or other high TB risk patients) for studies using state of the art research tools. Similar cohorts may also be established in other high burden countries and in the future a collaborative global network of these cohorts might be utilized to undertake coordinated research to better understand similarities and differences in the TB epidemic in high burden countries and to facilitate a broad array of biomedical TB research.

TB continues to threaten the lives and wellbeing of thousands of people each year. With the rapid increase in drug resistant TB, this is an urgent issue. Understanding the dynamic nature of TB in high burden countries is critical for the development of drugs, vaccines and diagnostics that will have their greatest impact in these settings, and requires a combination of biomedical (basic science) and clinical research. Using biomedical research tools to study TB patients and their contacts over a longer period of time in a longitudinal cohort will increase global understanding of the differences in the trajectory of the TB epidemic in India. It will also provide us with an understanding of how these differences are related to emerging co-infections (e.g., HIV) and co-morbidities (e.g., diabetes, other immune compromising conditions), among other factors. Biomedical science provides the knowledge that underlies the development of new drugs, vaccines and diagnostics, and leads to clinical tools to help understand the differences and commonalities of TB in various regions throughout India.

These awards are funded jointly by the Government of India's (GOI) Department of Biotechnology, (DBT), the Indian Council of Medical Research (ICMR), and CRDF Global [utilizing funds provided by the U.S. National Institutes of Health's (NIH) National Institute of Allergy and Infectious Diseases (NIAID) and NIH's Office of AIDS Research (OAR)].

CRDF Global will address all program-related inquiries, receive/review Letters of Intent (LOIs), and communicate all results to applicants. CRDF Global will also receive full proposals from selected applicants and will coordinate the peer review. A secondary review will be undertaken by

the Joint Working Group (JWG) of the Indo-U.S. Vaccine Action Program (VAP). Following these reviews, the most meritorious applications will be awarded for implementation.

**The deadline for Letters of Intent (LOI) is Friday, June 15, 2012 at 5:00 PM, Eastern Daylight Time (EDT)**

## **B. Purpose**

TB is a strategically important epidemic. Emerging forms of TB that are multidrug-resistant (MDR) and extensively drug-resistant (XDR) add urgency to the need for a greatly expanded program of global research to better understand and confront this disease. Clinically oriented biomedical research is a critical component of global efforts to better understand the TB epidemic and to develop improved tools that can rapidly be made available to countries, health care providers and ultimately patients. For this, collaborations between epidemiologists and clinical and basic researchers have to be strengthened to maximize TB research capability in countries where TB is a serious health concern. The development or enhancement of two types of Cohort Research Units (CRUs), are being supported through this initiative. A CRU will consist of one or more clinical sites, where participants are enrolled and samples and data are collected for research. In addition, a CRU will also include one or more laboratories where the samples are processed and/or analyzed for fundamental research purposes. This is collectively considered to be a CRU.

**Each application and award must include both an Indian and U.S. component.** The U.S. component and its associated budget will be awarded to the U.S.-based Principal Investigator (PI) by CRDF Global. The Indian component and its associated budget will be awarded to the Indian PI by the Department of Biotechnology (DBT) and the Indian Council of Medical Research (ICMR), Government of India.

Eligible applicants who need assistance in identifying a collaborator may post their interest and requirements on a public message board accessible through the CRDF Global website (see **Section II.A.1 (p.7)**). Please note that CRDF Global will host this virtual forum to assist applicants in finding potential partners as a courtesy. CRDF Global will not actively arrange specific partnerships and does not assume any responsibility for establishing collaborations.

**This program seeks to provide support for two types of CRUs as follows:**

### **Part A – Fully Developed Existing Cohort Research Units (fCRU):**

This initiative will support **up to 2 fully developed existing Cohort Research Units (fCRUs)**. A successful fCRU is defined as a unit that has significant prior clinical and fundamental/translational research experience and can present examples of clinically based research studies that were associated with fundamental research addressing key questions in human TB or HIV/TB. Please see **Section II.A.2 (p.7)** below for detailed eligibility criteria.

