



Doctoral Thesis Assessment Report

Doctoral Thesis Title: Regulation of translation in mammalian oocytes and early embryos

Author/Candidate: Anna Tetkova

The presented doctoral thesis is focused on the different aspects of translational regulation in oocytes. Although the author participated on numerous articles published in well-respected international journals demonstrating a very good technical skill, the thesis itself would deserve much more attention from the formal perspective. Serving as an editor I cannot leave unnoticed that citations were sometimes missing, sometimes the given citations were inappropriate. I also have to point out the redundancy of presented information. Finally, I found numerous typos and the spelling should be constant throughout the text.

Nevertheless, the candidate demonstrates a good technical skill and understanding of the topic. The aims are well defined and were fully achieved, the candidate acknowledges the work of others and clearly identifies her own contribution to the published work. The presented findings are very interesting and discussed in the context of results obtained by others.

Additional question/comments:

How were growing oocytes defined?

Based on what criteria was *Gapdh* selected as the reference gene for the qPCR experiment?

What was the quantification method?

How does the mRNA localization affect the translation? Is the differential localization an active or a passive process? For example, the spindle accumulation of *Ank2.3* mRNA – is that only because of the previous nuclear localization? How could the active/passive process be analysed?

P26 – Why would one expect changes in methionine incorporation in 3T3 cells in response to FSH if the receptor is not expressed?

P27 – What is a „naturally stimulated mouse“? Perhaps a “mild stimulation” would be a better term?

In summary, the thesis fulfils the given criteria and I recommend it for a defence. If defended successfully, I propose that Anna Tetkova receives the Ph.D. title.

Prague 19.08.2019

Helena Fulkova, Ph.D.