Reviewer's report

Title: Antiretroviral treatment-induced dyslipidemia in HIV-infected patients is influenced by the APOC3-related rs10892151 polymorphism

Version: 1 Date: 1 July 2011

Reviewer: Josep Ribalta

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The paper by Aragonès and colleagues studies a new SNP in LD with the apoC-III locus in relation to dyslipidemia in HIV patients.

Although the role of the apo C-III gene as a modulator of lipid, particularly triglyceride metabolism is already well established, the data reported is interesting since it goes in a different direction from the original report by Pollin et al, this is no association with C-III levels and association with increased TG.

MAJOR COMPULSORY REVISIONS:

This observation however, is only partially substantiated due to the rather limited number of A allele carriers. Any chance to increase sample size?

Although speculation is compulsory here, it would be interesting to discuss why this SNP shows an opposite effect among HIV patients. It could be the course of the disease itself as suggested by the result in the subset of patients without HCV co-infection or by the variety of treatments. Other SNPs in genes such as HL show opposite effects in different populations explained by different dietary intake (Ordovas JM et al, Circulation 2002). Any information provided in this direction would highly improve the study.

Although the limitations are clear the result is still of interest.

MINOR ESSENTIAL REVISIONS

I would suggest to present table 1 in HIV in two columns according to their genotype.

Figure 1B, Any association with LDL cholesterol? Is this elevated cholesterol VLDL cholesterol?

Figure 1C, Does the HDL difference remain after adjustment for TG?

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

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