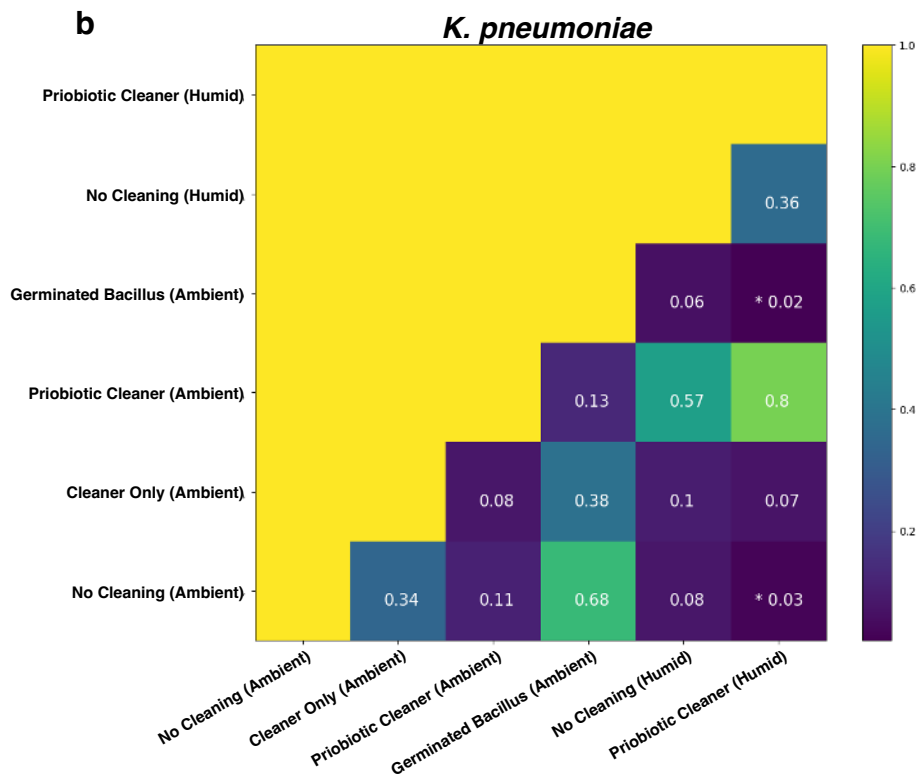
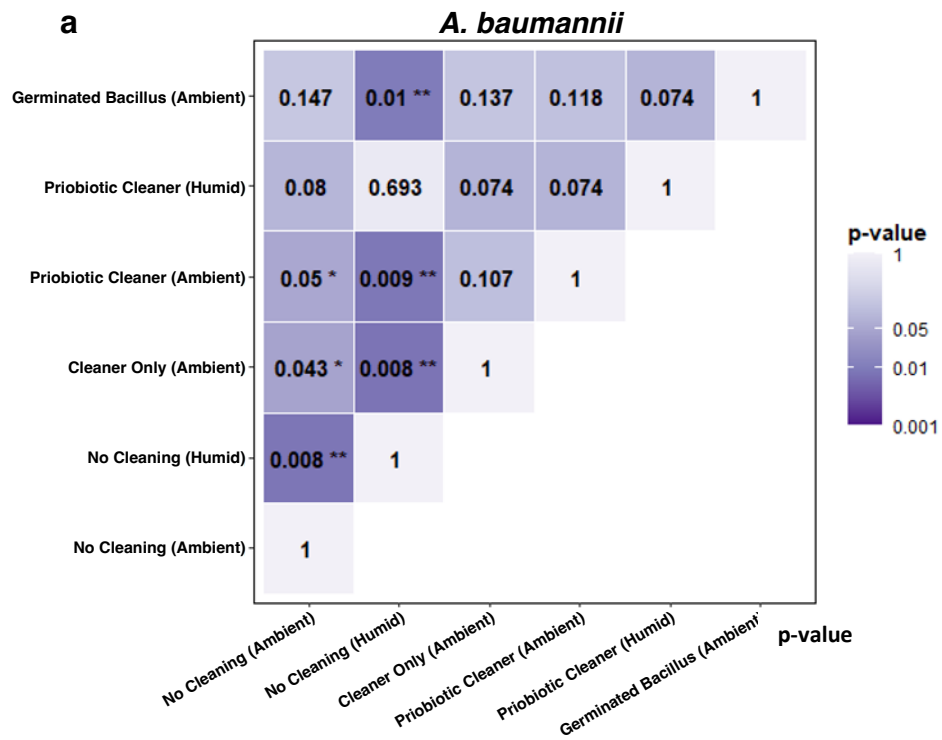


