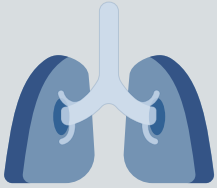


METABOLOMICS FOR TUBERCULOSIS

Development of a new test based on metabolomics for the diagnosis and management of tuberculosis

OVERVIEW



Despite the progress of modern medicine, improvements in diagnosis and development of drug susceptibility tests, **tuberculosis (TB) remains as a global threat for public health**, and remains as one of the most threatening curable infectious diseases.

World Health Organization reported in 2019 that **1.2 million people died of TB**. Children (<15 years) accounted for 15% of total deaths.

An effective control of TB is based on **immediate detection** of *Mycobacterium tuberculosis* followed by a prompt implementation of the **adequate anti-TB therapy**.



PROJECT

Sector: Infectious Disease

R&D direction:

Diagnosis of TB

Stage of development: TRL3

Scientific leader: Dr. José Domínguez

Clinical Advisor: Dr. Cristina Prat



PRODUCT

Potential indications:

Diagnosis of TB

Management of TB treatment

Mechanism of action:

Metabolic biomarkers test from urine

Market size: 23M tests per year

Market value: €480M per year



IP PROTECTION

European Patent Application



OPPORTUNITY

License out

Co-development



NEEDS

Although the conventional diagnostic methods are irreplaceable tools, detection of TB by microscopy has **poor sensitivity**, and culture methods have **poor timeliness** for clinical management.

A delay in the TB diagnosis patient leads to a more severe disease, with increased risk of mortality and a spread of the disease.

There is a real necessity for **rapid, efficient and higher sensitivity techniques** for the diagnosis of the disease.



SOLUTION

Our project presents:

- A profile of **metabolic biomarkers** present in **urine** whose relative level can **diagnose tuberculosis**.

These metabolic markers can thus be used in a non-invasive **diagnostic method** for identifying and classifying patients.

The specific pattern of metabolites could be also **used during the treatment** for monitoring the efficacy.



KEY ADVANTATGES

- Easy accessible and easy to collect samples: urine
- Non invasive method
- Suitable to use in children
- Identification and classification of TB patients
- Differentiation from patients with other respiratory infections
- Determination of TB therapy efficacy

CONTACT US!

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