The manuscript titled “Change of intestinal microbiota in mice model of bronchopulmonary dysplasia” has some merit; however, few suggestions/ queries need to be addressed.

Abstract

1. Line 23-24; “Alpha diversity indicated that there were no statistical differences in the abundance of gut microbiota between BPD model group and control group”, mention the day (initial or final).

Material and Methods:

1. Write HE staining as hematoxylin and eosin (H&E), if it appears for the first time in the manuscript.

2. For the induction of BPD neonatal mice were subject to high concentration of oxygen (80±5%) for 3 weeks. How did the authors reach to these figures. What about other concentrations?

3. Mention the mice species in the M & M

Results

1. How can we reach to the species level with a single taxonomic marker i.e., 16S ? Why microbiota study upto species level was not performed?

2. There is no mention of fungal diversity.

3. The authors are suggested to submit the data to appropriate data bank and mention the accession number.

4. Validation with human subject is suggested.

Discussion

1. Line 176; “This indicated that BPD rats showed disorder in the gut microbiota associated with regulation of signal transduction and metabolism, which was in line with the different findings in gut microbiota and metabolomics between COPD patients and normal individuals”. Justify, how the experiments done in animal model can be used to validate the diversity of microbial diversity in human infants.