Reviewer’s report

**Title:** Development of a gene therapy strategy to target hepatocellular carcinoma based inhibition of protein phosphatase 2A using the alpha-fetoprotein promoter enhancer and pgk promoter: an in vitro and in vivo study.

**Version:** 1  **Date:** 12 May 2012

**Reviewer:** George Chen

**Reviewer’s report:**

This manuscript demonstrated that AFP enhancer/pgk promoter-mediated PP2A can specifically kill AFP-positive HCC HepG2 cells in vitro and in a xenograft model. My comments are as follows.

1. The design and experiments of this study is straightforward. However, it lacks the novelty. The use of AFP enhancer/pgk promoter has been previously demonstrated and the cytotoxic property of PP2A is also well known.

2. Authors only used a single AFP-positive HCC cell line, HepG2 for this study. The study should be performed in more than one AFP-positive HCC cells to confirm the result.

3. It is wrong to use “infection” in Fig 4C Legend since the Ad was directly injected into the tumor.

4. Authors did not explain what is PP2Aca.

5. There are a couple of errors throughout the manuscript. For example, Page 14, 1st Para, ‘promoter lead to specific …’ should be promoter led to specific..”. Page 15, 2nd Para, Fig. 3C should be Fig. 4C.

**Level of interest:** An article of limited interest

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interest