



Přírodovědecká
fakulta
Faculty
of Science

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

SUPERVISOR'S STATEMENT ON BACHELOR/DIPLOMA * THESIS

Name of the student: Viktor Sieranski

Study program: Biological Chemistry

Department/Institute: Faculty of Sciences of the University of South Bohemia

Thesis title: Changes of IgM expression levels in the head kidney of *Cyprinus carpio* following an infection with *Sphareosopra molnari*

Supervisor: Astrid Holzer

Supervisor's affiliation: Institute of Parasitology, BC-CAS

	Point scale ¹	Points
(1) FORMAL REQUIREMENTS		
Formal and graphical quality of the thesis	0-3	1
Ability to work with literature	0-3	3
Language and stylistics	0-3	3
Formal requirements – points in total		7
(2) PRACTICAL REQUIREMENTS		
Fulfillment of the aims	0-3	2
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	2
Experimental difficulty of the thesis, independence in experimental work	0-3	2
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		12
POINTS IN TOTAL (MAX/AWARDED)	24	19

* Choose one

¹ Mark as: 0-unsatisfactory, 1-satisfactory, 2-average, 3-excellent.

Comments of the supervisor on the student and the thesis:

The BSc thesis of Viktor Sieranski was part of a larger project which aimed at determining the innate and acquired immune response of common carp to the myxozoan parasite *Sphaerospora molnari*. The aim of his thesis was to design a differential assay for quantifying cell-associated IgM (monomer) and free/serum IgM (tetramer), based on qPCR and to determine the expression of both IgM types during the course of infection, and in different organs, based on RNA samples collected in a previous experiment.

As a biochemistry student, Viktor was initially interested in developing an ELISA for serum IgM, but there was unfortunately not enough time to experiment with these lengthy protocols, on a daily basis, alongside the taught courses, and we hence switched to quantitative RNA expression analyses that can be performed on and off, with less time restrictions. Victor quickly learned the methods of RNA extraction, cDNA making and dealing with the qPCR machine, its settings and outputs. Victor worked in the lab with a high degree of independence and care (seen in pipetting replicas etc.). The results Viktor produced were published as part of a paper (Korytar et al., 2019. The kinetics of cellular and humoral immune response mechanisms of common carp to presporogonic development of the myxozoan *Sphaerospora molnari*. *Parasites & Vectors* 12:208), with him as a coauthor. While Victor performed well in the lab, he did repeatedly show periods with lack of motivation and dedication, especially with regard to feedback on the paper and writing up his thesis. The latter was postponed half a year and the thesis landed in my inbox only the day before submission. The level of scientific English of the thesis is good, and the content of intro and discussion show a good understanding of the topic and background, but some sections should definitively have been developed further. However, since I am satisfied with work done in the lab and approve of several written sections, I do recommend the thesis for defense.

Conclusion:

In conclusion, I r e c o m m e n d the thesis for the defense.

In Ceske Budejovice, date 29th January 2020



signature