### **Reviewer Report**

Title: The metagenome of the female upper reproductive tract

**Version: Original Submission Date:** 6/12/2018

Reviewer name: Ekaterina Avershina

#### **Reviewer Comments to Author:**

The manuscript has vastly improved since the first submission, although some additional information and language editing is required. I would like to thank the authors for including more in-depth information about the functional data; i think p-values for the aforementioned differences in gene families have to be provided; maybe marking the significant differences on the figure. I also think that since this is actually the most novel data in the paper, the Supplementary Figure 3 should be moved to the main body of the paper. Authors have enough of samples to claim the gradient in microbiota over the reproductory tract; as well as enough of samples to perform functional comparisons between PF and CU samples, but believe that these data is not enough to address differences in alpha- and beta-diversity between PF/CU. I find this argument a little vague and I strongly believe that the paper would benefit from including this information, but since it initially was just my suggestion to the authors, they are free to ignore it. Line 161, figure 3, the PF line is not far from reaching the plateu - it does seem that the line is approaching the asymptote, so i believe that 'far from saturation' is an overstatement and should be toned down.

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