Reviewer's report

Title: Immunohistochemical molecular phenotypes of gastric cancer based on SOX2 and CDX2 predict patient outcome

Version: 2 Date: 29 July 2014

Reviewer: Hirokazu Shoji

Reviewer's report:

Review for
BMC cancer
'Immunohistochemical molecular phenotypes of gastric cancer based on SOX2 and CDX2 predict patient outcome'

Major Compulsory Revisions.

The manuscript by Camilo et al examined that SOX2, CDX2, MUC5AC, and MUC2 protein expression and SOX2 locus copy number status in 201 gastric cancer patients. Their findings are summarized in the following points:

1. SOX2+CDX2- profile was associated with shorter overall survival, and predicted a poorer outcome of patients with intestinal, expanding, and in those without signs of venous invasion.

2. SOX2 locus copy number gains were found in 93%. There was positive association between copy number gain and SOX2 expression.

Major comments:

1) Result, Survival analysis
Why did authors use the combined expression of SOX2/CDX2 in survival analysis? Please explain more about this point. I think the association of SOX2 and CDX2 with more and less aggressive to be weak as a reason.

2) Result, Survival analysis
If you conduct retrospective analysis to identify prognostic value of survival, you should conduct multivariate analysis. What was the results when the multivariate analysis for overall survival carried out by using the baseline factors and SOX2 profile?.

3) Discussion, sixth paragraph
Previous study reported that SOX2 has been suggested to have loss of expression, however, this report do not confirm it. Please discuss more about this point.

Minor comment
1) Introduction, fifth paragraph. “Sox2” should be corrected to “SOX2”
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: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.