PredictTB

In 2020, an estimated 10 million people fell ill with tuberculosis (TB) worldwide, and a total of 1.5 million people died from TB in 2020 according to the WHO's Global Tuberculosis Report 2021.

Treating TB

TB is treatable and curable. While the current TB standard therapy lasts six months, **up to 80% of all TB patients are cured after four months**. Thus, a minority of patients at high risk for relapse prevents the majority from successful treatment shortening. Identifying both groups by predicting treatment outcome would have a great global public health impact.

→ **But the challenge is: health care providers do not know beforehand which group patients belong to.**

In 2017, the PredictTB project set out to investigate the following 2 major questions:

→ **Can patients be identified who can be cured with shorter treatment duration?**

→ **What combination of parameters can be used to best identify these patients?**

The PredictTB Project at a Glance: Towards Shortened TB Treatment

Feb 2017–July 2022

Partners from Africa, Asia, Europe and the United States

Large proof-of-concept study in South Africa and China

Testing novel, patient-specific radiographic and microbiological biomarkers for early treatment stopping

Combining PET/CT imaging + microbacterial tests

Organising training activities to support knowledge-sharing and create perspectives for emerging African scientists

Project Outcomes: Providing a Wealth of Clinical, Imaging, and Microbiological Data

The PredictTB early treatment stopping criteria were shown not to be effective in achieving a safe reduction period of standard TB treatment from six to four months. But still, the PredictTB study provides a wealth of information on PET/CT imaging and well-characterised patient samples. It is one of the largest studies ever conducted with PET/CTs on TB treatment.

The imaging parameters identified may help scientists fine-tune and optimise early TB treatment stopping criteria in future research.

PredictTB data will help researchers gain a better understanding of the factors that lead to failed or curative treatment strategies.

PredictTB patient samples will pave the way for large-scale, relapse-specific biomarker discovery experiments including gene expression, proteomics, and metabolomics measures.

The collected PredictTB datasets and samples will be made accessible to the wider research community and external investigators.

More than 200 delegates have been trained in PredictTB workshops.

Further information:

www.predict-tb.com

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