Reviewer’s report

Title: SRC-3 is a selective co-activator of estrogen receptor alpha - mediated transactivation of placental PLAC1 in MCF-7 breast cancer cells

Version: 1 Date: 27 October 2013

Reviewer: Michael Fant

Reviewer’s report:

Critique: The manuscript by Wagner et al provides convincing evidence that SRC-3 is a transcriptional co-activator of ER alpha mediated trans-activation of Plac1 in breast cancer. These data provide important new insights into the regulatory mechanisms involved in some breast cancers and thus could have significant prognostic and/or therapeutic implications. The approach, techniques, and data are sound. The results are convincing and clearly articulated.

Major Compulsory Revisions: None

Minor Essential Revisions:
1. Figure 1: The figure should indicate that the differences are statistically significant and the test used. This is stated in the text but not indicated in the figure.
2. In the Abstract and Background the authors state that PLAC1 is “strictly confined” to the differentiated trophoblast. This text should be revised to reflect a recent report by Kong et al (Birth Defects Research - Part A: Clinical and Molecular Teratology, 97(9):571-7. doi:10.1002/bdra.23171) demonstrating that Plac1 is also expressed in embryonic tissues where it has a significant effect on brain development. This does not impact the significance of findings in this manuscript but more accurately represents PLAC1’s important role in embryonic development as well as cancer biology.
3. The word “placental” should be removed from the title. It is an inaccurate descriptor in the context of this study of breast cancer.

Discretionary Revisions: None

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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

Declaration of competing interests:
I have no competing interests, financial, intellectual or otherwise.