Supplementary Figure 1. Characterization of human 3D skin model and molecular analysis during *C. albicans* infection. A. Schematic depiction of the 3D skin model consisting of human dermal fibroblasts (S1F) embedded in a collagen matrix with human keratinocytes (Ker-CT) seeded on top that differentiate and generate a stratified and cornified epidermis. B. Immunostaining of skin model sections for the epidermal differentiation markers cytokeratin 10, filaggrin, cytokeratin 14 and involucrin seen in red. Diagrams next to the microscopy images indicate the expected distribution of the respective markers. C. Time course of *C. albicans* infection of skin models containing fibroblasts and keratinocytes. Skin models were infected for the indicated period with *C. albicans* and processed for HE staining. Increasing *C. albicans* invasion can be observed with increasing infection time. D. Image of a tissue section of the dermal part from a human 3D skin model after mechanic separation of dermis, epidermis and the immune cell compartment showing that separation is complete. Bars in B., C. and D.: 100 µm. E-F. MA plots of differential gene expression in keratinocytes (E) and fibroblasts (F) comparing infected to non-infected skin models. G. Expression levels of antimicrobial peptides S100A8 and S100A9 in keratinocytes and fibroblasts from non-infected or infected skin models as determined by RNA-seq (mean and standard deviation of triplicate samples). H. MA plot of differential gene expression in *C. albicans*. Compared are fungi in the dermis with fungi in the epidermis. Red dots show differentially expressed genes with an FDR < 0.05.