Reviewer’s report

Title: Histological evaluation of AMPK signalling in primary breast cancer

Version: 2 Date: 3 April 2009

Reviewer: Carsten Denkert

Reviewer’s report:

Generally this is a well written manuscript on an interesting topic. In particular, the approach using two separate cohorts makes the data more reliable. However, the data is not presented well in the tables.

Major compulsory revisions:

Table 1: It would be important to know what are the statistical differences between both cohorts, the authors should perform statistical tests.

Table 2: This table should include all relevant clinical parameters, including HR status, Her2 status. The nodal status is not significant in cohort 2, however, this result is not mentioned in the text, where only the results from table 3 are included. This issue should be discussed.

Table 3: This table is not adequate, as only the p-Values are reported. To get an overview on the results, we need numbers of cases in the various groups, as well. The authors should extend this table to show all relevant data. Furthermore, they should be box plots for selected markers.

Table 3: Disease free survival should not be tested by Fisher test, a Kaplan-Meier approach should be used.

The authors should add a new table with the univariate survival data for all relevant clinical and pathological variables including the biomarkers.

Figure 1: The authors should include a higher magnification. The Her2 staining looks like a 2+ staining on the image, the image should be replaced and on slide controls for Her2 should be included as inserts.

The authors should formally discuss the limitations of their study.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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

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