



## 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.*

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| <b><u>Department/Institute:</u></b>         | Department of Veterinary Medicine / Institute of Veterinary Pathology                           |
| <b><u>Subject area:</u></b>                 | Pattern recognition/Automated image analysis  |
| <b><u>Name of Supervisor:</u></b>           | Prof. Dr. Robert Klopfeisch   |
| <b><u>Number of open PhD positions:</u></b> | Up to 2   |
| <b><u>Type of the PhD Study:</u></b>        | Full-time   |
| <b><u>Project title:</u></b>                | Development of software solutions for extraction of morphologic features from histologic slides |

#### PhD Project description:

The pathologist is still the gold standard in the diagnosis of diseases in tissue slides. Due to its human nature, the pathologist is on one side able to flexibly adapt to the high morphological and technical variability of histologic slides but of limited objectivity due to cognitive and visual traps. In diverse projects we are applying and validating currently available tools and solutions in digital pathology but are also developing new solution in automated image analysis to complement and improve the pathologist especially in areas of quantitative image analysis. In the planned project, the PhD candidate will be working together with pathologist on the development of comprehensive data bases of image examples for training, validation and test sets of typical histopathologic features. In a second step, the candidate will be developing artificial neuronal networks for the extraction of features relevant for automated diagnosis of tumors in histologic slides.

#### Language requirements:

IELTS 6.5 or TOEFL 95 ibt.

#### Academic requirements:

Computer/Scientists with specialization in deep learning / artificial neuronal networks preferred. All specialties accepted if sufficient knowledge in deep learning, programming of neuronal networks and the programming language Python is verifiable

#### Information of the professor or research group leader:

See [https://www.researchgate.net/profile/Robert\\_Klopfeisch](https://www.researchgate.net/profile/Robert_Klopfeisch) for a complete overview on the research activities of Prof. R. Klopfeisch.

Prof. Robert Klopfeisch:

- is a Veterinarian and American Board-certified Veterinary Pathologist
- holds a Master in Business Administration
- has a strong research focus on: Digital Pathology, Tumor Research, Laboratory Animal Pathology

**Please note:** In a first step, the complete application must be submitted to the Beijing Office for evaluation by January 4<sup>th</sup>, 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.