Reviewer’s report

Title: The FATZO mouse, a next generation model of type 2 diabetes, develops NAFLD and NASH when fed a western diet supplemented with fructose

Version: 1 Date: 01 Dec 2018

Reviewer: Gianluca Svegliati-Baroni

Reviewer’s report:

In this study, Sun et al. fed FATZO mice with an high-fat diet (HFD) enriched in fructose in drinking water. In the first part of the study they evaluated mostly the histological picture of liver injury, while in the second part they evaluated the effect of OCA on the degree of liver injury.

This is a well done study, however the Authors should better define at the experimental level the differences between their model and what has been already published in the literature.

Finally, both Introduction and Methods are too long. The Discussion should more focus on the real novelties of this paper and it is too much speculative.

A detailed explanation of the protective effect of OCA, different from what is already known in the literature, should be provided.

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 am able to assess the statistics
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Acceptable

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