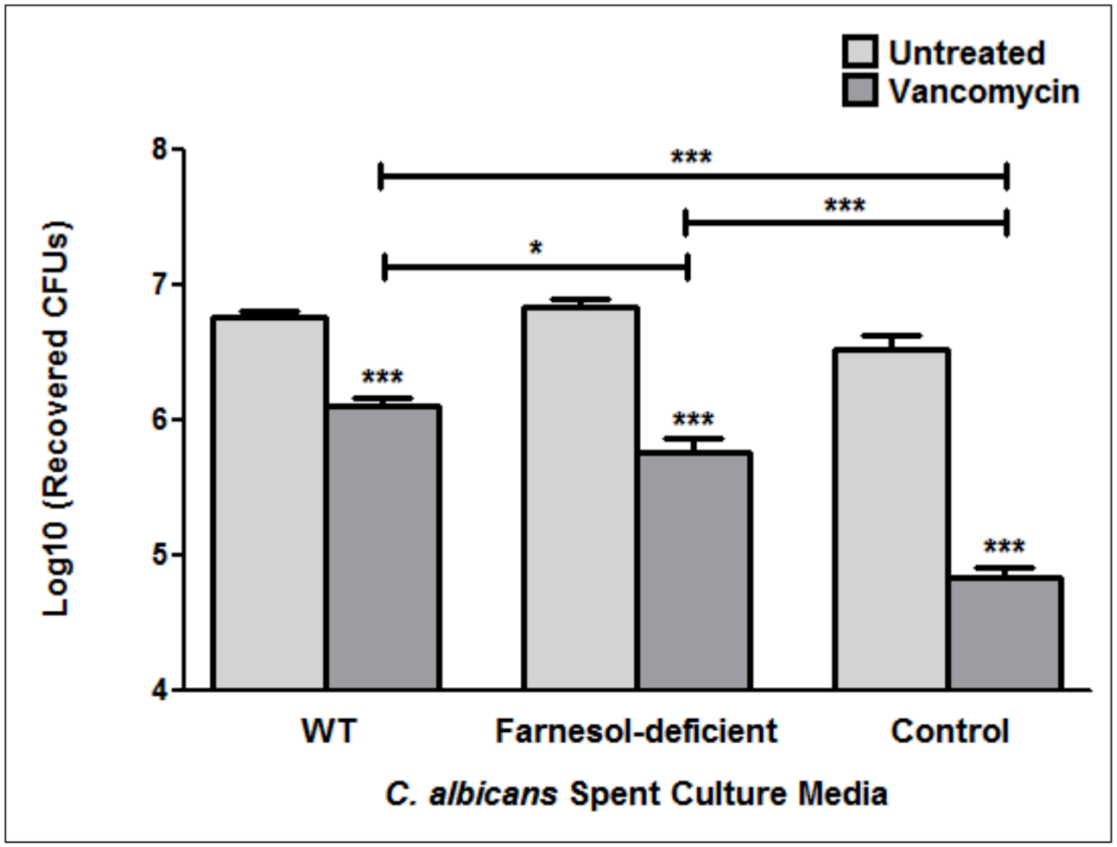
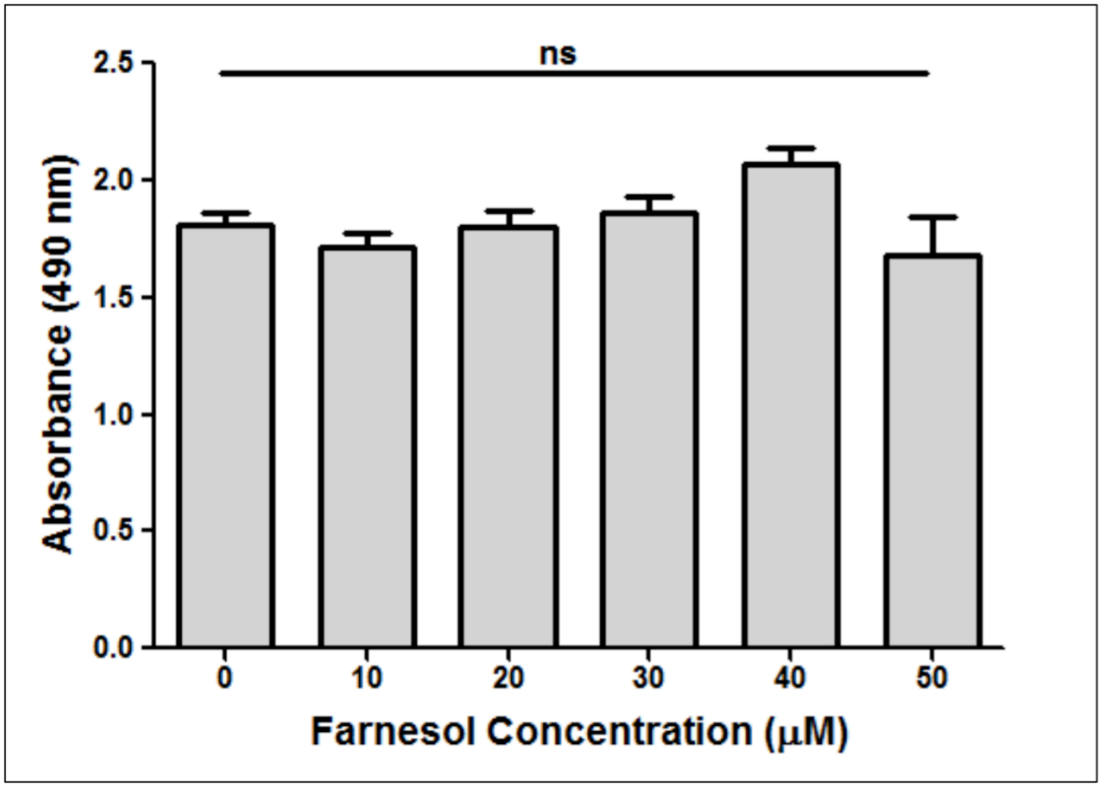
Supplemental Figure 1



