



Universiteit  
Leiden  
The Netherlands

## Modulation of plant chemistry by rhizosphere bacteria

Jeon, J.

### Citation

Jeon, J. (2020, July 7). *Modulation of plant chemistry by rhizosphere bacteria*. NIOO-thesis. Retrieved from <https://hdl.handle.net/1887/123229>

Version: Publisher's Version

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/123229>

**Note:** To cite this publication please use the final published version (if applicable).

Cover Page



Universiteit Leiden



The handle <http://hdl.handle.net/1887/123229> holds various files of this Leiden University dissertation.

**Author:** Jeon, J.

**Title:** Modulation of plant chemistry by rhizosphere bacteria

**Issue Date:** 2020-07-07

## Propositions

1. Finding the right partner is important: a rhizobacterium which exhibits beneficial impact on one plant species can be deleterious to another plant species (this thesis).
2. “There is more than meets the eye”: ineffective rhizobacteria-plant partnerships which have no visible phenotypic change can lead to metabolome changes observable only through chromatography (this thesis).
3. Contrary to the widely accepted concept of the “trade-off” between growth and defense, rhizobacteria-induced sugar generation in plants allows simultaneous growth and defense (this thesis)
4. Specific rhizobacteria prime the production of specific secondary metabolites in plants (this thesis).
5. Bacteria rule plants; plants rule bacteria. Together, they are a superorganism.
6. Holobiont-level approaches should be considered in future plant breeding programs.
7. Plant root exudates are the major driver of microbial life in the rhizosphere.
8. State-of-the-art metabolomics should integrate more with conventional natural product chemistry to unravel the many yet unknown detected signals.
9. Covid-19 epidemic changes not only our life style, but also breaks useless myths such as face mask phobia as seen in epidemiological statistics
10. “The universe is a pretty big place. If it’s just us, seems like an awful waste of space (Carl Sagan)”, from the statistical point of view, it is more difficult not to believe the existence of extraterrestrial life.

Propositions belonging to the PhD thesis entitled:

“Modulation of plant chemistry by rhizosphere bacteria”

Je-Seung Jeon

Leiden, 7 July 2020