Reviewer’s report

Title: Expression profiling identifies genes involved in neoplastic transformation of serous ovarian cancer

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Reviewer: Peter J Fuller

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Apologies for the late response on this manuscript. In this microarray study, the authors examine 7 benign, 7 low malignant potential and 28 invasive epithelial ovarian tumours using an oligonucleotide microarray. The study follows a number of similar microarray studies in the ovarian cancer area. Numerically, it is somewhat dwarfed by some other studies. The number of tumours in the benign groups and for the normals is relatively small. The array platform is to some extent superseded. The work has been conducted with appropriate rigour. It is perhaps less clear how much this adds to our knowledge of the field. The authors identify a number of transcripts that are differentially expressed and confirm this with RT-PCR. Although they are interesting, they are only partially characterised. As a consequence, the study is largely descriptive. One of the issues that is currently being discussed is the aetiology of epithelial ovarian cancers and the possibility that they arise from the Fallopian tube rather than from the ovary. This is not discussed. One ponders whether the appropriate control issue might have been the epithelium of the Fallopian tube? In some ways, given the clear morphological differences in the samples examined, it is surprising there aren’t more differences than were identified. It is not clear that any of the differences identified represent pivotal changes that might be predicted to drive the neoplastic process. It also remains the matter of some contention that these lesions do in fact represent a continuum. This issue is not fully addressed in the Discussion nor considered in the context of the data. Overall it is a sound study, but perhaps with only an incremental gain in knowledge.

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.