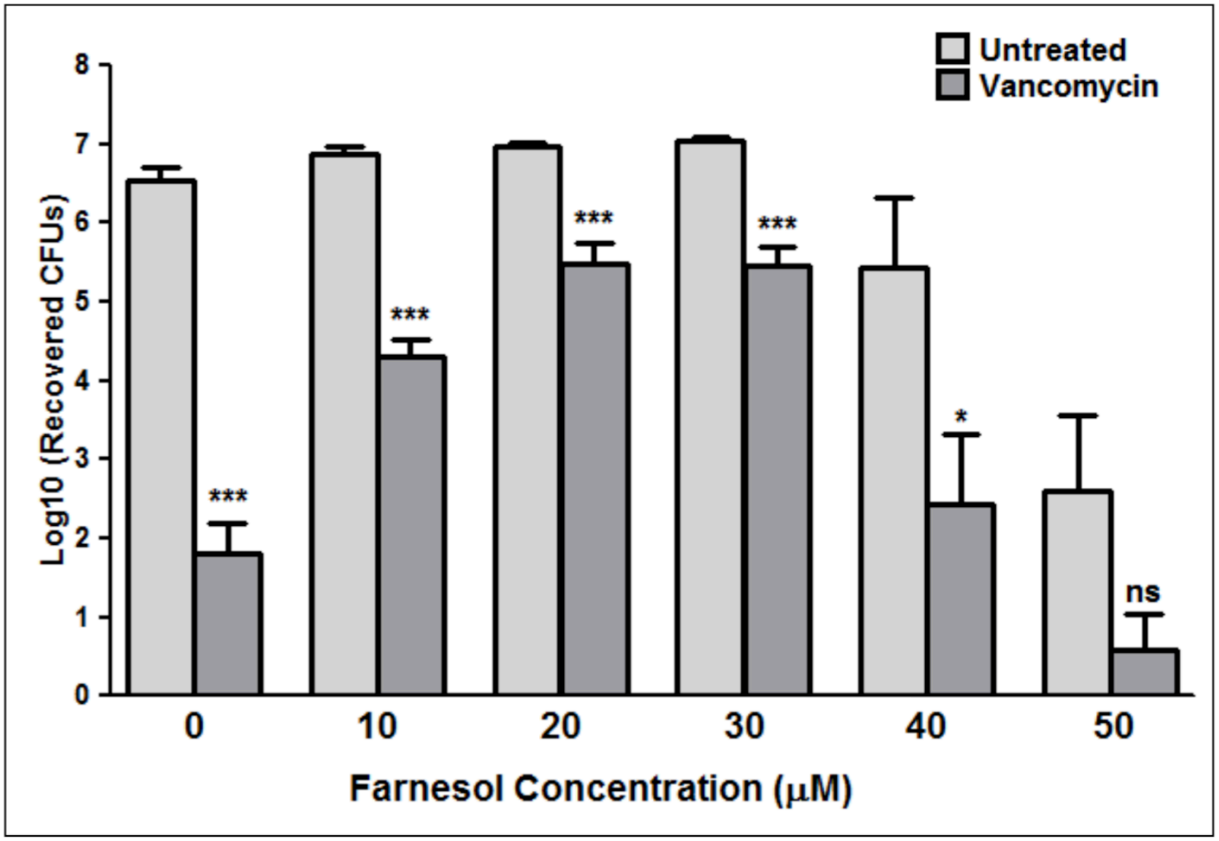
Supplemental Figure 1. *S. aureus* vancomycin susceptibility testing in *albicans* biofilm spent culture media. Based on log CFU recovery, significant increase in *S. aureus* survival with vancomycin was seen in spent media from the farnesol-producing *C. albicans* strain and the control media (*, P <0.05; ***, *P* <0.001).

