

Reviewer Report

Title: X-ray microtomography-based atlas of mouse cranial development

Version: Revision 1 **Date:** 1/13/2021

Reviewer name: Chris Armit

Reviewer Comments to Author:

I thank the authors for Theiler staging the mouse embryos presented in this Data Note, and for adding these details to Table 1 in the manuscript. From a reuse perspective this is a very helpful addition. In addition, I thank the authors for providing more detailed instruction on how to use the mask image data. I can confirm that, using this additional instruction, I can now visualise the mask data in Fiji/ImageJ.

Furthermore, the authors are to be commended for providing surface-rendered images (STL format) of all mouse embryo models presented in this Data Note. The surface-rendered 3D reconstructions complement the section image data and allow researchers to observe, for example, tissue shrinkage and structural deformation in the specimens as additionally noted by Reviewer 2. The surface-rendered 3D reconstructions highlight that tissue shrinkage is more prevalent in the younger (E12.5, E13.5, E14.5) models, but I consider the observed level of shrinkage completely acceptable.

A minor point is that there are a small number of zero byte section images in the data submitted to the GigaScience Database (GigaDB). For example, the following files have zero bytes:

E155/Images/E155_0494.tif

E155/Images/E155_0503.tif

The missing files should be submitted to GigaDB prior to publication of the manuscript.

It is my recommendation that, on provision of the missing section files, GigaScience accepts this Data Note for publication.

Level of Interest

Please indicate how interesting you found the manuscript: Choose an item.

Quality of Written English

Please indicate the quality of language in the manuscript: Choose an item.

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