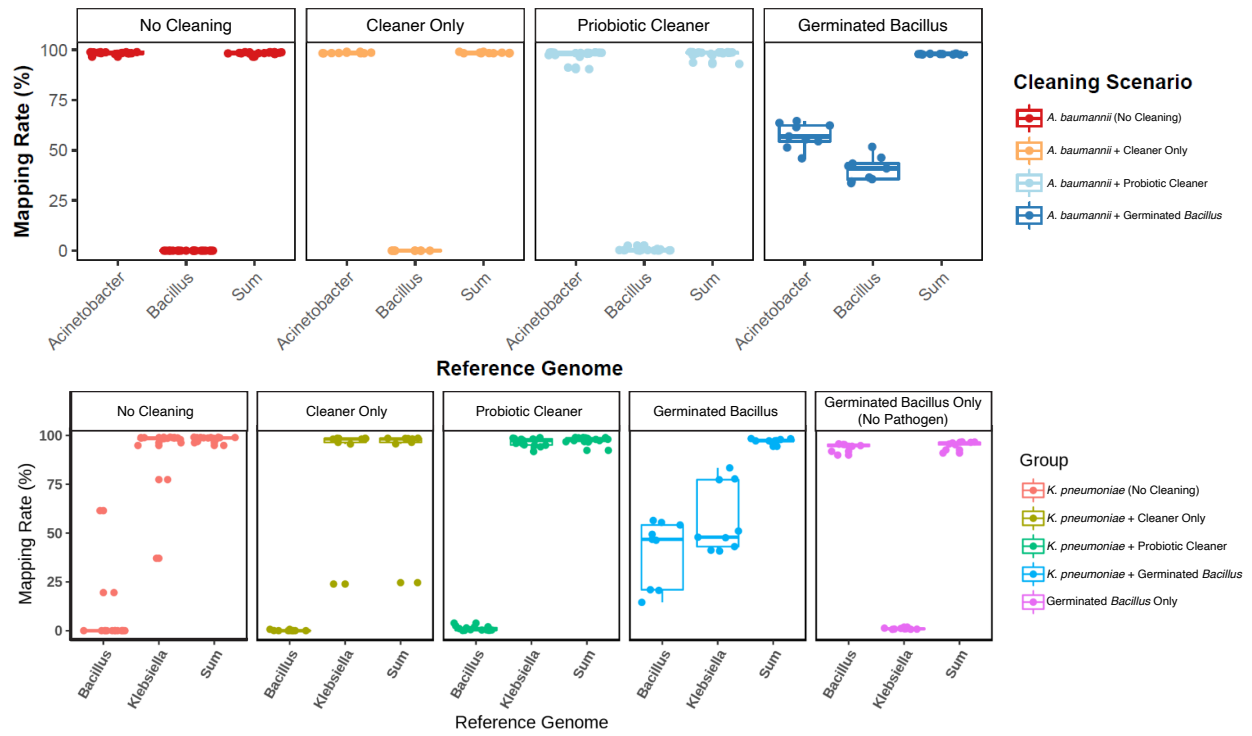
## **Supporting Information**

### **Clinically Relevant Pathogens on Surfaces Display Differences in Survival and Transcriptomic Response in Relation to Probiotic and Traditional Cleaning Strategies**

