

Dear Dr. Bajaj,

We have gone over the manuscript and have made revisions based on your recommendations. The uploaded manuscript, labelled "58447\_R1\_RE\_AB.docx", includes all track changes and comments to provide for an easier way to track my changes. Below I have provided the editorial original comments and below each comment I have provided a response to address the comments in red. Please don't hesitate to contact me if you need anything else and we hope we have addressed all the comments.

Thank you,

Please don't hesitate to contact me for any additional information.

Thank you,



Afshin Beheshti, PhD

#### **Editorial comments:**

1. The editor has formatted the manuscript as per the journal's style. Please retain the same.

We thank the editor for the formatting and all the have made all the new changes in the new version of the document.

2. Please address all the specific comments marked in the manuscript.

We have addressed all the comments with either the revisions that were made in the manuscript or provided a response below each comment.

3. JoVE policy states that the video narrative is objective and not biased towards a particular product featured in the video. The goal of this policy is to focus on the science rather than to present a technique as an advertisement for a specific item. To this end, please remove the term GeneLab from your manuscript. The term may be introduced and used 2-3 times max but not a lot.

I had contacted you regarding this issue through email. In the email I had stated the following:

"GeneLab is a tool provided by NASA that will assist people to generate hypothesis related to space biology. It is not a product, but a way for people to analyze omics data related to space research. Like any other protocol the analysis for space biology related experiments using this method cannot be written with only mentioning GeneLab 2 or 3 times in the paper. Originally when Jaydev Upponi (who I have CC'd with this email) had contacted me with an invitation to

submit a paper to JoVE we had discussed what the paper should be about. I stated that we would like to have the majority of the paper be about GeneLab and how to analyze data using GeneLab and the beginning of the paper about how the rodent experiments are done in space. So basically a paper showing how omic data is generated for GeneLab to how data will be analyzed and a hypothesis can be generated using GeneLab.”

Based on the above comments I have tried to reduce the instances which we state GeneLab and I hope that this will be enough reduction of the usage of GeneLab to address this comment.

4. For the protocol section, please use one specific experiment for which the results are shown and explain how you do the experiment using the GeneLab platform.

I have placed references in the protocol section to the experiment we discuss in the results section that is related to the original publication which I was contacted about to publish in JoVE.

5. Please use imperative tense throughout the numbered step as if directing someone how to do your experiment using specific graphical user interface.

We have gone through the manuscript and revised the manuscript with imperative tense throughout the numbering steps of the protocol.

6. You may use note wherever applicable but please use notes sparingly.

I have added a few more notes sections, but overall this was used sparingly.

7. We cannot have paragraphs of text in the protocol section.

I have removed the paragraphs of text in the protocol section.

8. Once all the formatting is done, please ensure that the protocol is no more than 10 pages and highlight for the video is no more than 2.75 pages including heading and spacings. These are our hard cut limit for protocol and video respectively.

The protocol for filming is highlighted in yellow and is at 2.75 pages from my estimate.

9. Section 5 of the protocol can be converted to a supplementary file.

I have revised section 5 to be more in line with the protocol using the imperative tense. I believe that this is more in line with the protocol and would hopefully fit in the text. If you still believe that this should be as a supplementary file, please let me know and I will include it as you have recommended.

10. Please also remove all the web links and put it in the reference section. These can be referenced using in-text citations.

**Afshin Beheshti, PhD**  
**Assistant Professor**  
**Bioinformatician and Data Analyst**  
Phone: 617-308-2540



*KBR Wyle Labs, Space Biosciences Division*  
*NASA Ames Research Center*  
Moffett Field, Mountain View, CA 94035  
e-mail: afshin.beheshti@nasa.gov

I have removed all web links and put it in the reference section. These references are now cited in the text.