Reviewer’s report

Title: Potential of HSP90 inhibitor 17-N-allylamino-17-demethoxygeldanamycin for treatment of oesophageal cancer in NQO1 positive cells

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Reviewer: XUPING WU

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The author is trying to prove that 17AAG can be a potential therapeutic agent for treating oesophageal cancer expression NQO1. Authors’ study showed that NQO1 expressing oesophageal cancer cells showed high sensitivity to 17AAG. The author speculated that OSCC patients expressing NQO1 could potentially benefit from administration low does of 17 AAG to avoid side effects like hepatotoxicity. However the study of treatment of oesophageal cancer using 17AAG is not novel. And also the NQO1 is necessary for the potency of 17AAG in treating cancer cells has been reported.

Major compulsory revisions
1. The “data not shown “should be included for review.
2. NQO1 expression in cell lines doesn’t correlate to the expression in oesophageal cancer patients. How about the NQO1 expression in oesophageal cancer patients’ tissues?
3. The author mentioned that SNP analysis could allow selection of NQO1 negative patients. Did author investigate C609T SNP or NQO1 mRNA in oesophageal cancer patients’ tissues?
5. The discussion in not deep and sharp. Since the author emphasize that low dose of 17AAG can be used in treating oesophageal cancer, I miss some discussion regarding different 17AAG concentrations and their toxicity used in clinical trials
6. The quality of data on Fig 1C is poor. The western blot band can hardly been seen at concentration 0.1 and 1 µM.

Discretionary revisions

7. The NQO1 positive patients might respond to much lower concentration of 17AAG and suffer from fewer side effects. However the speculation is based on study on oesophageal cancer cell lines. I would suggest authors to further using animal model to prove.

Level of interest: An article of limited interest

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.