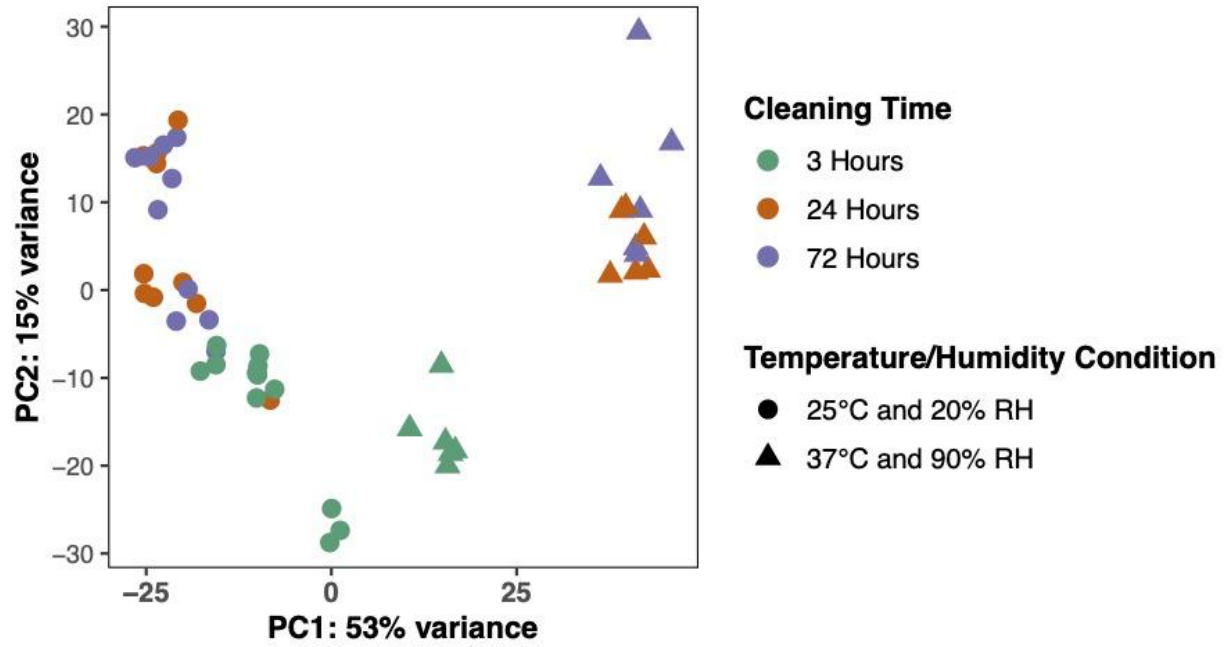
Jinglin Hu, Weitao Shuai, Jack T. Sumner, Anahid A. Moghadam, Erica M. Hartmann\*



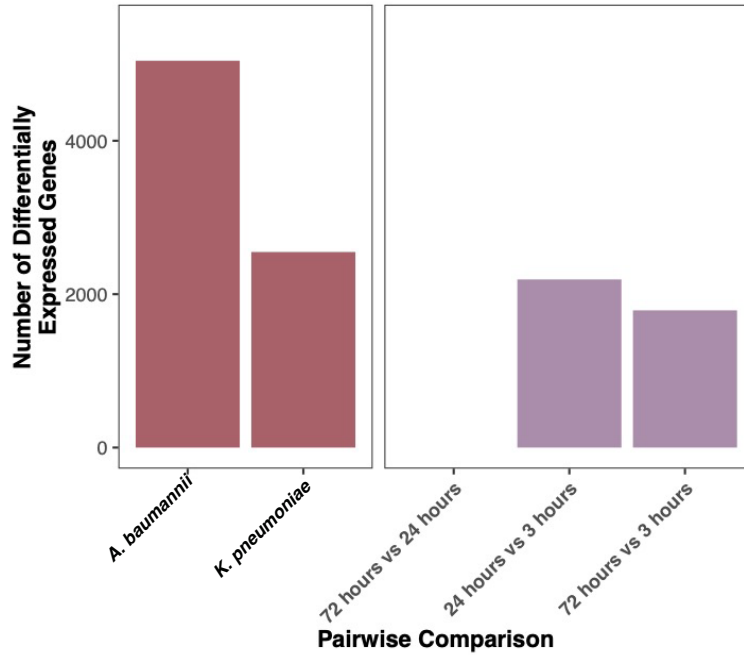
**Supplementary Figure 1.** p-values of *A. baumannii* (A) and *K. pneumoniae* (B) viable CFU counts among samples collected under two temperature/humidity conditions and four cleaning scenarios. Statistical testing was conducted using Welch's paired t-test. \*  $p < 0.05$ , \*\*  $p < 0.01$ , and \*\*\* $p < 0.001$ .



