Multidrug Resistant Tuberculosis Drug Discovery Research Competition

In collaboration with the Lilly TB Drug Discovery Initiative

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Cooperative Grants Program
U.S. Civilian Research & Development Foundation (CRDF)

www.crdf.org
Overview

- CRDF general background
- Lilly TB Drug Discovery Initiative Background
- CRDF & Biomedical Research
- Current Funding Opportunity
About CRDF

• The U.S. Civilian Research & Development Foundation (CRDF) is a nonprofit organization authorized by the U.S. Congress and established in 1995 by the National Science Foundation.

• CRDF promotes international scientific and technical collaboration through grants, technical resources, and training.
Mission

- International Scientific Research
- Threat Reduction
- Technology Commercialization
- Strengthening Research and Education Abroad

"I believe that international science is an indisputable good for the world community. Something to be fostered and encouraged, whenever possible."

– Lewis Thomas
Organizational Profile

- 120 staff worldwide
- Network of 7,500 U.S. scientists in all 50 states
- Strategic international partnerships in science, business, security and policy
- Funding from the U.S. Government (e.g. DoS, NIH, NSF, DoD); and private sector (e.g., MacArthur Foundation, Carnegie Corporation)
- International financial services, preferred vendor, and logistics support network
Current Areas of Operation

- Former Soviet Union
- Central and Eastern Europe
- South and Central Asia
- Middle East, North and South Africa
Results and Impact

- 3,000+ grants to 12,000 foreign scientists
- 2,500+ former weapons scientists engaged
- Commercial projects with $1 billion+ market potential
- 4,000+ grantee research publications; 5,000+ conference abstracts
- Support by both U.S. and host governments
CRDF & Biomedical Research

• Since its founding, CRDF has supported biomedical research

• Funding from:
  - NIH
  - Department of State
  - CDC
  - Gates Foundation
  - Ford Foundation

• Basic research projects, feasibility studies, Centers of Excellence, administrative support
CRDF Models for Biomedical Research Funding

- Biomedical Research Grant Competition for joint US-Eurasian teams
- Establishment of "Centers of Excellence" in an institute or a university with a focus on selected research issue(s) (Funded by DOS, FASI)
- Conference and/or proposal development workshop, followed by a targeted grant competition
Partnership Brings Together Key Scientific Leadership and Capabilities

Participants

- Eli Lilly & Company
- Infectious Disease Research Institute (IDRI)
- National Institute of Allergy and Infectious Diseases
- Academia Sinica
- Jubilant Biosys
- Merck and Company

Oversight from Board of Directors and Steering Committee

Flow:
- TB microbiology
- Basic Research for New Target Discovery
- TB genomics
- high throughput screening
- compound libraries
- Disease Biology and Models
- Medicinal Chemistry Hit and Lead Optimization
- structural and computational science
- Drug Candidates
- PK/PD Models
Lilly TB Drug Discovery Initiative - Biology facilities

- **Microbiology**
  - In vitro BL3 facility
  - Culture
  - Genetic manipulation
  - Liquid handling system
  - In vivo BL3

- **Screening**
  - HTS facility
  - Robotics
Lilly’s Contribution to the Partnership

- $15MM to establish the Partnership
  - $9MM USD in kind including fully equipped high throughput screening and medicinal chemistry laboratories, research tools, databases, and scientific and technical expertise.
  - $6MM USD in cash over 5 years to seed research activities.

- Access to ~500,000 Lilly compounds for screening against prioritized TB targets as well as the Lilly library of virtual compounds.

- Access to non-proprietary computational tools to aid in data analysis and modeling.

- Lilly Chemistry Steering Committee composed of six experienced drug discovery scientists representing the disciplines of medicinal chemistry, computational science and quantitative biology. This group will provide formal reviews and informal counsel to the Partnership.

- Discovery leadership participation on Partnership Steering Committee and Board of Directors.
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Purpose

• To contribute to the development of novel anti-TB drugs effective against MDR-strains

Funding Available

• Minimum of $300,000
• In-kind contribution by the Lilly TB Drug Discovery Initiative in training; high-through-put screening of validated targets against well characterized chemical libraries; hit to lead optimization
• One or more awards for two years
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Eligibility
• Applicants from the Russian Federation

• At least two team members must be available for 3 to 6 months training in the United States and/or Taiwan

Research Focus
All projects must focus on basic or pre-clinical research targeting one or more of the following general areas of early TB drug discovery and development:

• Developing new targets;
• Validating identified targets;
• Prioritizing new identified targets through high-throughput screening;
• Assay development and/or provision of synthetic/medicinal chemistry
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Eligibility cont'd

- Principal Investigator must work full-time in a research environment
- Each Russian team can submit only one proposal for this competition.
- Each proposal should be an independent, stand-alone project.
- Principal Investigators who have a previous or current CRDF award, including CGP awards, that are within six (6) months of completion with respect to the submission deadline, are eligible to apply to this program.
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Allowable costs
(Award breakdown to be determined)

- Individual Financial Support (IFS)
- Travel
- Equipment/material/supplies purchases
- 10% Institutional Support (IS)
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Elements
- Cover Sheet
- Abstract
- Project Narrative
- Russian Principal Investigator CV & Personnel Data Forms
- Budget + Narrative
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Electronic Proposal Submission
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Electronic Proposal Submission

U.S. For-Profit Company Information

Proposals that involve strictly R&D activities and include the participation of a U.S. for-profit company are eligible to apply to the 2009 Leibniziance: Collaborative Research Opportunities in North Africa and the Middle East grant competition, but the U.S. for-profit company must agree to provide a cash, material, or in-kind contribution to this project. This contribution must include two components:

- U.S. for-profit company coverage of all U.S. team expenses, and
- a cash, material, or in-kind contribution by the U.S. for-profit company of 10% of the expenses of the North African/Middle Eastern team.

A letter of commitment to contribute is required from the U.S. for-profit company upon submission of the proposal. This letter of commitment must be signed by an authorized representative of the company and submitted during the electronic proposal submission. Applicants will be required to submit these materials as separate documents in addition to the proposal file. Failure to submit this additional information may result in the proposal being declared ineligible.

All cost sharing must comply with CRDF Cost Share Guidelines.

Has the U.S. for-profit company agreed to cover all U.S. team expenses? □

If No, please explain why:
Limited to 250 characters

Has the U.S. for-profit company agreed to provide a cash, material, or in-kind contribution to the North African/Middle Eastern team in the amount of 10% of the North African/Middle Eastern team expenses? □

If No, please explain why:
Limited to 250 characters

Has the U.S. for-profit company provided a letter of commitment, describing the contribution elements? □

If No, please explain why:
Limited to 250 characters
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- The complete competition announcement will be available on CRDF website under “Current Funding Opportunities” section:
  http://www.crdf.org/funding

- For questions on deadline and submission requirements contact:

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