

TB Diagnostics

SeeTB - A novel alternative to sputum smear microscopy to diagnose tuberculosis in high burden countries.



Handy and fast: The device is battery operated and allows quick identification of the bacteria

Microscopy-based tuberculosis (TB) diagnosis i.e. Ziehl-Neelsen screening remains the primary diagnostic method in resource poor and high TB burden countries, however this method has poor sensitivity (~60%). Bringing three million TB patients who are left undiagnosed under the treatment has been a major focus as part of END-TB strategy across the world.

It is a portable set-up called 'SeeTB' that converts a bright-field microscope into fluorescence microscope (FM) with minimal interventions.

Dr. Sayed E Hasnain, vice chancellor of Jamia Hamdard University, Dr. Nasreen Ehtesam, Deputy Director at the National Institute of Pathology, Safdarjung Hospital Campus, and Indian Institute

This project jointly funded by IMPRINT, Department of Biotechnology, Government of India, and IIT Delhi.

We would like to acknowledge the significant contributions and support from all the hospital staff at Jamia Hamdard Hospital, and Safdarjang Hospital. We would like to acknowledge Dr. Shalini Gupta, Department of Chemical Engineering, IIT Delhi for her continuous feedback throughout the project. This work has been supported by grants from IMPRINT, Ministry of Health and Family Welfare, Government of India and Centre of Excellence grant from Department of Biotechnology, Government of India.

E-coverage

<https://www.nature.com/articles/s41598-019-52739-9>

<https://timesofindia.indiatimes.com/city/delhi/smart-gadget-can-detect-tb-in-an-hour/articleshow/63152540.cms>

<https://economictimes.indiatimes.com/industry/healthcare/biotech/healthcare/iit-researchers-develop-promising-tb-diagnostics-solution/articleshow/65084896.cms?from=mdr>

<https://www.thehindu.com/sci-tech/science/seetb-new-diagnostic-tool-for-detecting-tuberculosis/article29993209.ece>