Reviewer’s report

Title: Molecular Targeted Photoimmunotherapy for HER2-positive Human Gastric Cancer in Combination with Chemotherapy Results in Improved Treatment Outcomes Through Different Cytotoxic Mechanisms

Version: 0 Date: 30 Dec 2015

Reviewer: Joseph Chao

Reviewer’s report:

The authors are to be commended for their work building upon earlier studies showing promising results with PIT. The following are major comments I have though I do not believe should preclude publication of this manuscript:

1) Though 5-FU is a suitable combination partner with PIT for preclinical studies, future efforts would be of interest to observe if synergy is also obtained when PIT is combined with cisplatin chemotherapy. Currently in the clinic patients are treated with the triplet of a fluoropyrimidine, cisplatin, and trastuzumab if they have HER2-overexpressing disease. If the authors I have any results with cisplatin therapy it would be of interest.

2) NCI-N87 is well-known to be a HER2-overexpressing cell line. Have the authors pursued the same experiments with other HER2-overexpressing gastric cancer cell lines to see if similar results are obtained to help ensure this is not a phenomenon restricted to a single cell line. Further along those lines is have any experiments been pursued testing their therapy in HER2-overexpressing patient-derived xenografts mouse models which may be an even better representation of intratumoral heterogeneity.

I have only the following minor comment:

1) For the X- and Y-axes of Figures 1A and 1B, I would recommend including units/numbers to enable the reader to have a better interpretation of scale for these 2 figures.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.
Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?
2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?
3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?
4. Have you received reimbursements, fees, funding, or salary from an organisation that holds or has applied for patents relating to the content of the manuscript?
5. Do you have any other financial competing interests?
6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments
which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal