Reviewer's report

Title: BRCA1/2 mutation screening in high-risk breast/ovarian cancer families and sporadic cancer patient surveilling for hidden high-risk families

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Reviewer: Federico Canzian

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The present manuscript by Berzina et al reports on screening of germline mutations in BRCA1 and BRCA2 in index cases hereditary breast/ovarian cancer families from Latvia, and subsequent study of newly identified mutations in a much larger series of consecutive breast and ovarian cancer patients. Several known and a few novel mutations were identified in the high risk families and their frequency was precisely assessed in the consecutive "sporadic" patients.

The study is properly planned and implemented with appropriate methodology. The results are clearly presented and interpreted. The main problem with this manuscript is that it adds very little to what we already know about BRCA1/2 mutations and hereditary breast/ovarian cancer. The authors report a handful of new mutations, knowledge of which will be certainly important in the context of screening and counseling in the Latvian population and possibly in the neighboring populations, but it will be of limited, if any, importance for anyone else.

Given the paucity of new information, I feel that the manuscript is too long and detailed. In particular, the results and the discussion are overblown. I propose as major compulsory revisions to reduce significantly the length of the manuscript, in particular the results, which can be almost entirely replaced by tables, and the discussion. Although BMC Medical Genetics has only regular articles, I think the authors should reformat the manuscript with the goal of having a brief report format.

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 interests