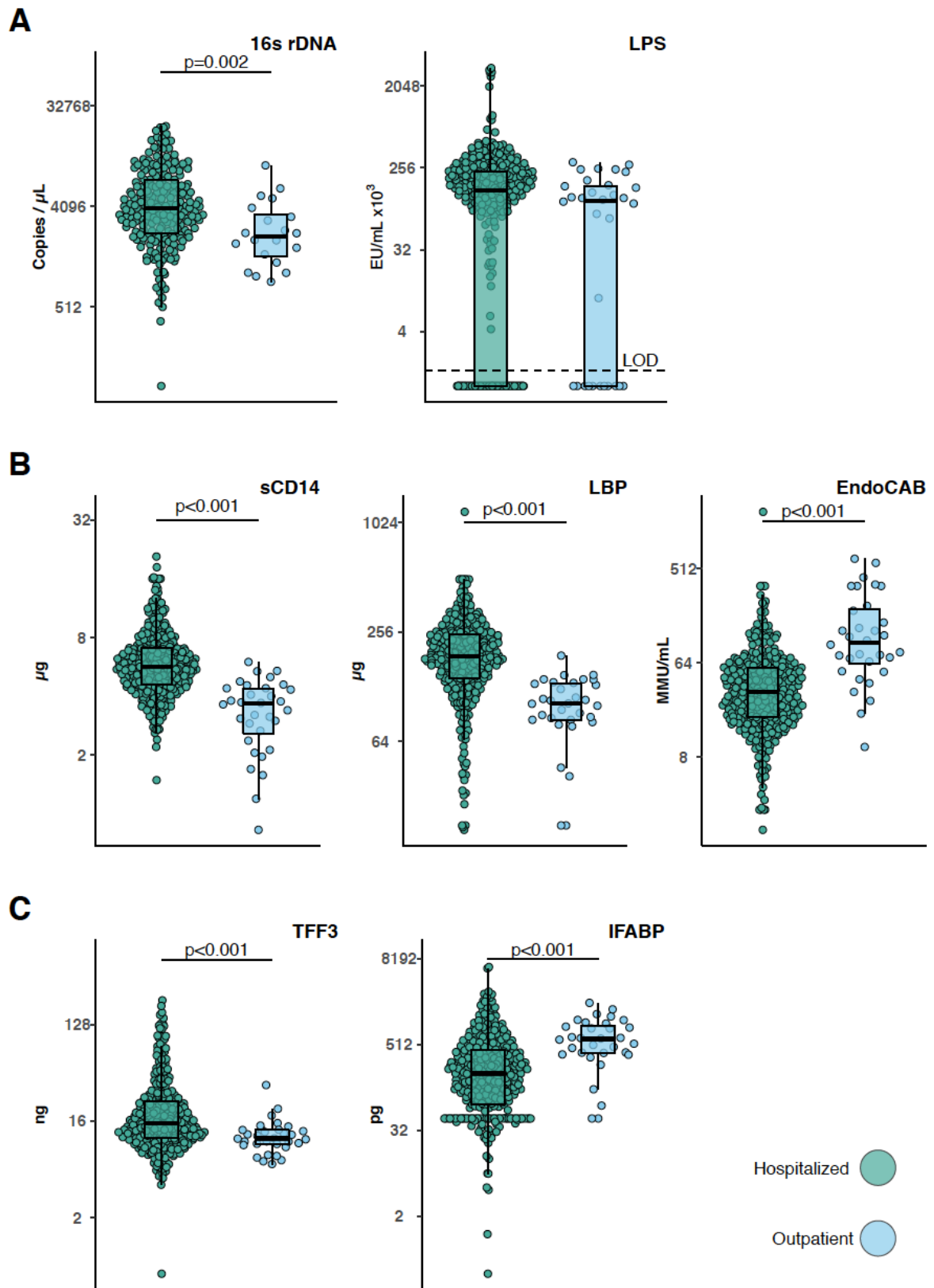


Supplementary figures:

