Reviewer's report

Title: DNA hypermethylation and upregulated miRNA-21 expression leads to decreased mRNA expression of MAL, PRIMA1, PTGDR and SFRP1 in left-sided colorectal adenoma and cancer

Version: 2  Date: 3 March 2015

Reviewer: Jiang Cao

Reviewer's report:

Major Compulsory Revisions

1. The title may need to be revised: it indicates decreased expression of MAL, PRIMA1, PTGDR and SFRP1 in left-sided colorectal adenoma and cancer, but in the Abstract and the Results the authors focused more on COL1A2, SFRP2 and SOCS3. And, the authors didn't provide any direct experimental evidence for that the upregulated miR-21 leads to the decreased expression of those genes in their work;

2. Figure 5, high resolution/good quality needed;

3. Figure 7, more representative images are needed to show the decreased expression of the SFRP1 protein.

4. Please describe more on the selection of SFRP1 for IHC but not other decreased proteins in their work (if they do have the IHC for other proteins, it would be better to show all).

5. Confirmation of the findings in more clinical samples are desired for a solid conclusion.

Minor Essential Revisions

Figure 4 legend, please indicate the case number of each group.

Discretionary Revisions

As HT-29 is not a suitable model to illustrate anything for the development/progression of CRC, and the results are not supporting the major findings the authors proposed, this part of work could be removed.

Level of interest: An article of limited interest

Quality of written English: Acceptable

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.