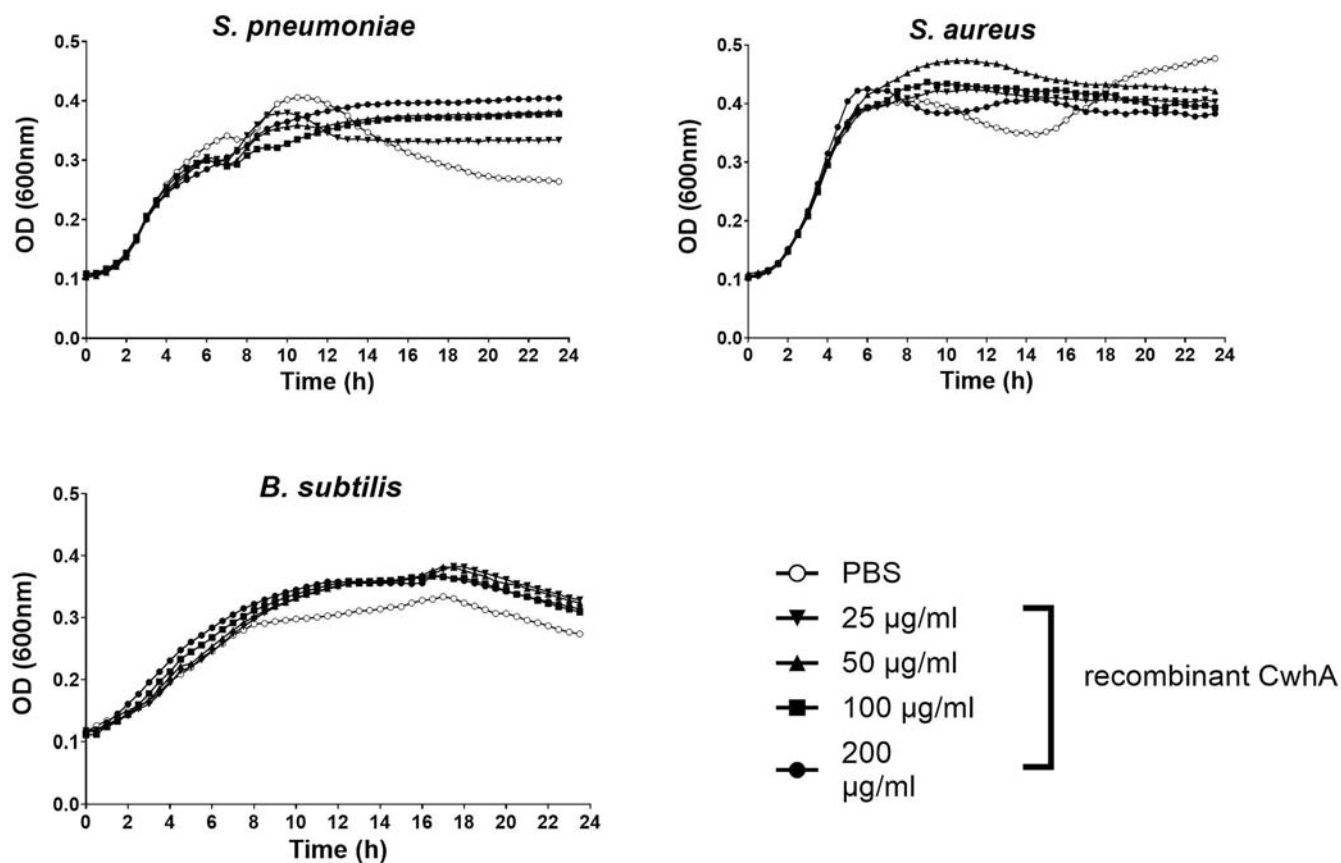
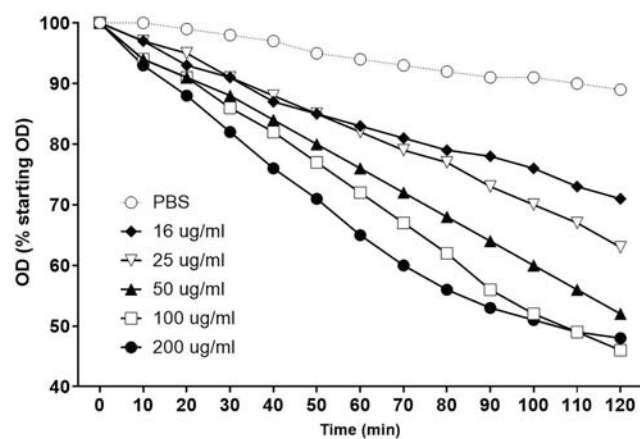


Expanded View Figures

Figure EV1. Effects of CwhA on bacterial growth in LB media and Tris buffer.

