Reviewer’s report

Title: PARP inhibition and the radiosensitizing effects of the PARP inhibitor ABT-888 in in vitro hepatocellular carcinoma models

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Reviewer: Natsuko Okita

Reviewer’s report:

In this manuscript, authors examined the expression of PARP and PARG genes in a panel of liver cancer cell lines and assessed the impact on cell survival of PARP inhibitor alone or in combination with radiotherapy. They showed the correlations between PARP-1 and PARP-2 mRNA levels, or that of PARP-1 mRNA and protein levels. Furthermore, authors demonstrated PARP inhibitor enhances radiation sensitivity in the two liver cancer cell lines. The findings of this paper are interesting and the manuscript is well written.

Minor essential revisions:

The authors showed a significant correlation between PARP-1 and PARP-2 mRNA expression, or that of PARP-1 protein and mRNA expression. They should describe the information of correlation coefficient.

Level of interest: An article of importance in its field

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.