Reviewer's report

Title: Systematic analysis of mitochondrial genes associated with hearing loss in the Japanese population: dHPLC reveals a new candidate mutation

Version: 2 Date: 26 September 2011

Reviewer: Carmela Scuderi

Reviewer's report:

The authors responded to the various comments satisfactorily. In particular, in the Discretionary Revisions, the methods section was shortened; in fact, the method of mutation analysis by Mitoscreen kit was omitted and the list of the animals and the accession numbers of the mtDNA was moved to Supplemental Table. In the Minor Essential Revisions, the authors corrected the nomenclature for the mitochondrial mutations in the whole manuscript and the abstract was significantly edited.

In addition, in response to other reviewers’ comment, they decided to use the term "mutation" or "variant" if the nucleotide change was pathological or non pathological. In the Major Compulsory Revisions, the English style was revised and the entire manuscript was well reorganized.

Finally, authors changed the title to "Systematic analysis of mitochondrial genes in Japanese patients with hearing loss by dHPLC: A new candidate mutation associated with hearing loss".

In conclusion, I recommend this paper for publication in the BMC Medical Genetic because it provides new information about the association between mtDNA mutations and hearing loss in the Japanese population and highlights the importance of ethnic background in the study of the pathogenicity of mtDNA variants.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests