

ERA4TB, an international consortium to accelerate the development of comprehensive treatments against tuberculosis

More than 30 partners from 13 countries participate in the ERA4TB project

The ERA4TB (European Regimen Accelerator for Tuberculosis) project is a public-private initiative dedicated to the development of drugs against tuberculosis. With a team of more than thirty organizations and a budget of over 200 million euros ERA4TB will focus on developing a new, improved tuberculosis treatment. The partners will share their expertise, knowledge and resources to rapidly progress new candidate drugs into clinical trials.

Tuberculosis is the leading cause of death by an infectious disease worldwide. According to the World Health Organization (WHO), an estimated 10 million people became ill with tuberculosis in 2018, and 1.6 million died. Even though the incidence of tuberculosis is declining, the drug-resistant form constitutes a growing threat to the safety of the world's population. It is in this spirit that the UN has pledged to end the tuberculosis epidemic by 2030 through joint action of its member states.

David Barros-Aguirre, Project Lead for ERA4TB and VP and Head of Tuberculosis Research, Global Health R&D, GSK said: "On behalf of the ERA4TB partners, we are very excited about the start of this unique collaborative project in the field of tuberculosis where the expertise from public partners and a pipeline of promising preclinical candidates from pharmaceutical companies merge to accelerate the development of novel clinical candidates. The goal is to deliver an innovative and differentiated combination regimen for the treatment of TB, which can play a key role in the elimination agenda."

Standard tuberculosis treatment is based on a combination regimen of four drugs that were all developed more than 60 years ago. Treatment lasts for at least six months and, in the case of resistance to the standard drugs, can be as long as two years. The current drugs are inefficient by today's standards and a new, faster-acting and safer treatment is required to reduce the length of therapy and to overcome the menace of drug-resistant strains. Until now, the development of new drugs has been slow and their incorporation into tuberculosis treatment regimens conducted in a sequential manner.

Stewart Cole, Scientific leader of ERA4TB and President of the Institut Pasteur, said "ERA4TB has assembled an impressive array of resources to seamlessly harness the agility and innovation of academia with the pragmatism and scientific expertise of pharma. I am confident that this powerful European initiative will speed the path to TB elimination."

ERA4TB is set to change the paradigm of tuberculosis treatment development by abandoning the sequential approach in favor of a parallel pathway, which will allow the simultaneous investigation of more than a dozen drug candidates. By implementing a

standardized approach to tuberculosis drug development, that is well coordinated with the collaborations outside Europe, ERA4TB has the potential to optimize, and, more importantly, greatly reduce the development times of the new regimens needed to eliminate this epidemic.

According to Juan José Vaquero, project coordinator from UC3M (University Carlos III Madrid) and leader of the imaging team, “ERA4TB will change the paradigm for the development of new TB drugs by adopting a flexible and modular collaboration scheme in which research efforts can be rapidly mobilized to where they are most needed allowing several molecules to be investigated simultaneously. This will save both time and money.”

The Laboratory of Molecular Microbiology of the Department of Biology and Biotechnology of the University of Pavia is one of the 31 Partners of this International Consortium. ERA4TB is the biggest European project against tuberculosis disease. Prof. Maria Rosalia Pasca is the Principal Investigator of this Unit that also includes Prof. Giovanna Riccardi, Prof. Laurent Chiarelli and Dr. Giulia Degiacomi. This Unit has a recognized experience in the tuberculosis field, in particular in the study of the mechanism of action and of resistance of antitubercular drugs.

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About the Innovative Medicines Initiative

The Innovative Medicines Initiative (IMI) is Europe's largest public-private initiative aiming to speed up the development of better and safer medicines for patients. IMI supports collaborative research projects and builds networks of industrial and academic experts in order to boost pharmaceutical innovation in Europe. IMI is a joint undertaking between the European Union and the European Federation of Pharmaceutical Industries and Associations, EFPIA.

More information can be found at www.imi.europa.eu

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