Reviewer's report

Title: Engineered Measles Virus Edmonston Strain Used as a Novel Oncoytic Viral System Against Human Hepatoblastoma

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Reviewer: Kenzaburo Tani

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Zhang S-C et al. reported the in vitro and in vivo anti-hepatoblastoma effects of their MV-CEA virus using hepatoblastoma(HB) cell lines of Hep2G and HUM6 cells and MV-CEA. They concluded that the engineered measles virus Edmonston strain MV-CEA has potent therapeutic efficacy against HB lines and xenografts. Trackable measles virus derivatives merit further exploration in HB treatment, too. Although it seems that this is the first report to suggest the possible clinical benefits of MV-CEA for HB, the followings are my comments.

Major comments)

1) The oncolytic superiority of their MV-CEA to other reported MV-CEA strain should be compared and discussed because there have been published many articles reporting the possible clinical effectiveness of MV-CEA for various tumors including breast cancers, ovarian cancers, glioblastoma and prostate cancers. Authors should refer these previous results for comparison.

2) In vitro experiments using neutralizing antibody should be added and discussed more about this important issue for clinical translation. Because many researchers have been struggling with this important issue for effective clinical translation.

3) We would like to know whether cell lines of Hep2G and HUM6 are appropriate model for high risk HB. Are they drug resistant?

Minor comments)

1) The numbering of figures is wrong.

2) In page 5, line 14, 2x10^5 should be 2x10^5

3) In page 6, line 23, the origin of mice should be clarified.

4) In page 9, line 7, what does more mean?

5) In page 9, line 16 and page 10,line1, Human HB Cells should be Human HB Cell Line.

6) In page 10, line 8, what is control group?

7) In page 10, line 16, please clarify the total dose of virus.

8) In page 11, lines 1-2, please clarity the usage of UV-inactivated and untreated.

Level of interest: An article of limited interest
Quality of written English: Not suitable for publication unless extensively edited

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