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## (54) Title of the invention: SYSTEM AND METHOD FOR DETECTION OF LATENT TUBERCULOSIS INFECTION

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## (57) Abstract:

The disclosed embodiments illustrate a system (100) and method (300) for detection of latent tuberculosis infection (LTBI) in a subject. The system (100) includes electronic devices (102) adapted to be attached to various parts of body of the subject to identify biomarkers of the LTBI in sweat. Thereafter collected biomarkers are analysed to extract concentration of one or more volatile organic compounds (VOC), and extracted concentration of the VOC is analysed to determine whether the subject is having symptoms of latent tuberculosis. The proposed system enables the subject to get treatment on time and to avoid high risk of latent tuberculosis progression by detection of the LTBI at early stage.

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