A doctoral student position is available to study molecular plant-bacteria interactions at the LMU Munich, Germany

A doctoral student position is open to decipher the mechanistic impact of secondary plant metabolites on the root microbiome. The selected candidates will work towards their doctoral degree in the frame of a Germany-wide DFG-funded Priority Programme (SPP 2125: Deconstruction and Reconstruction of the Plant Microbiota: DECRyPT). The selected applicant will join the team of Martin Parniske to work on a collaborative project driven by an interdisciplinary team of experts in microbial ecology (Michael Schloter, HZM), chemical analytics (Corinna David, TUM), plant physiology (Caroline Gutjahr, TUM) and genetics (Martin Parniske, LMU).

Background
The interactions of plants with microorganisms are critical for plant nutrition and health. Plants promote associations with commensal or beneficial microbes while defending themselves against microbial pathogens. A major determinant of the outcome of such encounters is the cocktail of primary and secondary metabolites exuded by plant roots to modulate the root associated microbiome. The aim of this project is to understand how plants shape microbial communities, how microbes interact with each other, and how microbial communities modulate plant physiology and defense. To investigate this, candidates will apply a reductionist approach based on gnotobiotic systems and synthetic communities. We aim at the identification of plant metabolites and their mechanistic connections with bacterial target gene regulation, which promote bacterial competitiveness in the rhizosphere, bacterial colonization of the root and plant fitness through bacterial activity.

Eligibility and applicants profile
The candidate must have recently obtained, or will receive in the near future, a Masters in Life sciences (Microbiology, Biochemistry, or Plant Science) or an equivalent degree. We are looking for students with a strong background in microbiology and biochemistry. Prior experience in molecular biology is advantageous.

Salary
Salary will be within the TV-L scale Grade E13 at 65% according to the DFG salary scheme. Candidates are expected to start as soon as possible, as the position is available immediately.

Application
Applications must include a motivation letter addressing the selection criteria, a CV, academic transcripts, and recommendation letters or contact information of two referees. Applications must be sent per e-mail as a single pdf document to Martin Parniske (parniske@lmu.de).

The application deadline is 30th of June 2019 or when a suitable applicant is found.