



## PhD Position in Plant-microbe interaction

### Project title: Specificity of proteasome regulation during plant immunity

**Research:** Our group at the ZMBP Tübingen is interested in the role of proteolytic degradation pathways such as the proteasome and autophagy during plant immunity. Recently, we have identified that *Pseudomonas syringae* pv. *tomato* DC3000 (*Pst*) activates autophagy for proteasome degradation and enhanced pathogenicity (Üstün et al., 2018). We aim to study the specificity of proteasome regulation during plant-bacteria interactions by using a combination of cell biological, transcriptomics and biochemical methods. The work will include biochemical, cell biological, RNAseq, ChIP-Seq and genetic approaches using *Arabidopsis* and *Pseudomonas syringae* as the primary model organisms.

More information can be found on our lab homepage: <http://theustunlab.com/>

#### References:

Üstün S., Hafrén A., Liu Q., Marshall R., Minina E.A., Bozhkov P., Vierstra R., Hofius D. (2018) Bacteria exploit autophagy for proteasome degradation and enhanced virulence in plants. *The Plant Cell* Mar 2018, 30 (3) 668-685; DOI: 10.1105/tpc.17.00815

Üstün S., Sheikh A., Gimenez-Ibanez S., Jones A., Ntoukakis V., Börnke F. (2016) The proteasome acts as a hub for plant immunity and is targeted by *Pseudomonas* type-III effectors. *Plant Physiology* 172: 1941-1958

#### Requirements/Qualifications:

We are looking for a talented PhD student with proven expertise in cell and molecular biology, and *Arabidopsis*. Prior experiences with methods to study plant-microbe interactions are highly advantageous but not required. Excellent English communication skills as well as teamwork abilities are expected. A master's degree in molecular biology, biochemistry or corresponding is required.

The position is available from January 01, 2019. Reviewing of applications will begin immediately and the position will remain open until a suitable candidate is found. Please send your application as a composite pdf-file in English (letter of motivation stating your research interests, CV, name and addresses of at least two referees) via email not later than 04.12.2018: [suayib.uestuen@zmbp.uni-tuebingen.de](mailto:suayib.uestuen@zmbp.uni-tuebingen.de)

The ZMBP is a world-class center for Plant Biology research and is situated in a brand-new and well-equipped building in the University of Tübingen science campus. The University of Tübingen is an equal opportunity employer and particularly welcomes applications from qualified women and individuals with disabilities. Formal employment procedures will be carried out by the central administration of the University of Tübingen.