Reviewer's report

Title: Replication of Associations between Three Positionally Cloned Asthma Candidate Genes and Asthma or Asthma-related Phenotypes in A Chinese Population

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Reviewer: Malcolm Blumenthal

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The aim of this study was to test the associations between three positionally cloned genes and asthma or asthma related phenotypes in a Chinese population. They studied PHF11, DPP10, and HLA-G. The introduction is of interest but probably all not needed.

The study population and phenotype definition was reviewed. Apparently 2752 index families which included both parents and 2+ offspring who were 8 or older with physician diagnoses of asthma were studied. 270 reference families were randomly selected from the area. The routine data obtained from each patient was selected. The problem of the original study regarding standardization, environmental variables, etc were touched upon by the original paper but not adequately answered. The marked decrease in number of that study is not explained. Did this bias their results? They started with 2752 families who I assume had asthma and ended up studying only at a maximum of about ½ of them is a problem.

Results: The phenotypic information between the asthmatic sample and the non asthmatic samples is eluded to latter in the text but is still bothersome. First PHF11 was evaluated. Certainly the results are not overwhelming especially in view of the phenotypes used. DPP10 was stronger and of interest. Finally the HLA-G was not strong.

The discussion tries to validate their methods and conclusions. The problem of type 1 errors and stratification of the population are problems that will not go away with a few statements. The policy in China of family size is not adequately addressed in this paper. What bout the sex of the asthmatics etc. As there were actually a large number of females at the time of this paper I believe being adopted this may have added a bias in the ascertainment of subjects. This is not mentioned and should be discussed. Their rational of statistical analyses was of interest but did contain some leaps of faith and should have been better documented. It is an interesting paper but certainly not an overwhelming replication.