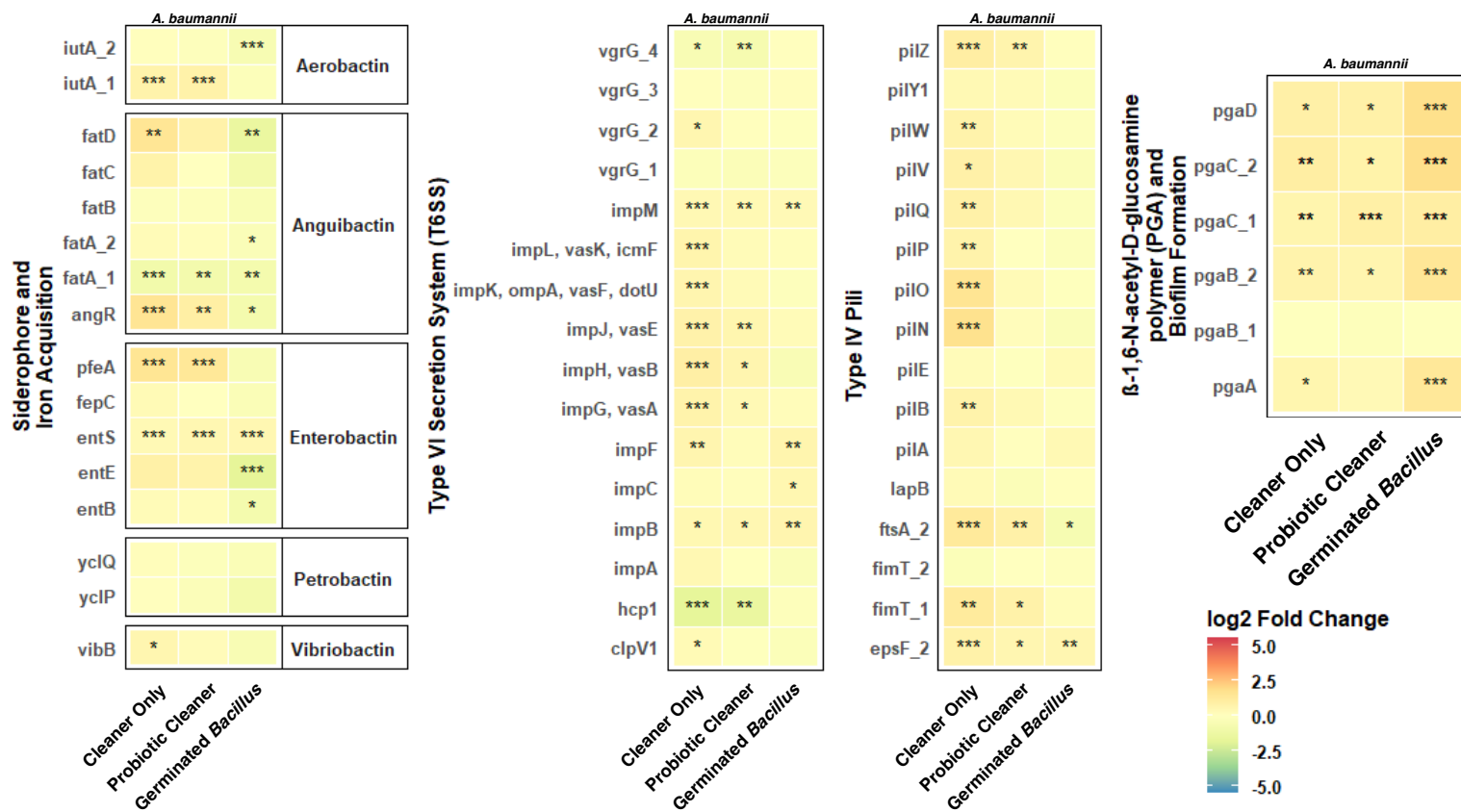
**Supplementary Figure 2.** Percentages of reads mapped onto *Bacillus* spp. and either *A. baumannii* (top) or *K. pneumoniae* (bottom) genomes for samples collected from four surface cleaning scenarios.



