Reviewer's report

Title: Polymorphisms of superoxid dismutases and catalase and diabetes mellitus

Version: 3 Date: 31 January 2008

Reviewer: Su-Chi Lim

Reviewer's report:

Milan Flekac, Jan Skrha, Jirina Hilgertova, Zdena Lacinova, Marcela Jarolimkova
3rd Dept. of Internal Medicine, 1st Faculty of Medicine, Charles University,
Prague, Czech Republic

The authors need to be commended for the excellent effort in attempting to improve the paper.

Having said to, there are still a few important concerns:

1. In respond to point 5 of issue previously raised, the author wrote:
   Higher activities were found in AA than in CC genotypes of diabetic patients (Tab. 3). In the study of association between SOD activity and genotypes diabetic and healthy subjects have been pooled together as one group to improve statistical power of analysis.

   No statistics (e.g. ANOVA P value for trend) was described in either results section nor table 3.

2. Table 4
   Column 2: the genotype frequency adds up to only 99%.
   Columns 3 & 4 numeric figures are identical (unlikely, please check).

   Given the RFLP fragment size (e.g. CAT -21A/T, A allele 203 & 47 bp), it is highly likely that the smaller fragment may not be clearly observed in agarose gel accompanied by molecular markers designed for bigger fragments. The authors are encouraged to provide some details on the RFLP assay procedure (e.g. gel concentration, size of molecular marker) to give the reader an idea of the accuracy of genotyping using RFLP.

4. Hardy-Weinberg equilibrium
   Usually only need to be calculated for controls as one of the means to estimate likelihood of genotyping error.