

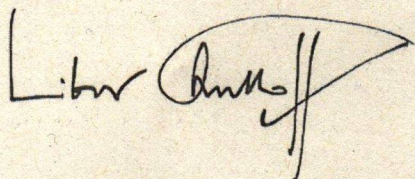
## Evaluation of the supervisor of the dissertation RNDr. Pavlína Věchtová

RNDr. Pavlína Věchtová submitted a dissertation on the topic '*Stage-specific transcripts in the tick Ixodes ricinus and their functional significance for tick development*'. Pavlína joined the Laboratory of Molecular Ecology of Vectors and Pathogens of the Institute of Parasitology Biology Centre of the Czech Acad. Sci. in 2011, and in same time was also accepted for doctoral studies in the program of molecular and cell biology at the Faculty of Science, University of South Bohemia. Originally, she was to focus on tick glycosyltransferases, gene analysis and their expression at different developmental stages of ticks. The rapid development of molecular biology and bioinformatics techniques over the last ten years has made gene sequencing as well as the analysis of large transcriptomes available in an unprecedented way. We took the opportunity to work with Dr. Vladimír Beneš, head of the Genomics Core Facility at EMBL, and extended the dissertation assignment with genes / transcripts of other molecular factors specific for the developmental stages of the *I. ricinus* tick. In this context, many thanks to Dr. Vladimír Beneš, who enabled Pavlína to deal with transcriptome analysis directly in Heidelberg, was her consultant. Another appreciation goes to Dr. Ján Štěrba, who took on the role of supervisor-specialist in a very responsible way.

The dissertation contains three publications, one of which is a review on the topic of protein-carbohydrate interactions in tick-host-pathogen interfaces, and the other two are original publications, the first of which is partial and provides data on newly identified tick methyltransferase; the second original publication can be considered the main contribution of the dissertation project - stage-specific transcripts in *I. ricinus* tick and their functional significance for tick development. In meantime, this major publication was accepted for publication in *Parasite & Vectors*. Pavlína's dissertation proved to be a challenging topic, she managed to collect extensive data of transcriptome analysis, which she subsequently had to evaluate using bioinformatics tools. She thus mastered the modern methods of molecular biology as well as the methods of bioinformatics. Pavlína demonstrated talent and skills for research work in modern life sciences. She proved to be an initiative team player sacrificing for the whole.

Pavlína's work effort is exemplary, she is an inventive person with a need to look for answers to complex questions. Pavlína's pedagogical activity in the laboratory courses (biochemistry, pharmacology, xenobiochemistry, toxicology) of the faculty is highly valued.

In conclusion, I am pleased to state that RNDr. Pavlína Věchtová fulfilled all the requirements binding for the doctoral study program in Molecular and Cell Biology; therefore, I can, with a clear conscience, recommend her dissertation to be defended.



Prof. Libor Grubhoffer, supervisor

In České Budějovice, June 1<sup>st</sup>, 2020