Supplemental Figure 2



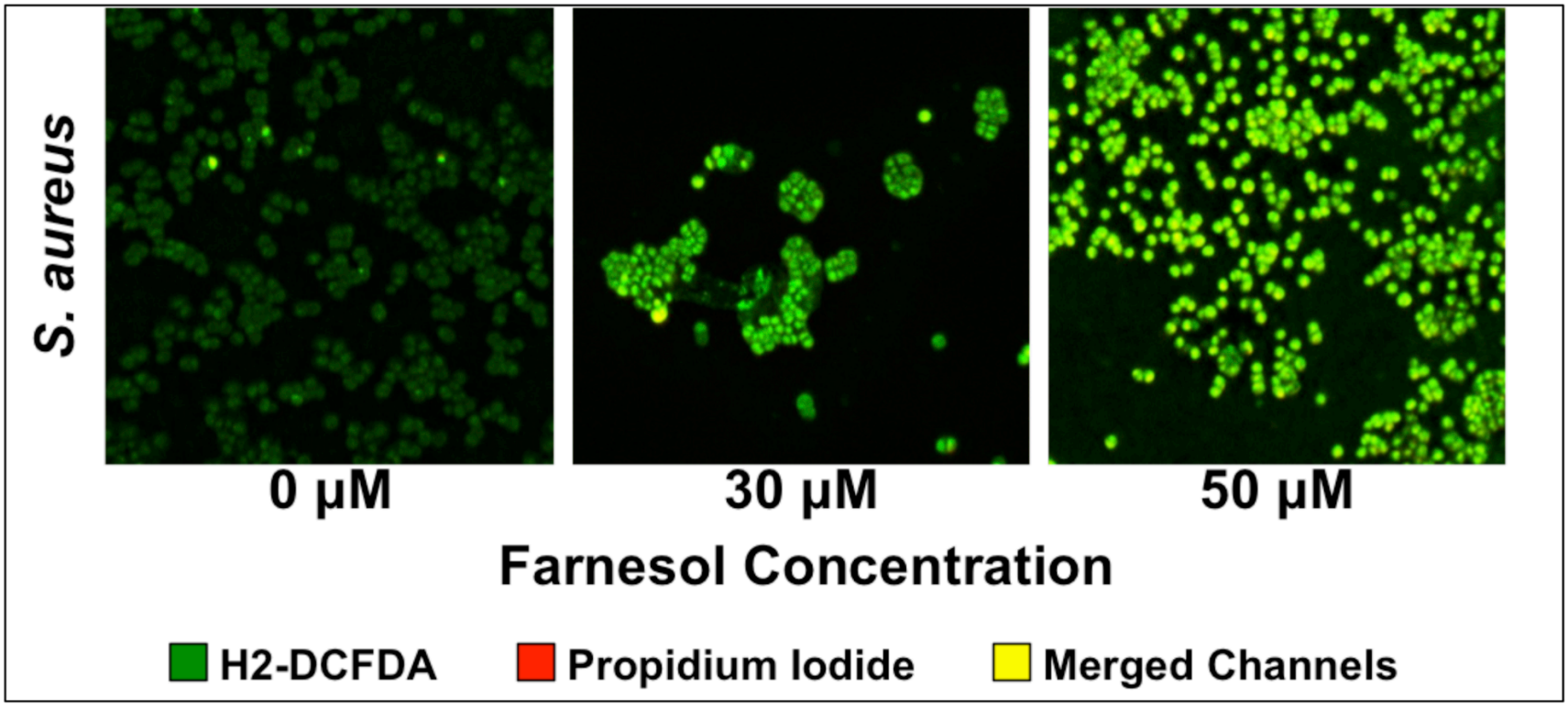
Supplemental Figure 2. Effect of exogenous farnesol on *S. aureus* viability and biofilm formation. *S. aureus* biofilms were grown in RPMI media supplemented with 0-50μM of farnesol for 24hrs. Based on MTS assay, farnesol did not have an adverse effect on *S. aureus* growth (ns, not significant).

