BACKGROUND
Historically, reported human infections due to Mycobacterium spp. were due almost exclusively to Mycobacterium tuberculosis. More recently, other species of Mycobacterium spp. causing TB-like clinical disease have been identified and are increasingly recognized worldwide. These organisms are referred as NTM. They can cause a broad range of infections. There are over 150 different species of NTM but pulmonary infections are most commonly due to Mycobacterium avium complex (MAC), Mycobacterium kansasii, and Mycobacterium abscessus. NTM infections are of particular importance in patients with chronic respiratory diseases (cystic fibrosis, COPD, etc.). In addition to pulmonary infections NTM can cause infections in other localizations. In children, NTM cause four main clinical syndromes: lymphadenitis, skin and soft tissue infection, pulmonary diseases (predominantly in children with underlying pulmonary conditions), and disseminated disease (in immune-compromised children).

Differential diagnosis of NTM is a clear unmet medical need. While the tuberculin skin test (TST) and the interferon gamma release assay (IGRAs) are approved diagnostic tests for identifying or latent Mycobacterium tuberculosis infection (LTBI), there is no procedure for NTM infections. Having a diagnostic method for the identification of patients who really have a NTM infection would help to prescribe the adequate treatment to those that really need it. This will reduce, unnecessary therapies, reduction in antibiotic resistance, and costs.

TECHNOLOGY DESCRIPTION
Our method can be used for the differential diagnosis of NTM infections vs. tuberculosis (TB) infections or latent TB infection, allowing a more accurate diagnosis of LTBI, particularly in the pediatric population.

The invention is an in vitro method for detecting immune response against species of non-tuberculous mycobacteria (NTM). It can identify, and therefore diagnose, infections caused by M. avium and by any NTM. The method, based in detection of immune reaction (specific cytokines) to specific antigens in blood, is useful in the diagnosis of diseases directly caused by NTM infections for example: pulmonary infections, lymphadenitis and skin and soft tissue infections. Specifically, to identify NTM infections in children diagnosed with cystic fibrosis, in patients suffering from chronic respiratory diseases, including chronic obstructive pulmonary disease (COPD) or in immunosuppressed adults.

ADVANTAGES:
- Quick, low invasive, method for an unmet need
- Can differentiate NTB infection vs latent and non latent TB.
- For pediatric and adult diagnosis

CURRENT STAGE OF DEVELOPMENT
Tested in clinical environment. In development for market access.

GOAL
Looking for companies interested in license-in or collaboration for the development of the diagnosis test.

PATENT
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