

## **October**, 15<sup>th</sup> 2021

Leibniz Centre for Agricultural Landscape Research (ZALF), WG Microbial Biogeochemistry together with the Food and Health Research Group at Humboldt University of Berlin offer a

## Master Thesis Project (Masterarbeit)

We are seeking a motivated student for an interdisciplinary research project at the interface of human and crop plant health research in

## **Microbiomes of Humans and Plants**

**Background.** Both humans and plants host a plethora of microbes that function synergistically and together with these hosts build a complex symbiosis. The resilience and health of these hosts are dependent on a stable beneficial interaction with their microbiome. Hence microbiomes are essential not only for human but also for plant health. Nonetheless, both hosts are evolutionary and structurally very divergent. Indeed, the intestines of humans and roots of crop plants are open systems that can be colonized by microbes and both subsystems are crucial for the health of their hosts and subjected to environmental stressors and changes. We seek to better understand the effects of these environmental stressors on the hosts and compare these in both humans and plants. We also seek to identify common traits in the dynamics of the microbiome in both settings.



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You will collect relevant studies that provide datasets based on e.g. metabarcoding or metagenomics sequencing for both the human and plant microbiomes under the supervision of two experts in these respective fields. The main aim is to compare these datasets by network and further statistical analyses to address the research topic in greater depth. Since this interdisciplinary project is hosted by a research institution in Brandenburg and the Thaer Institute (Faculty of Life Sciences) of the University of Berlin, the work place is flexible.

If you have any questions, please do not hesitate to contact us: Prof. Dr. Steffen Kolb, kolb@zalf.de or kolbstef@hu-berlin.de, Tel. +49 (0) 33432/82-326 Prof. Dr. Caroline Stokes, caroline.stokes@hu-berlin.de, Tel. +49 (0) 1515 358 3778

We look forward to receiving your application!

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