

## Postdoctoral Position (Molecular Plant Nutrition)

A postdoctoral position is available in the Plant Nutrition Laboratory (Peiter lab) at the University of Halle-Wittenberg (Germany) to unveil the molecular mechanisms of **manganese transport and manganese efficiency in sugar beet**.

The high-value crop sugar beet is the only source of sucrose in temperate zones. It has a high demand of mineral nutrients, with supply of the micronutrient manganese being frequently critical. In plants, manganese deficiency does not only cause a drop in photosynthesis -and hence yield-, but also affects the resistance to abiotic stresses and pathogens. It is unknown which molecular mechanisms of Mn transport and utilization determine the manganese efficiency of sugar beet. Facilitated by our previous work on manganese in the model plant *Arabidopsis*, we will identify and functionally characterize sugar beet genes encoding potential manganese transporters. In collaboration with an industry partner, plants with altered expression of candidate genes suspected to affect Mn efficiency will be generated. In parallel to this reverse-genetics approach, a genome-wide association study, including high-throughput phenotypical analysis, will be conducted in collaboration with the Leibniz Institute of Plant Genetics and Crop Research (IPK) Gatersleben to identify genes that determine Mn efficiency of sugar beet.

The Plant Nutrition Laboratory focuses on molecular mechanisms of cation transport and signalling in plants, with an emphasis on calcium and manganese. We integrate a wide array of physiological, molecular, and cell biological techniques to uncover mechanisms of transport, signalling, and stress tolerance. Our lab is embedded in a very strong and collaborative local plant science community, owing to a number of University laboratories and research institutes, including IPB and IPK). Further information can be found on our website: <http://www.landw.uni-halle.de/pe>

The full-time position is available immediately for up to four years. Salary will be according to grade 13 on the TV-L payscale. The successful applicant has a Ph.D. in a relevant area of Plant Science and a convincing scientific track record. A profound knowledge in physiology, molecular biology and cell biology of plants is compulsory, as is practical experience in molecular biology and plant cultivation. Candidates with experience in molecular plant nutrition research are especially encouraged to apply. Good conduct of English as well as team spirit is of high importance.

To apply, send a cover letter, CV, publication list, relevant degree certificates, as well as names, phone numbers and email addresses of three references, as single pdf file by email to Edgar Peiter ([edgar.peiter@landw.uni-halle.de](mailto:edgar.peiter@landw.uni-halle.de)). The closing date for applications is **3 March 2017**.