



## 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.

**Department/Institute:**

Department of Biology, Chemistry and Pharmacy,  
Institute of Chemistry and Biochemistry

**Subject area:**

Regenerative Medicine, Mouse Molecular  
Genetics, Stem Cell Biology

**Name of Supervisor:**

Prof. Dr. Sigmar Stricker

**Number of open positions:**

1

**Project title:**

Signals controlling muscle stem cells.

**Project description:**

The regeneration of muscle relies on the activation of muscle-resident stem cells, the satellite cells. The mechanisms that govern activation, differentiation and maintenance of these cells are yet not well understood. We are interested in stem cell-intrinsic signaling as well as in signaling coming from cells constituting the stem cell niche impinging on the capacity of satellite cells' regenerative potential. We use mouse genetics to address these questions. In this project specific genetic manipulations in either satellite cells or cells of the satellite cell niche will be performed via conditional gene deletion in the mouse (Cre-LoxP) and their influence on muscle development and regeneration in injury models will be assessed. This will be accompanied by an in-depth molecular analysis of isolated satellite cells using cutting-edge technologies such as next-generation RNA Sequencing, ChIP-Seq, etc.

**Language requirements:**

English.  
German language is not required.

**Academic requirements:**

Masters degree in Biology / Biochemistry / cell biology / developmental biology or related areas

**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 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.