### **Part B – Developmental Cohort Research Units (dCRU):**

This initiative will support **up to 4 developmental Cohort Research Units (dCRUs)**. A dCRU is defined as a unit that has prior clinical research experience but may require some additional capacity building to carry out human longitudinal clinical research or has minimal prior experience with collaborative fundamental research. The dCRU consists of investigators and sites and who may not possess the same breadth of experience as the fCRU, but still have the ability to meet the criteria detailed in this RFA. Please see **Section II.A.3 (p.8)** below for detailed eligibility criteria.

Linked to the CRUs, a central specimen repository and a centralized data management and statistical unit will be supported under different awards or through other mechanisms.

## CRU Structure

The establishment of Cohort Research Units (CRUs) that can successfully combine a clinical cohort study with a fundamental research laboratory(s) is the central goal of this initiative.

This initiative will support funding for dCRUs and fCRUs as described above and further detailed in **Section II.A. (p.7)**. The experience each CRU offers and their ability to collaborate across sites, will determine the nature and scope of the research that can be conducted.

This solicitation will establish at each CRU, a longitudinal cohort of patients and controls, and as appropriate, a fundamental research laboratory(s) that can capitalize on the collected samples to address scientific objectives as described above.

These awards will bring together US and Indian fundamental or basic and clinical science investigators and institutions with expertise and experience in the conduct of multi-disciplinary, TB research to design and conduct cohort based studies in India.

The scientific, clinical and technical infrastructure of the CRUs shall consist of the following:

- 1) Longitudinal Cohort Study which includes:
  - a) **Clinical Study Sites:** the clinical study sites in TB endemic areas must provide, at a minimum, the following:
    - i) investigators, nurses, site coordinator(s) and other clinical and technical personnel experienced in the design and conduct of clinical and epidemiologic studies of human TB, including: patient screening, recruitment and retention; adherence to Good Clinical Practices (GCP) and regulations governing the safe and ethical conduct of research involving human subjects; assessment and reporting of adverse events; management of study products; collection and quality control of study data; and maintenance and storage of research records;
    - ii) Facilities and personnel to carry out study-specific laboratory testing and storage of biological samples;
    - iii) Access to a patient pool adequate to ensure the timely screening and enrollment of eligible study participants in accordance with study-specific requirements and within established timelines; and
    - iv) Clinical and technical personnel with experience in complex human studies of HIV-negative, HIV-positive and HIV-TB co-infected adult and pediatric TB patients as well as healthy, adult and pediatric volunteers.
  - b) **Clinical Study Plan:** the Clinical Study Plan must include at a minimum:
    - i) **Background:** This should include a description of relevant knowledge gaps or obstacles to addressing these gaps and proposed approaches to overcoming these problems and obstacles. The scientific basis for the approaches and methodologies selected to address the scientific questions proposed including a summary of the state of the science in each area should also be included;
    - ii) **Study Design:** The hypotheses and specific aims should be clearly stated. The study design should cover the plan for the identification, recruitment and retention of study participants, inclusion and exclusion criteria and clinical endpoints and their relevance to answering the questions being addressed by the study. A detailed timeline for study initiation, recruitment, data collection and analyses should also be provided.
    - iii) **Statistical Plan:** The statistical plan should include sample size calculations and the specific statistical and analytic methods to be used to determine study results.
    - iv) **Impact:** A discussion of how the clinical study will advance translational TB research and inform host-country health care practices should be provided.
    - v) **Sample Informed Consent:** The consent should address not only the potential risks and benefits of the proposed study but should also properly consent the participant for potential

future use of collected data and samples to allow fulfillment of policy requirements of the funding institutions and to ensure maximal appropriate research.

**2) Fundamental Research Study(s) based on the samples collected from the longitudinal cohort and which includes:**

- a) Fundamental Research Laboratory which includes:
  - i) Investigators, lab coordinator(s) and other technical personnel experienced in the design and conduct of fundamental research studies utilizing human specimens, including: proper specimen handling and storage and proper use of equipment and assays required for the proposed study.
  - ii) Facilities and equipment to carry out proposed laboratory research;
- b) Fundamental Study Plan: the Fundamental Study Plan shall include at a minimum:
  - i) Background: This should include a description of relevant knowledge gaps or obstacles to addressing these gaps and proposed approaches to overcoming these problems and obstacles. The scientific basis for the approaches and methodologies selected to address the scientific questions proposed including a summary of the state of the science in each area should also be included.
  - ii) Study Design: The hypotheses and specific aims should be clearly stated. The study design should specify the type and volume of specimens required, the analyses planned, and protocols which will be used for these analyses.
  - iii) Statistical Plan: If appropriate, the statistical plan should include sample size calculations and the specific statistical and analytic methods to be used to determine study results.
  - iv) Impact: A discussion of how the study will advance TB science should be included.

