

ABSTRACT OF THE INVENTION

The present invention includes methods, systems and kits for distinguishing between active and latent mycobacterium tuberculosis infection in a patient suspected of being infected with mycobacterium tuberculosis, and distinguishing such patients from uninfected individuals, the method including the steps of

5 obtaining a gene expression dataset from a whole blood obtained sample from the patient and determining the differential expression of one or more transcriptional gene expression modules that distinguish between infected and non-infected patients, wherein the dataset demonstrates an aggregate change in the levels of polynucleotides in the one or more transcriptional gene expression modules as compared to matched non-infected patients, thereby distinguishing between active and latent mycobacterium tuberculosis infection.

BLOOD TRANSCRIPTIONAL SIGNATURE OF *MYCOBACTERIUM*
***TUBERCULOSIS* INFECTION**

ABSTRACT

The present invention includes methods, systems and kits for distinguishing between active and latent mycobacterium tuberculosis infection in a patient suspected of being infected with mycobacterium tuberculosis, and distinguishing such patients from uninfected individuals, the method including the steps of obtaining a gene expression dataset from a whole blood obtained sample from the patient and determining the differential expression of one or more transcriptional gene expression modules that distinguish between infected and non-infected patients, wherein the dataset demonstrates an aggregate change in the levels of polynucleotides in the one or more transcriptional gene expression modules as compared to matched non-infected patients, thereby distinguishing between active and latent mycobacterium tuberculosis infection.

(Figure 1)