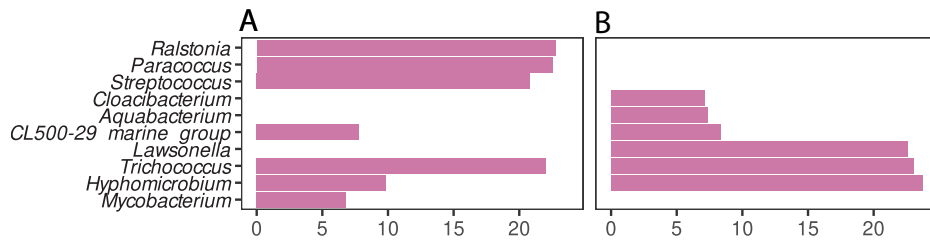
Fig S1: Microbial translocation markers and markers of gut damage in hospitalized patients vs outpatients



**Supplementary Figure 1:** Boxplots with overlaid violin plots show comparisons of microbial translocation marker concentrations amongst two groups: Hospitalized: HIV-positive patients hospitalized with active tuberculosis and Outpatient: HIV-positive outpatients without tuberculosis. Wilcoxon rank sum comparisons were made between groups. **Panel A** shows 16s rDNA (bacterial 16s ribosomal DNA concentrations) which was measured in a sub-group of n= 235 patients and LPS (lipopolysaccharide) concentrations. **Panel B** shows concentrations of indirect markers of microbial translocation: sCD14: soluble CD14; LBP: lipopolysaccharide binding protein and EndoCAB: endotoxin core antibody IgM. **Panel C** shows markers of gastro-intestinal endothelial damage: TFF3: trefoil factor 3 and IFABP: intestinal fatty acid binding protein.

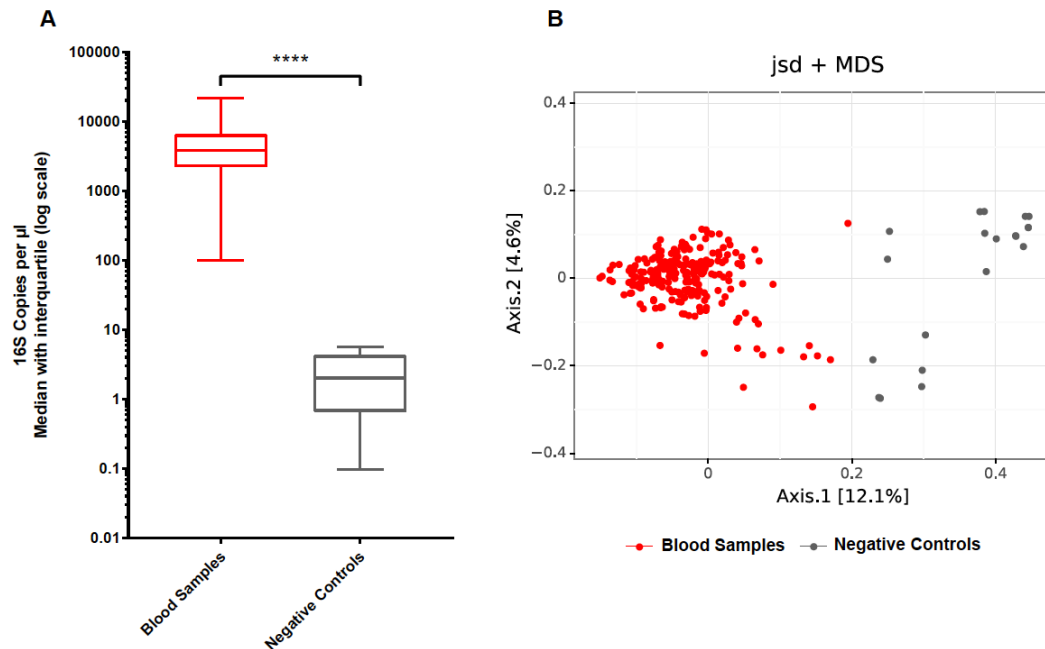
copies/ $\mu$ L: copies per microliter of whole blood; EU/mL: Endotoxin units per millilitre;  $\mu$ g/mL: microgram per millilitre; MMU/mL: standard median units per millilitre; ng/mL: nanogram per millilitre; pg/mL: picogram per millilitre.

