Reviewer's report

Title: Association between variations in the TLR4 gene and incident type 2 diabetes is modified by the ratio of total cholesterol to HDL-cholesterol

Version: 1 Date: 28 November 2007

Reviewer: Theodora Temelkova-Kurktschiev

Reviewer's report:

General

This is an interesting study which prospectively investigates the association between genetic variants in the gene coding for the TLR4 receptor and type 2 diabetes. The authors report that minor alleles of several TLR4 variants might increase the risk for type 2 diabetes in male subjects with high TC/HDL-C level. However, no effect was seen in women and none of the investigated SNPs or haplotypes was associated with type 2 diabetes or TC/HDL-C alone.

The paper is original, the question analysed – of high interest. Data is reported for the first time. The study design is appropriate. Materials and methods are carefully described. Style is good. Conclusions drawn are justified by the methods used.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

No major critics.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Minor critics:
1. Type 2 diabetes should be given as “type 2”, t.i. without a capital letter T.
2. Correct is “atherosclerosis” or “arteriosclerosis”, but not “artheriosclerosis” (page 4)
3. Page 6, first line from the bottom: “survey” is not understandable. This should be explained.
4. Table 1 could be improved with respect to presenting lifestyle. The last variable analysed – “survey” should be explained again in the legend of the table.

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Discretionary Revisions (which the author can choose to ignore)

No such recommendations.
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: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.