

IPK Gatersleben is a large, internationally recognized centre of plant research that addresses problems of modern biology with an emphasis on crop plants. Our international workforce integrates a broad diversity of disciplines used to elucidate the determinants of important plant properties and the mechanisms underlying processes of plant development, metabolism, and interactions with the environment. Acquired knowledge is used to contribute to the generation of genetic and biotechnological tools and to the comprehensive use of plant-genetic resources to optimize crop traits in sustainable agricultural plant production. Frequently, this involves co-operation with various national and international universities and research institutions as well as private enterprises.

For the working group of Metalloid Transport we are looking for a

PhD student in Molecular Plant Nutrition (f/m)

Employment starting up on 01.05.2013 and is limited for 36 month (contract prolongation possible).

Research in the Metalloid Transport group focuses on the identification of mechanisms regulating the boron (B) nutritional status in rapeseed and Arabidopsis and their implications for the development of boron-efficient genotypes. One key focus will be on mechanisms controlling B uptake and allocation from the level of the whole plant down to the cellular level. Another key focus will be on the elucidation of the mostly unknown impact of the B nutritional status on gene regulation and metabolism. The crosstalk between B regulation and that of other metalloids will be assessed. To this aim, a combination of detailed physiological analyses, transcriptomic and metabolomic profiling, transport studies and targeted molecular analyses will be employed.

Your tasks:

You will have the unique opportunity to undertake a PhD within a top research environment focusing on molecular plant nutrition. The PhD project will deal with the molecular and physiological characterization of specific aquaporins in *B. napus* and their role in B transport during vegetative and reproductive growth. You will clone promoters/cds of specific isoforms, generate various constructs for expression in yeast, oocytes and Arabidopsis, perform transport assays, design and test antibodies, perform qPCR and Western Blotting and transform rapeseed for intracellular localization analyses. Additionally, you will transform Arabidopsis knockout lines with wild type and mutated aquaporins, select transformants and check for functional complementation of the phenotype on e.g B-deficient conditions.

Your qualification:

The applicant is expected to have an excellent degree (Master, Diploma or equivalent) in Biology or a related discipline. You should be highly enthusiastic with a keen and active interest in the above indicated research fields. You should be highly motivated to advance scientific knowledge and to acquire new methodical skills and techniques. Written and spoken English skills and previous laboratory experience are required.

If you need further information feel free to contact Gerd Patrick Bienert. You currently reach him under **gerd.bienert@uclouvain.be** or phone **0032 (0) 472 545753**.

IPK is an equal opportunities employer. Handicapped persons will be preferred when equally qualified. Gross salary will be up to 65% TV-L E13.

Your application:

Please send your application (incl. motivation letter (statement of interest and future goals), CV, methodical skills and the name and contact information for a reference) as soon as possible and latest until **01.03.2013** to Ms. Gläser citing the **reference number 09/01/13**. Please contact her also for questions regarding the application and selection procedure.

Leibniz Institute of Plant Genetics and Crop Plant Research (IPK)

Ms. Gläser

Corrensstraße 3, OT Gatersleben

06466 Stadt Seeland

Germany

email: glaeser@ipk-gatersleben.de

phone: +49 (0) 39482 5101

www.ipk-gatersleben.de