Reviewer's report

Title: Prevalence of the BRCA1 founder mutation c.5266dup in Brazilian individuals at-risk for the Hereditary Breast and Ovarian Cancer Syndrome

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Reviewer: Cezary Cybulski

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This is an important paper that shows a significant frequency (5%) of 5382insC founder mutation in BRCA1 among 137 unrelated Brazilian cancer-affected women from HBOC families.

Comments:

1. A BRAC1 mutation causes BC and OC. Eleven probands with cancers other than ovarian-breast cancer should be excluded.

2. The paper would benefit from a table describing the cohort (table 1 may be extended) – i.e. how many BC and OV were present in these families in 1-st, II-nd degree relatives, (per family) what was the mean age of diagnosis (for BC and OC) in these families. These were only HBOC families?

3. The authors underestimate their results. The prevalence of 5382insC in the cases is significant. Given the simplicity and low costs of testing for one founder mutation (ie ASO PCR) such testing is deeply justified, before full screening of BRCA1. However the sensitivity of 5382insC testing in BRCA1 mutation detection needs to be established (in this population). Can you estimate this based on your data?

4. 5382insC is more Slavic than AJ founder allele, please see the papers on Polish population.

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.

Declaration of competing interests:

NO