**SUPPLEMENT**

**Table S1**: inter-assay difference in 13 sputum samples.

| Galactomannan 1, ODI | Galactomannan 2, ODI | Difference | CV, %  |
|----------------------|----------------------|------------|--------|
| 0.5                  | 0.9                  | 0.4        | 40.4   |
| 0.2                  | 0.2                  | 0          | 0      |
| 5.5                  | 6.3                  | 0.8        | 9.6    |
| 0.3                  | 0.3                  | 0          | 0      |
| 0.7                  | 0.8                  | 0.1        | 9.4    |
| 1.4                  | 1.4                  | 0          | 0      |
| 7.4                  | 6.3                  | -1.1       | 11.4   |
| 6.7                  | 6.1                  | -0.6       | 6.6    |
| 3.5                  | 5.2                  | 1.7        | 27.6   |
| 7.8                  | 6.2                  | -1.6       | 16.2   |
| 2.7                  | 2.5                  | -0.2       | 5.4    |
| 7.5                  | 6.2                  | -1.3       | 13.4   |
| 5.6                  | 5.8                  | 0.2        | 2.5    |

Galactomannan measurement on same samples of 13 subjects. Galactomannan is presented as optical density index ODI: optical density index, CV: coefficient of variation.
Table S2: Aspergillus sputum culture, sputum galactomannan and PCR per patient

| A. Fumigatus culture | Sputum galactomannan, ODI | A. Fumigatus PCR, Ct |
|----------------------|---------------------------|---------------------|
| COPD 1               | -                         | 0.5                 |
| COPD 2               | -                         | 0.2                 |
| COPD 3 positive      | 5.5                       | 29.6                |
| COPD 4               | -                         | 0.3                 |
| COPD 5               | -                         | 0.7                 |
| COPD 6               | -                         | 1.4                 |
| COPD 7               | -                         | 0.4                 |
| COPD 8               | -                         | 0.5                 |
| COPD 9               | -                         | 1.5                 |
| COPD 10              | -                         | 0.8                 |
| COPD 11              | -                         | 0.3                 |
| COPD 12              | -                         | 5.9                 |
| COPD 13              | -                         | 0.6                 |
| COPD 14              | positive                  | 6.1                 | 27.1               |
| COPD 15              | -                         | 0.5                 |
| COPD 16              | -                         | 0.8                 |
| COPD 17              | -                         | 1.4                 |
| COPD 18              | -                         | 0.4                 |
| COPD 19              | -                         | 7.4                 |
| COPD+bronchiectasis 1| -                         | 6.7                 | 31.1               |
| COPD+bronchiectasis 2| positive                 | 3.6                 |
| COPD+bronchiectasis 3| -                         | 7.8                 |
| COPD+bronchiectasis 4| positive                 | 2.7                 | INH                |
| COPD+bronchiectasis 5| -                         | 7.5                 |
| COPD+bronchiectasis 6| positive                 | 5.6                 | *                  |
| COPD+bronchiectasis 7| -                         | 0.4                 |
| COPD+bronchiectasis 8| -                         | 3.8                 |
| COPD+bronchiectasis 9| positive                 | 5.8                 |
| COPD+bronchiectasis 10| -                        | 0.4                 |
| COPD+bronchiectasis 11| -                        | 5.7                 | *                  |
| COPD+bronchiectasis 12| -                        | 0                  |
| COPD+bronchiectasis 13| -                        | 5.6                 |
| COPD+bronchiectasis 14| -                        | 3.8                 |
| COPD+bronchiectasis 15| -                        | 5.7                 |
| COPD+bronchiectasis 16| positive               | 2                  |
| COPD+bronchiectasis 17| -                        | 1.2                 |
    | negative control 1   | -                         | 1.6                 |
    | negative control 2   | -                         | 0                  |
    | negative control 3   | -                         | 1.7                 |
    | negative control 4   | -                         | 0                  |
    | negative control 5   | -                         | 5.2                 |
    | negative control 6   | -                         | 0.6                 |
    | negative control 7   | -                         | 0.1                 |
Galactomannan is presented as optical density index. *A. fumigatus* PCR was performed after automated DNA extraction. If PCR was positive, a Ct value is presented. COPD: chronic obstructive pulmonary disease, ODI: optical density index, PCR: polymerase chain reaction, Ct: cycle threshold, INH: inhibition despite of dilution in second run, *: diluted 1/5 because of inhibition in first run.

Table S3: used reagents for real-time PCR

| Target            | 28S rRNA     |
|-------------------|--------------|
| Primer, forward   | 5'-GCACGTGAAATTGTTGAAAGG-3' |
| Primer, reverse   | 5'-CAGGCTGCGCGCGATGTG-3' |
| Probe             | FAM-5'-CATTCGTGCGGTACCTCCCG-3'-TAMRA |
| Polymerase        | TaqMan Fast Virus Mix (Life technologies, Carlsbad, USA) |
| Temperature program | 95°C – 20 seconds |