School of Biological Sciences

27th Sep 2019

Reviewer report for dissertation of the student dissertation of the student Lenka Příplatová.

I am writing to provide a report for PhD dissertation of Lenka Příplatová. I have appended my comments on the next page. In short, the thesis is well-written and is backed by multiple peer-reviewed publications. I recommend acceptance of the thesis.

Regards,

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1. This thesis requires a thorough grammar check. An online grammar editor might work. I see frequent spelling mistakes and unclear choice of words that make an otherwise nicely written thesis difficult to read in some sections. This is nothing major. Nevertheless, a careful check with online utilities or additional reading from a colleague might make the prose better.

2. Abstract talks about "Justina Effect." My suggestion is to either explain that or drop it till results section. It reads somewhat cryptic to me.

3. The candidate lists publications arising out of this thesis, along with a list of contributions. I appreciate that clarity at the start of the thesis. I also congratulate candidate of a good publication record.

4. Page 2. Candidate states, "but I am scarcely participating in the publication of the collected data, which leads to my publication activity being appalling. I am aware of this shortcoming and plan on overcoming it after this thesis is finally out of my sight." Is a thesis really an appropriate place for this statement? I suggest removal of this self-flagellating and informal statement from a formal document that the thesis is. The same applies to the statement about h-index. The thesis is about the work of the candidate and not the candidate herself.

5. Footnote on page 7 can be much shortened.

6. Is there a particular reason "(HARBOE & ERICHSEN, 1955)," on page 23 is capitalized?

7. I like that the candidate often provides a balance in her approach by looking at studies that contradict her line of thought. For example, around page 44, the candidate spends a lot of time on dopamine transmission where studies showing lack of effect are also mentioned along with positive finding. The same goes for earlier discussion about doubts expressed by many pertaining the manipulative activity of the Toxoplasma.

8. Page 57. "2.5.3 So, Can Wen Now Return to Toxoplasmosis?" Who is Wen? This is one of the many examples where spelling errors create confusion in this thesis.

9. Page 64. Candidate refers to two methods for serological testing. Were these two methods found concordant?

10. Page 69. Justine effect. I am non-educated about the core principle behind the Justine effect. Can candidate please answer during the examination the origin of this term?

11. Can the candidate speculate how Toxoplasma infection might affect Justine effect? What is her working hypothesis if somebody strives to compare infected and non-infected individuals in future.

12. Section 4.2 When was the blood collected for endocrine analysis, with respect to the diurnal cycle? There is strong cyclicity in steroid hormones with distinct nadir and peak. Was blood collected after or before the test?

13. Page 100. Candidate lists limitations of her approach. But there is a more significant limitation which will not be cured even if somebody repeated the experiment in the ideal conditions, which is that the design is based on case-control method. I understand why the design is constructed in this manner in context of experimental limitations. Yet, I will like the candidate to contrast the case-control methods with other possible experimental methods during the examination and suggest relative advantages/disadvantages.

14. Can the candidate provide further support to her statement, "Since the duration of the infection negatively correlates with the concentration of anti-Toxoplasma IgG antibodies" on page 111?