Reviewer's report

Title: Frequencies and prognostic impact of six amplifications in breast cancer

Version: 1 Date: 6 September 2006

Reviewer: Peter Schraml

Reviewer's report:

General
This is a very comprehensive breast cancer study. Unfortunately, many of the data presented in this manuscript are known and have already been published in the literature.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
The most critical point is why and how the authors defined two amplification groups. The high correlation between the amplification frequencies of 8p11-12T and 8p11-12*, as well as those of 20q13Z, 20q13T and 20q13Co (supplementary table 2) argues against this grouping. The rationale for using this criteria remains unclear and makes the manuscript difficult to read.
This study would gain more importance if the amplification profiles and frequencies of each of the genes residing on 8p11-12 and 20q13.1-3 are shown and discussed in more detail. In addition, the findings of NOL1 amplifications in breast cancer are novel and should be more emphasized throughout the manuscript.
Of 547 breast cancers only 64 (groupI) and 128 (groupII) were analyzable for all genes. This argues for severe technical problems (TMA and/or FISH) and needs to be explained.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
The paper is sometimes sloppy written (The potential clinical interest of amplified regions...may be great) and the title of the manuscript should be more handy (what is meant with 6 amplifications?).
Some of the data have not been discussed properly and should be rechecked. For example, 8p12 was not investigated by Al-Kuraya et al.
Survival data are missing in the M&M section.
Some survival curves appear twice (Figures 3C, 3H or 3D, 3I)
The authors should explain the term “intact” in suppl. table 2.
Figures 1 and 2 are difficult to interprete and should be made more understandable.

Discretionary Revisions (which the author can choose to ignore)

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: Needs some language corrections before being published

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests