Reviewer's report

Title: WWOX gene is associated with HDL cholesterol and triglyceride levels

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Reviewer: M. Ilyas Kamboh

Reviewer's report:

This study has tried to replicate the reported association of the WWOX SNPs with HDL-C levels in a Spanish population comprising 801 individuals. Although this study has not replicated the same SNPs, it has identified other SNPs associated with HDL and TG levels. This is a well done. The clarification of following points would improve the presentation.

Major Compulsory Revisions

- It is unclear if the 175 SNPs in the WWOX gene/region were genotyped specifically for this study or they were derived from a GWAS or dense genotyping panel already done for this sample. From the text it appears that latter is the case. This needs to be clarified.

- A total of 1045 SNPs (including imputed one) and three phenotypes (HDL, TG, HDL/TG ratio) were tested. From the given p-values, it appears that they were not adjusted for multiple comparisons. This needs to be clarified.

- It appears that no SNP was consistently associated with the phenotypes examined, although HDL and TG are inversely correlated with each other. Please provide explanation for this. Did you also examine other lipid and apolipoprotein traits?

- The Discussion section is too much focused on the lack of replication of one SNP in this study, with little emphasis on apparently new associations.

- It would have been desirable to replicate the new associations in an independent sample.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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