

# S1\_File

## Performance of diagnostic and predictive host blood transcriptomic signatures for tuberculosis disease: a systematic review and meta-analysis.

### Data Extraction Form

Reviewer initials  HM  CZZ  Other\_\_\_\_\_

#### Part A: Study characteristics

Author's last name: \_\_\_\_\_ Publication year: \_\_\_\_\_

Study title:  
\_\_\_\_\_

Country of study population: \_\_\_\_\_ Study # \_\_\_\_\_

TB Burden in study population:  Low  Intermediate  High

Study design:  Cross-sectional  Cohort  Case control  RCT  Other \_\_\_\_\_

Study type:  Diagnostic  Predictive if predictive; follow-up time \_\_\_\_\_ months

Study purpose:  Discovery  Validation

Sampling:  Consecutive  Convenient  Random  Other\_\_\_\_\_

#### Part C: Characteristics of tests

Index sample type :  Whole blood  PBMC

Index test (signature) type :  mRNA  Other\_\_\_\_\_

Signature name : \_\_\_\_\_ # of genes: \_\_\_\_\_

Signature discovery method:  RNA Seq  Micro array  PCR  Other\_\_\_\_\_

Signature model :  Pairwise  Random forest  SVM  Other\_\_\_\_\_

TB disease gold standard :  Culture  Xpert MTB/RIF  Smear  Other\_\_\_\_\_

#### Part B: Population characteristics

Population:  Adults  Adolescents  Children  Mixed  Undefined

Age range: \_\_\_\_\_

Participant's cohort (test/validation) and disease status\*\*

Cohort Type	Healthy Controls <sup>a</sup>	LTBI <sup>b</sup>	Other Diseases <sup>c</sup>	TB Disease <sup>d</sup>	Total Enrolled

\*\* For diagnostic studies, the number of participants in each category represents the numbers at enrolment while for predictive studies; a, b and c represent the number of participants in each category at enrolment that gave rise to the cases (d) at the end of follow-up period.

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## Description of negative population

<sup>a</sup>Healthy Controls:  Healthy endemics  Healthy non-endemics  TB Contacts  Other, describe: \_\_\_\_\_

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<sup>b</sup>Other diseases:  Non-respiratory diseases  Respiratory diseases

<sup>c</sup>LTBI :  TST>5mm  TST>10mm  IGRA  N/A

If IGRA, IGRA type :  QFT  Elispot  Other \_\_\_\_\_

<sup>d</sup>TB disease: For diagnostic studies, this number represents the number of participants included in the study at enrolment while for predictive studies; this number represents the number of participants diagnosed with TB at the end of follow-up period.

## Part D: Outcomes

Cohort Type	Sens	Spec	AUC	TP	TN	FP	FN	LR+	LR-	RR

**Key:** Sens= Sensitivity; Spec= Specificity; AUC= Area under the curve; TP = True positives; FP = False positives; TN = True negatives; FN = False negatives; LR+ = Positive likelihood ratio; LR- = Negative likelihood ratio; RR = Rate Ratio for predictive studies only.

## Inclusion/Exclusion Decision

Included  Excluded  Pending

If excluded, reason:

- Excluded by title
- Children only
- Different index test
- Reference test neither Culture, Xpert/MTB RIF nor Smear Microscopy
- HIV infected only
- Mixed HIV infected and uninfected and could not desegregate the participants
- Mixed children and adults and could not desegregate the participants
- Other study design
- Diagnostic performance data not reported and unable to get from authors