

Point-by-point response to the editorial comments

We thank JoVE editor for his/her editorial comments on our manuscript. All suggested corrections were taken into account and added accordingly to the revised version of the manuscript, where the main modifications appear highlighted in clear blue to ease editor's proofreading.

Editorial comments:

Changes to be made by the Author(s):

1. Please take this opportunity to thoroughly proofread the manuscript to ensure that there are no spelling or grammar issues. The JoVE editor will not copy-edit your manuscript and any errors in the submitted revision may be present in the published version.

We thoroughly proofread the manuscript and corrected any spelling and grammar issues.

2. Please define all abbreviations during the first-time use. e.g., MAGIC markers. Please do not use abbreviations in the title of the manuscript.

We replaced the « MAGIC » acronym of our method by its full-length meaning in the title.

3. Please provide an email address in the manuscript for each author.

We added below the list of authors the email address of each author on the first page of the revised version of the manuscript.

4. JoVE cannot publish manuscripts containing commercial language. Please remove all commercial language from your manuscript and use generic terms instead. All commercial products should be sufficiently referenced in the Table of Materials and Reagents. For example: Imaris, Bitplane, Fast Green dye (Sigma), Parker Laboratories, 15-60, INJECT+MATIC holder, Sonidel, CUY650P3, Sonidel, NEPA21, Antigenfix (Diapath), Sigma, VT1000S, Leica, Vectashield (Vector labs), IMARIS 8.3 (Bitplane), piggy Bac transposon, Germinator 500 glass bead sterilizer, SignaGel electrode gel, Parker Laboratories, Sonidel, CUY650P3, Sonidel, NEPA21, etc.

We carefully removed all commercial language from our manuscript and used generic terms instead when it was relevant.

5. Please format the manuscript as: paragraph Indentation: 0 for both left and right and special: none, Line spacings: single. Please include a single line space between each step, substep and note in the protocol section. Please use Calibri 12 points.

The revised version of the manuscript is now formatted according to editor's recommendations.

6. Please ensure that all text in the protocol section is written in the imperative tense as if telling someone how to do the technique (e.g., "Do this," "Ensure that," etc.). The actions should be described in the imperative tense in complete sentences wherever possible. Avoid usage of phrases such as "could be," "should be," and "would be" throughout the Protocol. Any text that cannot be written in the imperative tense may be added as a "Note."

We ensured that all text in the protocol section is written in the imperative tense and that any text that cannot be written in the imperative tense was added as a "Note".

7. Please revise the protocol text to avoid the use of any personal pronouns in the protocol (e.g., "we", "you", "our" etc.). Our protocol text has been revised accordingly.

8. Please ensure you answer the "how" question, i.e., how is the step performed? Each step is written according to this requirement.

9. 2.3: Please include the strain of the mouse used for this experiment. Also, age of embryo

used. Both mouse strain (RjOrl:SWISS) and embryonic stage (E15.5) are included in the revised version of our manuscript.

10. 3.1.5: How is this done? Further details have been added to this section to help the experimenter to perform this step.

11. 3.2.4: How is this done? Further details have been added to this section to help the experimenter to perform this step.

12. 3: please include post-surgery treatments. No post-surgery treatments are required. 12hr-lasting analgesia is induced during the surgery. If the surgery goes well, rapidly after waking up, the operated mouse moves, eats, drinks and quickly gets busy to build up its nest. If the operated pregnant mouse does not prepare its nest after waking up from anesthesia and displays additional signs of pain and/or excessive bleeding, it is euthanized right away as its health status will not be improved by any medication and will most likely result in abortion a few hours later.

13. 4: After how many days, tissue harvesting is performed? Tissue harvesting is performed at postnatal days P4, P7 and P21 as described now in step 4.1.1.

14. There is a 10-page limit for the Protocol, but there is a 2.75-page limit for filmable content. Please highlight 2.75 pages or less of the Protocol (including headings and spacing) that identifies the essential steps of the protocol for the video, i.e., the steps that should be visualized to tell the most cohesive story of the Protocol. Following editor's and Reviewer#1's comments, we revised the protocol steps included in the filmable content in order to highlight the essential and original aspects that ensure a cohesive story of the Protocol.

15. Please obtain explicit copyright permission to reuse any figures from a previous publication. Explicit permission can be expressed in the form of a letter from the editor or a link to the editorial policy that allows re-prints. Please upload this information as a .doc or .docx file to your Editorial Manager account. The Figure must be cited appropriately in the Figure Legend, i.e. "This figure has been modified from [citation]." No figures from a previous publication are used in our manuscript.

16. As we are a methods journal, please ensure that the Discussion explicitly cover the following in detail in 3-6 paragraphs with citations:

- a) Critical steps within the protocol**
- b) Any modifications and troubleshooting of the technique**
- c) Any limitations of the technique**
- d) The significance with respect to existing methods**
- e) Any future applications of the technique**

We have checked that our Discussion explicitly covers all the previously listed subjects, and we further detailed additional critical steps within our protocol in the revised version of the manuscript.