**Bacterial consortium interactions in the rhizosphere of different model plants**

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Induced microbial soil community after organic amendment, have a key role in suppressiveness against avocado white root rot (WRR) caused by the fungus *Rosellinia necatrix*. This suppressive phenotype is the result of the soil microorganisms activities where different kind of interactions could take place. In this study, a bacterial synthetic community, formed by previously isolated biological control agents against *R. necatrix*, have been designed in order to improve the knowledge of the multitrophic interactions that occur during biological control process.

Stability and compatibility among the members of this artificial consortium have been confirmed, and the production of compounds with importance in microbial communication and antifungal activity will be studied. Furthermore, roots visualization assays will reveal the colonization pattern of the synthetic community and the stability of the bacterial consortium along the roots of different model plants. Additionally, plant assays will be used in order to check the biological control activity, plant growth promotion and induced tolerance to different abiotic stress.

Finally, transcriptomic experiments directed to analyze the RNA sequences from microbial consortium interactions on avocado roots would be carried out to better understand the microbial ecology of the synthetic bacterial consortium.

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