



The Lilly TB Drug Discovery Initiative Participants

Members

Eli Lilly and Company. Has given \$15 million to establish The Lilly TB Drug Discovery Initiative. Included in the donation is \$9 million in-kind, including fully equipped high throughput screening and chemistry laboratories, research tools, databases, and scientific and technical expertise, plus \$6 million in cash over five years to seed the organization.

In addition to the funding, Lilly has opened access to its greatest assets, a library of 500,000 compounds and chemistry research tools. The company is lending its immense drug discovery expertise and organizational savvy. It is contributing the latest, most innovative technologies used in drug discovery to be applied to the search for new drugs to fight TB.

A Lilly Chemistry Steering Committee composed of six senior research advisors and research fellows representing medicinal chemistry, computational and quantitative biology provide formal reviews and informal counsel.

The \$15 million Lilly has given to support this historic undertaking is part of Lilly's \$135 million commitment to control multidrug-resistant TB through The Lilly MDR-TB Partnership, which mobilizes 18 partners on five continents to stop the spread of the disease and save lives. Additional information can be found at www.lillymdr-tb.com.

Lilly has also partnered with the University of Washington Department of Global Health to create the monthly "Lilly Lecture Series in Global Health." The goal of this series is to bring together investigators working in global health to reinforce existing collaborations or establish new ones. The lecture series culminate in an annual international symposium to share research results and provide a better understanding of the challenges of drug discovery and the barriers to access in resource-poor countries.

Infectious Disease Research Institute (IDRI). To gain critical mass in TB expertise and to create synergy, the Initiative is housed within IDRI, a Seattle-based not-for-profit organization committed to applying innovative science to the research and development of products to prevent, detect and treat infectious diseases of poverty.

IDRI is providing substantial expertise in microbiology, molecular biology and chemistry, as well as managing the Initiative's laboratory. It serves as the principal coordinator for all partnership efforts.

IDRI builds upon more than 10 years of experience in TB vaccine candidate development, including the discovery, preclinical evaluation and first clinical trials of one of the most promising new TB vaccine candidates to date. IDRI is now working on the next generation TB vaccine, intended for drug resistant TB as well.

A team of more than 30 researchers at IDRI is dedicated to developing products to prevent, detect and treat TB. IDRI has appropriate biocontainment laboratories which will enable whole cell TB screens. The Initiative also benefits from the IDRI infrastructure including strong business development, legal, administration, grant specialist, and product development expertise. IDRI played a key role in the development of the first new TB vaccine that is now in clinical trials.



National Institutes of Health (NIH). A worldwide leader in biomedical research, the NIH includes 27 Institutes and Centers and is a component of the U. S. Department of Health and Human Services. The National Institute of Allergy and Infectious Diseases (NIAID) conducts and supports research—at NIH, throughout the United States, and worldwide—to study the causes of infectious and immune-mediated diseases, and to develop better means of preventing, diagnosing and treating these illnesses. NIAID offers a wide variety of fundamental research, preclinical, and clinical development resources that can be leveraged by eligible researchers to further develop prioritized and validated molecular candidates and assist in transitioning them into clinical testing.

Organizations co-developing compounds with the Initiative or contributing research tools will have the opportunity to request access to NIH-sponsored resources and will receive added value in new information on their products as well as assist the Initiative's research process. NIH-sponsored core resources that have been established to serve the TB research community as a whole also will be accessible to eligible Initiative members for the following activities: generation and testing of mutant strains, genome sequences of multiple strains of TB (including recent XDR-TB strains from South Africa), microarrays, structural genomics, rational drug design via x-ray crystallography, bioinformatics, *in vivo* and *in vitro* screening for efficacy, *in vitro* and *in vivo* PK/PD models, drug resynthesis, and formulation and safety testing.

In fiscal year 2007, NIAID invested more than \$47 million in almost 90 projects focused on TB drug development.

Collaborators

Jubilant Biosys. Jubilant Biosys of Bangalore, India has provided eight full-time chemists to the Initiative. These chemists provide synthetic chemistry support and work as an extension of the medicinal chemists working in Seattle.

Merck and Company. Merck has provided its library of 560 pure natural product compounds and an additional ~300 antibacterial compounds for screening, none of which have been screened against TB. One of the most valuable contributions to early phase drug discovery for infectious agents, particularly TB, is access to an optimized and well characterized library of natural products.

Microbial Chemistry Research Foundation (MCRF) and Summit plc. See "Background on Acquired Compounds."

Seattle Biomedical Research Institute (SBRI). Founded in 1976, SBRI has nearly 200 employees and is the largest independent, non-profit organization in the U. S. focused solely on infectious disease research related to the developing world. David Sherman, one of the leading TB drug development investigators, is collaborating with The Lilly TB Drug Discovery Initiative in TB assay development.

YourEncore. YourEncore helps companies accelerate innovation by leveraging the expertise of retired and veteran scientists and engineers. The Lilly TB Drug Discovery Initiative will engage with YourEncore experts through the "YourEncore Innovation Community," a safe and secure open innovation model that protects Intellectual Property and ensures confidentiality.