

## **Response to Reviewers Comments**

Specific Comments to Authors: I think that the manuscript was written concisely, clearly and logically. The title reflects the manuscript properly. The summary is adequate. Although the genetic mutation demonstrated in this manuscript was already known, as it is a rare disease, it is important that the authors describe it so that the information can be disseminated. Also, the manuscript met the ethical requirements. Regarding references, at number 3 the authors forgot to put page that was 88. Piekarowicz K. Hutchinson-Gilford Progeria Syndrome-Current Status and Prospects for Gene Therapy Treatment. Cells. 2019;8(2):88.

**Reply: Thank you for your valuable suggestions.**

**We have adjusted the page numbers of the third reference.**

Reviewer #2:

Specific Comments to Authors: In this manuscript the authors describe a case report of a child with Hutchinson-Gilford progeria syndrome (HGPS) caused by mutation in the LMNA gene. The authors provide the child history together with the result of different examinations (physical, laboratory and imaging) and whole-exome sequencing and mitochondrial sequencing. The subject is important and the case report is clear and well written. However, there are some aspects that need to be addressed before the manuscript can be published: -Some recent reviews about progeria should be included, so that the interested reader can find all the relevant information about the current knowledge of the disease (for example Int J Mol Sci. 2021 Jul 3;22(13):7190. doi: 10.3390/ijms22137190; Curr Gene Ther. 2021;21(3):216-229. doi: 10.2174/1566523221666210303100805) -A paragraph about the current treatments should be included. Specifically, at the end of the conclusion section, the authors state: "Up to now, the gene therapy is still in the developmental stage, so there are many unknown areas of the disease to be further investigated". Although this is true, it should be completed with the

appropriate references and including a paragraph about the therapeutic approaches and their current situation. Regarding gene therapy, the recent research reported by Liu should be mentioned (Nature. 2021 Jan;589(7843):608-614. doi: 10.1038/s41586-020-03086-7). A general review about the different therapies under study should also be included (for example, Aging Cell. 2020 Jul;19(7):e13175. doi: 10.1111/ace1.13175). Explicit mention to lonafarnib, the only currently FDA approved drug for treating progeria should be included. Finally, recent reports about promising therapeutic approaches should also be mentioned (ACS Cent Sci. 2021 Aug 25;7(8):1300-1310. doi: 10.1021/acscentsci.0c01698; Elife. 2021 Feb 2;10:e63284. doi: 10.7554/eLife.63284; Commun Biol. 2021 Jan 4;4(1):5. doi: 10.1038/s42003-020-01540-w).

**Reply: Thank you for your valuable suggestions.**

**We have studied several of your papers and added the discussion and analysis of the latest progress in this paper..**