Reviewer's report

Title: Evaluation of the toll-like receptor 6 Ser249Pro polymorphism in patients with asthma, atopic dermatitis and chronic obstructive pulmonary disease

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Reviewer: Emiko Noguchi

Reviewer's report:

General
The paper by Hoffjan et al. describes an association study between TLR6 Ser249Pro polymorphism and asthma and COPD in a German population. They found that TLR6 Ser249Pro is associated with paediatric asthma, but not with COPD, adult asthma or atopic dermatitis. I have following comments.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
None

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
In tables 2 and 3, C should be changed to Pro and T should be changed to Ser to avoid the confusions.

Discretionary Revisions (which the author can choose to ignore)
The authors interpreted their results as a weak association of the 249Ser allele with childhood asthma. Also, an opposite allele was associated with childhood asthma as compared with the one reported by Tantisira et al. Because the authors did not replicate the initial findings of Tantisira et al., the corrected p values should be applied to their study. I would interpret this study as a negative association, with a trend that 249Ser allele was more observed in pediatric asthmatics than in controls.

What next?: Accept after minor essential revisions

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: Yes

Declaration of competing interests:
I declare that I have no competing interests.