Supplemental Figure 3



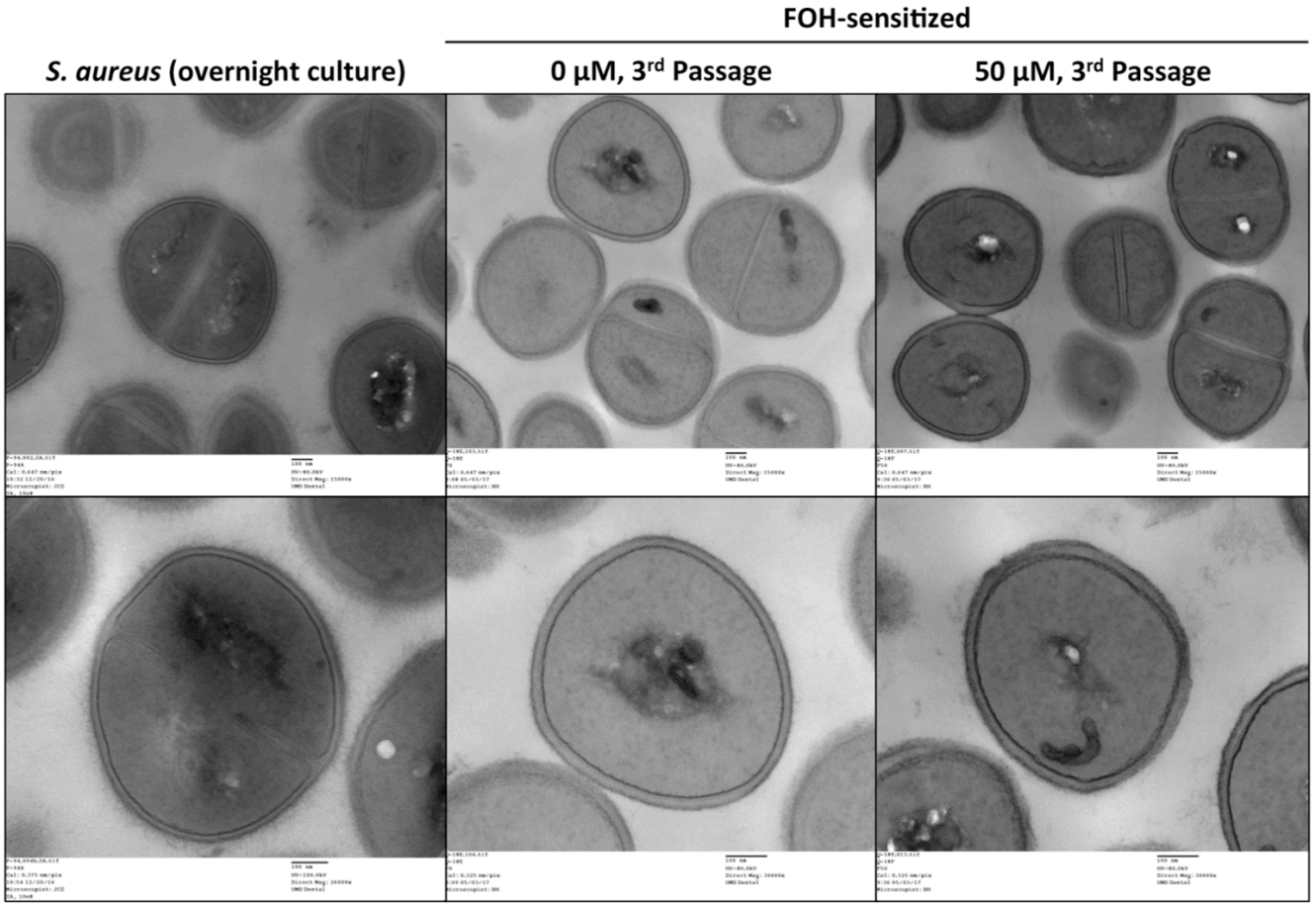
Supplemental Figure 3. Farnesol-induced increase in *S. aureus* survival in vancomycin treated biofilms. Based on log CFU recovery, exogenous farnesol supplementation increased *S. aureus* survival with vancomycin up to 30μM farnesol concentration (*, P <0.05; ***, *P* <0.001; ns, not significant).