(A) Bacterial growth in LB media supplemented with CwhA. The optical density at 600 nm was measured every 30 min in a plate reader after the addition of PBS or different concentrations of recombinant CwhA (25–200 µg/ml). One representative experiment is shown. (B) The optical density (600 nm) after addition of recombinant CwhA (16–200 µg/ml) to bacterial suspensions in 50 mM Tris buffer (pH 8) was measured overtime. Data from a single experiment is shown. Data from a biological replicate is shown in Fig. 3A. Source data are available online for this figure.

A**Effect of CwhA in LB****B****Dose-dependent effect of CwhA on *S. aureus* Newman in Tris buffer**

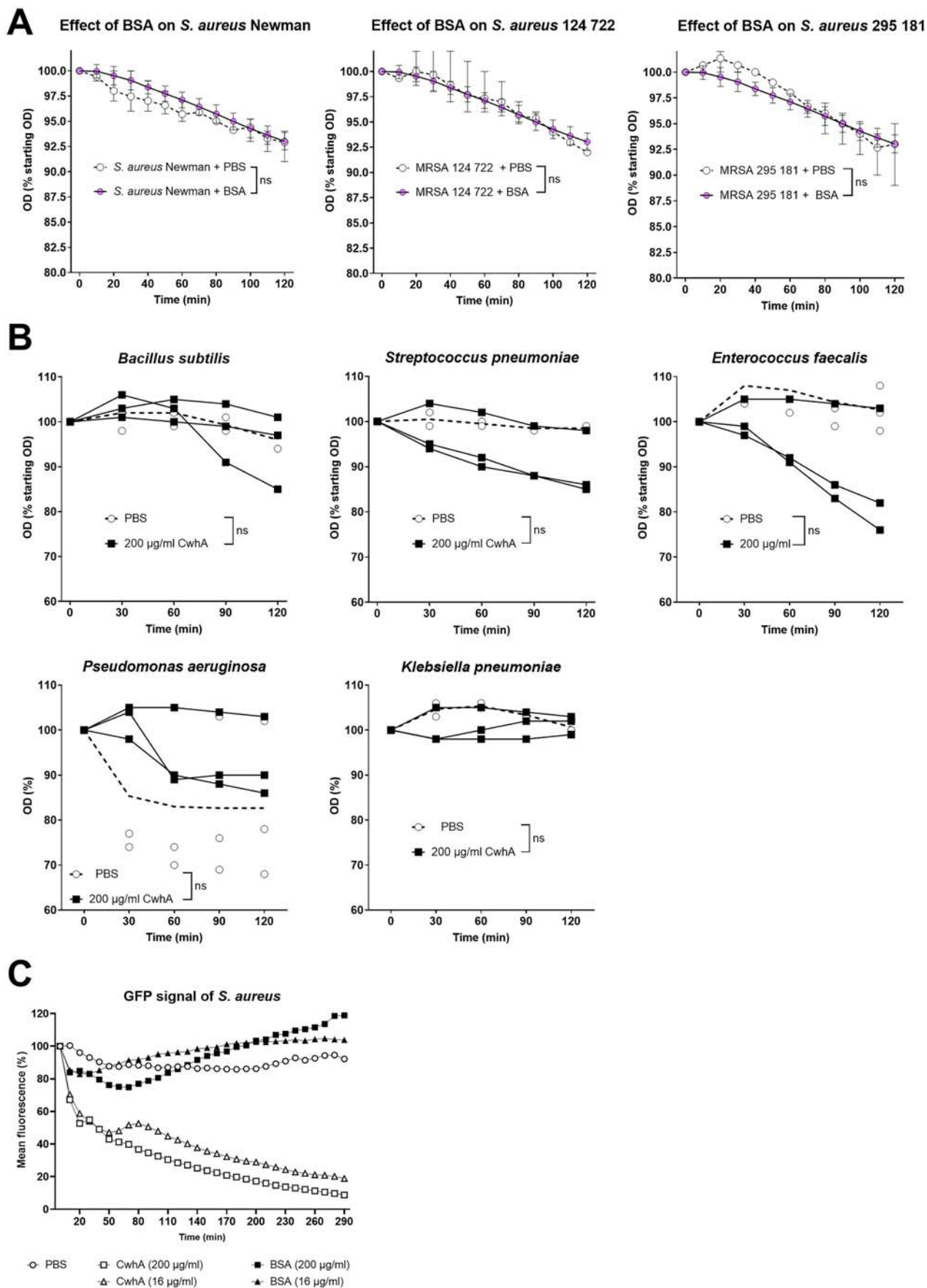


Figure EV2. Effect of BSA on *S. aureus* and CwhA-mediated lysis of different bacterial species.

(A, B) The optical density (OD) at 600 nm after addition of PBS, BSA (200 mg/ml) or recombinant CwhA (200 mg/ml) to bacterial suspensions ($n = 3$ biological replicates) in 50 mM Tris buffer (pH 8) was measured at the indicated time points. (A) Three different *S. aureus* strains in Tris buffer after addition of either PBS or BSA. The PBS data is also shown in Fig. 3B. (B) OD of different bacterial species after the addition of either PBS or CwhA. (C) GFP signal of a GFP-expressing *S. aureus* strain after