



PhD Program between the Freie Universität Berlin (FUB) and the China Scholarship Council (CSC)

Open PhD position at FUB for CSC scholarship candidates 2016

Please note: the PhD position is only offered to Chinese PhD candidates for application in the framework of the FUB-CSC PhD Program.

<u>Department/Institute:</u>	Institute of Biology
<u>Subject area:</u>	Biochemistry of Plants
<u>Name of Supervisor:</u>	Dr. Lennart WIRTHMÜLLER (Mr.) / Prof. Dr. Tina ROMEIS (Ms.)
<u>Number of open PhD positions:</u>	1
<u>Type of the PhD Study:</u>	Full-time
<u>Project title:</u>	Plant Stress Management

PhD Project description:

Due to their sessile nature plants have to cope with many different abiotic and biotic stresses in the environment. Our department focusses on the molecular mechanisms that underlie plant responses to stress tolerance and resistance. A group of enzymes called Poly-ADP-ribosyl-transferases (PARPs) are emerging as important integrators of stress-induced signal transduction in plants [1,2]. PARPs catalyze post-translational modification of other proteins by covalently attaching ADP-ribose moieties to different amino acids [3]. Despite genetic evidence for a central function of PARPs in response to drought, heat and pathogen stress we know essentially nothing about target proteins, i.e. plant proteins that are modified by PARPs.

The aim of the project is to establish how PARPs influence expression of stress-responsive genes and to identify PARP target proteins. The position offers training in cutting-edge techniques in genetics, transcriptomics, biochemistry, structural biology and mass-spectrometry.

The PhD project has the potential of gaining first insights into how PARPs influence biotic and abiotic stress signaling in plants and, overall, will enhance our understanding of how plants resist stressful environmental conditions.

[1] Feng et al., PLoS Genet. (2015);11:e1004936

[2] Vanderauwera et al., PNAS (2007);104:15150-5

[3] Briggs & Bent, Trends Plant Sci. (2011);16:372-80

Language requirements:

English: IELTS 6,5 or TOEFL 95 ibt

Academic requirements:

The successful candidate will have a Master degree in Biology or Biochemistry. Experience in plant molecular biology, proteomics and/or structural biology are desirable but not essential. We are looking forward to a highly motivated candidate who enjoys working in a team.

Information of the professor or research group leader:

Since 2004 Prof. Tina Romeis is head of the department of Plant Biochemistry at Freie Universität Berlin. Focus of her work is on Calcium-dependent protein kinases (CDPKs) – see Romeis & Herde, Curr Opin Plant Biol; 20:1-20 (2014) for a recent review. More information can be found on her website: <http://tinyurl.com/qaop7cy>

Dr. Lennart Wirthmüller has recently moved to FUB from the John Innes Centre in Norwich UK to establish an independent junior research group. Lennart's background is in plant-microbe interactions and structural biology. See <http://tinyurl.com/nprq73q> for a list of publications and https://twitter.com/lab_robot for his profile on twitter.

Please note:

In a first step the complete application should submit to the Beijing Office for evaluation by January 4th, 2016. Please don't contact the professor before. He/She will get in contact with you after having received the complete application in January.