

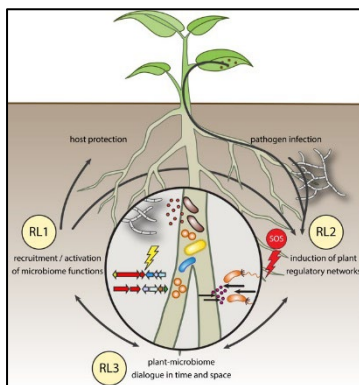
## Back to the Roots: search for the 'missing' plant microbes

Talk by **Prof. Jos Raaijmakers**  
Netherlands Institute of Ecology NIOO-KNAW  
& Institute of Biology, IBL, Leiden University

**Date**  
Thursday 24.02.2022, 14:00-15:00,  
followed by drinks, snacks and  
networking to 16:00

**Location**  
DTU, Lyngby Campus, Building 101E,  
Glassalen in the Canteen

**Registration**  
<https://cemist.dtu.dk/events/cemist-lectures/back-to-the-roots-search-for-the-missing-plant-microbes>



Microorganisms living on and inside plant tissue have a largely unexplored functional potential to expand the genomic capabilities of their host, providing nutrient acquisition, enhanced immunity against pathogens and insects, and enhanced tolerance to abiotic stress. Despite the increasing recognition of the importance of the plant microbiome for plant growth and health, the genomic diversity of plant-associated microorganisms, their functional traits and the chemistry underlying the dialogue between microbes and their host plants are largely unknown. My research program focuses on the

genomic and functional characterization of beneficial microorganisms associated with plant roots, in particular of microorganisms associated with wild relatives of crop species grown in the centre of origin.



**Jos Raaijmakers** is head of the Microbial Ecology Department at the Netherlands Institute of Ecology (NIOO-KNAW), Professor at the Institute of Biology at Leiden University and board member of the Centre for Soil Ecology and of the PhD graduate School PE&RC. The overall goal of his research program is to unravel the impact of plant domestication on the diversity, dynamics and beneficial functions of microorganisms associated with plants. In this search for 'missing plant microbes', we work together with research institutes and universities in the centres of origin of plant species. The functions of the plant microbes studied in detail are protection of plants against infections caused by fungal pathogens, parasitic weeds and insects. Jos teaches BSc and MSc courses at Leiden University, and organizes (inter)national PhD courses and conferences, including the International Plant Microbiome conference.

#### References:

- Rizaludin, M. S. et al.. /The Chemistry of Stress: Understanding the 'Cry for Help' of Plant Roots. In: *Metabolites*. 2021 ; Vol 11. <https://doi.org/10.3390/metabo11060357>
- Carrión, V. J.et al.. /Pathogen-induced activation of disease-suppressive functions in the endophytic microbiome. In: *Science*. 2019 ; Vol. 366. <https://www.science.org/doi/10.1126/science.aaw9285>