treatment with CwhA. Bovine serum albumin (BSA) and PBS were used as controls. One of $n = 2$ biological replicates, see also Fig. 3D. Data information: In (A, B) data were shown as individual data points and the mean as connecting line. ns no statistically significant difference between the groups (two-way ANOVA). Source data are available online for this figure.

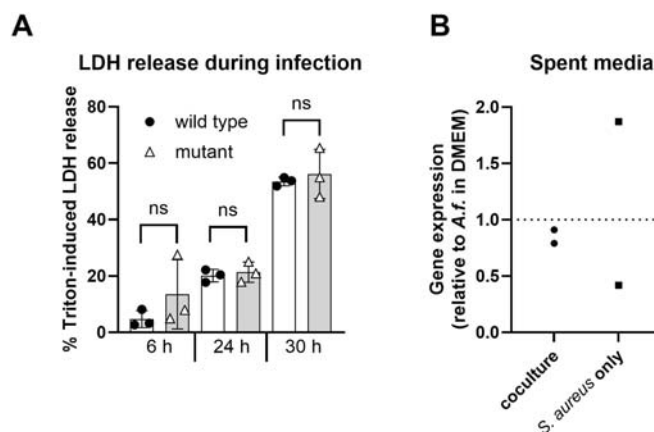


Figure EV3. Host cell damage during *A. fumigatus* infection, and the effect of spent media on *cwhA* expression.

(A) A549 cells were seeded in 24-well microplates and infected with 9×10^5 *A. fumigatus* conidia. Plates were incubated at 37 °C, 5% CO₂ and 21% O₂ for either 6, 24, or 30 h. LDH released into the supernatant of infected cells was normalized to the Triton-lysed positive control. $n = 3$ biological replicates per treatment and time point. (B) *A. fumigatus* was grown in spent media (sterile-filtered culture supernatant) of *S. aureus* Newman cultured alone or in coculture with *A. fumigatus* for 4 h in DMEM. $n = 2$ biological replicates. Data information: Data in (A) are shown as a scatter plot with bars (mean) and SD (error bars). ns not significant (two-tailed unpaired *t*-test). In (B), data were represented as individual data points. Source data are available online for this figure.

