

# UNIVERSITY *of* MISSOURI

DEPARTMENT OF OTOLARYNGOLOGY - HEAD AND NECK SURGERY

July 27, 2014

Dear Dr. Upponi,

We appreciate the insightful comments from the editor and reviewers to improve our manuscript. All comments have been fully addressed, as described below.

## **Editorial comments:**

- Please shorten figure legends to contain only information about the figures. The additional information should be moved to the Results section.

Figure legends were shortened to include only information/descriptions pertinent to the figures. The additional extraneous information was moved to the Results section.

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

The manuscript was proofread. Spelling and grammatical errors identified were corrected.

- If your figures and tables are original and not published previously, please ignore this comment. For figures and tables that have been published before, please include phrases such as "Re-print with permission from (reference#)" or "Modified from.." etc. And please send a copy of the re-print permission for JoVE's record keeping purposes.

All figures and tables are original to this publication submission, therefore, this comment was disregarded.

## **Reviewers' comments:**

### **Reviewer #1:**

1. Write out IACUC (perhaps include the protocol number) and have a statement that the study was in accordance with NIH Guidelines.

IACUC was written out, the protocol number was included, and a statement was made stating the study's accordance with NIH Guidelines.



2. Use the term 'water regulation' instead of restriction.

'Restriction' was changed to 'regulation' throughout the manuscript.

**Reviewer #2:**

1. Second paragraph: When referring to the VFSS it would strengthen your introduction and use of this technique in animal models to highlight that this is the current "gold standard" for the evaluation of swallowing function.

A statement was made about VFSS being the gold standard for evaluating swallow function.

2. Line 146, "directly translate to clinical trials" I would remove the word DIRECTLY and replace it with "to better" translate.

Change was made from 'directly' to 'better.'

3. Would be useful if actual VFSS video files could be uploaded comparing the Low Resolution to High Resolution examples and showing measures and anatomical landmarks in freeze frame.

We plan to include two VFSS video files that we have previously recorded with the manuscript, with assistance from the JoVE video editors.

**Discussion:**

1. There are many other studies of swallowing in the rat PD literature that should be cited (Ciucci, Plowman).

We included citations from Drs. Ciucci and Plowman.

2. Would have liked to have an explanation of the measures that the VFSS provides and why the new measures that can be taken are useful to specific aspects of diseases or development and how they translate to human comparisons. For instance, are the new measures comparable to what is seen in the clinic? Essentially, just expand on the utility of the measures rather than just saying that they are available.

We included new paragraphs in the discussion about the translational potential of the VFSS protocol.

**Reviewer #3:**

1: Lines 63, 68, and 116: change "swallow" to videofluoroscopic "swallowing" study

Changes were made accordingly.

**In addition, the authors elected to make the following changes to improve the clarity of the manuscript:**

1. The term **energy** was substituted for **resolution** throughout the manuscript when describing the types of fluoroscopes. Rationale for this change is that both low and high energy systems can produce high resolution imaging, depending upon the size of the animal/object being tested.
2. Additional methods were included that were inadvertently omitted from previous drafts of the manuscript. Examples include the remote-controlled scissor lift table and the syringe delivery system for liquids. New figures have been added for each and the parts list has been updated.
3. Additional paragraphs were added to the Discussion section to provide details about our new small animal fluoroscope (i.e., The LabScope) and the steps we took to markedly improve radiation safety when using this new system.
4. We also added a paragraph in the Discussion describing the typical swallow behaviors of mice, which have not yet been described in the literature.
5. Additional limitations of the study and future directions were added to the Discussion section.
6. We included one author who was mistakenly omitted from the byline.
7. We included additional acknowledgments.

All of the above-mentioned changes in the manuscript are highlighted yellow. As a final revision, the numbering of protocol steps, figures, and tables has been updated throughout the manuscript. Also, the protocol steps to be filmed have been changed to red text.

Overall, we believe that this manuscript has been markedly improved by the revision process, and we are looking forward to progressing to the next step in the publication process.

Respectfully,

A handwritten signature in black ink, appearing to read 'Teresa Lever', with a stylized, cursive script.

**Teresa Lever, Ph.D.**

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