Reviewer's report

Title: The interferon gamma gene polymorphism +874 A/T is associated with severe acute respiratory syndrome

Version: 1  Date: 21 March 2006

Reviewer: carolina scagnolari

Reviewer's report:

General
The research article by WP Chong et al. represents an attempt to find an association between SNP in specific genes and the susceptibility to SARS-CoV infection. Although interesting the manuscript needs to be revised.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
- We believe that the paper provides interesting observations related to the first issue (i.e. association between IFN gamma SNP and infection). The paper, on the contrary of what claimed by the authors, does allow to reach conclusions also on the second issue (i.e. association between SARS-associated death and IFN gamma SNP). Indeed 57 deaths are enough to be stressed in the results and commented in the discussion.
- Are the two groups (healthy control and SARSCoV infected patients) different in terms of age and gender? This information may add something to the meaning of the manuscript; indeed, the difference between the two groups (which are statistically significant) are so evident that they need to be discussed.
- Are all healthy subject negative for antibody to SARSCoV? Why the authors state "at least 95% of the patients were documented with SARS-CoV... (page 4). Are 476 patients not all infected? Please clarify such point.
- The authors should describe in more details why they choose these three cytokines (IFN gamma, TNF alpha and IL-10. In other words they should emphasize the role of the chosen cytokine in the inflammation process. This may improve the “rationale” of the manuscript. Further the genes which have been chosen are only some of the genes important for the defense against viral infections. The authors should consider that and should not write for instance “these genes were chosen based on their key role in antiviral action…” (page 4)
- page 7 (line 12). The word “entirely” should be omitted because, as the authors state below, there are several others SNP in these two genes. The entire paragraph at page 7 should be rewritten to take into account such a comment
- Move the sentence a page 7 (lines 6-8) to the “Background” section.
- page 6. “IFN g” must be “IFN gamma”

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Discretionary Revisions (which the author can choose to ignore)
**What next?:** Accept without revision

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No