

The Max Planck Institute for Developmental Biology in Tübingen is a world-renowned research institute of the German Max Planck Society. The Department "Microbiome Science" of Prof. Dr. Ruth E. Ley is studying the role of lipids in host-microbiome symbiosis and is currently looking for a



## **Student assistant (HiWi) for MALDI Mass Spectrometry Imaging (m/f/d)**

### **The position:**

We present a unique and exciting opportunity for a B.Sc./M.Sc. student to support various projects in microbiome research and gain valuable hands-on experience in MALDI mass spectrometry imaging and the entire workflow from sample preparation to data analysis.

### **Research focus:**

Lipids are crucial components of both eukaryotes and bacteria that function in energy storage, membrane biosynthesis, and chemical signaling. Recently, their role in host-microbiome symbiosis has gained significant attention, where lipids produced by gut commensals of the genus *Bacteroides* were found to have an impact on intestinal homeostasis, immune responses and host lipid profiles. Aiming for a better understanding of the underlying molecular mechanisms, we are using mass spectrometry imaging for spatially linking lipids to individual organisms, organs, tissues, or cells, a powerful approach to study the role of lipids in host-microbiome symbiosis.

### **Description:**

We are seeking an intelligent, motivated B.Sc./M.Sc. student to support our MALDI mass spectrometry imaging approaches. The student will be fully trained in the entire workflow and is expected to work independently on individual experiments. Anticipated experimental work will include cryosectioning of tissue samples, pipetting of serial dilutions and spotting of internal standards, preparation of MALDI matrices, spraying of MALDI matrices using an automated sprayer, maintenance of the sprayer, setting up mass spectrometry imaging runs, and data analysis. The position is ideal for someone interested in the molecular mechanisms of host-microbiome symbiosis, lipidomics, and gaining hands-on experience in MALDI mass spectrometry imaging while working in a fast-paced environment with a diverse and creative team.

### **Position Requirements:**

- Ongoing studies (B.Sc./M.Sc) in biology, microbiology, chemistry or related fields;
- Must have excellent English communication skills;
- Experience with mass spectrometry and MALDI mass spectrometry imaging is a plus but not required;
- Must be comfortable (after training) handling organic solvents and S2 bacteria safely;
- Must be a good team player but also have the ability to work independently.

Working hours are flexible but limited to 38.5/33 hrs per month. Contracts are agreed on a semester-by-semester basis. The position is available immediately and applications (cover letter, CV, list of references) should be sent to [micro\\_admin@tuebingen.mpg.de](mailto:micro_admin@tuebingen.mpg.de). The position is open until filled.