Reviewer’s report

Title: Associations of Noise Kurtosis, Genetic Variations in NOX3 and Lifestyle Factors with Noise-induced hearing loss

Version: 0 Date: 05 Dec 2019

Reviewer: Ann-Christin Johnson

Reviewer's report:

This paper is very interesting and provide new knowledge to the field of NIHL. Especially the interaction findings between life-styles and noise exposure is of great interest

I state some questions and suggestions below:

1. Was the CNE calculated over the working years?

The noise measurement using kurtosis is complicated and need some further explanation;

2. A more detailed rational for choosing beta &gt; 10 as complex noise should be given

3. Was only one 40 s window from each 8 h shift used to calculate the kurtosis?

4. If so, how was it established that the chosen window was representative?
   This fact should also be discussed in the limitations of the study in the discussion

5. First part of Table 1 could be shown as a figure using staples to liven up the paper

6. Line 408 should read 'Thus, the rs12195525 SNP could affecting noise-induced hearing loss by altering NADPH oxidase expression.

7. Some references are old and could be updated

8. Could add epidemiology references that that show risk factors for NIHL there are several available

9. Numbering of refs are wrong and must be corrected

10. A more detailed section could be added to the discussion of possible other factors, besides those investigated, that could influence the fact that the control has no hearing loss despite almost the same exposure.
**Level of interest**
Please indicate how interesting you found the manuscript:

An article of importance in its field

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

Acceptable

**Declaration of competing interests**
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal