Reviewer's report

Title: Leptin receptor (LEPR) SNP polymorphisms in HELLP syndrome patients determined by quantitative real-time PCR and melting curve analysis.

Version: 1 Date: 18 October 2009

Reviewer: Hannele Laivuori

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In this case-control study four leptin receptor gene (LEPR) single nucleotide polymorphisms (SNPs) were examined. The study population consists of 75 Hemolysis, Elevated liver enzymes and Low platelets (HELLP) -syndrome patients and 83 normotensive healthy pregnant women. No significant differences were observed in the frequency of alleles, genotypes, or haplotypes of the LEPR SNPs between the two groups.

The objective of the present study is important. HELLP syndrome is a serious complication of pregnancy, which has been considered a severe form of pre-eclampsia. However, there is growing evidence that it might be a separate genetic entity. The role of leptin has been implicated in pre-eclampsia and related disorders. Thus, the functional sequence variants of the LEPR are of interest.

Major comments:
1. Describe and discuss the power of this study to confirm or exclude the association of the LEPR SNPs and HELLP syndrome.
2. The fetal genotype has not been investigated. Please, discuss the role of fetal genes in this context.
3. Have the results been corrected for multiple testing of SNPs?
4. The description of sequence variations is somewhat confusing. Please, use the nomenclature of variations recommended by The Human Genome Variation Society.

Minor comments:
1. Table 1: Please provide statistics of the clinical characteristics between the two groups.
2. Table 3: Please correct: LEPR G- (the third SNP). The order of the allele 1 and 2 is not consistent given in the name of these SNPs. Please clarify these.
3. Table 5: Please correct: VEGF SNPs

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