Reviewer's report

Title: Anti-proliferative effect of extremely low frequency electromagnetic field on preneoplastic lesions formation in the rat liver

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Reviewer: Luciana Dini

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The manuscript of Jimenez-Garcia and co-Authors deals with an important topic of the cancer research, that is the possibility of the use of the ELF-EMF as anti-cancer therapy or co-therapy. The proposed research is not completely innovative, since other works have been done. However, it is important to remember the complexity of this field. Minimal variations in intensity and duration of exposure can result in different outcomes.

The aims and the methods of the research are well described and are appropriate to the purposes. The manuscript is fluently and clearly written.

The manuscript needs some revisions, that are listed below:

- Major Compulsory Revisions

1- The last part of the discussion section is too speculative and only one reference, but no data, is given in support of the hypothesis.

2- Magnification of figs. 3 and 4 must be the final magnification and not reported with the magnification of the objective.

- Discretionary Revisions

1- It should be also taken into account the effect of ELF-EMF on the normal liver tissue, since the cells response to exposure could also depend on their physiological conditions.

2- Why the Authors have not investigated on the cytoskeleton, whose modifications exerted by exposure via the action on the membrane ions, could block the formation of the mitotic spindle?

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests