Author’s response to reviews

Title: Early gut microbiota signature of aGvHD in children given allogeneic hematopoietic cell transplantation for hematological disorders

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Dear Editor,


We are grateful to the four reviewers who found our revision of the original manuscript satisfying. We applied slight modification to the manuscript text with respect to both the Editor and Reviewer 4 comments. In particular:

- We modified the Funding section in order to clarify how the Funding bodies supported the study.
- We added a "Acknowledgements" section writing "Not applicable" in it.
- We corrected the Author Contribution section, including the individual contribution of all authors.
- Email addresses of all authors have been added at the end of the title page.
- The sentence “Change in GM phylogenetic structure were reconstructed by 16S rRNA gene Illumina sequencing” in the Abstract, has been changed according to the observation of Reviewer 4 (LINE 57-58). The sentence is now as follows: “Changes in the GM phylogenetic structure were studied by 16S rRNA gene Illumina sequencing and phylogenetic assignation.”
- The description of the application of the RandomForest algorithm has been modified in the Results section (LINE 222-224), to better clarify the use of the statistics and highlight coherence between Methods and Results, as pointed out by Reviewer 4. The sentence “According to the Random Forest analysis, the age of subjects did not significantly affect the genus-level GM profile when a “baby” (<2 years), “pediatric” (2-12 years), and “teen” (>12 years) classification was used (error rate, 37%)” has been changed in “According to the Random Forest analysis, the genus-level GM profile did not significantly discriminate between age groups, i.e. “baby” (<2 years), “pediatric” (2-12 years), and “teen” (>12 years) (error rate, 37%).”
- In regards of Reviewer 4 concerns about Figure 3, we are aware that the use of abbreviation for the name of bacteria would not be the best choice in terms of immediateness of
a paper figure. However we did not found any way to rearrange the panel in order to list the bacterial names completely without losing readability of the text and maintaining appropriate size of the whole figure. We are open to editorial and graphical suggestions, if the Editor believe that the figure need to be changed.

We hereby confirm that all author have approved the submitted version of the manuscript and that none of them declare any competing interests. The content of the manuscript has not been published or submitted elsewhere.

We really hope that our work could be published in BMC Medical Genomics in its present form, providing relevant novelties in this challenging research field.

Kind regards,

Elena Biagi and Riccardo Masetti