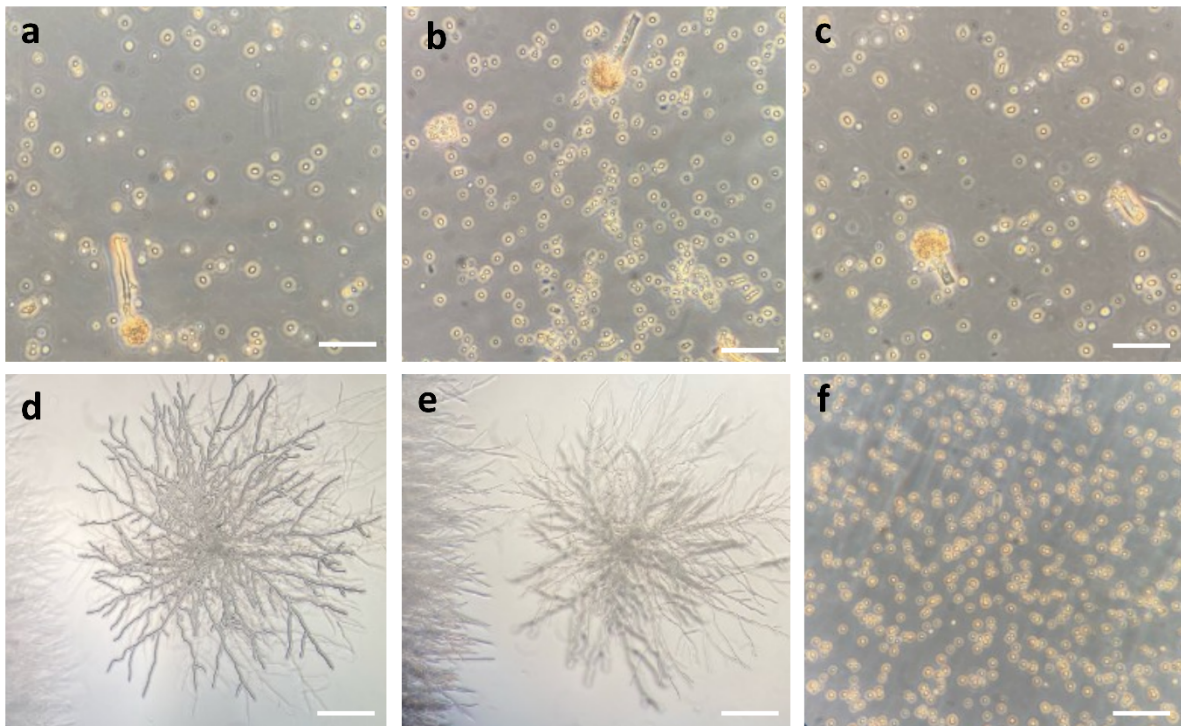
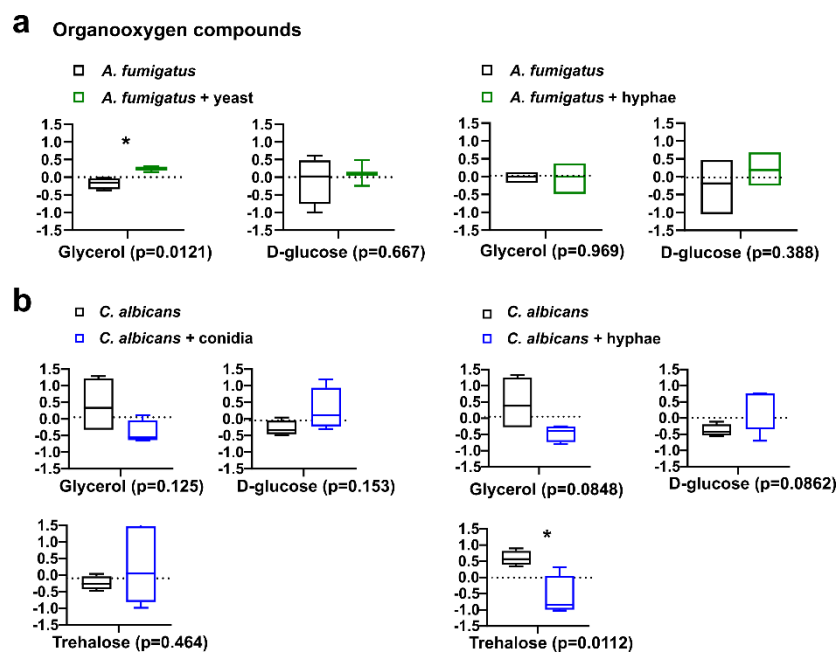


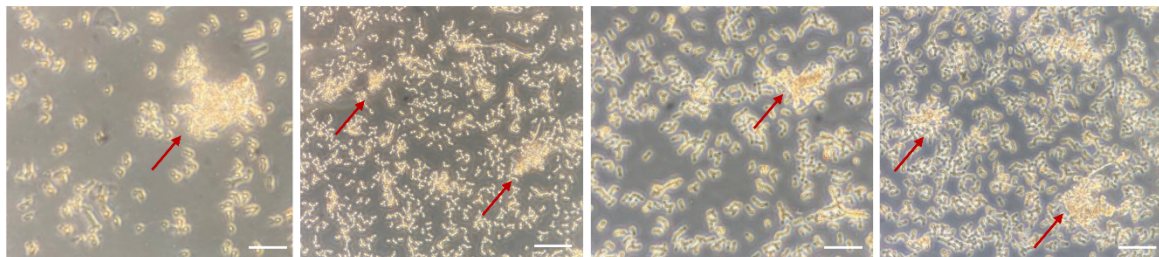
Supplementary informations



Supplementary Figure 1: (a,b and c) Pictures taken in the inhibition zone between *A. fumigatus* and *C. albicans* in coculture obtained after 10 days incubation at 25 °C showing fragments of *A. fumigatus* hyphae in presence of yeast and conidia. **d** and **e** Pictures taken in the inhibition zone between *C. albicans* (grown hyphae visible on the left) and one colony of *A. fumigatus* on the right with expanding hyphae **f** Pictures of viable yeast cells, sample was taken on the *C. albicans* side colony in the coculture. Scale bar: 312.5 μm .



Supplementary Figure 2: Fungal secretomes alter glycerol, D-glucose and trehalose abundance in enriched culture. Enrichment pathway analysis of *C. albicans* and *A. fumigatus* monoculture compared to enriched cultures. Significant organooxygen compounds are expressed (* $p < 0.05$, ** $p < 0.01$). **a** Pathway analysis: *A. fumigatus* with yeast secretome (green) compared to *A. fumigatus* control culture (black) and *A. fumigatus* with hyphae (green) secretome compared to *A. fumigatus* control culture (black) **b** Pathway analysis: *C. albicans* with conidia secretome (blue) vs. *C. albicans* culture control (black) and *C. albicans* with hyphae secretome (blue) vs. *C. albicans* culture control (black). Metabolite set library was based on chemical structures (main class) on MetaboAnalyst. $^1\text{H-NMR}$ and timsTOF LC-MS data were combined and normalized with log transformation for the statistical analysis.



Supplementary Figure 3: *C. albicans* multicellular clusters in presence of *A. fumigatus*. Pictures of liquid coculture inoculated with *A. fumigatus* (10^6 conidia/mL) and *C. albicans* (10^6 yeast/mL) after 12 h recording at 25 °C in liquid yeast extract peptone dextrose medium (YPD). The red arrows show the presence of *C. albicans* cell aggregates. Scale bar: 312.5 μm .