**Reviewer’s report**

**Title:** Correlation between Interleukin-17 Gene Polymorphism and Osteoarthritis Susceptibility in Han Chinese Population

**Version:** 0 **Date:** 19 Sep 2018

**Reviewer:** Ingrid Meulenbelt

**Reviewer's report:**

This is a (old fashioned) genetic association study with a candidate gene IL17. IL17 may be hypothesized as being a candidate gene conferring risk to OA but none of the current comprehensive and powerful genetic association studies has highlighted this gene as potential candidate gene for OA. It must checked and addressed whether there is any signal for IL17 in any of the publicly available GWAs studies. The numbers of individuals is adequate the number of tests performed largely exceeds what is realistic with the dataset.

**Major comments:**

The paper should be extensively shortened, just presenting a dose response association analyses with the IL17 SNPs. The sex stratification could stay but there is no power to perform haplotype analyses.

Moreover, presenting the IL17 levels raises the question whether the SNP is associated to the IL17 levels that could add validity to the presented association.

It must checked and addressed whether there is any signal for IL17 in any of the publicly available GWAs studies.

How and based on what criteria are the SNPs selected?

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Unable to assess
Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

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