

SUPPLEMENTARY FILES:

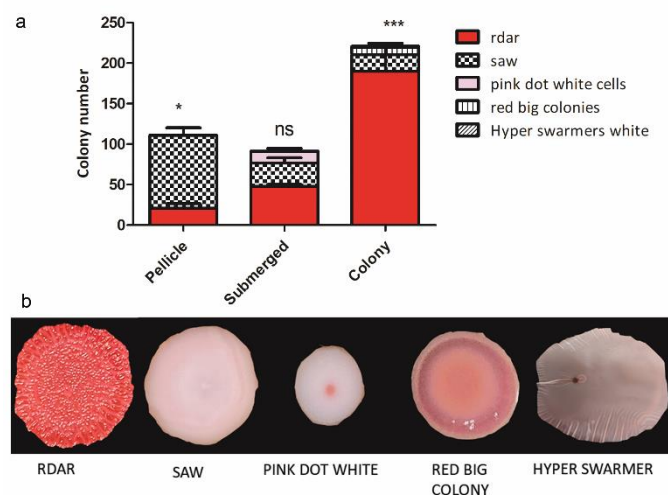


Fig S1. a. Relative proportion of variants in a colony, submerged, and Pellicle biofilms. $n=9$, 2 way ANOVA was performed, 95% CI, P value < 0.05 . b. RDAR(Red, dry and rough), SAW(smooth and white), pink dot white, red big colony, hyper swarmer, morphotypes expressed when plated on congo red media.

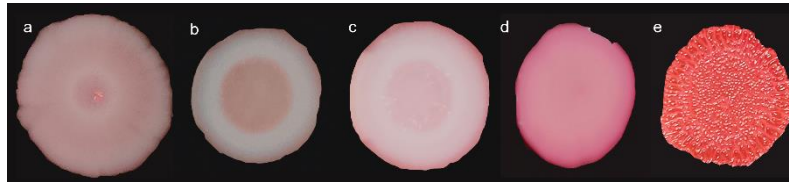


Fig S2. Exogenous Cellulose Supplementation Assay a. $\Delta bcsA$ + 0mg/mL, b. $\Delta bcsA$ grown in 1mg/mL cellulose, c. $\Delta bcsA$ grown in 3 mg/mL cellulose, d. representative image of the co-culture $\Delta csgA$: $\Delta bcsA$ grown in the absence of cellulose, e. representative image of WT grown in the absence of cellulose.

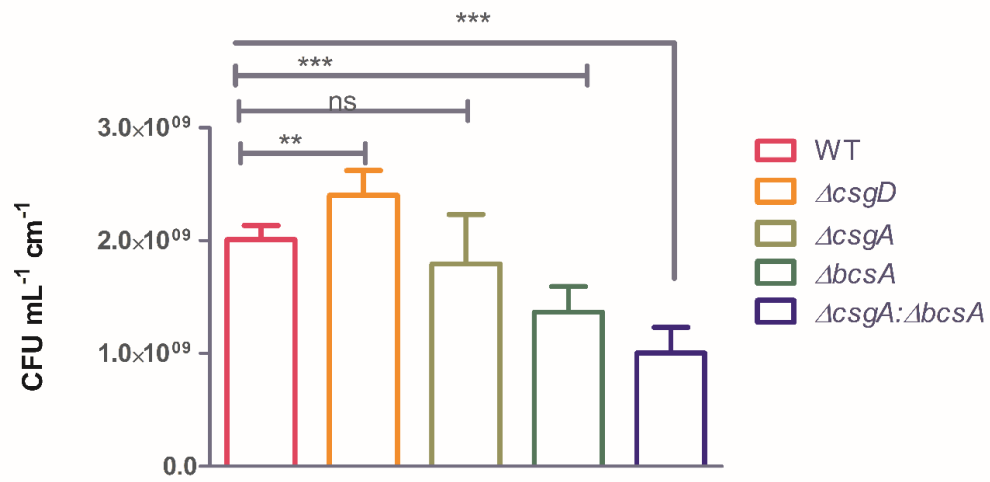


Fig S3: The density of the colony is found to be more in $\Delta csgD$ followed by WT, $\Delta csgA$, $\Delta bcsA$, $\Delta csgA:\Delta bcsA$. The coculture is found to be the least dense. Unpaired *t*-test, $p < 0.0001$, $n = 6$.

