At the Martin Luther University Halle-Wittenberg, Faculty of Natural Sciences III, Institute of Agricultural and Nutritional Sciences, Plant Nutrition Laboratory, a PhD student position (m-f-d) in Molecular Plant Sciences is to be filled at the earliest opportunity for the period of three years.

The salary will be of pay grade 13 TV-L (65%) remuneration group.

Project description:
The Plant Nutrition Laboratory at the MLU (www.landw.uni-halle.de/pe) elaborates molecular mechanisms of transport and signalling in plants. Calcium functions as a central second messenger in the response of plants to biotic and abiotic stress. Thereby, systemic calcium signals (“calcium waves”) may spread throughout the entire organism, enabling a rapid communication within the plant. In the DFG-funded project “Elucidating chemoelectrical systemic signalling mechanisms in plants”, such signals shall be characterized, and mechanisms of their generation shall be elucidated, whereby the focus lies on a calcium-activated cation channel in the vacuole, which is essential for the propagation of systemic calcium signals (Kiep et al., New Phytol. 2015).

Work tasks:
• Characterization of systemic calcium signals evoked by biotic and abiotic stress in Arabidopsis. You will employ imaging techniques using calcium reporter proteins on macroscopic and microscopic scale.
• Elucidation of the mechanisms that regulate a vacuolar calcium-activated cation channel and the role of these mechanisms in the propagation of systemic calcium signals. Based on site-directed mutagenesis and identification of interacting proteins, you will analyse the role of regulatory factors (e.g., phosphorylation, redox, pH) \textit{in planta}. The regulation of the channel protein by those factors will also be analysed by electrophysiology in collaboration with other groups. Research visits to learn this technique are possible.
• Participation in the preparation of publications and presentation of research results at conferences.
• Possibility to obtain a PhD degree.

Requirements:
• Graduate degree (MSc. or Diploma) in Biology, Biochemistry, Plant Science, or related discipline.
• Profound expertise in molecular and cell biology.
• Strong interest in membrane transport and signalling in plants.
• Practical experience in microscopy, live cell imaging, molecular biology, and plant culture is an asset.
• High level of self-motivation and ability to work in a team.
• Sound English language skills.

Priority will be given to applicants with severe disability in case they have qualifications equal to those of their best competitors. Women are strongly encouraged to submit their applications.

For further information, please contact Prof. Dr. Edgar Peiter, Tel.: +49 345 55 22420, E-Mail: edgar.peiter@landw.uni-halle.de

Please submit your application by email until 03/07/2020 to Prof. Dr. Edgar Peiter (edgar.peiter@landw.uni-halle.de) mentioning the registration number 5-6280/20-D in the subject line.
Applications should consist of a single pdf file containing: a motivation letter, a CV including a brief overview of skills and experiences that qualify you for the position, copies of relevant documents (e.g., transcripts of records), and names of two references.

The announcement takes place pending any possible budget restrictions.

Application expenses cannot be reimbursed by the Martin Luther University.