



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

Open PhD position at FUB for CSC scholarship candidates 2018

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>	Department of Biology, Chemistry, Pharmacy / Institute of Chemistry and Biochemistry (FUB) and Max Planck Institute of Colloids and Interfaces (MPIKG) / Department of Biomolecular Systems
<u>Subject area:</u>	Organic Chemistry (Carbohydrate Chemistry)
<u>Name of Supervisor:</u>	Dr. Fabian Pfrengle
<u>Number of open PhD positions:</u>	1
<u>Type of the PhD Study:</u>	Full-time
<u>Project title:</u>	Chemical Synthesis of Plant Cell Wall Glycans

PhD Project description:

Cellulose and other plant polysaccharides are the most important renewable resources and hold an enormous potential for the production of materials and fuels. To enhance the economic viability of exploiting plant biomass as a renewable resource, a detailed knowledge of plant cell wall structure and biosynthesis is necessary. Synthetic oligosaccharides are powerful molecular tools to study the plant cell wall. One possibility to obtain plant cell wall oligosaccharides is automated glycan assembly, which has evolved as a powerful technique for the rapid synthesis of glycans containing up to 50 monosaccharides. Aim of this project is to prepare plant cell wall oligosaccharides for plant biology studies using an automated glycan synthesizer, enzymatic methods, conventional synthesis, or a combination of the aforementioned.

Language requirements:

IELTS: 6.5 or TOEFL: 95 ibt.

Academic requirements:

A Master degree in the field of Chemistry with specialization in organic synthesis is required. A Bachelor degree is not sufficient for a full-time PhD position.

Information of the professor or research group leader:

Dr. Fabian Pfrengle, Max Planck Institute of Colloids and Interfaces, Am Mühlenberg 1, 14476 Potsdam and Freie Universität Berlin, Arnimallee 22, 14195 Berlin.

Website: http://www.mpikg.mpg.de/2936248/Synthetic_Plant_Carbohydrates

Please note: In a first step, the complete application must be submitted to the Beijing Office for evaluation by January 4th, 2018. Please do not contact the professor before. He/She will get in contact with you after having received the complete application via the Beijing Office in January.