



PhD advertisement

We are looking for a highly motivated PhD candidate who has a strong interest in plant biology and in plant peptide signaling in particular. Our lab “Plant Physiology and Biotechnology” is located at University of Hohenheim close to Stuttgart airport in the south of Germany. We provide a stimulating research environment with state-of-the-art equipment for mass spectrometry, microscale thermophoresis, various platforms for protein expression and purification, protein biochemistry, confocal microscopy, and HPLC.

During the last decades it has become clear that peptide hormones play crucial roles in plant growth and development. One of the long-standing open questions in the field is how these peptide hormones are processed and activated from their larger precursor proteins. One class of proteases involved in this process are subtilases (SBTs). Their function and physiological substrates have long been enigmatic, because of functional redundancy in the large SBT family. We recently solved this problem by tackling SBT function at the enzymatic level. By tissue-specific expression of SBT inhibitors we could show that SBTs are required for organ abscission, and for the biogenesis of a peptide hormone controlling the abscission process (Schardon et al., 2016). This remarkable tool also revealed a role for SBTs in the maturation of several other peptide hormones, and this will be the subject of your research project. You will use molecular-genetic, physiological and biochemical approaches to elucidate the formation and regulation of these peptide hormones. With your work you will make a strong impact in the emerging field and hot topic of peptide hormone signaling in plants.

Qualifications we are looking for:

- M.Sc. degree in biology, biochemistry or related fields
- strong background in (plant) molecular biology and protein biochemistry
- strong team player
- good communication skills, also in English

The position is available immediately. Applications will be accepted until the position is filled. Please send your application by e-mail to the address indicated below.

For more information please contact: Prof Dr. Andreas Schaller, University of Hohenheim (260a), Emil-Wolff-Straße 23, 70593 Stuttgart; 0049-711459 22197; andreas-schaller@uni-hohenheim.de

References:

Schardon K, Hohl M, Graff L, Schulze W, Pfannstiel J, Stintzi A, Schaller A (2016): Precursor processing for plant peptide hormone maturation by subtilisin-like serine proteinases. *Science*, 354: 1594-1597.