Reviewer's report

Title: Meta analysis of papillary thyroid carcinoma microarray data and independent validation: New insights from old data

Version: 1 Date: 20 December 2010

Reviewer: Ganesan Kumaresan

Reviewer's report:

- Major Compulsory Revisions

The authors demonstrated the power of meta analysis in identifying good classifier. They have also validated the observation with independent samples. This manuscript merits publications. However, the following points need to be considered to improve the quality of the manuscript.

1. Since the authors found i) 9 gene set and, ii) 11 gene sets as equally good classifier of PTC/NG with 99% accuracy, the results should be included as major figure adjacent to the top left figure in Figure 2. Further, RT-PCR could be moved as next figur.

2. The annotations in figure 1 must be modified to appropriate font size to increase the clarity and for the easy understanding of readers.

3. In the results, in the last paragraph, the speculations on transcription factor motif must be deleted.

4. Accordingly, With reference to Fig. 3, since the authors didn’t observe any significant results for cytoband enrichment and Transcription Factor Target site enrichment, the right top and right bottom figures in Fig.3 must be deleted. Similarly, the annotation in the Fig.3 must be modified to enhance the readability. (Fig 3 also could be deleted totally).

5. Discussion must be written again by excluding the unnecessary portions to minimize the content and to discuss exclusively on the most relevant aspects of the results.

- Minor Essential Revisions

In the abstract fifth line, authors may avoid the word “own”

In the Table 1, legends, one by email is not appropriate and needs to be changed.

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

Quality of written English: Needs some language corrections before being published
Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests: 'I declare that I have no competing interests'

Dr. G. Kumaresan