Supplemental Figure 4



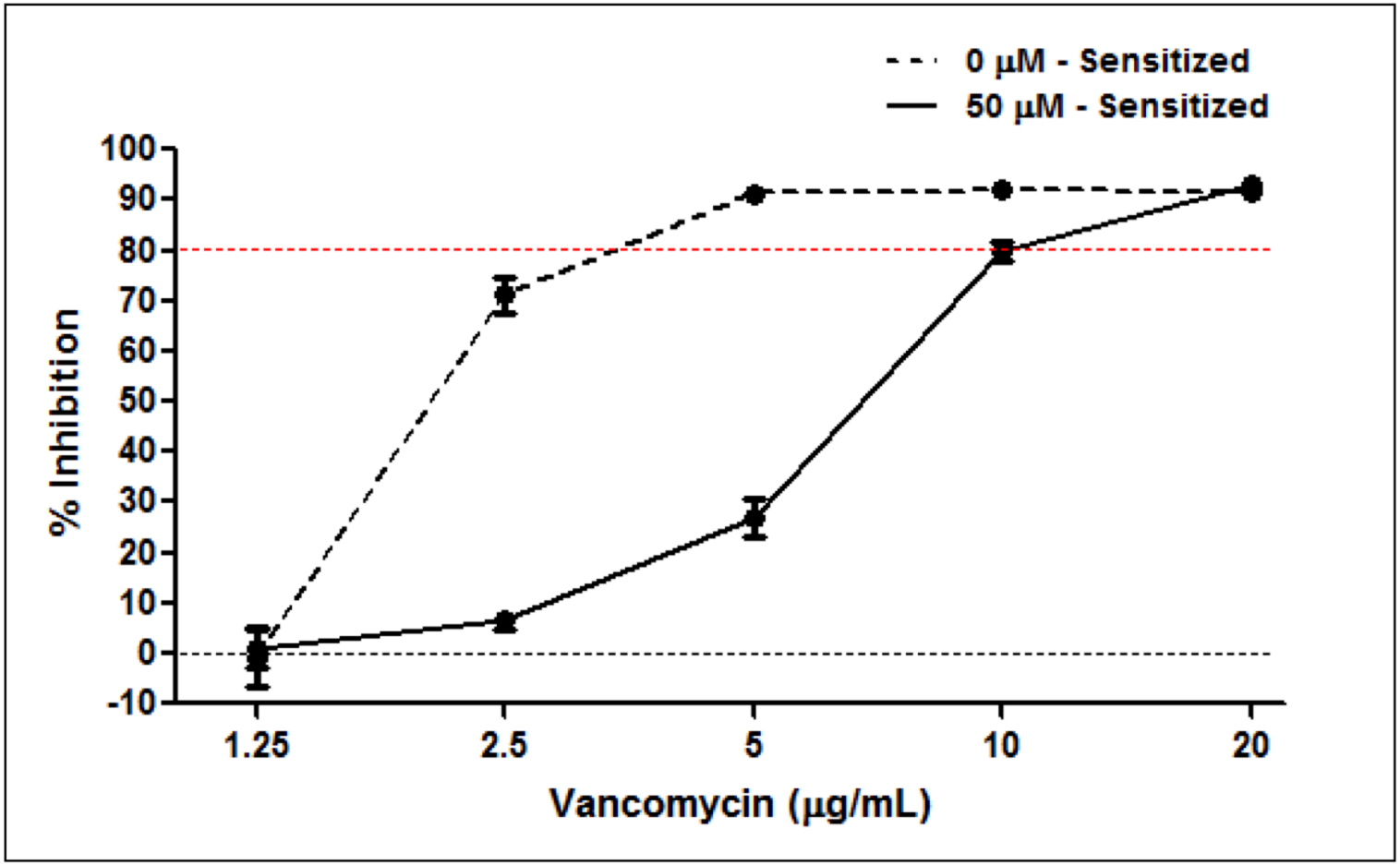
Supplemental Figure 4. Detection of farnesol-induced intracellular ROS accumulation by fluorescent microscopy. Preformed *S. aureus* biofilms were stained with DCF (ROS; green) and propidium iodide (dead cells; red) in the presence of farnesol (0, 30, or 50µM) and ROS accumulation was visualized using fluorescent microscopy. Images demonstrated increases in intracellular ROS accumulation (green) proportional to farnesol concentration concomitant with some increase in cell death (yellow on the merged channels).

