



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>	FU Berlin, Institute of Pharmacy
<u>Subject area:</u>	Drug metabolism and bioanalysis
<u>Name of Supervisor:</u>	Prof. Dr. Maria Kristina Parr
<u>Number of open PhD positions:</u>	1
<u>Type of the PhD Study:</u>	Full-time
<u>Project title:</u>	Elucidation of Biotransformation Pathways and Influencing Metabolite Generation in Steroids

PhD Project description:

Steroids are important hormones that are produced in humans and animals for various purposes. They may be divided into sex hormones and metabolic hormones. Due to their activity they are also considered as important drugs to treat various diseases. However, some of them are also misused as performance or image enhancing drugs. In professional sports their administration is regulated by sports organizations and considered as doping according to the regulations of the World Anti-Doping Agency. Steroid biosynthesis as well as metabolism is complex and multi-branched and key enzymes have been described that play important roles herein. However, there are still lots of uninvestigated pathways that are awaiting elucidation.

Thus, this project aims to further elucidate metabolic pathways using in-vitro experiments. Based on this, possibilities of drug-drug interactions and possibilities of influencing parameters will be investigated. To complement the results in-vivo experiments may be conducted.

Language requirements:

IELTS: 6,5 oder TOEFL: 95 ibt

Academic requirements:

MSc Degree in Pharmacy, Pharmaceutical Analysis, or related subjects
Experiences in bioanalytical and mass spectrometric techniques as well as extended knowledge in drug metabolism highly recommended

Information of the professor or research group leader (website, awards etc.):

Prof. Parr was working as researcher for 14 years in the Anti-Doping Laboratory in Cologne, Germany, in different fields of research including method development, analysis of nutritional supplements and counterfeit drugs for doping substances (esp. anabolic steroids and stimulants), synthesis of steroidal reference substances and metabolites, investigations on metabolism, designer steroid identification and characterization.

In 2012 she got her habilitation (Venia Legendi in Pharmaceutical Chemistry) at the University of Bonn and in the same year she was appointed full professor for Pharmaceutical Analysis at Freie Universität Berlin. The main research focus of her group is mass spectrometric analysis hyphenated to different chromatographic separation techniques with the main focus of analyzing drugs, their metabolites and related compounds in biological material. With Maria Parr's long history in anti-doping research, primary focus of the group is on steroids and other performance enhancing and counterfeit drugs. Furthermore pharmaceutical quality management and analytical quality by design are important topics in Maria Parr's group.

She published more than 80 research papers in the field of pharmaceutical analysis and metabolism. Past and current research in Prof. Parr's group is strongly supported by research grants from the World Anti-Doping Agency and several young investigators out of her group were awarded for excellent scientific work.

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.