UNIL | Université de Lausanne Lukas J. Neukomm, PhD SNSF Assistant Professor Rue du Bugnon 9 CH-1005 Lausanne

> Vineeta Bajaj, PhD JoVE Review Editor 1 Alewife Center, Suite 200 Cambridge MA 02140 USA

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## Manuscript resubmission to the Journal of Visualized Experiments (JoVE)

Dear Dr. Bajaj,

Following your invitation and a first round of peer review, we would like to re-submit our manuscript entitled "Morphological and functional evaluation of axons and their synapses during axon death in *Drosophila melanogaster*" for consideration in *JoVE*.

We greatly appreciated the positive feedback provided by the editor as well as all three reviewers. Their suggestions helped us to greatly improve the quality of our manuscript. As you will see in our rebuttal letter, we aimed to implement most of the suggestions brought up by the editor and reviewers. Here, we would like to highlight the most important changes:

- We changed the sequence of our experimental procedures from "1. Brain, 2. Wing, 3.
  Optogenetics" new to "1. Wing, 2. Brain, 3. Optogenetics", as suggested by reviewer #3.
  This also means that we exchanged "Functional" and "Morphological" in the title of our manuscript.
- Our protocol section consists now solely of action steps, as requested by the editor. The "non action steps" text has been relocated to and implemented in the discussion, which underwent substantial editing.
- The crosses performed in our experiments have been added as schematics in all result figures, as suggested by the editor and several reviewers. This should facilitate the understanding of the underlying genetics in our experiments.

Importantly, the revised manuscript still covers the three most important and state-of-the-art axon death assays in the fly, and our major novel finding, where over-expression of dnmnat ( $dnmnat^{OE}$ ) results in functionally preserved axons and synapses for at least one week. Our article should therefore be of broad interest to the readership of JoVE.

Thank you in advance for considering our submission. Please feel free to contact me directly if you require any additional information.

I look forward to hearing from you soon.

Best regards,

Lukas J. Neukomm

Faculté de biologie et de médecine | FBM

Département des neurosciences fondamentales | DNF