

Supplementary figures legends

Supplementary figure 1

A. Gating strategy for the blood samples. **B.** Gating strategy for the bone marrow samples.

Supplementary figure 2

A. Gating strategy of the migration assay. **B.** Gating strategy for the phagocytosis assay.

Supplementary Figure 3

A. NET quantification by Sytox blue fluorescence (5 μ M) of neutrophils from healthy donors, after incubation for 3 hours with *Staphylococcus aureus* or LPS (10 μ M) for 30 minutes. Different Neutrophils to *Staphylococcus aureus* ratio have been used and detailed on the X axis **B.** Neutrophils purified from blood healthy donors were loaded with H2 DCF-DA for 30 minutes. Then, cells were incubated with *Staphylococcus aureus* 3 hours or LPS and ROS quantification was determined kinetically using by plate reader. Different Neutrophils to *Staphylococcus aureus* ratio have been used **C.** Phagocytosis rate of labeled neutrophils from healthy donors with an anti-CD66b BV421 antibody was determined after 15 minutes of incubation with labeled *Staphylococcus aureus* with FITC. Phagocytosis rate was assessed by flow cytometry and determined as the percentage of double positive cells. Different Neutrophils to *Staphylococcus aureus* ratio have been used and detailed on the X axis **D.** Neutrophils from healthy donors were incubated with *Staphylococcus aureus* for 16 hours and the number of viable bacteria was determined with a CFU assay. Different Neutrophils to *Staphylococcus aureus* ratio have been used and detailed on the X axis

Supplementary table 1

Genome sequencing results of the “Healthy carrier” and the “Mediastinitis” strains.