Reviewer’s report

Title: CCL3L1 copy number, CCR5 genotype and susceptibility to Tuberculosis

Version: 1 Date: 16 October 2013

Reviewer: Chris P Verschoor

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Summary

Carpenter et al. presents a study examining the relationship between genetic variation in the gene encoding the chemokine receptor CCR5 as well as its copy number variants (CNV) with clinically diagnosed tuberculosis. The study comes from an experienced lab, was well written, used appropriate methodology and was more than sufficiently powered to test their hypothesis that CCR5 genotype and CNV numbers would associate with tuberculosis. Although the authors were able to report differences in CCR5 CNV between the Pervuan and African cohorts examined, no associations with CCR5 genotype or CNV and tuberculosis were established. Given the thorough approach taken and the need to disseminate genetic association studies regardless of the significance of the reported observations, I would deem this article suitable for publication. However, I feel it would be more appropriate as a short communication. My comments are below.

Discretionary revisions

Results (general) – Although no significant associations were identified, listing the p-values in text, or in the tables may be helpful to the reader.

Minor essential revisions

Pg 9-10- The CNV v TB analysis results are very repetitive given that no associations were found. Please be more concise.

Pg 11- The authors suggest type I error in the association between TB and CCR5 genotype following logistic regression analysis. Please follow this statement with a multiple testing procedure to confirm.

Major compulsory revisions

Pg 8- Student’s t-test was used to compare CNV. Would it not be more appropriate to use a non-parametric test such as the Mann-Whitney U test or Wilcoxon test, or even a chi-square test? Please rationalize the use of the t-test or employ a test that is more suitable.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable
**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests