| PID  | Alternative Diagnosis  | Diagnosis                                   |
|------|------------------------|---------------------------------------------|
| Control 1 | Bacterial pneumonia    | Symptoms+X-ray not suggestive of TB          |
| Control 2 | Viral pneumonia        | Symptoms+X-ray not suggestive of TB          |
| Control 3 | Viral pneumonia        | Symptoms+X-ray not suggestive of TB          |
| Control 4 | Asthma/wheeze          | Symptoms+X-ray not suggestive of TB          |
| Control 5 | Asthma/wheeze          | Symptoms+X-ray not suggestive of TB          |
| Control 6 | Asthma/wheeze          | Symptoms+X-ray not suggestive of TB          |
| Control 7 | Bacterial pneumonia    | Symptoms+X-ray not suggestive of TB          |
| Control 8 | Bacterial pneumonia    | Symptoms+X-ray not suggestive of TB          |
| Control 9 | Viral pneumonia        | Symptoms+X-ray not suggestive of TB          |
| Control 10 | Viral pneumonia        | Symptoms+X-ray not suggestive of TB          |
| Control 11 | Viral pneumonia        | Symptoms+X-ray not suggestive of TB          |
| Control 12 | Viral pneumonia        | Symptoms+X-ray not suggestive of TB          |
| Control 13 | Asthma/wheeze          | Symptoms+X-ray not suggestive of TB          |
| Control 14 | Viral pneumonia        | Symptoms+X-ray not suggestive of TB          |
| Control 15 | Asthma/wheeze          | Symptoms+X-ray not suggestive of TB          |
| Control 16 | Viral pneumonia        | Symptoms+X-ray not suggestive of TB          |
| Control 17 | Asthma/wheeze          | Symptoms+X-ray not suggestive of TB          |
| Control 18 | Asthma/wheeze          | Symptoms+X-ray not suggestive of TB          |
| Control 19 | Bacterial pneumonia    | Symptoms+X-ray not suggestive of TB          |
| Control 20 | Asthma/wheeze          | Symptoms+X-ray not suggestive of TB          |
| Control 21 | Asthma/wheeze          | Symptoms+X-ray not suggestive of TB          |
| Control 22 | Asthma/wheeze          | Symptoms+X-ray not suggestive of TB          |
| Control 23 | Viral pneumonia        | Symptoms+X-ray not suggestive of TB          |
| Control 24 | Viral pneumonia        | Symptoms+X-ray not suggestive of TB          |
| Control 25 | Asthma/wheeze          | Symptoms+X-ray not suggestive of TB          |
| Control 26 | Bacterial pneumonia    | Symptoms+X-ray not suggestive of TB          |
| Control 27 | Bacterial pneumonia    | Symptoms+X-ray not suggestive of TB          |
| Control 28 | Bacterial pneumonia    | Symptoms+X-ray not suggestive of TB          |
| Control 29 | Asthma/wheeze          | Symptoms+X-ray not suggestive of TB          |
| Control 30 | Asthma/wheeze          | Symptoms+X-ray not suggestive of TB          |
| Control 31 | Viral pneumonia        | Symptoms+X-ray not suggestive of TB          |
| Control 32 | Viral pneumonia        | Symptoms+X-ray not suggestive of TB          |
| Control 33 | Viral pneumonia        | Symptoms+X-ray not suggestive of TB          |
| Control 34 | COPD                   | Symptoms+X-ray not suggestive of TB          |
| Control 35 | COPD                   | Symptoms+X-ray not suggestive of TB          |
| Control 36 | Bacterial pneumonia    | Symptoms+X-ray not suggestive of TB          |
| Control 37 | Bacterial pneumonia    | Symptoms+X-ray not suggestive of TB          |
| Control 38 | Bacterial pneumonia    | Symptoms+X-ray not suggestive of TB          |
| Control 39 | Bacterial pneumonia    | Symptoms+X-ray not suggestive of TB          |
| Control 40 | Asthma/wheeze          | Symptoms+X-ray not suggestive of TB          |
| Control 41 | Asthma/wheeze | Symptoms+X-ray not suggestive of TB |
| Control 42 | Viral pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 43 | Viral pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 44 | Viral pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 45 | Viral pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 46 | COPD | Symptoms+X-ray not suggestive of TB |
| Control 47 | Bacterial pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 48 | Bacterial pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 49 | Bacterial pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 50 | Bacterial pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 51 | Asthma/wheeze | Symptoms+X-ray not suggestive of TB |
| Control 52 | Asthma/wheeze | Symptoms+X-ray not suggestive of TB |
| Control 53 | Asthma/wheeze | Symptoms+X-ray not suggestive of TB |
| Control 54 | Viral pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 55 | Viral pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 56 | Viral pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 57 | Viral pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 58 | Asthma/wheeze | Symptoms+X-ray not suggestive of TB |
| Control 59 | Asthma/wheeze | Symptoms+X-ray not suggestive of TB |
| Control 60 | Asthma/wheeze | Symptoms+X-ray not suggestive of TB |
| Control 61 | Asthma/wheeze | Symptoms+X-ray not suggestive of TB |
| Control 62 | Bacterial pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 63 | Bacterial pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 64 | Bacterial pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 65 | Bacterial pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 66 | Viral pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 67 | Asthma/wheeze | Symptoms+X-ray not suggestive of TB |
| Control 68 | Asthma/wheeze | Symptoms+X-ray not suggestive of TB |
| Control 69 | Viral pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 70 | Viral pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 71 | Viral pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 72 | Viral pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 73 | Viral pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 74 | Viral pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 75 | Viral pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 76 | Asthma/wheeze | Symptoms+X-ray not suggestive of TB |
| Control 77 | Asthma/wheeze | Symptoms+X-ray not suggestive of TB |
| Control 78 | Asthma/wheeze | Symptoms+X-ray not suggestive of TB |
| Control 79 | Viral pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 80 | Bacterial pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 81 | Bacterial pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 82 | Bacterial pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 83 | Bacterial pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 84 | Viral pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 85 | Viral pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 86 | Viral pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 87 | Bacterial pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 88 | Bacterial pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 89 | Viral pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 90 | Asthma/wheeze | Symptoms+X-ray not suggestive of TB |
| Control 91 | Asthma/wheeze | Symptoms+X-ray not suggestive of TB |
| Control 92 | Asthma/wheeze | Symptoms+X-ray not suggestive of TB |
| Control 93 | Bacterial pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 94 | Bacterial pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 95 | Bacterial pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 96 | Viral pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 97 | Bacterial pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 98 | Viral pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 99 | Viral pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 100 | Viral pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 101 | Viral pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 102 | Viral pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 103 | Bacterial pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 104 | Bacterial pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 105 | Bacterial pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 106 | Bacterial pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 107 | Bacterial pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 108 | Bacterial pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 109 | Bacterial pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 110 | Viral pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 111 | Viral pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 112 | Viral pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 113 | Viral pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 114 | Viral pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 115 | Asthma/wheeze | Symptoms+X-ray not suggestive of TB |
| Control 116 | Asthma/wheeze | Symptoms+X-ray not suggestive of TB |
| Control 117 | Bacterial pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 118 | Asthma/wheeze | Symptoms+X-ray not suggestive of TB |
| Control 119 | Viral pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 120 | Asthma/wheeze | Symptoms+X-ray not suggestive of TB |
| Control 121 | Bacterial pneumonia | Symptoms+X-ray not suggestive of TB |
| Control 122 | Bacterial pneumonia | Symptoms+X-ray not suggestive of TB |

