

### **Reply to Reviewers**

This study reports the predictive power of fecal microbiota, bacteria and bacteriophages, in predicting the diagnosis of ulcerative colitis in children. The article has less content.

1.The discussion section is very weak and no emphasis is given on the discussion of the results like why certain effects are coming in to existence and what could be the possible reason behind them. The discussion should be rather organized around arguments avoiding simply describing details without providing much meaning.

**Reply: The discussion was expanded in more depth and details to reflect the significance of the predictive power of bacteria and bacteriophages.**

2.Except diagnosis, what about the therapy and prognosis. Does the gut microbiota suggest the use of a potential noninvasive microbiota-based test for the therapy and prognosis of UC in children?

**Reply: Yes, these are mentioned in the revised discussion and conclusions.**

3.Children with a confirmed diagnosis of UC were enrolled in the study. The children were recruited from multiple hospitals in Riyadh, Kingdom of Saudi Arabia (KSA). The inclusion criteria included new-onset and untreated disease, as well as no antibiotic exposure for at least 6 months before stool collection. Fecal samples from the children with UC were collected before bowel preparation. Healthy school children were randomly selected as controls.

When did you collect the stool?

**Reply: Stool samples were collected from healthy controls in 2016 and immediately stored in – 80° C until analysis.**

4.Results: A high number of significant bacterial and bacteriophage dysbiosis events were found (unpublished data).Can you supply the data?

**Reply: These were submitted for publication and therefore are currently not available.**