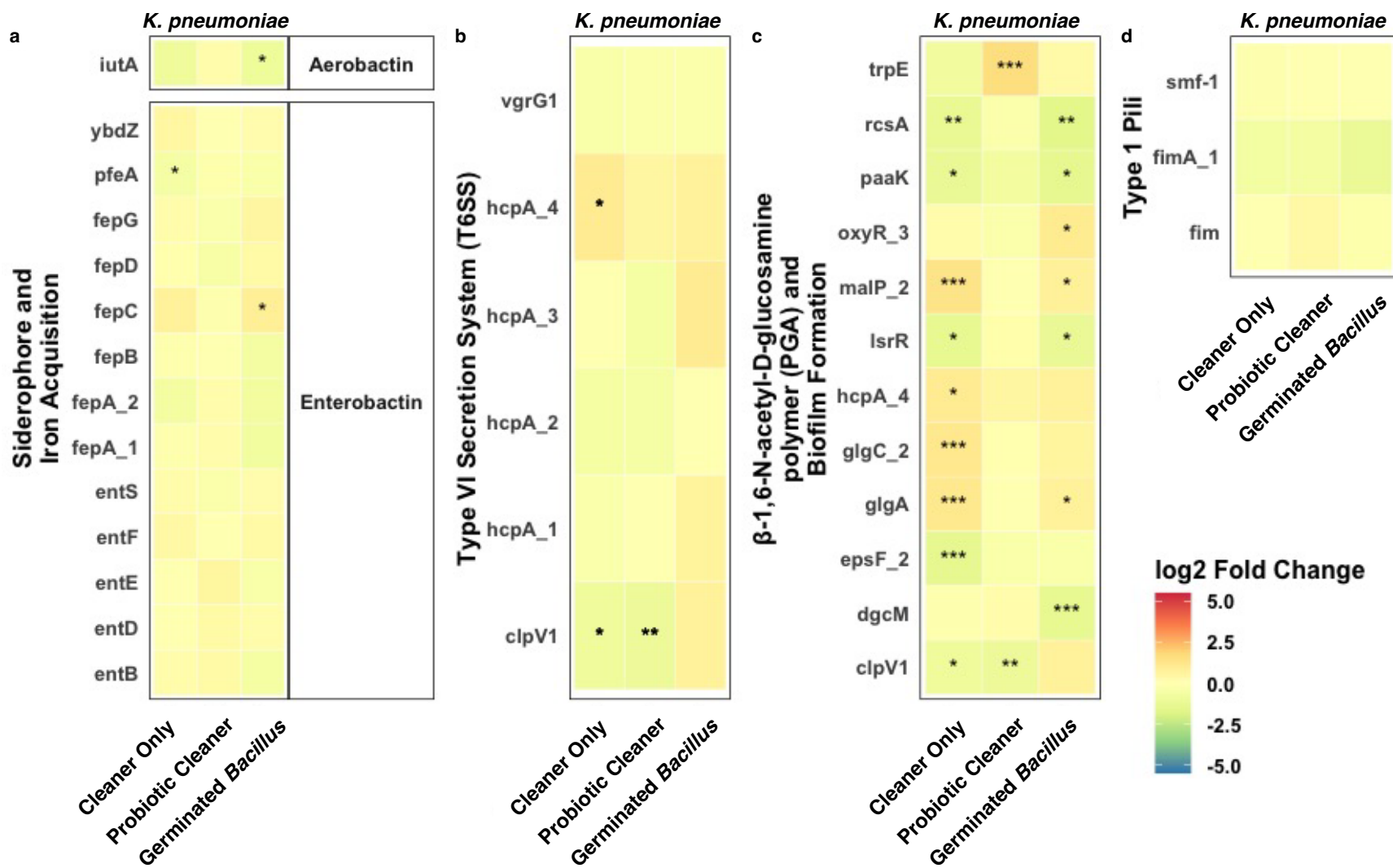
**Supplementary Figure 3.** Principal components analysis on variance stabilized *K. pneumoniae* read counts. Samples were color-coded based on cleaning time.



**Supplementary Figure 4.** Number of differentially expressed genes for germinated *Bacillus* reads. The *Bacillus* transcriptome was compared in the presence of *A. baumannii* or *K. pneumoniae* using vegetative *Bacillus* without pathogen as the reference level. Comparison was also conducted between different time points.



