Reviewer's report

Title: A Novel Pathogenic Variant in OSBPL2 Linked to Hereditary Late-onset Deafness in a Mongolian Family

Version: 0 Date: 06 Nov 2018

Reviewer: Olga Posukh

Reviewer's report:

Manuscript "A Novel Mutation in OSBPL2 Linked to Hereditary Delayed Deafness in a Mongolian Family" by Wu et al. presents the identification (by whole genome sequencing) of a novel pathogenic variant c.158_159delAA in the OSBPL2 (Oxysterol-binding protein-related protein) gene that co-segregates with late-onset hearing loss in one large Mongolian family. These findings expand the list of the OSBPL2 gene variations and support previously found association of the OSBPL2 frameshift variants with hearing loss (Xing et al., 2015; Thoenes et al., 2015).

I believe that manuscript needs in some English language correction and I have the following comments regarding the manuscript:

The term 'mutation' should be applied with caution according ACMG 2015 guidelines (Richards et al, Genetics in Medicine 2015); it is better to use 'pathogenic variant'.

- It seems that the term 'late-onset deafness' will be better than 'delayed deafness' used in title and in the text of manuscript.

- Page 2, line 41: 'X-linkage' -> 'X-linked'

- Page 4, line 1: '1.2 Method' -> '1.2 Methods'

- Page 4, lines 11-27:


- Frequency ranges are also needed to verify, according to Mazzoli et al 2003:
  Frequency ranges:
Low frequencies: 0.5 kHz

Mid frequencies: 0.5 kHz - 2 kHz

High frequencies: 2 kHz - 8 kHz

Extended high frequencies: 8 kHz

- Page 4, lines 41-45: OSBPL2 upstream primers -> OSBPL2 forward primer; OSBPL2 downstream primers -> OSBPL2 reverse primer.

- Page 4, line 56: 2 RESULT2 -> 2 RESULTS

- Page 5, lines 47-51: Please, specify all individuals who were subjected to the whole genome sequencing.

- Page 6, lines 1-13: Please, specify (in more detail) how a candidate gene OSBPL2 was identified from the list of candidate genes in four linkage candidate regions (chromosomes 1, 10, 11, 20).

- The data on variant c.158_159delAA (Table 1, only one line) is no need to present as Table.

- Page 8, lines 10-15: 'The results showed that the individuals with hearing loss have similar serum lipid level as compared to normal individuals, suggesting the redundancy of other OSBP proteins in the control blood lipid metabolism (Table 2)' - this conclusion needs to be supported by appropriate statistics.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes
Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I recommend additional statistical review

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

Needs some language corrections before being published

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