Reviewer's report

Title: PAM50 Breast Cancer Subtyping by RT-qPCR and Concordance with Standard Clinical Molecular Markers

Version: 2 Date: 25 June 2012

Reviewer: Thomas Hughes

Reviewer's report:

The authors have made reasonable efforts to address my points. I have two remaining concerns, which both relate to my previous points.

1) With reference to my original major point 1. The authors have attempted to address my concern of the confounding factor of endocrine therapy. However, the result now shown in Fig 6C is extremely surprising. ER-/esr1+ patients, who were denied tamoxifen although according to their gene expression they should have received it, apparently did not suffer a worse outcome as compared to the ER+/esr1+ patients, who received the appropriate tamoxifen therapy. Could the authors please comment on this? Surely, something is wrong here?

2) With reference to my original major point 6. I would still like the authors to highlight on Figure 1 the 16 non-neoplastic samples as originally requested. A key aspect of this work is that the gene expression panel allows the samples to be clustered, but currently we are unable to assess whether this process can correctly do the most basic differentiation between cancer and normal.

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

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interest