Reviewer's report

Title: Expression of estrogen receptor beta in the breast cancer cells of BRCA1 mutation carriers

Version: 2 Date: 12 February 2008

Reviewer: Anna deFazio

Reviewer's report:

The aim of this study was clear: to determine the expression of ERβ in BRCA1-associated breast cancer and to compare with the pattern of expression of other hormone receptors.

Major Compulsory Revisions

1. A number of corrections were suggested in the Abstract. These corrections could not be reviewed as the Abstract was not contained in the resubmitted manuscript.

Minor Essential Revisions

2. Inclusion of photomicrographs is an improvement. However the figures are not labelled and â##paraffinâ## is misspelt in the legend.

3. The reference for Hall et al 1990 does not appear in the reference list and numbering for references (Introduction paragraph 1) begins at 3.

4. The information provided in the Authorâ##s response to reviews regarding the selection of cases and composition/definition of the control group should be included in the Methods section and salient features mentioned in the Discussion.

5. Issues regarding the influence of patient age on the expression of the two ER receptors (as outlined in the Authorâ##s response) should be included in the Discussion, especially given the significant difference in patient age between the two groups in this study.

6. The level of significance and specific tests used were not described in the narrative of the results nor were the specific statistical tests indicated in the legend to tables. The authors argue that this information has been omitted for the sake of simplicity, however the tables are not large, nor complex and as the methods state that two statistical tests have been used, it would be usual to indicate which test corresponds to the results presented.

7. In the Discussion the authors have referred to Gruvberger-Saal et al but they need to briefly summarize the results/findings being referred to.

8. â##geneâ## is misspelt in the second line of the Results section, the
abbreviation for number (n, N) is inconsistent in Table 3 and P and P-value is inconsistent between the tables.

Discretionary Revisions

9. While acknowledging that the focus of the paper is on the two estrogen receptors, it would be appropriate for the authors to indicate very briefly in the Methods section that the antibody used will detect both PR-A and PR-B (with a reference) to clarify the issue for the reader. Not all PR antibodies detect both receptors and it may be an issue if a reader were to attempt to reproduce the work.

10. Details of the source of reagents are not consistent do not follow the usual convention (company, city, state/country).

What next?: Accept after minor essential 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.

Declaration of competing interests:

I declare that I have no competing interests