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Article

Biocontrol of Biofilm Formation: Jamming Sessile-Associated Rhizobial Communication by Rhodococcal Quorum-Quenching

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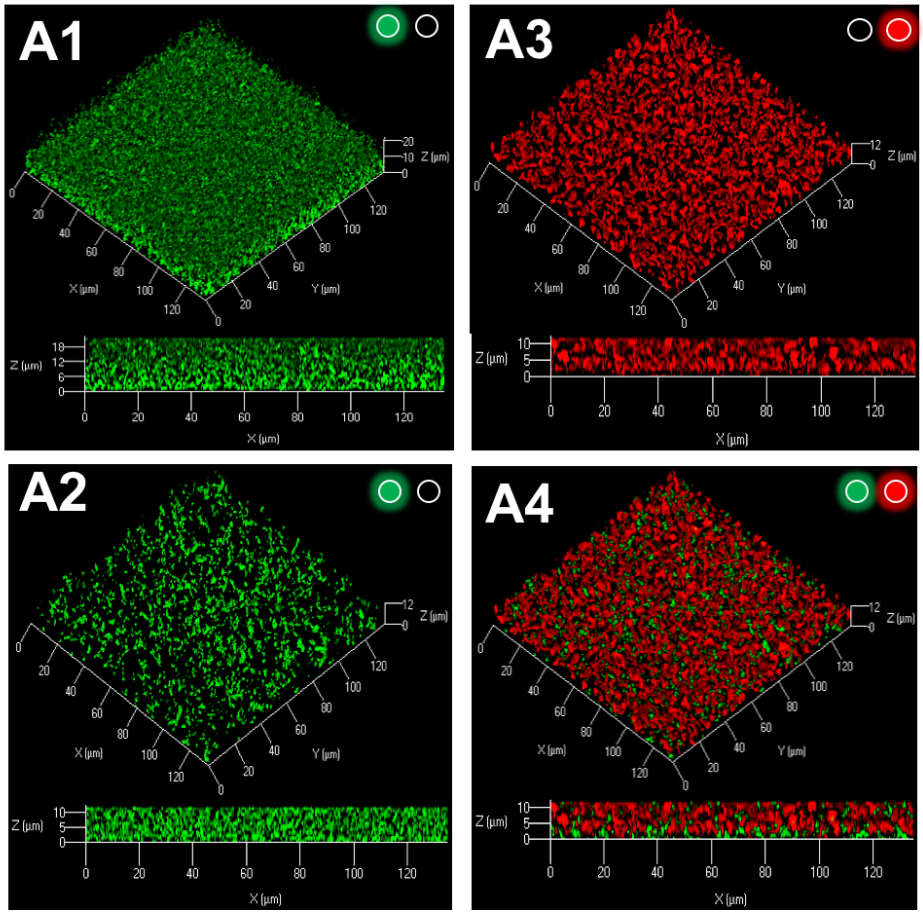
Supplementary Material



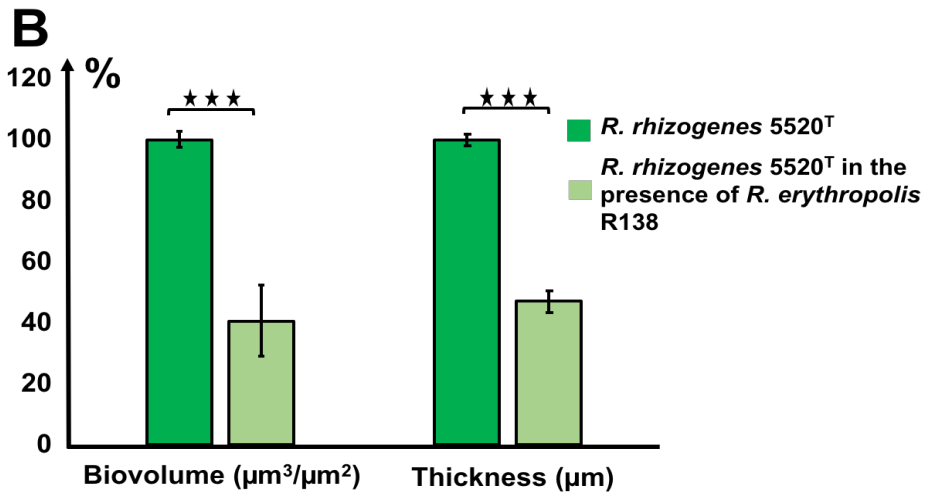


Figure S5. Inhibition of rhizobial biofilm formation by *Rhodococcus erythropolis* R138 (ratio 1:10). Confocal laser scanning microscopy (CLSM) analysis of the *R. rhizogenes* 5520^{T} biofilm (**A1**) or dual-species biofilm formed by *R. rhizogenes* 5520^{T} and *R. erythropolis* R138 (**A2**,**A3**,**A4**) was achieved at an inoculation ratio of 1:10. *R. rhizogenes* and rhodococcal bacteria were tagged with GFP and mCherry *via* the pHC60-*gfp* and pEPR1-*mCherry* vectors, respectively. 3D shadow representation and side view of the biofilm produced by *R. rhizogenes* alone (**A1**), and by a mixed culture of *R. rhizogenes* and *R. erythropolis* (**A2**) analyzed in the green channel. Location of rhodococcal cells is revealed by 3D shadow representation and side view of the biofilm produced by the mixed culture analyzed in the red (**A3**) or red plus green channels (**A4**); *(activation of the green or red channel is indicated by a light spot of the corresponding color)*. COMSTAT analyses of *R. rhizogenes* green fluorescence in single and dual-species biofilms. *R. rhizogenes* biofilm biomass and thickness values were normalized (set to 100%) as a reference for a comparison with mixed biofilm conditions (B). The data shown are the means of three measurements from three independent experiments. Significant differences (Mann and Whitney test; p-value < 0.01) in biovolume and thickness are indicated by asterisks (★★★ $P < 0.001$).