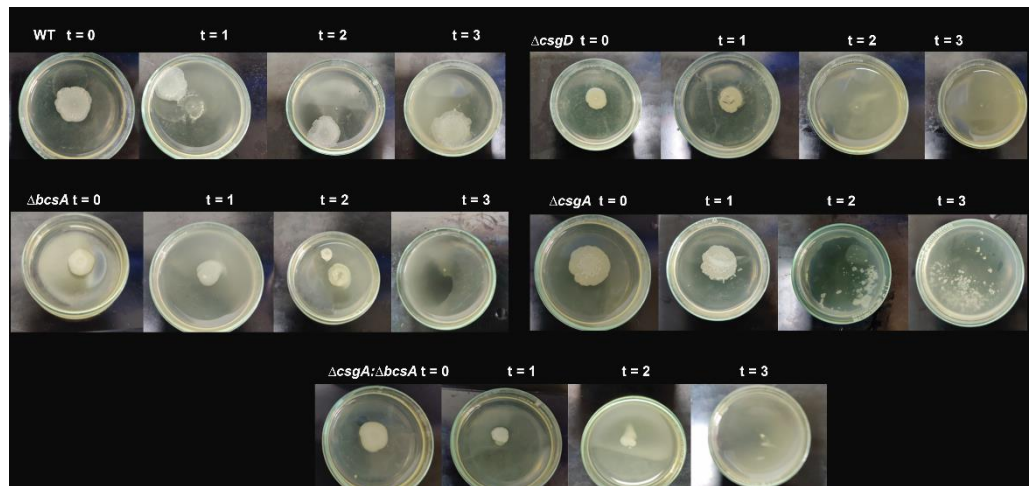


Fig S4: Stability of Biofilm Colonies. The colonies are tested for their stability for a time of 3 hours. WT survives and floats like a lotus leaf followed by $\Delta csgA$ which did not-dissolve in the liquid followed by $\Delta csgA:\Delta bcsA$, $\Delta bcsA$, $\Delta csgD$.

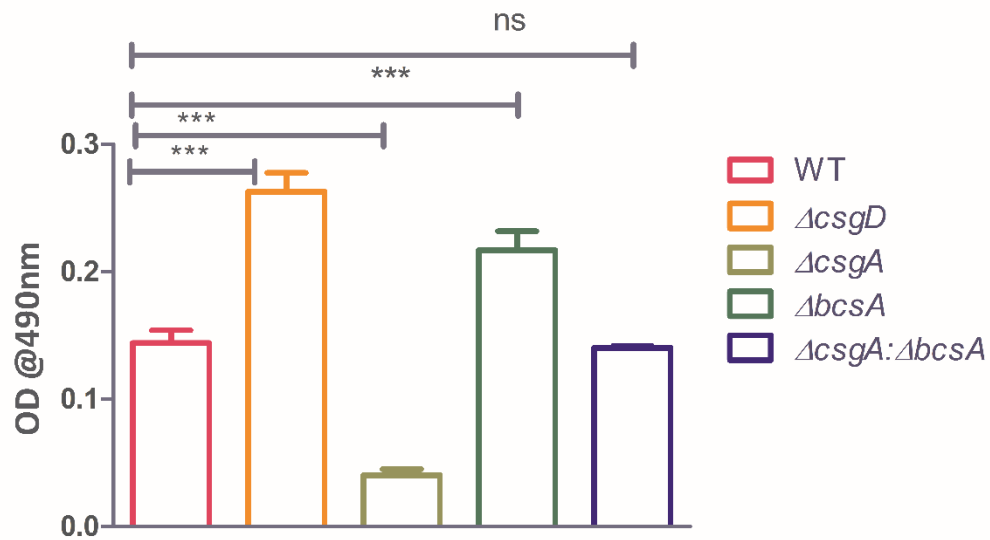


Fig S5: Matrix production was estimated using Congo red method. $\Delta csgA$ has more matrix production than the WT. The coculture $\Delta csgA:\Delta bcsA$ has relatively higher matrix production than the $\Delta bcsA$ mutant. Unpaired t -test, $n = 3$, 95% CI, $p < 0.0001$

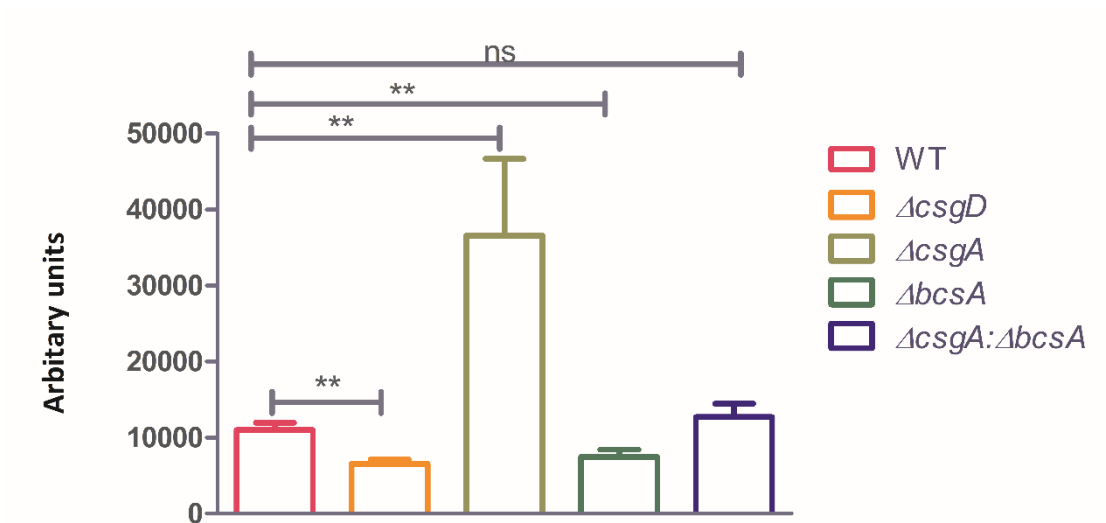


Fig S6: Cellulose production was estimated using the calcofluor staining method where calcofluor selectively binds to the cellulose. $\Delta csgA$ produces a higher amount of cellulose than the WT. and the coculture $\Delta csgA:\Delta bcsA$ produces a relatively equal amount of cellulose produced by the WT. n = 3, Unpaired *t*-test, Mean $\pm$ SD, $p < 0.01$ = **