Reviewer's report

Title: Colon cancer molecular subtypes identified by expression profiling and associated to stroma, mucinous type and different clinical behavior

Version: 1 Date: 16 November 2011

Reviewer: Bing Zhang

Reviewer's report:

In this manuscript, the authors reported a molecular classification of colon adenocarcinomas with four novel tumor subtypes identified by unsupervised clustering analysis of gene expression. A 167-gene signature associated with the Low-stroma-subtype was found to be able to distinguish low risk patients from high risk patients in an external cohort. Additionally, the authors showed that eight different reported survival gene signatures segregated these tumors into the Lsow-stroma-subtype and other tumor subtypes. There are a few items that require further clarification before this manuscript can be published.

- Major Compulsory Revisions

1. A 167-gene signature was found to be able to distinguish low risk patients from high risk patients only in one cohort. Can this result be repeated in an additional cohort?

2. The authors only showed that the eight published gene signatures could segregated the tumors into the Low-stroma-subtype and other tumor subtypes. Do these gene signatures have the same expression pattern (up or down regulated in high risk or low risk patients) in this dataset and in the original papers?

3. The author indicated that 23 of 88 patients were under different treatment schemes. Do these different schemes have effect on the subtype identification and the association between subtypes and the clinical parameters?

4. The author should describe how the Low-stroma-subtype, High-stromasubtype, and Immunoglobulin-relatedsubtype and Mucinous-subtype were defined in detail before using them.

- Minor Essential Revisions

1. In the Results section of Abstract (B and C: HR=8.56(2.53-29.01); B, C and D: HR=1.87(1.07-3.25)) should be Dukes B and C; Dukes B, C and D.

2. The labels of the figures are wrong. But this might be a problem of the manuscript submission system.

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.