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Object: Report on the PhD thesis manuscript of Miss Stanislava Eisová

To whom it may concern,

The thesis manuscript which I have read and studied in its entirety describes the research work that the candidate, Stanislava Eisová, has developed and completed in conjunction with and supervised by Dr. Petr Velemínský, and Dr. Emiliano Bruner who served as consultant. The manuscript describes in appropriate detail, and with clarity novel work conducted on craniovascular anatomy and traits observable on dry skulls primarily in the field of biological anthropology and paleoanthropology.

The thesis manuscript contains approximately 100 pages of novel text since the candidate decided to not directly include her articles in the body of the thesis manuscript but rather as appendices. The candidate published the impressive number of 6 articles directly connected to her PhD thesis, 5 as first author and 1 as second author.

The introduction provides the necessary anatomical basis of the different craniovascular elements (i.e. middle meningeal vessels, dural venous sinuses, emissary veins and associated foramina, diploic veins and channels) in a clear and well-illustrated way. The introduction also presents the state of the art of the knowledge on the variation of the craniovascular traits and their traces on the skull, either with normal or abnormal morphologies. Indeed, the candidate introduces one key aspect of her work that is the study of craniovascular traits in individuals with (1) premature fusion of cranial suture(s) (i.e. craniosynostosis, CS) and (2) artificially deformed skulls (ACM) in relation with specific cultural practices. Then the objectives of the PhD thesis are clearly presented. The Material and Methods sections describe with appropriate level of details the different samples used and the methods employed to analyze the produced data. The results and discussion synthesize the different results and elements published in the 6 articles related to the PhD thesis. The candidate produced a useful atlas in the end of her thesis that will be of great help for any researcher interested in craniovascular traits and their

traces visible on the skull.

The articles have been published between 2018 and 2022 in the best specialized journal related to the field of anatomy which testifies of the quality of the scientific work achieved by the candidates. Across her entire work, the candidate presented results with a very high level of details and a clear description of the different traits studied and their variation according to different variable (e.g. sex, age, cranial morphology, population, cranial dysmorphologies either pathological or artificial/cultural).

The candidate has conducted novel research and produced concrete outcomes reported in this thesis that comprises a distinctive contribution to the fields of biological anthropology and paleoanthropology in terms of quantification of craniovascular traits variation and mechanistic hypotheses explaining this variation. In good scientific practice, the candidate has been careful to note any limitation of her work that could affect some aspects of the results. I also appreciate those efforts, and I find the results reported in the thesis to be compelling and fully worthy of dissemination.

In sum, I fully recommend this dissertation thesis for defense.

Yann Heuzé, PhD