**3) Project Management**

Each CRU shall provide the scientific, technical and administrative infrastructure to ensure the efficient planning, initiation, implementation, and management of all activities carried out under this award. Infrastructure at the award recipient's CRU shall include a PI with responsibility for overall project management and communications, tracking, monitoring and reporting on project status and progress. The PI shall be responsible for recommending modifications to project requirements and timelines, including projects undertaken by collaborators. This infrastructure shall also include administrative staff with responsibility for financial management and financial reporting on all activities conducted by the award recipient.

Both the Indian and U.S. PIs of each CRU will be responsible for the development and implementation of the proposed study and future studies that are conducted at the CRU. It is expected that the PIs, working in collaboration, will:

- a) Establish a research team with expertise in clinical research and oversight to provide technical expertise for the proposed work.
- b) Identify and incorporate, where appropriate, studies on available diagnostics, drugs and vaccines that may be suitable to address product- or host response- relevant questions as part of the research.
- c) Evaluate and determine the feasibility and appropriateness for including exploratory assays to maximize the amount of data obtainable from human specimens.
- d) Assure that the proposed work provides novel data and does not needlessly duplicate studies conducted by other investigators.
- e) Draft participant informed consent to include a request for permission to store specimens for future laboratory evaluation, including unspecified novel technologies as they develop.
- f) Acquire appropriate approvals from local and government ethics committees and/or other human subject protection review boards.

## **Leadership Group and Scientific Working Groups**

The India- and US-based PIs overseeing each cohort research unit (CRU) will work together as members of a Leadership Group (LG) that will be constituted as part of this program. The leadership group will consist of principal investigators who received the grant awards, technical representatives of the funding organizations as well as representatives of the Central Statistical Data Management Center. The role of the leadership group is to monitor the studies affiliated with this award, establish and move the research agenda forward, make key decisions in regards to the overall research program, facilitate smooth operation of the research program established through this funding opportunity, and cooperate with other consortia of TB cohorts to facilitate global TB research.

In addition to the leadership group it is anticipated that various Scientific Working Groups (SWG) represented by appropriate members of the CRUs and funding institutions will be formed within the program to address specific scientific topics of interest.

It is expected that the LG and SWGs will have regularly scheduled teleconferences to conduct the business of the research program established under this initiative and that they will meet in person twice per year to facilitate optimal coordination and collaboration of research conducted under the CRUs.

## **Statistical/Data Management and Central Repository**

The sponsoring organizations and CRDF Global expect that samples and data generated by this collaborative initiative will be made available to the other grant award recipients as appropriate and that certain samples and data will be stored in a central repository and data management center so as to allow analyses and research beyond that proposed by the grant recipients. Additionally, it is envisioned that the larger TB scientific community, within the rules and processes set up by the leadership group and within the appropriate regulations of India and the United States and the sponsoring organizations will also have access to certain data and samples collected under this program.

In addition to this solicitation, a Statistical and Data Management Center and a Central Specimen Repository will be established separately as described below.

### **1) Statistical and Data Management Center (to be established via a separate solicitation)**

The Data Management Center shall include experts in statistics and database management, as well as project management. The Data Management Center shall carry out the following functions:

- a) Design, maintenance and quality control of a database system for the receipt and storage of all clinical study data;
- b) Provide expertise and assistance to the protocol teams in the statistical design of study protocols, the development of statistical analysis plans, and the analysis of study data;
- c) Participate in the preparation of interim and final analyses of clinical study data.

### **2) Specimen Repository (to be established via a separate solicitation)**

A repository of patient specimens provided by the CRUs and housed at a central location, to be available for additional laboratory studies that are relevant to the goals of this solicitation and for which tools may become available at a later date. This repository will not serve the TB research community as a whole. However, samples will remain available to the leadership group for joint studies, the CRUs, and outside collaborators to maximize information that can be obtained from this limited resource. The repository management personnel will be available for consultative services for issues relating to collection, transport and storage of clinical samples.

