Reviewer's report

Title: Chk1 Inhibition as a Novel Therapeutic Strategy for Treating Triple-Negative Breast and Ovarian Cancers

Version: 3 Date: 29 June 2014

Reviewer: Ratna Vadlamudi

Reviewer's report:

In this manuscript, authors tested the effect of the pharmacological inhibition of checkpoint kinase (Chk1) by the novel inhibitor V158411 on triple-negative breast cancer (TNBC) and ovarian cancer (OC). Authors provided good evidence that Chk1 inhibitors reduce the proliferation of TNBC and OC cells, and induced DNA damage as well as caspase-3/7 dependent apoptosis. Further, they provided evidence showing pChk1(S296) as a predictive biomarker of Chk1 inhibitor sensitivity in OC and TNBC. Collectively, the results of this study suggest that Chk1 inhibitors represent a viable therapeutic option for the treatment of TNBC and pChk1 (S296) as a useful biomarker. In general, most of the studies are designed well, data is interpreted appropriately, and if proven correct results will have clinical implications in the treatment of TNBC. This manuscript is recommended for publication in BMC after completing essential minor revisions.

The following minor issues need to be addressed.

1. It will be useful if authors add more information on the new drug V158411 in the introduction and discusses the differences between new drug with exiting CHK inhibitor drugs.

2. Earlier published studies showed efficacy of CHK inhibitor AZD7762 on breast cancer cells. The studies presented here using V158411 further extends these findings with new additional information. It is recommended to mention earlier published studies using breast cancer cells with other chk inhibitors briefly in the discussion.

3. Text needs proof reading and few references are incomplete. For ex. Ref #41, 37, 32, 33

4. The quality of the figure 4 is not good and conclusions drawn are not well supported by the data presented. This figure quality need to be either improved, quantitated or alternatively can be deleted.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.
Declaration of competing interests:

I declare that I have no competing interests