Reviewer's report

Title: Identification of SERPINA1 as single marker for papillary thyroid carcinoma through microarray meta analysis and quantification of its discriminatory power in independent validation

Version: 2 Date: 16 February 2011

Reviewer: Ganesan Kumaresan

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MS: 1471501564475552, Identification of SERPINA1 as single marker for papillary thyroid carcinoma through microarray meta analysis and quantification of its discriminatory power in independent validation

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Minor Essential Revisions:

While authors have identified 20 most significant deferentially expressed genes, it may be worth calculating their specificity and sensitivity & that could be included in Table 3 as another column. While there are 20 other genes with the same accuracy of SERPINA1, it is needed. Otherwise, it is necessary to explain how SERPINA1 is better than these 20 genes. Because, in future, while someone wants to extend this work by IHC, they will have more options while there are many candidates.

Due to larger changes in discussion & results, flow of the manuscript has been changed. Authors must check the continuity among the sentences and paragraphs. Also in discussion, authors discuss more about the approach than their finding on SERPINA1. Focus in this line, specifically comparision in this line is required for discussion.

In discussion, in the paragraph stating as “SERPINA1 has been reported before as a”: The paragraph states as expression analysis would be better than immunochemistry for clinical diagnosis. This is not true and the sentence may be modified accordingly.

Legends for Figure 3 & Table 3 needs to be more informative and descriptive.

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