### C. Research Goals and Objectives

The intent of this initiative is to enhance (or develop if none is existing) research capacity that combines prospective cohorts and biomedical and clinical research strengths. Key scientific priorities are those articulated by the larger global TB research community and can be found in the document "An International Roadmap for Tuberculosis Research":

<http://www.stoptb.org/assets/documents/resources/publications/technical/tbresearchroadmap.pdf>.

For this solicitation, the following research areas are of particular interest and are encouraged:

- Characterization of the immune system in Indian populations with TB disease or latent *M. tuberculosis* infection
- Novel biomarkers that help identify persons with the highest risk of progression to active TB disease from latent *M. tuberculosis* infection
- Characterization of the stages of latent *M. tuberculosis* infection
- Identification of the host (i.e., endocrine system, immune status, etc.) and microbial (i.e., strain type, antigen composition, etc.) factors that determine clinical presentation of TB (pulmonary TB, extra-pulmonary TB)
- Identification of early biomarkers that identify persons who are not completely cured after standard treatment and are at highest risk for recurrence of TB after treatment
- Identification of host and microbial markers that influence and/or predict TB treatment effectiveness (e.g., pharmacogenomics, drug toxicity, drug interaction, dose optimization)
- Determination of the effect of co-infections/co-morbidities and risk factors (i.e., smoking, helminthes, HIV, malnutrition, diabetes, etc.) on the development and natural history of TB and individual response to treatment.
- Identification of host and/or microbial markers that indicate the presence of paucibacillary bacterial infection
- Identification of host factors (genetic and other) that correlate with protective immunity
- Identification of host and microbial factors that determine success of transmission and acquisition of infection
- Identification of host and microbial factors that are responsible for the development of antimicrobial drug resistance
- Determination of the range of blood levels of TB drugs encountered in TB patients to estimate population pharmacological and pharmacodynamic factors in pediatric and adult TB patients with and without co-infections and co-morbidities
- Determine changes in the dynamics of TB transmission and disease over time in well-defined communities

### D. Funds Available

This announcement is limited to collaborative Indian and U.S. investigators. Each applicant team is required to develop and submit a joint research application (LOI and, if invited, a full proposal). A total of approximately \$2 million (total costs, i.e. direct and indirect costs combined) per year will be available to fund up to two (2) fCRU awards for a period of up to five (5) years and up to 4 (four) dCRU awards for a period of up to three (3) years. It is expected that the exact budget will vary from year to year to reflect the ongoing development of the CRUs.

Additionally, because the nature and scope of the proposed research will vary from application to application, it is anticipated that the size of each award will also vary. **The award for each fCRU is anticipated to be up to \$2.5 million over the five years of the award and the award for each dCRU up to \$750,000 over the 3 years of the award.** The budget of the U.S. PI will be funded by CRDF Global, while the budget of the Indian PI will be funded by DBT and/or ICMR directly following joint peer review, VAP review and any other required assessments.

**\*The U.S. portion of the budget for an fCRU should not exceed \$250,000 total costs per year averaged over the 5 years of the award, and the U.S. portion of the budget for a dCRU**

**should not exceed \$125,000 total cost per year averaged over the 3 years of the award. Indirect costs for the U.S. portion may not exceed 10% of the total funds received.**

Funding beyond the first year of the grant will depend on satisfactory progress during the preceding years and availability of funds. Based on reviewer recommendations and programmatic needs, an award may be modified to fund a reduced number of aims with a reduced budget.

It is anticipated that awarded funds *may* also include funds in addition to the application request, for support of the leadership and scientific working groups including travel and operational costs associated with management of these groups. These funds will be added automatically to the awarded budget and should not be included in the application.

## **II. Program Guidelines**

### **A. Eligibility Criteria**

#### **1. For ALL Applicants**

- a. A defined collaboration between Indian and U.S. investigators is a requirement of this solicitation. Each application submitted must have one Indian Principal Investigator (PI) and one U.S. PI, who share overall responsibility for the project in their respective countries, coordinating all project participants and institutions. The application should clearly define the roles of responsibilities of both the U.S. and Indian lead collaborators and how this will fit into the research study design and ensure its success.

