



**BIOMEDICAL  
CENTER**



**FACULTY OF MEDICINE  
IN PILSEN**  
Charles University

in Pilsen, Czech Republic, on 10th May 2022

in Ciudad Real, Spain, on 19th May 2022

To Whom It May Concern

### **Evaluation of Hedvika Řimnáčová's Ph.D. study**

Miss Hedvika ŘIMNÁČOVÁ has achieved worthwhile skills and knowledge in the biology of mammalian oocytes, embryos and, in particular, spermatozoa. Her contribution is mostly based on the description of sperm proteins undergoing to specific posttranslational modifications, leading to physiological changes of sperm, and fertilization ability followed by successful early embryonic development. Within the fundamental description of modifications of sperm proteins, the assessment of the impact of endocrine-disrupting compounds was performed, using the yet established panel of posttranslational modifications. Therefore, the candidate's Ph.D. study has brought both the novel insight onto posttranslational modifications *via* basic description and the utilization of them as a tool for the assessment of environmental effects.

The Biomedical Center of the Faculty of Medicine in Pilsen, Charles University (Jan Nevoral), was her mother institution of her, however, Hedvika Řimnáčová solved a significant piece of her work at The University of Castilla-La Mancha (Dr. Olga García-Álvarez). Due to wide laboratory experience abroad, several participations in scientific meetings, and permanent being in touch with English-speaking students and specialists, she has improved her language skill, as the essential predisposition for the research work and collaboration in the scientific carrier.

It is worth noting that miss Hedvika Řimnáčová has adopted advanced capabilities for experiment work, *i.e.* literature search, experimental designing, data analysis and the interpretation. In particular, she shows exceptional ability to prepare a manuscript and embrace the duties of a correspondence author. Last but not at least, she manifests a sense of team spirit, too beneficial for her and her

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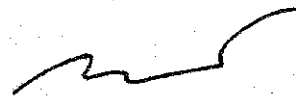
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colleagues. Accordingly, Hedvika Řimnáčová can transfer achieved skills and knowledge through the direct leading of pre-graduate students and colleagues.

Finally, all experiences and skills allowed to Hedvika Řimnáčová to assemble comprehensive thesis, composed by commented original articles. The thesis brings unique point of view, connecting and discussing mentioned articles. I do not concerned about the similarity (31%) of the thesis with other sources, mostly occurred in cases as follows: acknowledgement, material and methods, references, appendix (referred to candidate's articles).

Taken together, miss Hedvika Řimnáčová has fulfilled all requirements for Ph.D. defense in regular time and within the range exceeding the standard.



Jan NEVORAL, Ph.D.  
supervisor



Olga García-Álvarez, Ph.D.  
co-supervisor