AERAS GLOBAL TB VACCINE FOUNDATION
www.aeras.org

FIND FOUNDATION FOR INNOVATIVE NEW DIAGNOSTICS
www.finddiagnostics.org

TB ALLIANCE GLOBAL ALLIANCE FOR TB DRUG DEVELOPMENT
www.tballiance.org

Why We Need New Tools to Fight TB

Tuberculosis (TB) is a problem of global proportions, killing someone every twenty seconds, while it is estimated that its cause, *Mycobacterium tuberculosis (M.tb)*, infects one-third of the world's population. Mounting drug resistance, including multi- and extensively drug resistant TB (MDR-TB and XDR-TB), coupled with a growing number of people co-infected with TB and HIV, are making the pandemic more threatening and more deadly.

New tools are desperately needed to save millions of lives needlessly lost to TB.

- Today's most commonly used TB diagnostic, sputum microscopy, is more than **100 years old** and lacks sensitivity, detecting only half of the world's new TB patients. Delay in proper diagnosis costs patients valuable time and money in receiving treatment.
- Today's TB drugs are more than **40 years old** and must be taken for 6-9 months. Erratic or inconsistent treatment breeds drug resistant strains that increasingly defy current medicines.
- Today's TB vaccine, which is more than **85 years old**, provides some protection against severe forms of TB in children but is unreliable against pulmonary TB, which accounts for most of the worldwide disease burden.

We will never defeat TB without new and more effective tools: simpler, faster drug regimens that treat all forms of TB; rapid, more accurate diagnostic tools to quickly detect TB; and a vaccine that will be effective in preventing TB in people of all ages. New tools will play a crucial role along side the growing commitment to more aggressive TB control and broader treatment to end the needless burden of this infectious disease.

Three public-private partnerships lead development of needed new tools.

Research is currently under way to develop these critically needed new tools through innovative partnerships that maximize the likelihood of success and minimize costs. The **Aeras Global TB Vaccine Foundation (Aeras)**, the **Foundation for Innovative New Diagnostics (FIND)** and the **Global Alliance for TB Drug Development (TB Alliance)** — three not-for-profit Product Development Partnerships (PDPs) — are leading the global effort to develop new TB tools.

- FIND is developing rapid, accurate and affordable TB tests and point-of-care diagnostics to more efficiently detect TB and drug-resistant forms of TB.
- The TB Alliance is developing new affordable TB drugs that will dramatically shorten treatment time, work against drug-resistant TB, be compatible with HIV antiretrovirals and improve treatment of latent TB.
- Aeras is developing new, safe, effective and affordable vaccine regimens to protect against all strains of TB – including those that are MDR or XDR, to prevent TB in children, adolescents and adults, and to be safe for use in people infected with HIV.

Harnessing the collective resources of government, industry, academics, and philanthropies, FIND, the TB Alliance and Aeras have created over the past five years the largest pipeline of new TB drugs, diagnostics and vaccines in history. Nevertheless, increased investments and support for this research are needed to speed development of better TB tools and ensure access for those who need them most.