Reviewer's report

Title: Polymorphism of Estrogen Receptor-Beta Gene in Iranian women with Breast Cancer

Version: 1 Date: 10 February 2010

Reviewer: Piero Tosi

Reviewer's report:

In this manuscript, by Abbasi and Azimi, the Authors investigated the presence of polymorphisms in the ER# gene in Iranian women. Their results show the presence of a single nucleotide polymorphism (SNP) in exon 7 only in breast cancer patients, which was found to be associated with the occurrence of lymph node metastases.

Although their results are interesting and seem to identify ER# as a possible predictor marker for breast lymph node metastases in Iranian women, several points need to be addressed.

Major points:

1) The Authors report the existence of known polymorphisms in the ER# gene in Caucasian women, but no information about its frequency in Iranian women is reported in the text, though reference 25 seems to refer to some data in regard. Please, provide information on the existing polymorphisms of this gene in Iranian women, and how these may be related to cancer frequency and lymph node metastases.

2) In this study, only exons 3 and 7 of the ER# gene were investigated for the presence of polymorphisms. Why the investigation was not performed on the entire gene? The Authors should address this question, and extend the analysis to the remaining exons.

3) Some information about the existence of polymorphisms in the ER# gene in populations other than the Iranian is given in the Discussion. Please, provide more information about the type of SNPs observed and their localization, reported in the cited studies.

Minor points:

Grammar and editing need to be improved.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Not suitable for publication unless extensively edited

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