Reviewer's report

Title: Leukotriene B4 receptor locus gene characterisation and association studies in asthma

Version: 1 Date: 6 August 2012

Reviewer: Maarten van den Berge

Reviewer's report:

In this manuscript, the authors have characterized the genes for LTB4 receptors. They show that LTB4R1 and LTB4R2 mRNA is ubiquitously expressed in the lung and have variation in 5'-untranslated regions and predicted promoter regions. In addition, the genotyped 6 SNPs selected for ability to tag linkage disequilibrium or inferred function. No association between SNP polymorphisms and presence or severity of asthma was found. The manuscript is well written. I have the following comments.

Major comments.

1. Page 8. Polymorphism screening The authors performed direct sequencing in (n=greater than or equal 35 ?? how many) ) individuals. Which material was used for sequencing? Blood or tissue? Were did these samples come from? Do the authors refer to the commercial RNA obtained from 3H biomedical? This should be more clearly described.

2. Page 11 results 5 RACE data for LTB4R1 and LTB4R2 was generated for lung tissue. Similar to the point above. Were did the lung tissue come from?

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.