Reviewer's report

Title: Association of the rs738409 polymorphism in PNPLA3 with liver damage and the development of nonalcoholic fatty liver disease

Version: 1 Date: 26 October 2010

Reviewer: petit j michel

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In this paper, Dr. Hotta examines the relationships between PNPLA3 rs738409 allele and liver Fibrosis and other metabolic factors in a Japanese population. The authors found that the at-risk G allele is associated with increased liver fibrosis.

Comments:

Major Strengths
1. This ms. addresses the interesting and relatively novel subject of regulation of liver fat content in Asian populations, related to a single nucleotide polymorphism in the adiponutrin gene.
2. The number of subjects is large and they are reasonably well characterized.

Major Weaknesses
This finding is not novel. The first report was published in Hepatology in 2010, and after that, at least 4 papers confirming this finding were published. However, the results of the study by Dr Hotta confirmed this finding for the Asian population.

Minor comments

Maybe it could be interesting to include recently published studies concerning the same topic in the discussion (Rotman Hepatology. 2010 Sep;52(3):894-903. Speliotes Hepatology. 2010 Sep;52(3):904-12)

The interesting results concerning the specific phenotype (low fasting glucose and serum triglycerides levels) in the patients with NAFLD harboring the risk alleles could be included in the discussion.

Level of interest: An article whose findings are important to those with closely related research interests

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'