Reviewer’s report

Title: Effects of a 3-year dietary intervention on age-related changes in triglyceride and apolipoprotein A-V levels in patients with impaired fasting glucose or new-onset type 2 diabetes as a function of the APOA5 -1131T>C polymorphism: A 3-year intervention study

Version: 2 Date: 14 March 2014

Reviewer: sybil charriere

Reviewer’s report:

The new title proposed by the authors is

“Effects of a 3-year dietary intervention on age-related changes in triglyceride and apolipoprotein A-V levels in patients with impaired fasting glucose or new-onset type 2 diabetes as a function of the APOA5 -1131T>C polymorphism: A 3-year intervention study”.

J would suppress the end " ..... : A 3-year intervention study " of the title to avoid redundancy.

3/ At the end of the article (p16, l 349), the authors said that their results suggest that “the C allele contributes to the progression of diabetes”. The conclusion is not demonstrated in their results and should be modified.

Answer) We found that the APOA5 -1131T>C polymorphism plays an important role in the metabolic response to a 3-year dietary intervention in patients with IFG or new-onset type 2 diabetes. Wholegrain ingestion prevented the age-related increase in triglyceride levels in patients with IFG or newonset type 2 diabetes who carried the TT allele but not the C allele of the APOA5 -1131T>C polymorphism. As indicated in Table 2, fasting TG levels were reduced in TT allele carriers, while it shows tendency of increasing in TC and CC allele carriers. Besides, high TG levels were considered a risk factor for diabetes, especially among subject who were obese. In this reason, we suggested that the C allele contributes to the progression of diabetes.

J do not agree with the answer. High TG levels are a marker of metabolic syndrome and insulin-resistance but not a risk factor per se of diabetes. Moreover, the study does not show significant progression of IFG patients to TD2 in C allele carriers compared to T allele carriers.
This must be suppressed.

Minor Compulsory Revisions

“during the period from August 2006 to February 2008, total 244 subjects were enrolled (TT: 109, TC: 118, CC: 17). Approximately 83% of subjects achieved the study.”

This difference between subjects enrolled and who achieved the study must be added in the article.

We agree with all the other corrections of minor revisions.

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests