



Přírodovědecká  
fakulta  
Faculty  
of Science

Jihočeská univerzita  
v Českých Budějovicích  
University of South Bohemia  
in České Budějovice

## SUPERVISOR'S STATEMENT ON DIPLOMA THESIS

**Name of the student:** Katharina Böttinger

**Study program:** Joint Master Program Biological Chemistry

**Department/Institute:** Faculty of Science, University of South Bohemia

**Thesis title:** Proteomic profiling of Ixodes ricinus tick cell line IRE/CTVM19 and its response to TBEV infection

**Supervisor:** Dmitry Loginov, PhD

**Supervisor's affiliation:** University of South Bohemia

	Point scale <sup>1</sup>	Points
<b>(1) FORMAL REQUIREMENTS</b>		
Formal and graphical quality of the thesis	0-3	3
Ability to work with literature	0-3	3
Language and stylistics	0-3	3
Formal requirements – points in total		9
<b>(2) PRACTICAL REQUIREMENTS</b>		
Fulfillment of the aims	0-3	3
Ability to understand the results, their interpretation, and clarity of the results, discussion, and conclusions	0-3	3
Discussion quality – interpretation of results and their discussion with the literature	0-3	3
Experimental difficulty of the thesis, independence in experimental work	0-3	3
Contribution of the thesis to the knowledge in the field and the possibility to publish the results (after eventual supplementary experiments)	0-3	3
Practical requirements – points in total		15
<b>POINTS IN TOTAL (MAX/AWARDED)</b>	<b>24</b>	<b>(0-24)<sup>2</sup></b>

<sup>1</sup> Mark as: 0-unsatisfactory, 1-satisfactory, 2-average, 3-excellent.

<sup>2</sup> Enter the number of points awarded.

**Comments of the supervisor on the student and the thesis:**

Katharina Böttlinger's study was a part of the laboratory project related to the in-depth proteomic study of tick cell lines, and was focused on the investigation of protein profile of *Ixodes ricinus* derived tick cell line (IRE/CTVM19) and its proteome changes upon TBEV infection. Tick cell lines are very useful tools in defining the complex nature of the host-vector-pathogen interactions, but require comprehensive comparative studies. In the present work a proteomic map of intact IRE/CTVM19 cells were obtained and some unique proteins were identified. Changes in the protein profiles of TBEV-infected tick cell lines were investigated using in-solution digestion followed by nanoLC-ESI-MS/MS. Also, promising results concerning possible protein markers of the TBEV infection were obtained using biotyping approach.

Katharina proved herself as a hardworking student, who was able quickly learn new methods, plan and carry out experiments independently. She performed a data analysis on a high level, meaning her good understanding of obtained results. Also should be mentioned her skills in work with the scientific literature and describing of the results. In my opinion she is absolutely ready either for PhD study, or work.

**Conclusion:**

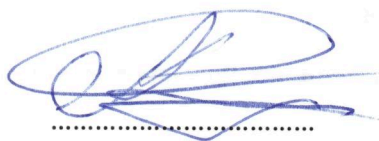
Katharina did all the experiments at a high level, allowing successful solving of all tasks in this thesis. Moreover, the part of the results have been included to the manuscript.

**In conclusion, I**

**~~recommend / do not recommend\*~~**

**the thesis for the defense.**

**In České Budějovice date 8.01.2019**



**Signature**