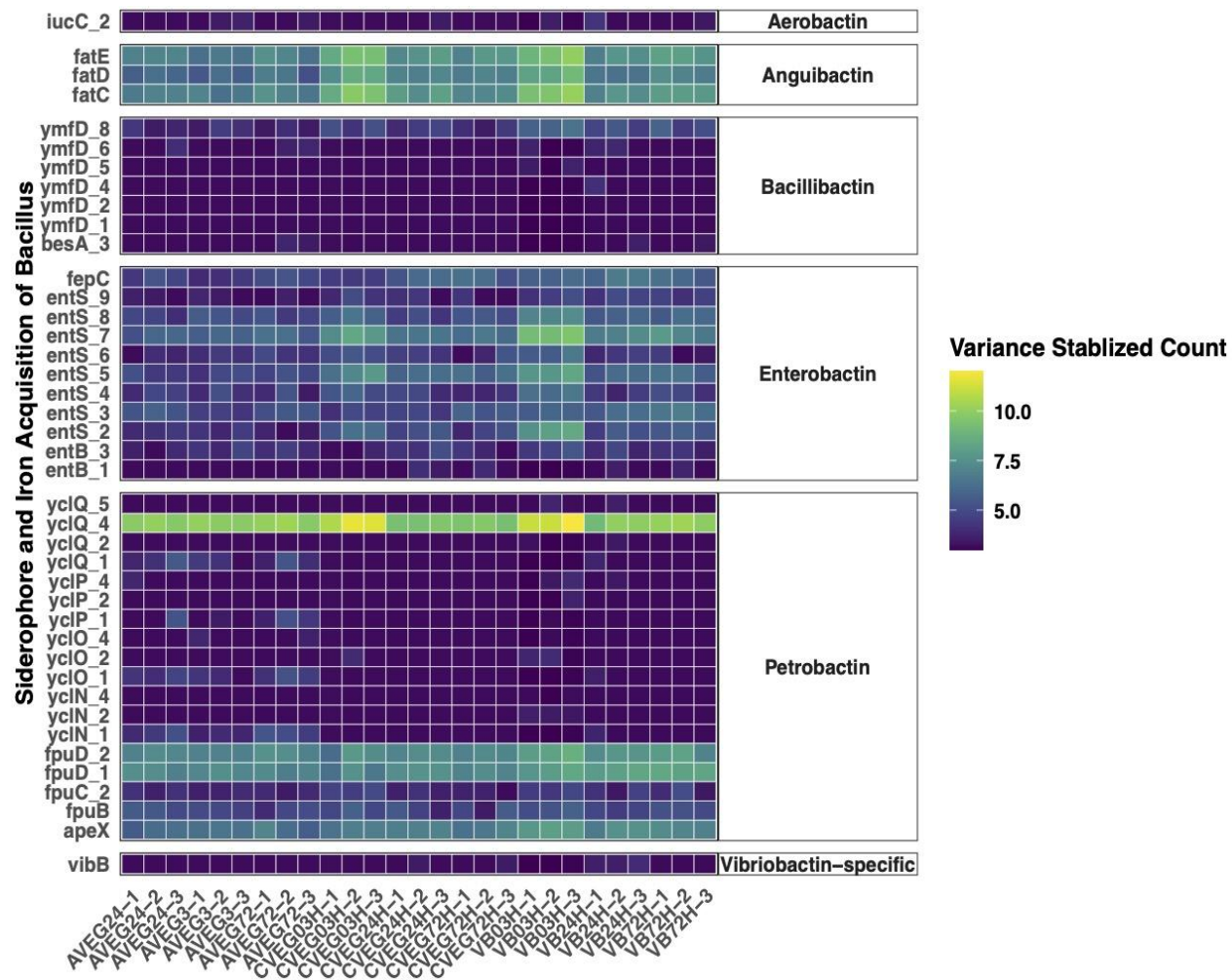
**Supplementary Figure 5.** Log<sub>2</sub> fold change of genes associated with iron acquisition, Type VI Secretion System (T6SS), Type VI Pili, and biofilm poly-beta-1,6-N-acetyl-D-glucosamine (PGA) production in samples cleaned with Cleaner Only, Probiotic Cleaner, and Germinated *Bacillus* compared to No Cleaner samples (*A. baumannii* only). Statistically significant log<sub>2</sub> fold changes were determined by DESeq2 with Benjamini-Hochberg corrected p-value  $\leq 0.05$ . \* p<0.05, \*\* p< 0.01, and \*\*\*p < 0.001.



**Supplementary Figure 6.** Log<sub>2</sub> fold change of genes associated with iron acquisition, Type VI Secretion System (T6SS), biofilm poly-beta-1,6-N-acetyl-D-glucosamine (PGA) production, and Type 1 Pili in samples cleaned with Cleaner Only,



Probiotic Cleaner, and Germinated *Bacillus* compared to No Cleaner samples (*K. pneumoniae* only). Statistically significant  $\log_2$  fold changes were determined by DESeq2 with Benjamini-Hochberg corrected p-value  $\leq 0.05$ . Some genes have Benjamini-Hochberg corrected p-value  $\leq 0.05$  but  $\log_2$  fold change  $< 1$ . \*  $p < 0.05$ , \*\*  $p < 0.01$ , and \*\*\*  $p < 0.001$ .



**Supplementary Figure 7.** Expression of genes associated with siderophore and iron acquisition in vegetative *Bacillus* spp. samples in the presence of *A. baumannii* (AVEG), *K. pneumoniae* (CVEG), and in the absence of pathogen (VB).

Read counts belonging to *Bacillus spp.* were transformed using variance stabilization to enable between-sample comparisons.