Reviewer's report

Title: Mutation analysis of the MDM4 gene in German breast cancer patients

Version: 1 Date: 16 September 2007

Reviewer: Georgia Chenevix-Trench

Reviewer's report:

General

This is a well written, straight forward paper, describing mutation scanning of MDM2 in a fairly small number of breast cancer families. The work is of high quality, and the discussion appropriate.

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

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

In the results, it would be better to talk about the two SNPs being 'in linkage disequilibrium' than 'correlated'.

The discussion would be improved by some discussion of the limitation of the study i.e. that it was relatively small (compared to the papers that identified rare variants in PALB2, BRIP1 etc), that their families did not have very extreme phenotypes and so are quite likely just to have multiple 'polygenes' segregating within them, that controls were not scanned for the whole gene (which can introduce biases), and that there is no evidence from breast cancer linkage studies for linkage to MDM2, and so at best the gene might be expected to account for only a small proportion of non-BRCA1/2 families.

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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.

Declaration of competing interests:

I declare that I have no competing interest