Reviewer’s report

Title: A New Method to Induce Nonalcoholic Steatohepatitis (NASH) in Mice

Version: 1 Date: 21 Jan 2019

Reviewer: Reviewer 2

Reviewer's report:

PEER REVIEWER ASSESSMENTS:

OBJECTIVE - Full research articles: is there a clear objective that addresses a testable research question(s) (brief or other article types: is there a clear objective)?

No - there are minor issues

DESIGN - Is the current approach (including controls and analysis protocols) appropriate for the objective?

No - there are minor issues

EXECUTION - Are the experiments and analyses performed with technical rigor to allow confidence in the results?

Yes - experiments and analyses were performed appropriately

Statistics - Is the use of statistics in the manuscript appropriate?

Yes - appropriate statistical analyses have been used in the study

INTERPRETATION - Is the current interpretation/discussion of the results reasonable and not overstated?

No - there are major issues

OVERALL MANUSCRIPT POTENTIAL - Is the current version of this work technically sound? If not, can revisions be made to make the work technically sound?
PEER REVIEWER COMMENTS:

GENERAL COMMENTS: The study described by the authors is well designed but based on a non-novel approach and contains limited and non-critical measurements. The authors mentioned "an ideal disease model" for NASH, but the model used in the study is not novel and less than ideal. Moreover, additional analysis (biomolecular or immunohistological measurements) on all the groups are strongly encouraged. In the current manuscript, extremely long description for results with limited or null statistical importance have been provided; long description of the methodological approaches with large repetitions (last 5 lines at page 5 and the next 9 lines in page 6 are a repetition of page 5); figures containing histograms with dot plots may be more informative to highlight data distribution; additional analysis on more hepatic parameters, including phase I (CYP450 enzymes) and phase II metabolism and urea cycle are highly important for the study.

REQUESTED REVISIONS:

Firstly, it is not clear what the authors aimed to prove or investigate. The generation of an "ideal disease model" for NASH disease appears to be one of the aims (as stated at page 3), but the animals exposed to different diets are not new and their relevance is questionable. The parameters measured and analyzed are not sufficient and poorly informative. additional analyses are encouraged with more specific and punctual measurements based on different diets/smoking effects. Finally, the authors should focus their Conclusion on data obtained during the study, limiting comments and discussion on previous work. Negative results, as "fructose consumption was not able to change significantly the studied biochemical parameters" (as stated at page 13), may be of importance, but only if the analyzed parameters are of relevance and specifically targeted.

ADDITIONAL REQUESTS/SUGGESTIONS:

English language editing is recommended.

Note: This reviewer report can be downloaded - see attached pdf file.

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

No
Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

No

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 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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