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Figure 1

A. DISCOVERY AND VALIDATION COHORT

Adolescent Cohort Study (ACS)
n= 6,363 12-18 year olds

- QFT- and TST<10mm n=2,349
- QFT+ and/or TST≥10mm n=3,595
- Exclude QFT and TST unknown n=22

Developed intrathoracic TB n=27
- Exclude not per protocol TB n=20
- Exclude TB within 6 months of QFT/TST conversion n=17
- TB > 6 months after M.tb infection n=8

Developed intrathoracic TB n=60

Remained healthy despite M.tb-infection n=3,146

Match healthy controls to progressors (2:1) by age, gender, ethnicity, school, TB history n=107

TB progressors n=46

Match healthy controls to progressors (4:1) by age, gender, and recruitment year

Randomise training/test split

TRAINING

South Africa controls n=172

The Gambia controls n=77

Progressors n=37

Controls n=77

TEST

South Africa progressors n=43

The Gambia progressors n=37

Progressors n=9

Controls n=30

B. INDEPENDENT VALIDATION COHORT

GC6-74 healthy, HIV-HHC

of Index TB cases
n= 4,466 10-60 years old

- South Africa n=1,197
- The Gambia n=1,948
- Other African countries n=1,321

Remained healthy

Match healthy controls to progressors (4:1) by age, gender, and recruitment year

Developed intrathoracic TB n=43
- Exclude non-microbiologically confirmed TB n=3
- Exclude TB within 3 months of enrolment n=1

Developed intrathoracic TB n=34

Remained healthy

Match healthy controls to progressors (4:1) by age, gender, and recruitment year

South Africa progressors n=43

The Gambia progressors n=30

The Gambia controls n=129

Study follow-up
Aligning baseline samples.

Time to TB diagnosis varies among participants.

Prospective samples used for biomarker discovery.
Figure 3

A. 

B. 

C. 

D. 

E. 

F.
Supplementary Figure 1

A.

B.

Progressor

434 days before TB

243 days before TB

79 days before TB

Non-Progressor

Matched Control

Gene

ETV7
FGFR1A
FGFR1B
GBP2
GBP5
SCARF1
STAT1
TAP1
Other (see Sup Table 12)
Supplementary Figure 2

A. ACS Training: 1-180 days before TB
B. ACS Training: 181-360 days before TB
C. ACS Training: 361-540 days before TB
D. ACS Training: 541-720 days before TB
E. ACS Test: prediction all days

Sensitivity vs. 1-Specificity for PSVM and Random Forest models.