Shaikh, Muhammad

From: Hobbs, Karen

Sent: 14 November 2022 15:56 **To:** Shaikh, Muhammad

Subject: RE: Presentation Assessment Feedback

Dear Muhammad,

Please find Feedback on your research project. PGT results day is on Monday 28th November, where you will be sent an email containing your marks and overall classification.

Oral Presentation

A very articulate, engaging and interesting talk, a super introduction, albeit possibly a bit too long, thus necessitating the need to rush through some of the data.

Research paper and literature review – Marker 1

This is the most well-written MSc project I have marked during my time at UCL. The literature review is comprehensive, clearly written, and shows an excellent degree of critical analysis. It covers an impressively broad range of topics relating to auditory biology in Drosophila, ranging from biophysics to organismal behavior. I was particularly impressed by the student's detailed descriptions of the molecular/biophysical mechanisms underlying sound detection in the fly's auditory organ.

The research project follows on nicely from the literature review and is presented with similar excellence. The student has utilised a combination of Drosophila genetics (incorporating rigorous controls), biophysical measurements of auditory organ function, and behavioural measurements using automated activity monitoring systems, to test the clearly-stated hypothesis that the nicotinamidase Naam influences circadian control of auditory function. The auditory measurements in particular are not trivial. The student has clearly generated a wealth of data which has been analysed via rigorous statistical means, leading the student to conclude that the current data refutes the initial hypothesis underlying the project.

I have a small number of questions/comments. One is whether the 3-way ANOVAs deployed by the student has led to false-negative results – for example, the intriguing differences between control and Naam knockdown flies (an appearance of a circadian change in the Naam knockdown background) in Figure 4 are rendered non-significant by 3-way ANOVA. Is there a possibility that this test is too stringent? Secondly, it would have been nice to have n-values clearly stated in the main Figure legends, although I appreciate that they may be present in the Appendices. Thirdly, it would have been interesting to discuss whether Naan knockdown influences sleep depth, since the flies seem unresponsive to auditory stimuli particularly during periods of the day/night associated with more consolidated sleep. Fourthly, analysing day and night activity/sleep separately, rather than ratiometrically (Figure 7) would be beneficial, since there are alterations in

quite distinct activity/sleep phases (e.g initiation of the siesta sleep, consolidated night sleep) that contribute to the ratiometric differences in day/night activity between the control and experimental genotypes.

These are, however, minor quibbles. Overall, this is a superb piece of work that the student can be proud of.

Research paper and literature review – Marker 2

The literature review is an absolute pleasure to read. It is very-well written, provides a thorough and very detailed overview of audition and auditory homeostasis in Drosophila melanogaster. The student displays an outstanding knowledge of the topic, excellent analytical and creative thinking skills and the capacity to present the ideas clearly and concisely.

The research paper shows that the student has conducted many different experiments to test the initial hypothesis so that they almost provide enough material for a scientific publication. Some of the findings are difficult to explain and the student correctly points at further experiments that could be performed to solve some of the issues and obtain clearer conclusions.

Many thanks, Karen

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From: Shaikh, Muhammad < muhammad.shaikh.21@ucl.ac.uk>

Sent: 14 November 2022 14:22

To: Hobbs, Karen <k.hobbs@ucl.ac.uk>

Subject: RE: Presentation Assessment Feedback

Hi Karen,

I hope this finds you well. Sorry for the bother, I was just hoping for an update on this request as Jacqui mentioned we could now obtain presentation assessment feedback? Although I can't seem to find anything on Portico.

Best wishes, Muhammad

From: Shaikh, Muhammad **Sent:** 10 November 2022 11:38

To: Hobbs, Karen < <u>k.hobbs@ucl.ac.uk</u>> **Subject:** Presentation Assessment Feedback

Dear Karen,

I hope this finds you well. I was just wondering if it would be possible to obtain my assessment feedback for the research project presentation? My candidate number is SLZT6.

Best wishes, Muhammad