

Reviewer Report

Title: 1399 H&E-stained sentinel lymph node sections of breast cancer patients: the CAMELYON dataset

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Reviewer name: Chris Armit

Reviewer Comments to Author:

I am grateful to the authors for addressing my questions. In particular, the authors are to be commended for changing the Creative Commons License agreement for the CAMELYON dataset to CC0. In addition, I am grateful to the authors for explaining that annotation was applied to the histopathology H&E sections, and not the adjacent immunohistochemically-labelled sections. This enables a more clear understanding of the annotation procedure that was used in the CAMELYON studies. As the immunohistochemically-labelled sections were used as a guide to identify corresponding areas, I do see great value in the author's provision of the requested antibody details. I suggest that these should be included in the GigaDB page that accompanies the GigaScience manuscript. Furthermore, I am additionally grateful to the authors for explaining why they did not obtain consensus annotations from multiple pathologists. The authors report that a consensus approach would have been prohibitively costly for a study of this magnitude. In this respect, the machine-learning algorithm-based method outlined here represents a powerful method by which the biomedical community may receive a cost-effective alternative to consensus from a panel of pathologists. The image analysis of CAMELYON16 and CAMELYON17 datasets are an outstanding example of how machine-learning algorithms can be applied to lymph node section data. I anticipate that the alternative pathology workflow outlined in this study will prove invaluable for future prospective histopathology studies. Finally, I thank the authors for providing a higher resolution image for Figure 4. The new image highlights a zoomed in view of the overlay that it is much easier to interpret.

Level of Interest

Please indicate how interesting you found the manuscript: An article of importance in its field

Quality of Written English

Please indicate the quality of language in the manuscript: Acceptable

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