Reviewer's report

Title: Induction of protective and therapeutic anti-pancreatic cancer immunity using a reconstructed MUC1 DNA vaccine

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Reviewer: Zhiguo Liu

Reviewer's report:

Rong et al described an active immunotherapy targeting at MUC1 in mouse model. By incorporating MUC1 in a DNA vaccine, they were able to successfully raise specific CTL activity and induce significant pancreatic cancer inhibition. Although the story is interesting, it has been previously published in multiple other tumor types including colorectal cancer. There is no significant scientific advancement to publish this study. Furthermore, the manuscript suffered from numerous flaws both on experimental design and results interpretation; therefore a rejection would be suggested.

Major points:

1. Obviously the authors have not been able to check the manuscript carefully after generating pdf files. Several important items of the manuscript including Reference list and Figure 6 have been missed. And the whole manuscript has numerous spelling and grammar problems.

2. It would be interesting to know why authors need to produce a MUC1 over-expressed pancreatic cancer cell line, rather than choosing a proper cell line, it there any major difference between mouse and human MUC1, which made them have to establish an artificial over-expression cell line? The authors have not explained. By using such an artificially over-expressed cell line, there are several possible issues arisen, one is the expressed MUC1 would mainly located at cytoplasm since only a regular pcDNA3 vector was used, how could the CTL recognized the intra-cellular MUC1? The second is an aberrantly expressed foreign molecules would tend to induce dramatic immune response from the host itself, no wonder in figure 3, the tumor volume formed by parental cell line would be much larger compared with PBS and pcDNA3.1 controls. Therefore any comparison with such bias will be very difficult and misleading.

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

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.