



OPPONENT'S REVIEW ON BACHELOR/ THESIS

Name of the student: Ida Ramzy

Thesis title: Detection of persistent forms of *Borrelia burgdorferi* sensu stricto in infected mice after antibiotic treatment

Supervisor: Nataliia Rudenko, Ph.D.

Referee: doc. RNDr. Alena Žáková, Ph.D.

Referee's affiliation: MU

	Point scale ¹	Points
(1) FORMAL REQUIREMENTS		
Extent of the thesis (for bachelor theses min. 18 pages, for masters theses min. 25 pages), balanced length of the thesis parts (recommended length of the theoretical part is max. 1/3 of the total length), logical structure of the thesis	0-3	2
Quality of the theoretical part (review) (number and relevancy of the references, recency of the references)	0-3	3
Accuracy in citing of the references (presence of uncited sources, uniform style of the references, use of correct journal titles and abbreviations)	0-3	3
Graphic layout of the text and of the figures/tables	0-3	3
Quality of the annotation	0-3	3
Language and stylistics, complying with the valid terminology	0-3	3
Accuracy and completeness of figures/tables legends (clarity without reading the rest of the text, explanation of the symbols and labeling, indication of the units)	0-3	3
Formal requirements – points in total		20
(2) PRACTICAL REQUIREMENTS		
Clarity and 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 the results and their discussion with the literature (absence of discussion with the literature is not acceptable)	0-3	2
Logic in the course of the experimental work	0-3	3
Completeness of the description of the used techniques	0-3	3

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

Experimental difficulty of the thesis, independence in experimental work	0-3	3
Quality of experimental data presentation	0-3	3
The use of up-to-date techniques	0-3	3
Contribution of the thesis to the knowledge in the field and possibility to publish the results (after eventual supplementary experiments)	0-3	3
Practical requirements – points in total		26
POINTS IN TOTAL (MAX/AWARDED)		48
		(46)²

Comments of the reviewer on the student and the thesis:

I would recommend writing the theoretical part longer, eg a little more about spreading Bbsl around the world, not only in Europe and the US.

What is not clear to me:

Page 22, chapter 3.5.1. I don't know if the mice were killed while taking the whole blood or not.

Page 27, Fig. 5., How do we know that WB was positive? Control is *B. duttonii*, which may have a different protein spectrum than NE 5264 *Bbss*, that mice were infected with.

It is not clearly explained why the author used two different media: MKP and BSK II., It is not clearly explained or described, eg page 21 "During the cultivation of *Borrelia* in liquid medium" (which one?), Page 21 "Three different strains" of *Borrelia* were grown in liquid media..."

In discussion:

The author has no reference to literature in the first paragraph. What is the proof for this statement? (I mean the persistence of symptoms in patients after antibiotic treatment and provide at least one evidence of the doctors' views in literature on post-borrelia syndrome).

The same applies to the second paragraph, please and mention at least one case in the ELISA negativity literature for LB disease.

Suggestions and questions, to which the student has to answer during the defense.

Mistakes, which the students should avoid in the future:

Please, answer my question above.

Conclusion: Overall, I very much commend this work. I think, that the volume of this bachelor work corresponds to the level of diploma thesis at our department. But with this praise I do not want to reduce the level of our work. This work is very important for physicians in terms of treatment of problematic patients (in whom *Borrelia* survives) as well as for the patients themselves, who, very suffering, often do not stand by doctors. This work has a high impact for use in practice.

In conclusion, I r e c o m m e n d the thesis for the defense and I suggest the grade A

In Brno date 23.1.

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² Enter the number of points awarded.

Dear Commission, dear Supervisor of the Bachelor Thesis, Dear Student Ida Ramza, allow me to comment on the reply to the comments I have made in the Opinions on the thesis entitled "Detection of persistent forms of *Borrelia burgdorferi* sensu stricto in infected mice after antibiotic treatment".

All the questions and comments that I have raised have been very satisfactorily answered and clarified. Again, I can conclude that the work reaches a very good level and I evaluate it with the grade A.

Alena Žáková

