Reviewer's report

Title: Common genetic variation in the Estrogen Receptor Beta (ESR2) gene and osteoarthritis: results of a meta-analysis

Version: 1 Date: 13 July 2010

Reviewer: Inga Peter

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Minor Essential Revisions

1. The authors do not state clearly what was meta-analyzed. Are these adjusted logistic regression coefficients? Justification for using random versus fixed effect models as well as estimation of heterogeneity should be moved from Supplemental material to the main text.

2. No discussion has been provided with regard to the consistency of the present findings with GWAS of osteoarthritis or related phenotypes. Have there been any signals in the ESR2 region identified by GWAS?

3. Even though it is a negative study, given significant associations identified in the original cohort in women only, it is suggested to assess rs1256031*gender interaction.

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 interests