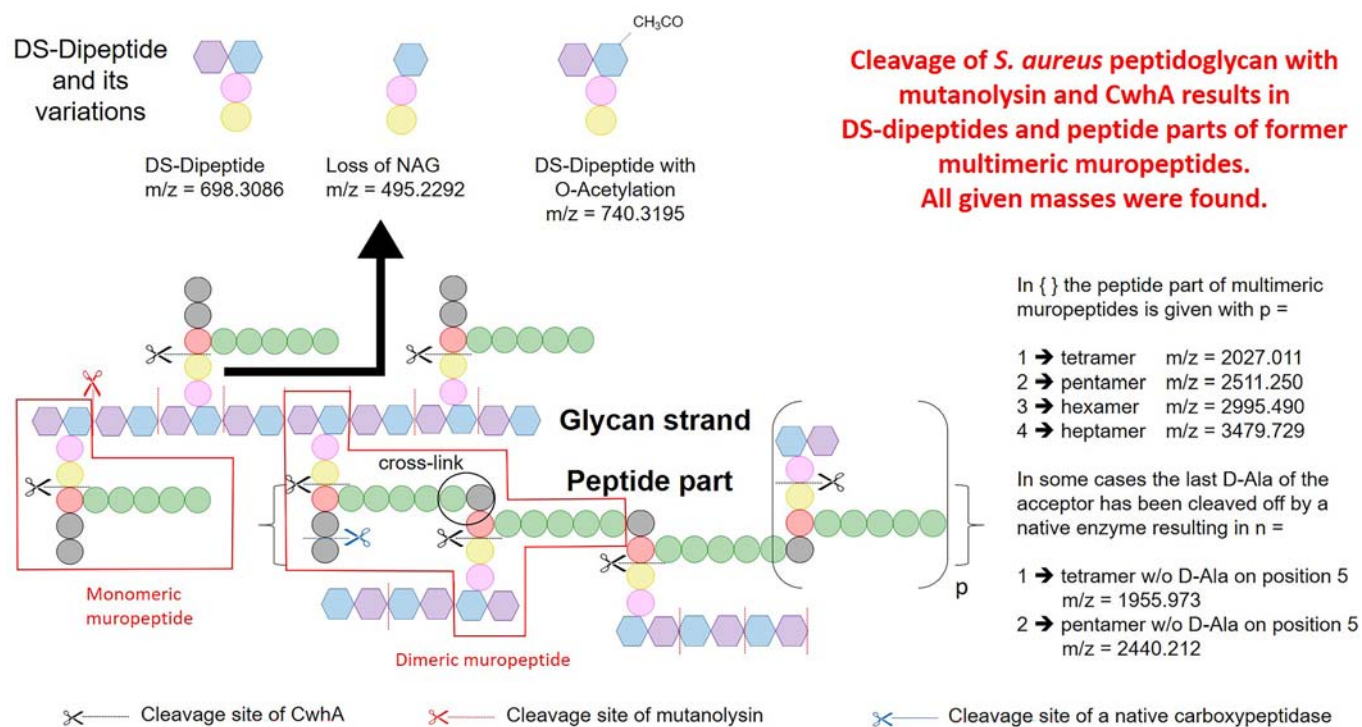


Figure EV4. Schematic depiction of peptidoglycan cleavage by mutanolysin and CwhA.

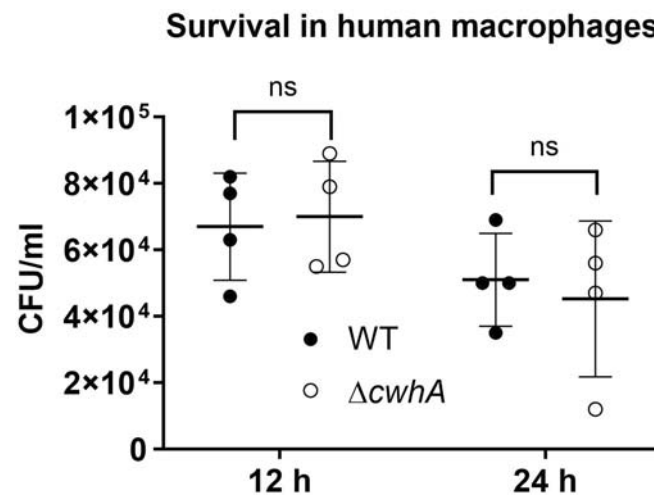


Figure EV5. Survival of *Aspergillus fumigatus* wildtype (WT) and $\Delta cwhA$ in human macrophages.

Differentiated adherent human monocyte-derived macrophages ($n = 4$ different donors - biological replicates) were infected with fungal conidia at an MOI of 1 for 12 and 24 h and lysed to determine fungal growth on malt agar plates. Data information: Data from four independent donors are shown as a scatter dot plot with mean $\pm$ SD. ns not significant (one-way ANOVA and Tukey's multiple comparisons). Source data are available online for this figure.