Supplemental Figure 5



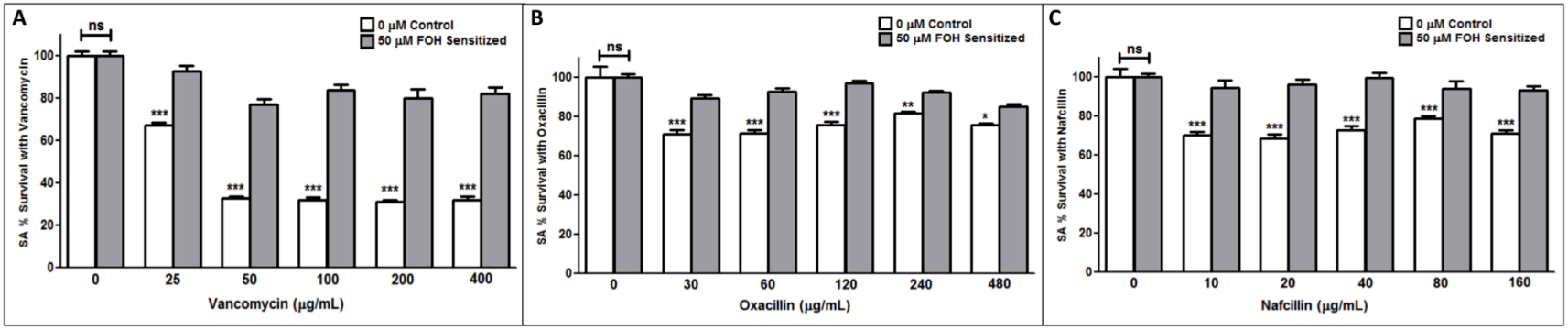
Supplemental Figure 5. Evaluation of morphological changes in farnesol-sensitized *S. aureus* cells using transmission electron microscopy (TEM) analysis. Farnesol-sensitized cells were fixed and processed for TEM. Micrographs revealed no observable morphological differences in the cell membrane and cell wall between the sensitized cells compared to their control cells (passaged with no farnesol) or cells from *S. aureus* overnight cultures (not exposed to farnesol). Representative images are shown.

