



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

Open PhD Position at Freie Universität Berlin, offered only to Chinese CSC scholarship candidates 2019

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

<u>Department/Institute:</u>	Veterinary Medicine, Virology
<u>Subject Area:</u>	Molecular Virology
<u>Name of Supervisor:</u>	PD Dr. Michael Veit
<u>Number of Open PhD Positions:</u>	2
<u>Type of the PhD Study:</u>	Full-time or Sandwich
<u>Project Title:</u>	Cell Biology of Virus Infections, Influenza Virus and PRRSV

PhD Project Description:

We are studying the structure and function of the membrane proteins of Influenza virus and porcine respiratory and reproductive syndrome virus (PRRSV) with a special emphasis on their co- and posttranslational modifications. We are using mainly virological and biochemical methods and reverse genetics, i. e. generation and characterization of recombinant viruses. Focus of the work is cell entry of viruses by membrane fusion and assembly and budding of virus particles from membranes of infected cells. The aim is to understand the processes on a molecular level.

Language Requirements:

IELTS: 6,5 oder TOEFL: 95 ibt

Academic Requirements:

Master degree in Veterinary medicine or Biology / Biochemistry.
Experimental experience with methods of virology (growth, titration and purification of Influenza or PRRS virus), gene technology (site-specific mutagenesis of genes, transfection of cells) and biochemistry (protein purification) as well as fluorescence microscopy is advantageous.

Information of the Professor or Research Group Leader:

My group is located at the Institute of Virology of the Veterinary faculty in the new building of the Center for Infection Medicine. Our institute is equipped with state of the art technology including biosafety level 2 and 3 labs and animal facilities.
Currently around 30 PhD-students and postdocs with different academic background (Veterinarians, Biochemist) and from various countries (including China) are working in the Virology department. Thus, all seminars are in English.

Recent publications:

Wang M, Ludwig K, Böttcher C, Veit M. (2016) The role of stearate attachment to the hemagglutinin-esterase-fusion glycoprotein HEF of influenza C virus. *Cell Microbiol.* 18:692-704.

Brett K, Kordyukova LV, Serebryakova MV, Mintaev RR, Alexeevski AV, Veit M. (2014) *J. Biol Chem.* 289:34978-89.

Veit M, Siche S (2015) S-acylation of influenza virus proteins: Are enzymes for fatty acid attachment promising drug targets? *Vaccine.* 33:7002.

Veit M, Matczuk AK, Sinhadri BC, Krause E, Thaa B. (2014) Membrane proteins of arterivirus particles: structure, topology, processing and function. *Virus Res.* 194:16-36.

Zhang M, Veit M. (2018) Differences in signal peptide processing between GP3 glycoproteins of Arteriviridae. *Virology.* 517:69

Zhang M, Krabben L, Wang F, Veit M.(2018) Glycoprotein 3 of Porcine Reproductive and Respiratory Syndrome Virus Exhibits an Unusual Hairpin-Like Membrane Topology. *J Virol.*92:15.

Please Note: In a first step, the complete application should be submitted to the Beijing Office for evaluation by January 4th, 2019. 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.