Reviewer's report

Title: Prognostic Impact of Array-based Genomic Profiles in Esophageal Squamous Cell Cancer

Version: 1 Date: 18 December 2007

Reviewer: Kohsuke Sasaki

Reviewer's report:

Major criticisms
This article contains interesting subjects concerning genomic aberrations of esophageal squamous cell carcinoma, but there is a methodological issue to be confirmed before publishing the manuscript in the BMC Journal publication.

In this study, sample DNA was contaminated by normal cell DNA to a varying degree, because authors used cancer tissues that consisted of $50\%$ cancer cells. The DNA copy number was considered abnormal, when it deviated from threshold level of absolute log2 >0.2 in this experiment. It is well known that normal cell contamination in cancer tissue reduces the sensitivity of CGH, and it is pointed out that mixture of equal parts of cancer cells and normal cells markedly decreases the detection rate of copy number aberrations, especially copy number loss. Thus, tissue microdissection technology is usually employed to prevent sensitivity of CGH from being reduced. In addition, the fluctuation between data points in CGH profiles shown in Fig.1 seems very large, as compared to those by others. Accordingly, authors should demonstrate the validity of the method. This insures research trustworthiness.

Minor criticisms
Page 3, 1st paragaph: Authors should attach references on the endo of sentence that ESCC develops through a mulstep process from dysplasia, through carcinoma in situ to invasive carcinoma, and the sequences.

Page 8, 1st paragraph: Chromosomal regions with the most common gains were different between stage I tumors and stage II-IV tumors.

Page 10, 2nd paragraph; [35-39].

Page 11, 2nd paragraph; study is the first to apply high-resolution.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

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

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.