



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 Veterinary Medicine, Institute of Immunology
<u>Subject area:</u>	Infection Immunology
<u>Name of Supervisor:</u>	Prof. Dr. Susanne Hartmann, Dr. Josephine Schlosser, Dr. Lydia Tedin
<u>Number of open PhD positions:</u>	1
<u>Type of the PhD Study:</u>	full-time
<u>Project title:</u>	Deciphering protective versus regulatory immune mechanisms during Ascaris infection in the pig

PhD Project description:

Affecting over 800 million people worldwide, the soil-transmitted helminth *Ascaris* spp. leads especially in children to impaired physical condition and cognitive development. In parallel, *Ascaris* spp. infections are very common in pig breeding facilities responsible for reduced growth performance and significant economic losses. The life cycle of *Ascaris* spp. comprises an extensive tissue migratory phase from the host's intestine via the liver, the lung and the pharynx back to the intestine. As anthelmintic drugs are losing efficacy due to rising drug resistance, unraveling the immune mechanisms during Ascariasis will be of upmost importance to develop novel immunoprophylactic strategies against infection with *Ascaris* spp. Hence, the proposed project aims at deciphering the immunological mechanisms and the related cellular signatures involved in protective immune responses leading to killing or expulsion of the larval stages. Concurrently, we aim to understand which immune mechanisms are used by the parasite to counteract the host protective responses leading to tolerance and thus persistence of the infection. Moreover, the project touches another important scientific field, as it will be conducted in pigs it offers the opportunity to gain insight into principal mechanisms of mucosal immunology. With regard to similarities in the oral immune system, the intestinal microbiota, and the digestive physiology, the porcine animal model offers ideal conditions to enlighten mechanisms of mucosal immune regulation.

Language requirements:

IELTS: 6,5 oder TOEFL: 95 ibt

Academic requirements:

Academic requirement: Master of Science, preferable in Veterinary Medicine.
Experiences in: Immunology and Parasitology,

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

Webpage of the Institute of Immunology: <http://www.vetmed.fu-berlin.de/en/einrichtungen/institute/we06/ueber-uns/index.html>

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.