



PhD Program between the Freie Universität Berlin (FUB) and the China Scholarship Council (CSC) Open PhD position for CSC scholarship candidates 2015

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

<u>Department/Institute:</u>	Institute of Veterinary Biochemistry/Veterinary Medicine
<u>Subject area:</u>	food/feed safety, toxicology, in vitro model
<u>Professor / Research Group:</u>	Prof. Dr. Ralf Einspanier
<u>Number of open positions:</u>	1
<u>Project title:</u>	Intestinal toxicity assessment of xenobiotics and food/feed derived components

Project description:

This study aims to investigate cellular effects triggered by different food/feed-born xenobiotics within the intestinal tract. The intestinal cells represents the first border for food/feed components mirroring the initial reaction towards any ingested substance. Our goal is to apply both animal feeding experiments as well as new in vitro cell models to screen for potential toxic effects of food components. Therefore, we are using two different approaches: I) genetically modified diets II) potentially carcinogenic contaminations like mycotoxins. Both treatments will be investigated by modern molecular biology techniques (transcriptomics, proteomics, cell culture systems, reporter gene assays etc.) to provide deeper insights into cellular pathways affected by such xenobiotics. Selected species (rodents, pigs) will be investigated to enable a broader knowledge about distinct cellular reactions. Hence, suitable co-culture systems (e.g. epithelial together with immune cells) shall be introduced to model for complex organ responses. A cooperation with biosystems/informatic research groups shall lastly enable the development of a complex prediction matrix providing valid hazard valuations. Finally, a general and specific risk assessment of GM and/or toxic food/feed compounds should be possible through developing new in vitro diagnostic tools based on different intestinal cell systems.

Language requirements:

As an obligatory member of our postgraduate school DRS the applicant will be educated in English and has to write his doctoral thesis in English. Therefore, the student must be fluent in English documented by excellent scores in the TOEFL test.

Academic requirements:

The applicant should have a master degree in life science or veterinary medicine and should have received excellent grades. The candidate should possess extensive experience in biochemistry, molecular genetics and cell culture techniques.

Link to professor and further information:

Please note:

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