Supplementary table 1: Clinical characteristics of unlikely TB children
Table S2 A

| Cytokines | Confirmed TB vs Unlikely TB | Unconfirmed TB vs Unlikely TB |
|-----------|-----------------------------|-----------------------------|
| IFNγ      | p<0.0001                    | p<0.0001                    |
| IL-2      | p<0.0001                    | p<0.0001                    |
| TNFα      | p=0.0141                    | p<0.0001                    |
| IL-1α     | p<0.0001                    | p<0.0001                    |
| IL-1β     | p>0.9999                    | p>0.9999                    |
| IL-17A    | p=0.0074                    | p<0.0001                    |
| IL-6      | p=0.023                     | p=0.0013                    |
| IL-10     | p<0.0001                    | p=0.0316                    |
| GM-CSF    | p>0.9999                    | p=0.2203                    |
| IL-4      | p=0.4498                    | p=0.8626                    |
| IL-5      | p>0.9999                    | p>=0.9999                   |
| IL-13     | p=0.1433                    | p>=0.9999                   |

Table S2 B

| Cytokines | Confirmed TB vs Unlikely TB | Unconfirmed TB vs Unlikely TB |
|-----------|-----------------------------|-----------------------------|
| IFNγ      | p<0.0001                    | p<0.0001                    |
| IL-2      | p<0.0001                    | p<0.0001                    |
| TNFα      | p=0.0006                    | p<0.0001                    |
| IL-1α     | p=0.0004                    | p<0.0001                    |
| IL-1β     | p>0.9999                    | p=0.0057                    |
| IL-17A    | p<0.0001                    | p<0.0001                    |
| IL-6      | p=0.0001                    | p<0.0001                    |
| IL-10     | p=0.0001                    | p<0.0001                    |
| GM-CSF    | p=0.0862                    | p=0.0047                    |
| IL-4      | p>0.9999                    | p=0.0015                    |
| IL-5      | p=0.0608                    | p=0.1353                    |
| IL-13     | p=0.0538                    | p=0.0948                    |

Supplementary table 2: The plasma levels of IFNγ, TNFα, IL-2, IL-17A, IL-1α, IL-1β, GM-CSF and IL-6 were measured in confirmed TB (n=80) and unlikely TB (n=122) children from both the clinical cohorts together. (A) Children less than 5-year-old (<5 Years) and (B) children greater than 5 year old (>5 Years) at baseline. P values were calculated using the Mann-Whitney test with Holm’s correction for multiple comparisons.