Reviewer's report

Title: Gastric cancers of Western European and African patients show different patterns of genomic instability

Version: 1 Date: 17 November 2010

Reviewer: hanna vauhkonen

Reviewer's report:

The authors describe genomic instability (MSI and copy number changes) in Western European and African gastric cancer patients and compare the frequencies of changes in the populations. The authors found differences in the genetic stability patterns between the populations, indicating possible different mechanisms in gastric carcinogenesis.

The manuscript is well-written and reveals novel data which may be of clinical relevance when designing therapy. However, I have a couple of questions:

1. You did not test the patients for H. pylori. Still, you discuss its importance in IGCA carcinogenesis. I consider this as the major weakness.

2. The Western European population showed significantly more DGCA. Why? Please discuss this a little further.

3. Please indicate the sample identity in Figure 1 (by e.g. using the numbering of Table 2). It is very hard to deduce the clusterings of informativity of the heatmap without sample identity.

4. Did you categorize the samples according to copy number changes? Did you find any genetically stable (MSS, no copy number changes) samples? It would be informative to include the copy number status of each sample in Table 2.

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.