Supplemental Figure 6



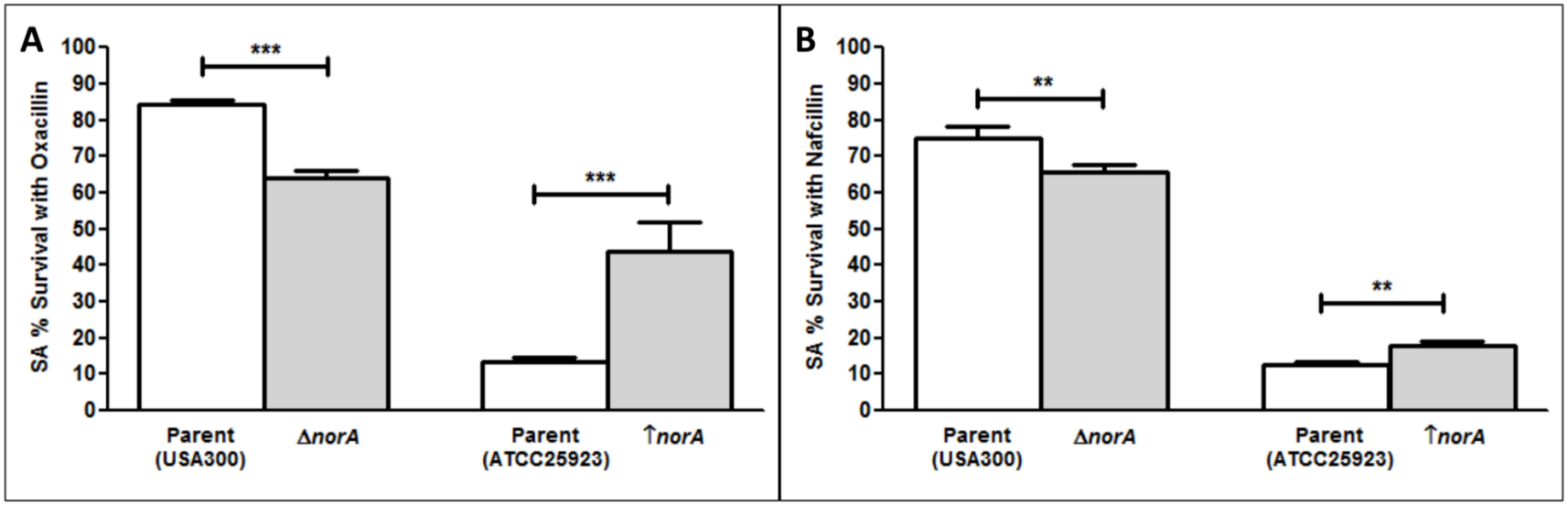
Supplemental Figure 6. Farnesol-sensitized *S. aureus* cells exhibit increase in vancomycin MIC. Following sensitization of *S. aureus* cells to farnesol, vancomycin (0-20 µg/mL) susceptibility assays were performed to determine the MICs of these cells, based on 80% inhibition in growth. Relative to cells not previously exposed to farnesol, the sensitized cells exhibited 2-4 fold increase in MIC (10 µg/mL) compared to the control cells (<5 µg/mL).