**\*Note:** Eligible applicants who need assistance in identifying a collaborator may post their interest and requirements on a public message board accessible through the CRDF Global website here:

<https://groups.google.com/forum/?fromgroups#!forum/tbcohortcollaborators>

Please note that CRDF Global will host this virtual forum to assist applicants in finding potential partners as a courtesy. CRDF Global will not actively arrange specific partnerships and does not assume any responsibility for establishing collaborations.

- b. The PIs of a cohort research unit (CRU) must possess the skills, knowledge, resources, and professional experience needed to carry out the proposed research and objectives of the initiative.
- c. Each PI should be experienced in research collaborations on clinical and/or biomedical studies in TB or HIV/TB.
- d. Each Principal Investigator must commit at least 10% effort per year to the CRU. This 10% effort should also be reflected in the budget proposed.

#### **2. Part A (fCRU) Applicants ONLY**

As part of the application for an fCRU, the institution/PI and collaborators must document the following capabilities:

- a. Access to and ability to recruit individuals with the following characteristics:
  - i. Adults with pulmonary TB (drug susceptible and drug resistant)
  - ii. HIV infected and uninfected
  - iii. Individuals with recent exposure to active pulmonary TB
  - iv. Persons with prevalent co-morbidities that may affect TB or HIV pathogenesis
  - v. Healthy individuals who can serve as controls
- b. Access to and ability to enroll the following populations are not required but will be considered advantageous
  - i. Individuals with extra pulmonary TB
  - ii. Pediatric patients with and without active and/or latent TB including paucibacillary and non-pulmonary cases

- iii. Pregnant women with active TB
- c. Experienced clinical care capabilities with up-to-date training on Good Clinical Practice (GCP), Good Laboratory Practice (GLP) standards
- d. Expertise in fundamental biomedical research
- e. Expertise in molecular and population epidemiology
- f. Readily available experienced investigators and study staff
- g. Experience in basic data management
- h. Access to a qualified mycobacteriology and clinical laboratory
- i. Ability to collect, catalog and store human specimens and mycobacterial isolates at own unit (independent of repository)
- j. Access to ethical and other medical review boards for review and approval of human research
- k. Experienced financial and administrative management staff
- l. Existing adequate infection control to protect staff and study subjects from TB
- m. Available basic equipment for biomedical and clinical studies
- n. Access to or plans for establishing community engagement activities

### 3. Part B (dCRU) Applicants ONLY

As part of the application for a dCRU, the institution/PI and collaborators must also document the following capabilities:

- a. Access to and be able to recruit individuals with the following characteristics:
  - i. Adults with Pulmonary TB (drug susceptible and drug resistant)
  - ii. HIV infected or uninfected
  - iii. Individuals with recent exposure to active pulmonary TB
  - iv. Persons with prevalent co-morbidities that may affect TB or HIV pathogenesis
  - v. Healthy individuals who can serve as controls
- b. Access to and ability to enroll the following populations are not required but will be considered advantageous
  - i. Individuals with extra pulmonary TB
  - ii. Pediatric patients with and without active TB and/or latent TB including paucibacillary and non-pulmonary cases
  - iii. Pregnant women with active TB
- c. Available experienced investigators and study staff
- d. Available experienced financial and administrative management staff
- e. Existing adequate infection control to protect staff and study subjects from TB
- f. Access to ethical and other medical review boards for review and approval of human research
- g. Available, or the capacity to make readily available, minimally needed clinical care capabilities to meet GCP and GLP standards
- h. An institutional framework in place that allows linkage with fundamental, biomedical research capabilities and expertise

### **B. Letter of Intent - Submission Instructions**

All applicants must submit a Letter of Intent (LOI) to CRDF Global. LOIs will be assessed by program staff and TB technical experts for eligibility, completeness, and overall merit. The results of this assessment will be conveyed on a rolling basis. Applicants are encouraged to submit their LOI early to allow as much time as possible to prepare a full proposal. These LOIs represent the primary factor by which CRDF Global and other sponsors will invite organizations to submit a full proposal. **ONLY those organizations/individuals invited to submit a full proposal will be eligible for further consideration.**

