Reviewer's report

Title: Associations of genetic variation in CASP3 gene with noise-induced hearing loss in a Chinese population: a case-control study

Version: 1 Date: 20 Mar 2017

Reviewer: Xiangrong Xu

Reviewer's report:

1. Please submit the results of the stratified analysis by noise intensity and CNE as well as SNP-SNP interactions.

2. Many studies have confirmed that there is a interaction between noise and gene which contribute to the development of NIHL. This study only fond the significant interaction between working time and SNP. CNE is related to working time. Please explain the reason.

3. In the table 3, for rs1049216, the combined CT/TT genotypes were protective genotypes. While in the table 4, authors found that CC genotype was risk genotype combined working >48 hours/week. Authors were suggested to have a consistent conclusion. There is the same problem for rs6948.

4. If the author conduct 1:1 matched case-control study, I suppose the case and control subjects should be matched by the basic characteristics (gender, age, and et al) and environmental factors (years of noise exposure, types of work, music listening time, telephone using time and time go to sleep) to ensure highly comparability in basic and environmental confounders. Therefore, the differences in the hearing loss found in this study between case and control subjects mainly caused by genetic susceptibility. But significant differences were observed for several lifestyle factors including music listening time, telephone use time, and time to go to sleep between the cases and controls (P<0.05) in this study.

5. I suppose the case subjects should be defined as the average of binaural HL in high frequency is over 40dB. Authors were suggested to consider expanding the sample size.
Level of interest
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An article of limited interest

Quality of written English
Please indicate the quality of language in the manuscript:

Not suitable for publication unless extensively edited

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