Author's response to reviews

Title: Association between PPARGC1A polymorphisms and the occurrence of nonalcoholic fatty liver disease (NAFLD)

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Author's response to reviews: see over
Response to Reviewer 1

Thank you very much for your useful suggestions. Your suggestions have been addressed in the revised manuscript, which we feel has been now greatly improved as a result.

Comment 1

It needs clarification, e.g. what kit has been used.

Answer 1

According to your suggestion, we mentioned the DNA extraction kit in the methods section.

Comment 2

Larger population of cases needs to be tested, especially in case when NASH alone was tested against controls. Rule of thumb for these kinds of studies is at least 400 cases. If it is not feasible, functional (experimental) study of the effect of the rs2290602 on splicing needs to be performed and reported.

Answer 2

Thank you very much for your useful suggestions. Liver biopsy is recommended as the gold standard method for the diagnosis of NASH. This procedure, however, is invasive and associated with a relatively high risk of complications. Thus the number of the NASH patients in this study is too small for a polymorphism study. This comment is stated in the revised manuscript.

We performed the functional study between the different genotypes (TT vs. GT + GG) and showed the data in Figure 2. The expression of PPARGC1A mRNA transcripts was significantly lower in the liver of the TT group as compared with that in the liver of the GG or GT group (p = 0.0478). They have been addressed in the revised manuscript, which we feel is greatly improved as a result.

Comment 3

Authors should at least discuss SNP that they found to be associated with NAFLD, give its sequence and location.
Answer 3

Thank you for your useful suggestion, the information of SNP location was added in Table 2.

Response to Reviewer 2

Thank you very much for your useful suggestions. They have been addressed in the revised manuscript, which we feel is greatly improved as a result.

Comment 1

The conclusion made in last sentence of the abstract is too strong.

Answer 1

Your comment is correct. According to your suggestion, we have corrected the sentences.

Comment 2

A more in depth introduction of PGC-1α is warranted for readers that are not familiar with the topic

Answer 2

Thank you very much for your useful suggestions. They have been addressed in the introduction section, which we feel is greatly improved as a result.

Comment 3

It would be helpful to provide additional information regarding the location of the SNPs of significance.

Answer 3

Thank you for your useful suggestion, the information of SNP location was added in Table 2.

Response to Reviewer 3

Thank you very much for your useful suggestions. They have been addressed in the revised manuscript, which we feel is greatly improved as a result.
Comment 1
However, the number of the patients is too small for a polymorphism study although p value for the polymorphism is small. This should be stated.

Answer 1
Thank you for your useful suggestions. According to your suggestion, we stated the limitation of our study in the discussion section.