Reviewer’s report

Title: Estrogen receptor alpha-coupled Bmi1 regulation pathway in breast cancer and its clinical implications

Version: 2
Date: 15 January 2014
Reviewer: Saranya Chumsri

Reviewer’s report:

However, there are several deficiencies that require revision as stated below.

- In the abstract – results. “In vivo” is not the correct term since this was not performed in animal rather than in cell lines.
- Page 4, Background – “basal like breast cancer” should be used instead of triple-negative breast cancer for molecular subtypes rather than IHC subtype.
- Page 4, Background – For reference 5, please clarify that approximately half of patients “in the adjuvant setting” who initially respond well… Since all of the patients in metastatic setting will inevitably develop endocrine resistance at some point in their treatment.
- Page 5 Line 18– Please change “ki-67” to “Ki-67”
- Page 6 Line 2 – this sentence should be Era-coupled Bmi1…may be “one of the” main regulatory…
- Page 7 Staining evaluation – Clarification of how luminal A and B are determined should be described.
- Page 12 Results – Please also analyze the Bmi1 expression according to luminal A and B rather than only ER + or –
- Page 13 Line 3 – …in the view of the fact “that” Bmi1
- Figure 2A – Poor quality western blot. Please change or explain. ERa expression seems to be higher in pcD-Bmi1 compared to the control and not at the same level as described in the text.
- Figure 2B - Please clarify whether it is p-ER or ER # expression in the first row. If it is truly ER #, it appears that the baseline expression is extremely low for MCF7 which is very unusual.
- Figure 2B - Please rearrange all of the figure B in the same row instead of using B’
- All of figure 5 C, D, and E need statistical analysis
- Page 15 Line 18 – Please correct the term “in vivo” as described.
- Table 2 - Please clarify the definition of luminal A, B and HER2 enriched whether this is by IHC using Ki67? Which cutoff? Or gene expression profiling was performed in these samples?
**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being published

**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 interests