Author’s response to reviews

Title: Relationship between ethanol consumption and TBL2 rs17145738 on LDL-C concentration in Japanese adults: a four season 3-day weighed diet record study

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Version: 1 Date: 04 Aug 2019

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Reviewer 2 (Reviewer 2): PEER REVIEWER ASSESSMENTS:

REQUESTED REVISIONS:

Q1.

I believe the information provided by this study, though on limited subjects residing in a confined geographical location, can provide insights into the correlation between dietary and genetic factors. One issue that could be raised is that majority of SNPs identified in this study were not shown to be associated with LDL levels or LDLr (see below) previous genome wide association study.

1) rs651007 (T allele) is shown to be associated with Endoglin (a type I membrane glycoprotein).
2) rs1160985 is associated with diversity in Gut Microbiota (that can influence LDL levels.
3) rs17145738 is associated with HDL and Triglyceride levels.

More explanation is needed for methods used.

A1.

We are immensely thankful to you for this comment. Functions of the three SNPs were appropriately mentioned with quoting the related references (lines 284 – 290 and 295 – 299, pages 16 – 17).
To facilitate understanding for readers, moreover, the methods were more consistently mentioned. Please see the corresponding sentences in the manuscript (lines 155 – 64, pages 9 – 10).

Q2.

In addition, Authors need to explain their results in regard to previous studies showing how moderate alcohol intake improved HDL levels. More explanation is needed for methods to assess alcohol intake (different % alcohol levels are present in sake, beer and whiskey).

Thank you for the advice. Effects of moderate ethanol consumption was appropriately mentioned in the text (lines 289 – 292, page 17). In the text, more information of alcohol intake assessment was added to facilitate understanding for readers (lines 133 – 139, page 8).

Q3.

Previous study from Moura lab, evaluating the lipid profiles of 227,359 Brazilian individuals, found an average increase of 7mg/dL during the winter compared to summer. Author needs to explain the lower average increase observed in their study.

Taking this comment into consideration, the differences of LDL-C concentrations between winter and summer were appropriately discussed, with reference to results from two large-scale cross-sectional studies. Please see the corresponding sentences in the manuscript (lines 306 – 314, pages 18).