Reviewer's report

Title: Meta-analysis: implication of IL28B polymorphisms in spontaneous and treatment-related clearance for hepatitis C patients

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Reviewer: Thomas Berg

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Jimenez-Sousa et al. performed meta-analysis to assess the impact of IL28B polymorphisms (SNPs) on treatment outcome and spontaneous viral clearance of HCV infection. The effect of the SNPs on the course of infection depends on ethnicity, HCV genotype and type of viral infection. In Caucasian, the SNPs rs12979860 and rs8099917 are the best genetic markers for treatment-related and spontaneous viral clearance, while in Asian the SNP rs12980275 is also important. No differences between HCV mono- and HCV/HIV co-infected patients were observed.

The manuscript is at great length and well written. It provides an overview of current literature and discusses the reported findings in the context of the present knowledge. I have a few concerns:

Major Compulsory Revisions

1. There is a discrepancy in the time range papers where collected for the meta analysis. Authors state, that“….this report is based on published data prior to October 18, 2011....” But “...years of studies ranged from 2009 to 2012....”. For example, the report from de Nicola et al. was primarily published January 2012, Beinhardt in November 2011. The authors need to clarify the publication time range and to set a clear deadline.

2. Currently, new relevant reports were published dealing with large patient cohorts. We clearly recommend to include these new findings into the meta-analysis. Therefore, literature search should be updated to 2012.

3. Recently, two meta-analyses were already published by Li et al. (2011 Hepatitis Monthly) and Chen et al. (2012, Alimentary Pharmacology and Therapeutic) which should be discussed.

4. The authors found high heterogeneity between the studies of rs12979860, rs8099917 and 12980275. What are the sources of this study-between heterogeneity? Identification of outliers would be interesting.

Minor Essential Revisions

Figure legends:

1. Figure legends in the manuscript and the supplementary material are quite
repetitive. I would recommend to use one main description and only to highlight the differences.

References:

1. Although the report of Moher et al. was published in 4 different journals (References 12, 18, 36 and 38), it is still remains the same study. There is no need to describe them separately.

2. The references 29 (Hardwick et al.) and 30 (Vartanian et al.) do not report previous meta-analyses of IL28B. They rather deal with botanic gardens and JUNB degradation. What are the correct references?

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.