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## TB Alliance and University of Illinois at Chicago Collaborate to Develop New Macrolides for TB

**NEW YORK, NY – OCT 20, 2004** – The Global Alliance for TB Drug Development (TB Alliance), a public -private partnership developing faster-acting and affordable tuberculosis (TB) medicines, announced the launch of a new two-year research program to develop macrolides for TB therapy at the University of Illinois at Chicago (UIC) College of Pharmacy.

"Identifying the most promising known antibiotics and optimizing them for TB activity is one element of our multi-faceted strategy to expand the TB drug pipeline," said Dr. Mel Spigelman, R&D Director of the TB Alliance. "We look forward to important new potential compounds from an attractive drug class like the macrolides."

The macrolide class stands out among existing antibiotics with significant potential to yield a TB drug due to its excellent pharmacological features and its promising antibacterial activity against *M. tuberculosis*, as demonstrated by the team of scientists at UIC's Institute for Tuberculosis Research. The primary goal of this project is to optimize the anti-TB activity of macrolide antibiotics through the synthesis of additional chemically modified erythromycin derivatives.

"We have explored macrolides' potential for TB in recent years, but now we can devote the medicinal chemistry, microbio logy and pharmacology necessary to identify the best candidate," said Dr. Scott Franzblau, Director of the Institute for Tuberculosis Research and Principal Investigator. "Without the support of the TB Alliance, our discovery would have ended with a peer-reviewed publication; instead, we can now envision a new drug for TB."

In a two-year sponsored research agreement, Dr. Franzblau and his team at the Institute for Tuberculosis Research will synthesize and optimize macrolide derivatives for the TB indication with verification of *in vitro* activity against clinical isolates at Ramathibodhi Hospital in Bangkok, Thailand. Erythromycin is a good foundation for this project since it is an affordable starting material and could pave the way to engineer new, low-cost TB drugs.

"An excellent drug class, macrolides have been optimized extensively for the treatment of respiratory tract infections and now, for the first time in history, we will be able to optimize macrolides for the treatment of tuberculosis," said Dr. Zhenkun Ma, Head of Research, TB Alliance.



Current antibiotics used in TB treatment are based on research conducted over 30 years ago, and the most potent drug, rifampicin, was introduced in 1965. According to recent estimates published by the Infectious Disease Society of America, today's global pipeline of antibiotics amounts to only five compounds in clinical development, out of a total of 506 potential new drugs for all indications.

Since its 2000 launch, the TB Alliance has developed a portfolio of promising anti-TB compounds, the first most comprehensive TB drug pipeline since the 1960s with support from foundations, governments, research institutes and patients and healthcare workers worldwide.

## About the Global Alliance for TB Drug Development

The Global Alliance for TB Drug Development (TB Alliance) leads a collaborative, non-profit effort joining public and private sectors to accelerate and ensure the development of faster-acting, affordable drugs to fight tuberculosis. In addition to managing a pipeline of promising drug candidates with partners around the world, the TB Alliance aims to ensure the equitable access to a faster tuberculosis cure that will advance global health and prosperity. Donors include the Bill and Melinda Gates Foundation, Rockefeller Foundation, U.S. Agency for International Development (USAID), and the Netherlands Ministry for Development Cooperation, among others. For more information, visit http://www.tballiance.org.

## About the UIC Institute for Tuberculosis Research:

The UIC Institute for Tuberculosis Research (ITR) is a major research component of the UIC College of Pharmacy. ITR focuses on the discovery, development and evaluation of new therapeutics for TB that may prove practical and affordable in developing countries. ITR's comprehensive approach includes collaborative efforts with public and private institutions as well as within UIC.

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