Reviewer’s report

Title: Anti-viral activity of culinary and medicinal mushroom extracts against dengue virus serotype 2 : an in-vitro study

Version: 3 Date: 13 May 2019

Reviewer: Ying-Ray Lee

Reviewer's report:

The revised manuscript has answer some of the comments. However, some of the question are still needing to address.

Comments:
1. Author claim that "Anti-Inflammatory effect of mushrooms in dengue-infected human monocytes" had been submitted for publication in Journal of tropical biomedicine in their response letter. In this study, mushroom extracts block the attachment and entry of DENV2 in Vero cells, and may through glucan and protein complex competition. Moreover, human monocyte has been well known to be the major infected cells in human. Therefore, authors have to confirm that mushroom extracts can reduce DENV-2 infection in human monocytes.

2. As the statement in the result "No significant correlation was found between the concentration of glucan or protein and anti-dengue activity, because mushroom specimens, even with low glucan or protein content, also exhibited prominent anti-dengue activity.ROUTE", authors also suggested that "The anti-viral components might be glucan and protein complexes that are abundantly present in the extracts." in the abstract. It is recommended to revise this statement or authors have to explain why.

As the anti-tumor studies of a protein bound glycan isolated from mushroom of Polystictus Versicolor, PSK or Krestin (authors responses in the letter), these suggested that the glycoproteins on the cells may express in many types of cells and may play some important roles on the cell survival, and cellular physiology. Therefore, whether mushroom extracts are safe in the human and can be used as an effected therapeutic agent needs more studies.

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.

No

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 recommend additional statistical review

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

Needs some language corrections before being published

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