Reviewer's report

**Title:** Overexpression of SERBP1 (Plasminogen activator inhibitor 1 RNA binding protein) in human breast cancer is correlated with favourable prognosis

**Version:** 1  **Date:** 15 September 2012

**Reviewer:** Hiroko Yamashita

**Reviewer's report:**

The manuscript by Nuran Bektas Serce, et al. presents an interesting study on SERBP1 expression in breast cancer in a large cohort. Nevertheless, there are several concerns about the manuscript.

**Major Compulsory Revisions**

**Major comments:**

1. The authors should present the clinicopathological characteristics of patients and breast tumors for the second validation cohort. Currently the authors only show the data for cohort 1 in Supp. Table 1. Moreover, the authors should include the age of patients in these Tables.

2. Was the cutoff for SERBP1 expression (low vs. abundant) appropriate? How did the authors set this cutoff? This reviewer recommends that the authors use the exact scores as continuous variables for protein expression.

3. Did the authors analyze PAI-1 expression in breast cancer tissue by immunohistochemistry? The authors should present the data on PAI-1 expression in the two cohorts, and analyze any correlation between the expression of SERBP1 and PAI-1. This point is critical to support their conclusions.

4. The authors state that SERBP1 is not differentially expressed between normal and cancerous breast tissue or between benign and malignant breast epithelial cell lines. What is the role of SERBP1 in normal breast epithelial cells and in breast cancer?

5. The authors used the IRS score to evaluate levels of ER and PR according to the system devised by Remmele and Stegner [22]. This method should be briefly described in the Materials and Methods section. Recently, it has been recommended that ER and PR assays be considered positive if at least 1% of the tumor nuclei in the sample are positive.

6. The authors should describe the adjuvant therapy in the Materials and Methods section. This information is necessary for the presentation of prognostic analysis.

7. Recent gene expression-based molecular classification has revealed that tumor biology differs according to breast cancer subtypes, and that ER-positive and ER-negative breast cancers might be different diseases. It may not be critical
to analyze survival for all subtypes of breast cancer regardless of ER and HER2 status. As the mechanisms of development and progression as well as treatment strategies differ between subtypes, the authors should discuss the role of SERBP1 among breast cancer subtypes.

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

**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.