Reviewer's report

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

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Reviewer: Liang Cheng

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The expression of Bmi1 and its correlation with ER, PR, Ki67, p16INK4a, cyclin D1, and RB were investigated immunohistochemically in 92 breast cancer cases. The results revealed a regulatory relation between Bmi1 and ERα, and demonstrated ERα-coupled Bmi1 signaling pathway in breast cancer, which may correlate with molecular tumor typing and biological behavior. The study is novel and well executed.

Specific comments:
1. Material and Methods: the tumor histological typing and more detailed clinical data should be presented.
2. The clinical potential of Bmi1 should be discussed. Since Bmi1 was shown to be regulated by ERα, the authors should explain why Bmi1 pathway was an ERα-coupled signal pathway, but not a part of ERα signal pathway as a downstream factor. In this context, the authors should discuss why the Bmi1 is more significant over other ERα regulated factors.

Level of interest: An exceptional article

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

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