Reviewer's report

Title: Fucoidan attenuates radioiodine-induced salivary gland dysfunction in mice

Version: 0 Date: 07 Jan 2019

Reviewer: Fernanda G. Salum

Reviewer's report:

This is a well-designed and well-written study investigating the effect of fucoidan on salivary glands, which have been exposed to radioiodine. A have a few points to comment:

- In the section methods, page 6, line 15 - "Animals were divided into the following three groups (n = 4 per group)…” Replace 4 per group for 12 per group. Thirty-six animals were divided in three groups of 12 animals. Each group was subdivided in three subgroups of 4 animals.

- Could thyroxine have influenced the results?

- Animals were euthanized at 2, 4 and 12 weeks post-RI. However on the page 7., section "Single photon emission computed tomography (SPECT) and SPECT image analysis" it is written o "At 120 days post-RI, technetium pertechnetate (55.5 MBq, [99mTc] TcO4 - 135 ; New Korea 136 Industrial) was administered i.p. to anesthetized mice and whole-body SPECT imaging was started immediately after the [99mTc] TcO4 - 137 injection…”

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:

Acceptable

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