Reviewer’s report

**Title:** MDR1 polymorphisms are associated with inflammatory bowel disease in a cohort of Croatian IBD patients

**Version:** 1  **Date:** 21 October 2012

**Reviewer:** Alfreda Krupoves

**Reviewer’s report:**

The authors carried out a case-control genetic association study in adult IBD patient’s population. This paper is an interesting addition to the body of research on this topic. Please find below the aspect to be improved.

**Major Compulsory Revisions:**

1. The process of controls selection and sample collection should be described, as well as the possibility of genotyping errors and what attempts were made aiming to prevent it. The period of time during which patients were followed or recruited should be provided.

2. This paper would benefit from discussion of study internal validity (to add in the “discussion” section). The possibility of bias should be discussed. Given small sample size and generally low magnitude (OR < 1.5) of associations in gene-disease studies, a power analysis should be made and presented in order to give an idea about the magnitude of association study was adequately powered to detect.

3. The detected association with C3435T is a silent substitution, so its role in pathogenesis should be discussed, what is the biological plausibility supporting this association.

4. Authors state that some (not anticipated) associations were found between phenotype of extra intestinal manifestations, but these EM are not described in details. What was the definition of EM should be clarified.

**Minor Essential Revisions:**

1. A table for the presentation of results of associations between the disease characteristics and studied snps would be useful as well.

2. In order to render the table self-explanatory, all abbreviations have to be specified in table foot note.

**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' below