



**S9 Fig. Dye distribution in live pellicle biofilm.** (A) Side view of a WT *P. aeruginosa* pellicle biofilm grown for three days in a cuvette. WT and  $\Delta wbpM$  form comparable pellicles. (B) Live light-sheet microscopy images of WT and  $\Delta wbpM$  mixing assay pellicle biofilms. Scale bar applies to both images. (C) Quantification of Sulfo-Cy5 NHS-ester fluorescence after addition to the medium below each pellicle biofilm. The signal was normalized by total sum. The data underlying this figure can be found in S1\_raw\_data.