Reviewer's report

Title: ALDH1A1 overexpression is associated with the progression and prognosis in gastric cancer

Version: 1 Date: 28 July 2014

Reviewer: Stuti Shroff

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Major Compulsory Revisions
1) The images in Figure 1 staining score 1, 2 and 3, and figure 3 are blurry and do not clearly demonstrate the expression of ALDH1A1 in the cytoplasmic compartment of the cell. Expression of ALDH1A1 is compared to MMP-9 with an intent to demonstrate invasive potential of individual tumor cells. Were the staining/scoring criteria used in this study, the same as was used in the MMP-9 studies by Chu et al.?

2) What is the MMP-9 expression index, how is it determined?

3) Though the role and rationale for using MMP-9 expression to ALDH1A1 expression has been discussed in the discussion section, there is no mention of it in the introduction; the role of MMP-9 should also be mentioned in the introduction.

4) In table 1, the tumors have been classified depending on tumor site as upper, middle and lower. How were these determined. Tumors located within 5 cm of the gastroesophageal junction are classified as esophageal primary tumors, these should not be included in this study. In other studies, distal tumors have a worse prognosis than proximal gastric cancers.

Minor Essential Revisions
1) There are several grammatical and spelling errors in the manuscript, these need to be corrected before resubmission.

2) In the methods section of the paper, under the subheading "follow-up" the authors mention recurrence was confirmed by tumor marker levels for a variety of tumor markers. Were all of these assessed in each patient or were different markers examined in different patients.

3) Other studies have demonstrated that lymphovascular invasion and perineural invasion are independent prognosticators of poor outcome in patients with gastric carcinoma, was expression of ALDH1A1 assessed in the context of these variables with regards to univariate and multivariate analyses. Was there any correlation between histologic grade of the tumor and ALDH1A1 expression? Is ALDH1A1 expressed more frequently in poorly differentiated/undifferentiated adenocarcinomas?
4) One of the inclusion criteria for patients' in this study was that the patients underwent "radical" surgery, how is radical surgery defined?

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

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

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