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## **Volatile compounds from Actinobacteria as mediators of microbial interactions**

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## Stellingen

Propositions accompanying the thesis

### **Volatile compounds from Actinobacteria as mediators of microbial interactions**

1. The toxicity of ammonia shows that too much of your favorite food can be lethal, even for *E. coli* (this Thesis).
2. If terpenes are a common language between species, then *Streptomyces* surely know how to shout (this Thesis).
3. *Streptomyces* are easy-going organisms: when the terpene door closes, the sulfur door opens (this Thesis).
4. *Streptomyces* are beneficial to most higher organisms: humans, plants, insects and even some fungi. However, this assistance doesn't seem to include protists (this Thesis).
5. *Streptomyces* are very well equipped to survive the battle of the fittest when competing for nutrients or space.
6. Volatile compounds modulate microbial interactions and are a first line of defense.
7. Understanding the natural role of volatile compounds in the microbial environment (learning from nature) will help in the search for novel bioactive molecules.
8. The "one pathway many products" applies for terpenes; the ability to produce different products by one enzyme gives the organism an evolutionary advantage but toughens the identification of their natural function.
9. Stop and smell the roses. Scientists would benefit from spending more time in designing and planning experiments.
10. "Science is the name, but collaboration is the game" because we are stronger together. Adapted from Daniel Mediaty in PLOS ECR Community. April 14, 2017.
11. One of the most stressful things a PhD candidate goes through is thinking about the next step. Career advice courses should be mandatory through the PhD education path.
12. Man should not live of science alone. Teaching arts and sciences together from childhood to graduate school is essential to exploit human curiosity. "The arts and sciences are avatars of human creativity". Inspired by Dr. Mae Jemison.

Mariana Avalos Garcia  
Leiden, September 24th, 2019