



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

### Open PhD position for CSC scholarship candidates 2015

The PhD position is only offered to Chinese PhD candidates for application in the framework of the FU-CSC Program.

<b><u>Department/Institute:</u></b>	Institute for Virology
<b><u>Subject area:</u></b>	Molecular Virology
<b><u>Name of Supervisor:</u></b>	Prof. Dr. Benedikt Kaufer
<b><u>Number of open positions:</u></b>	1 (Full time / 3-4 y. PhD study)
<b><u>Project title:</u></b>	Deciphering Marek's disease virus (MDV) -induced immunosuppression

#### **Project description:**

Marek's disease virus (MDV) is a highly oncogenic alphaherpesvirus that infects chickens via the respiratory route and causes high economic losses in poultry industry. Beside acute death and extensive tumor formation, a major problem is the MDV-induced immunosuppression (IS), a hallmark of many virus infections like human immunodeficiency virus type 1 (HIV-1) or bovine viral diarrhea (BVD)<sup>1</sup>. MDV-induced IS profoundly increases susceptibility of chickens to other viral and bacterial pathogens, increasing the need for antibiotics in poultry production. In addition, MDV infection was shown to reduce vaccine responses against other vaccines, resulting in a decreased protection of the animals against the corresponding pathogens. Furthermore, MDV vaccines themselves induce IS to some extent, as such causing a dilemma between the absolute necessity of a MDV vaccination and the reduced response to other vaccines. Although the phenomenon of IS has been recognized for decades, to date very little is known about MDV-induced IS. Our goal is to apply the unique expertise and the techniques developed over the last several years by our European consortium to identify the basic mechanisms associated with IS and to develop novel vaccines that will significantly reduce the immunosuppressive properties. Our part of the collaboration includes the identification of factors that are involved in MDV-induced IS as well as the development of vaccine candidates that do not induce IS.

#### **Language requirements:**

The doctoral thesis must be written in English. The student must be fluent in English and have excellent scores in the TOEFL test.

#### **Academic requirements:**

The applicant should have completed his masters and should have received excellent grades. In addition, he should possess extensive experience in molecular genetics and tissue culture techniques. He should be also able to work in a team.

#### **Please note:**

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