Reviewer's report

Title: Associations of ECP (eosinophil cationic protein)-gene polymorphisms to allergy, asthma, smoke habits and lung function in two Estonian and Swedish sub cohorts of the ECRHS II study

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Reviewer: Jon Genuneit

Reviewer's report:

I thank the authors for responding to my comments and improving the manuscript.

There are two minor points:

1. The number of subjects in Uppsala and Tartu are described to be 1382 in this paper and 1381 in table 1 of reference 9. This difference arises apparently from the random sample (n=1054 in this paper, n=1053 in ref 8).

2. In table 5 the authors display data from the combined cohort (random plus symptomatic sample). While they describe this in the text it would be good to give this indication also in the table heading or footnote. The reasoning for combining the cohorts is based on the small numbers of subjects with asthma in the random cohort. To eliminate concerns about bias the authors could discuss that pooling the random and symptomatic sample does not bias the results if the outcome is being symptomatic vs. non-symptomatic. However, they use definitions of "symptomatic" in their table 5 that differ from the definition that was used to sample the symptomatic sample. Essentially, the bias should be small because these definitions are most likely to be highly correlated but the authors could rise this point in the discussion.

Level of interest: An article of importance in its field

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