1. **Deadline for Letters of Intent is Friday, June 15, 2012 at 5:00 PM Eastern Daylight Time**

2. All LOIs must be sent via e-mail as attachments in PDF (.pdf), Word (.docx/.doc), or RTF (.rtf) format to [TBCohort@crdfglobal.org](mailto:TBCohort@crdfglobal.org)
3. **LOI narratives may not exceed five (5) pages (please see template for specific format and information)**
4. LOIs must be typed, in English, single-spaced, with one-inch margins on all sides
5. All LOIs should include the following information:
  - a. Name, address, and telephone number of the PIs
  - b. Names of other key personnel
  - c. Title and whether application is for fCRU or dCRU
  - d. Summary statement
  - e. Background/Rationale
  - f. Primary objectives (for both clinical and fundamental research aspects of proposal)
  - g. Proposed research site description
  - h. Cohort description
  - i. Brief research study design including proposed collaboration
  - j. Participating institutions in India and the United States
  - k. Overall budget estimate (2-3 lines)

Applications will be reviewed by CRDF Global and the sponsoring organizations for completeness and relevance to this solicitation. Applicants will be evaluated based upon fulfillment of all eligibility requirements and how well their proposed project addresses one or more research goals and objectives outlined in **Section I.B** (above). **The LOI represents the primary factor by which CRDF Global and other sponsors will invite organizations to submit a full proposal. Applicants should take special care to answer all questions to the extent possible in the space provided.**

Incomplete or non-responsive applications will not be further reviewed. **\*Only those applicants invited directly by CRDF Global and the sponsoring organizations will be eligible to submit a full proposal for further consideration\*.**

#### **C. CRDF Global Policies**

1. **Conflict of Interest.** CRDF Global requires that all Project Directors/Principal Investigators and Principal Institutions adhere to the highest ethical standards in all matters related to CRDF Global awards. CRDF Global Conflict of Interest Guidelines are further outlined at <http://www.crdglobal.org/focus-areas/research-partnerships/applicant-resources>.
2. **Confidentiality.** CRDF Global will treat all proposals as confidential material and will require all panelists and reviewers to respect the confidentiality of proposals. However, proposal authors should be aware that successful proposals will be treated as public information. Therefore, at the author's discretion, if there is specific information in the proposal that is business-confidential and not intended for public dissemination, it should be clearly labeled as such at the top and bottom of the applicable page of the proposal. Such passages will be withheld from public distribution if the proposal is successful.

CRDF Global may also share copies of LOIs with other sponsors of the competition, upon request of those counterpart agencies. CRDF Global requires the counterpart agencies to follow the same policies above regarding the confidentiality of all application materials.

#### **D. Indo-U.S. Vaccine Action Program (VAP)**

The VAP Joint Working Group will assess meritorious applications and comments made by the CRDF Global joint review committee to make recommendations concerning the final funding decisions.

**E. Contact Information**

Applicants are strongly encouraged to review the frequently asked questions (FAQs) associated with this announcement.

FAQ: <https://groups.google.com/forum/?fromgroups#!forum/tbcohortfaq>

Please submit any additional questions regarding the program or submission instructions to [TBCohort@crdfglobal.org](mailto:TBCohort@crdfglobal.org).

**F. About the Sponsors:**

1. This funding opportunity is provided by the Indo-U.S. Vaccine Action Program (VAP). VAP is supported by the Department of Biotechnology and the Indian Council of Medical Research (ICMR) in India and the National Institute of Allergy and Infectious Disease (NIAID) and the NIH Office of AIDS research (OAR). For this program VAP is working in partnership with CRDF Global. For more information on these organizations, please visit their websites.

**CRDF Global:** [www.crdfglobal.org](http://www.crdfglobal.org).

**The National Institute of Allergy and Infectious Diseases (NIAID):** [www.nih.niaid.gov](http://www.nih.niaid.gov)

**The NIH Office of AIDS Research (OAR):** [www.oar.nih.gov](http://www.oar.nih.gov).

**Department of Biotechnology (DBT):** [www.dbtindia.nic.in](http://www.dbtindia.nic.in).

**Indian Council of Medical Research (ICMR):** [www.icmr.nic.in](http://www.icmr.nic.in).