Reviewer’s report

Title: Association study of the HLA-DRB1 locus reveals the first evidence for the association of HLA-DRB1*15 and DRB1*09 with leprosy and the impact of DRB1*09 on the onset of disease in Chinese population

Version: 3 Date: 20 May 2009

Reviewer: Marcelo Mira

Reviewer’s report:

The authors present a revised version of the manuscript, as well as a document addressing the comments of the reviewers. The manuscript has improved and the answers presented to the reviewers were, to some extent, satisfactory. However, some points, in particular regarding our first review, still need clarification/action:

Major compulsory revisions:

1. Results of the Hardy-Weinberg equilibrium testing should be included in the manuscript;
2. If the authors will not test the association effect reported for independence from the LTA locus, especially given the age effect observed for the HLA-DRB1*9 allele, the possibility that these effects are not independent should be extensively addressed in the discussion. In this context, the conclusion of the abstract is overstated: if we may suggest, we would re-write it as “HLA-DRB1 alleles are associated with leprosy susceptibility in a Chinese population sample; allele HLA-DRB1*09 was found to be protective exclusively in a sub-sample of early-onset leprosy patients.”
3. The authors unfortunately ignored some of our last comment of the first revision (Minor essential revisions, item 2.2); therefore, the manuscript still needs extensive English revision. Careful reading of the manuscript denotes somewhat careless writing that often compromise clarity.
4. Newly added table 1 show that the control group seems to be significantly younger than the cases, despite matching for age as reported in “Methods – Patients and controls”. If so, how did the authors adjusted for a possible age bias – in particular in the case of a younger control group?

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

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, and I have assessed the statistics in my report.
Declaration of competing interests:

I declare that I have no competing interests