



May 5, 2022

Dear Chodáková Lenka Mgr. Ph.D,

This Master thesis by Sára Kropáčková reports the results of research studying cholesterol biology in ticks and tick cells. Overall is a very good thesis that presents a number of diverse studies addressing dissimilar questions; from the effect of cholesterol on cell proliferation, to its distribution and functions. In the process, the student have addressed a variety of experimental challenges and learnt multiple techniques.

The introduction seems a bit long and unfocussed. I acknowledge that the thesis tries to answer a number of very different questions; mainly related with cholesterol requirements, synthesis, transport, functions, etc. Consequently, the introduction attempted to cover all those topics. It is very comprehensive and provides a lot of background on cholesterol in the tree of life. On the other hand, most topics are treated in a simple or superficial mode, and the “connectivity” among concepts might not be the best.

I feel that the introduction provides a lot of background on cholesterol in insects and vertebrates, but the knowledge in ticks is lightly discussed. Clearly, more background on ticks would be desired. One of the ideas of this thesis introduction would be to define the gap of knowledge on in tick's cholesterol biology. I feel this is not well described.

The presentation of the introductory topics could be improved. There are several “typos” and grammatical errors. Adding more figures in the introduction would also help the reader. May be a including a “summary figure” or model, should help to define the “gap of knowledge” and the major contributions of the thesis.

The result section is the strongest part of the dissertation. In general, the results are clearly presented. The discussion is basic, but adequate.

In summary, this is a very good thesis. The student definitely merits to get degree. I prefer to decide about the grade after listening to the defense.

Sincerely,

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