Reviewer's report

Title: Dynamic distribution and expression in vivo of human interferon gamma gene delivered by adenoviral vector

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Reviewer: Guillermo Mazzolini

Reviewer's report:

This manuscript deals with the biodistribution of a recombinant adenovirus encoding hIFN-gamma gene in an animal model of human nasopharyngeal carcinoma. Wu et al. have analyzed biodistribution and gene transfer efficiency of the vector in a CNE-2 tumor model. They used qPCR and ELISA to assess viral DNA and protein expression, respectively. Although it has been previously assessed the effects of this vector in different types of tumors, biodistribution information of the vector might be important for future clinical application. However, there are crucial problems that should be solved before consideration of publication in the BMC Cancer journal. In addition, large parts of the manuscript need to be re-written.

Please find below my specific comments.

Major Compulsory Revisions

- The author should demonstrate the effects of intratumoral injection of Ad-IFN-gamma in the selected tumor model; e.g. antitumoral activity.
- It would be of interest to show the amount and distribution of the vector in tumors and livers of mice (e.g. X-gal staining).
- There is no reference about the construction of the vector used in the present manuscript.
- Within the Abstract, text included under “Results” and “Conclusions” subtitles needs to be re-written. One of the most relevant conclusions of the manuscript is not hold by properly explanation in the result section. The latter seems to be more proper to “Results” subtitle.
- The limit of detection/sensitivity of the hIFN-gamma kit must be shown in M&M section.
- Animal sample sizes are missing. Only 3 animals per group are not enough and the number of repetitions is not clear.
- In addition, large parts of the manuscript need to be re-written.
- There are a number of typographic errors that should be corrected.

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being
published

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