Reviewer’s report

Title: Histone demethylase GASC1 - a novel prognostic and predictive marker in invasive breast cancer.

Version: 1 Date: 13 July 2012

Reviewer: Piero Tosi

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Major compulsory revisions: 1. The question posed in the title is interesting, however in the manuscript GASC1 is considered an useful parameter for classifying breast cancer and predicting its behaviour more than a prognostic indicator; 2. Nothing is written on the type of surgical procedure and adjuvant therapy in the cases of the series; 3. A score system is used for immunohistochemical evaluation, however, it is not specified when a case is defined positive or negative; 4. It is necessary that the Authors specify what is the distribution of immunoreactivity in the various cases of the series; in other words, they have to let us know the number and the distribution of positive cells in order to show the level of omogeneity among neoplastic cells and neoplastic fields, the more so because they use tissue microarray.

Minor essential revisions: a. The Authors should comment on the fact that GASC1 is not completely independent of grade; b. Numbers and follow-up time of cases should be in Material and Methods and not in Results; c. Tables are clear, but why S1 instead of 4?

Discretionary revisions: It would be of interest to evaluate whether AR is correlated to GASC1 and to Ki67, since GASC1 is not independent of grade, and grade is dependent on cell proliferation; AR data might suggest alternative therapy in HER2-/GASC1+ cancers as well as in triple negative cancers.

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 declare that I have no competing interests