Reviewer's report

Title: Genotype-phenotype correlations among BRCA1 4153delA and 5382insC mutation carriers from Latvia

Version: 2 Date: 7 September 2011

Reviewer: Khalil Helou

Reviewer's report:

The authors addressed my concerns and I feel that the manuscript has been genuinely improved.

I have a few issues that I would like see addressed and a few discretionary comments, mainly stylistic adjustments.

Major Comments

1. The abstract would benefit from a linguistic improvement. I struggled deciphering the meaning of the Conclusion in the abstract and still not sure if I got the meaning. This is in contrast with the main text, that has a very nice flow and it is easy to read and follow.

2. The quality of the Kaplan-Meyer plots needs to be improved, SPSS can produce nice looking plots

3. The table headings for Tables 2 & 3 needs a bit of clarification. Please state the endpoint, and if possible the sample size of the multivariable model. “Cox regression survival analysis of multivariate model” is not a correct formulation. Something in the style of “Multivariable Cox-regression analysis of BRCA1 mutation carrier breast cancer patients” might be better for Table 2 and something similar for Table 3.

Minor Comments

1. The description of statistical methods needs some polish, try something in the style:

“We estimated the survival function with the Kaplan–Meier estimator and calculated Cumulative incidences as one minus the survival function. Differences in survival and cumulative incidence were compared with the Log Rank test. Adjusted Hazard Ratios were estimated with Cox-regression. Association between cancer type and mutation were assessed with Odds Ratios and associated Mantel-Haenszel 95% Confidence Intervals. Comparison of two independent proportions was performed by Z-test. Statistical analysis was performed using EpiCalc 2000 version 1.02 and SPSS 19. ”

2. On page 7 in the last paragraph you write “worse cancer specific survival”, it might be better to write as ‘unfavorable prognosis ’

3. On page 11 line 9. It would be nice if you could find a synonym for ‘mediated’.
It’s nothing wrong with it; just mediation in a regression framework refers to causal inference.

4. Page 11 line 18. This meaning needs some clarification.

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

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests