Reviewer’s report

Title: Multiplex SNaPshot for detection of BRCA1/2 founder mutations in Spanish and Spanish related breast/ovarian cancer families

Version: 1 Date: 27 March 2007

Reviewer: Ludwine Messiaen

Reviewer’s report:

General

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

This paper describes the development of a single PCR multiplex SNaPshot reaction allowing to identify all recurrent and founder mutations identified in BRCA1&2 in Spain. The assay is shown to be sensitive, rapid, cost-effective and can be automated. It should greatly facilitate the detection of BRCA1 or 2 mutation carriers in Spain and cascade testing of their relatives. This testing should be helpful for the clinical management of Spanish breast/ovarian cancer families.

There are some typos and grammatical errors that should be corrected.
Page 2: replace populstions by populations.
Page 2: when giving the list of mutations, it would be useful to add between brackets the predicted effect of the mutations, as was also done in the Table 1.
Page 2: Replace the sentence: "Detection of BRCA mutations must be carried out at the DNA level, since automated sequencing...." by "Automated sequencing using standardized procedures represents the "gold standard" system of analysis, but needs to be complemented by an assay that can detect copy number changes as well".
Page 3: In the remaining 24 samples, no BRCA1 or 2 mutation was present.
Page 4: insert "the" at: the minisequencing reaction was performed using the SNaPshot....
Page 5 and other pages: use the correct symbol for the microliter (µl), not just ul.
Page 6: insert "is" at: high-throughput genotyping is possible as the process can be automated, and the assay is carried out in ....
Page 7: replace puntual mutations by point mutations
Page 7: replace "simultaneously" by "as well as".

The quality of Figure 1 needs improvement. The X-axis needs to be identical in all the cases so that the identical peaks are perfectly aligned.

Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after minor essential revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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