Reviewer's report

Title: Common variation in EMSY and risk of breast and ovarian cancer: a case-control study using HapMap tagging SNPs

Version: 1 Date: 10 May 2005

Reviewer: Jennifer Hu

Reviewer's report:

- Major Compulsory Revisions

The author must respond to these before a decision on publication can be reached. For example, additional necessary experiments or controls, statistical mistakes, errors in interpretation.

1. Based on the description, study subjects have completed a comprehensive epidemiological questionnaire, if data are available for established breast/ovarian cancer risk factors, it is not clear why no information has been used to at least present the basic characteristics of the study population or further evaluate their study results. For example, (1) if any EMSY genotypes may affect age of onset or tumor stage (2) genotype-risk association by family history. It will be important to also report the adjusted ORs by potential confounding factors or risk modifiers (such as family history, age, etc.).

2. Authors stated that no coding SNPs have been identified in EMSY so far (top of p. 5). Reviewer did a quick look and found 4 cSNPs (including 2 nsSNPs) posted at the www.ncbi.nlm.nih.gov website (rs1954782, C/A, Q545K; rs11822571, A/G, Q973Q; rs3753051, C/T, T1216T; rs1047196, C/T, A1243V). It will be important to include data or discussion on these cSNPs in the revised paper, also whether tagging SNPs described in this paper are informative for these cSNPs.

- Minor Essential Revisions

The author can be trusted to make these. For example, missing labels on figures, the wrong use of a term, spelling mistakes.

1. With the background information in mind that "EMSY protein silences a transcription activation domain in BRCA2 exon 3", is it possible for authors to look at whether EMSY genotypes interact with BRCA2 mutation status in breast or ovarian cancer risk.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests