Reviewer’s report

Title: Increased expression of lung TRPV1/TRPA1 in a cough model of bleomycin-induced pulmonary fibrosis in guinea pigs

Version: 1 Date: 20 Sep 2018

Reviewer: Scott Philips

Reviewer's report:

The manuscript by Guo et al. titled "Increased expression of lung TRPV1/TRPA1 in a cough model of bleomycin-induced pulmonary fibrosis in guinea pigs" describes a bleomycin-induced model for cough-associated with pulmonary fibrosis in guinea pig.

Concerns:

1.) there are many grammatical problems throughout the manuscript, including a lot of subject-verb disagreement (a few examples I list below, Suggested corrections in parentheses). Please have a native English speaker review the manuscript and correct:

"Chronic cough is a difficult-to-treat comorbidity of idiopathic pulmonary fibrosis"
"Besides (In addition), we evaluated (in) vivo micro-computed tomography (CT) as (a) non-invasive tool to assess progression of pulmonary fibrosis in guinea pigs."
"Histological staining with H&E and Masson trichrome showed that there were obvious infiltrating inflammatory cells, fibrosis, thickening of alveolar walls, and distortion of the architecture of the pulmonary parenchyma, obviously around bronchovascular bundle areas in BLM-treated group on days 14 and (Fig. 3A and B), which corresponded to that observed from the micro-CT of lung in vivo"...way too much here, separate to 2 sentences
"Because pulmonary fibrosis is characterized by collagen accumulation, hydroxyproline is an index of collagen contents."... Doesn't make sense
"Transient receptor potential (TRP) family are nocuous receptors expressed on airway C fibres, and can be directly activated by (remove by) mechanical(ly), thermal(ly) and chemical(ly)

2.) Did the experimenters attempt to co-localize TRPV1 and TRPA1 by IFC to see if more TRPA1 co-localizes in TRPV1 neurons than the reported 30%?
3.) Is there and increase in TRPV1/TRPA1 in neuronal cells?
4.) Since BDNF was previously reported to be found in fibrotic foci, the experimenters should look at immunostaining of BDNF or IL-8 to determine if their expression levels are also increased?

Minor questions:

In Figure 2, are all the layer # pictures shown from the same animal at the different time points or are these all different animals? It would be interesting to show the same layers from the same animal from
Day 7 to Day 28 to show progression of fibrosis.

Reference 2 is missing page # information

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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