Reviewer's report

Title: Effects of Body Weight and Alcohol Consumption on Insulin Sensitivity

Version: 4 Date: 20 December 2009

Reviewer: Michel joosten

Reviewer's report:

- Compulsory Revisions (which the author must respond to before a decision on publication can be reached).

As mentioned before adiponectin is an important mediator in the relation between alcohol consumption, inflammation and insuline sensitivity. The adipokine adiponectin is predominantly being secreted from the adipose tissue (the tissue of the study’s main interest).

After revision, the authors have included adiponectin data. This significantly adds to the value of the paper. However, adiponectin is hardly being mentioned in the introduction or in the discussion.

In the introduction:
Please add a reference concerning increased adiponectin concentration after alcohol consumption as a possible mechanism for the decreased risk of type 2 diabetes due to alcohol consumption [for instance in line 66 ‘ …promoting insulin sensitivity and / or increasing adiponectin secretion’.] (see e.g. Joosten et al (2008) Diabetologia).

Please add adiponectin in line 71 ‘ …secretion of adipokines (eg., leptin, adiponectin)”

In the discussion:
Please briefly discuss the adiponectin PCR results in relation with inflammation and/or alcohol consumption somewhere.

- Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
I assume references 22 and 24 are duplicates. Am I correct?

Figure legend 1F: Please mention that it is adiponectin expression in WAT by qRT-PCR (as mentioned in 1E).

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