Reviewer’s report

Title: HLA class I (-A, -B, -C) and class II (-DR, -DQ) polymorphism in the Mauritanian population

Version: 1 Date: 24 Nov 2017

Reviewer: Alexander Schmidt

Reviewer’s report:

Page 11, 42-53: "Our results on the distribution of HLA antigens, coherently with previous studies, have shown ethnic differences in the frequencies of many alleles groups consistent with an heterogeneity of the Mauritanian population…However, despite the apparent ethnic differences in HLA allele groups, no signification ethnic variation was observed on the basis of \( \chi^2 \) and p values."

It seems there is some confusion about the purpose of significance testing. It is not justified to say "our results…have shown…differences" when no significant differences were observed. The authors' conviction that there are "apparent ethnic differences" cannot replace positive results of significance testing, as it is done here. Wording must be much less strong, something like "our results suggest" or "our results are compatible with genetic differences".

Page 12, 29-35: "However, as these ethnic groups are here all in broadly similar limited numbers, the presence of allele group only in one and not in the other ethnic groups may be relevant. Specific alleles were reported in other HLA population studies carried out in relatively limited cohort (Brick et al., 2006)."

Given the extremely small sample sizes, the assumption that "presence of (one) allele group only in one and not in the other ethnic groups may be relevant" is highly speculative.

Page 13, 44-48: Text in green must be removed.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
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