Fig S2: Blood microbiome: differential abundance comparing patients hospitalized with HIV-TB who died within 12 weeks and inpatients to HIV-positive outpatients without TB.



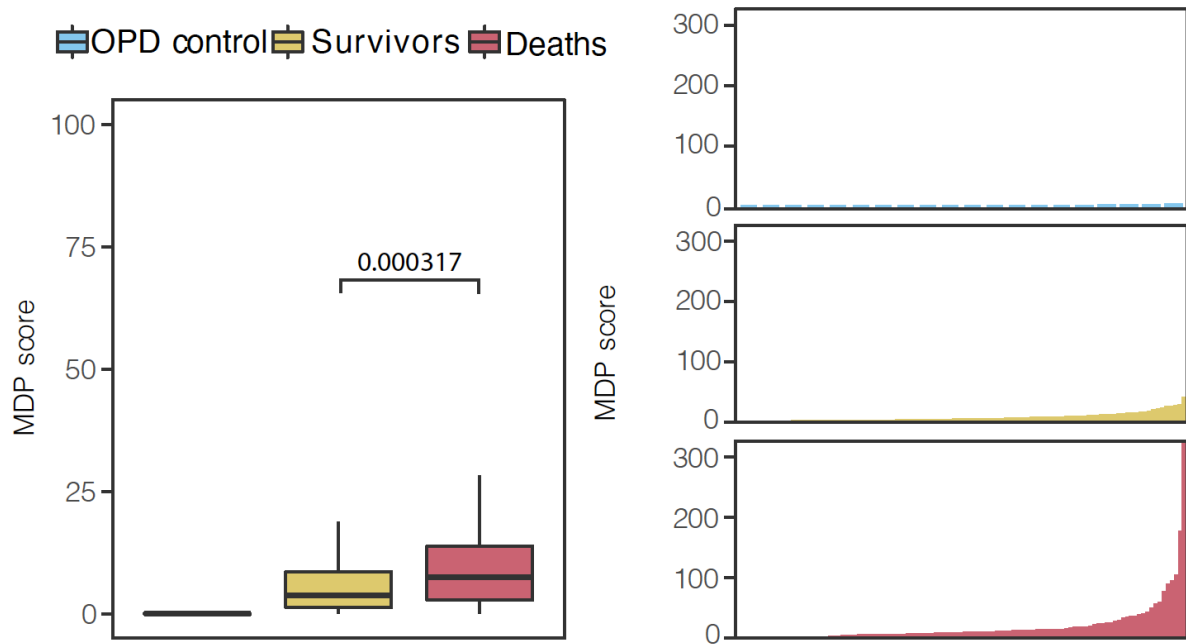
Supplementary Figure 2: Bar plot of differentially abundant bacteria showing log2 fold change comparing A) patients hospitalized with HIV-TB who died within 12 weeks to HIV-positive outpatients without TB and (B) patients hospitalized with HIV-TB to HIV-positive outpatients without TB.

Fig S3: Metagenomic Sequencing:  
Negative controls



**Supplemental Figure 3: A.** Comparison of the quantity of bacterial DNA (log scale) assessed by qPCR in blood samples and negative controls. **B.** Comparison of beta diversities by ordination analysis of the 16S rRNA gene sequencing data using JSD dissimilarity distances in the blood samples and negative controls. Negative controls: molecular grade water added in an empty tube during qPCR and PCR steps, amplified and sequenced at the same time as the blood samples. \*\*\*\* :  $p < 0.0001$  with Mann-Whitney test.

Fig S4: Molecular Degree of Perturbation analysis in hospitalized HIV-TB patients who died, survived and outpatients without tuberculosis.



**Supplemental Figure 4:** Molecular Degree of Perturbation analysis using soluble mediators of inflammation concentration measurements: Box Plot of MDP scores from of patients hospitalized with HIV-associated tuberculosis who died within 12 weeks, those who survived 12 weeks and HIV positive outpatient controls without tuberculosis.