Supplemental Figure 7



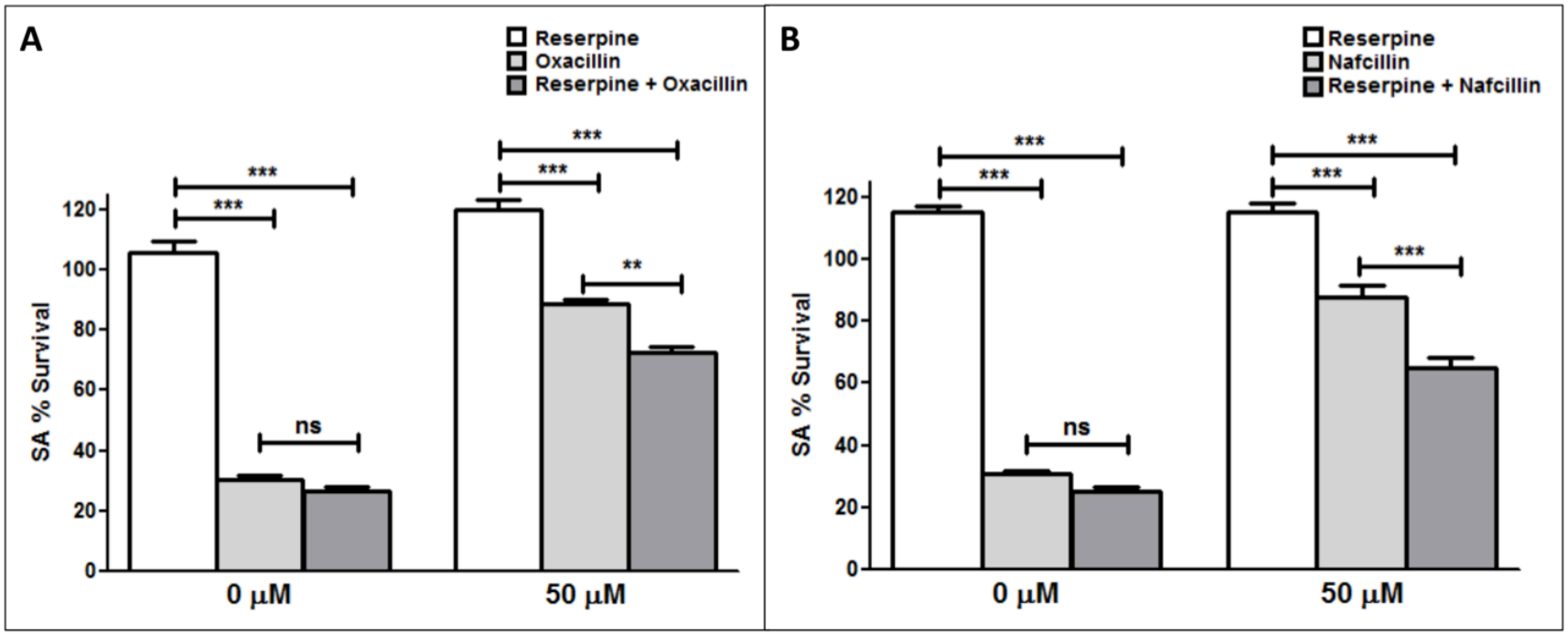
Supplemental Figure 7. Biofilms of farnesol-sensitized *S. aureus* cells display increased survival with different classes of antibiotics. Farnesol-sensitized cells grown in biofilms for 24hrs in the absence of farnesol were treated for an additional 24hrs with 3 different antibiotics. Based on MTS assay, a dose-dependent increase in *S. aureus* survival was seen in the presence of **(A)** vancomycin, **(B)** oxacillin and **(C)** nafcillin (*, P <0.05; **, *P* <0.01; ***, *P* <0.001; ns, not significant).

Supplemental Figure 8



Supplemental Figure 8. Antibiotic treatment of biofilms of *S. aureus* strains with modulated *norA* expression. 24hr biofilms of the *norA* deletion and overexpressing mutant strains and their respective parent strains were treated with **(A)** oxacillin or **(B)** nafcillin for an additional 24hrs. Based on MTS viability assay, the *norA* deletion mutant displayed significantly reduced survival following treatment with either antibiotic compared to its parent strain. In contrast, the *norA* over expressing strain exhibited significantly increased survival compared to its parent strain (**, P <0.01; ***, P <0.001).

Supplemental Figure 9



Supplemental Figure 9. Effect of efflux pumps inhibition on the survival of farnesol-sensitized *S. aureus* following antibiotic treatment of biofilms. Farnesol-sensitized cells grown in 24hr biofilms with the inhibitor reserpine, in the absence of farnesol, then treated for an additional 24hrs with either **(A)** oxacillin or **(B)** nafcillin. Based on MTS viability assay, reserpine significantly reduced the survival of the farnesol-sensitized *S. aureus* cells but not the control cells following treatment with either antibiotic (**, P <0.01; ***, P <0.001; ns, not significant). Reserpine alone did not have any effect on *S. aureus* growth.