

## Supplementary figure legends

Fig S1: Significant changes in the microbial composition assessed using Linear discriminant effect size (LEfSe) analysis between patients with high and low CD4<sup>+</sup> T cell response in the (A) gut and (B) oral environment. High CD4<sup>+</sup> T-cell count, n=48; low CD4<sup>+</sup> T-cell count, n=21.

Fig S2: Linear discriminant effect size (LEfSe) analysis showing significant differences in bacterial taxa in the whole cohort in individuals with high and low BMI in the (A) gut and (B) oral environment. High BMI, n=81; low BMI, n=55.

Fig S3: Changes in the alpha diversity, beta diversity, and composition using Linear discriminant effect size (LEfSe) analysis in DTG-treated patients in different age groups (18-39, 40-59 and >60 years) in (A-C) the gut environment and (D-F) the oral environment. 18-39 years, n=8; 40-59 years, n=19; >60 years, n=14.

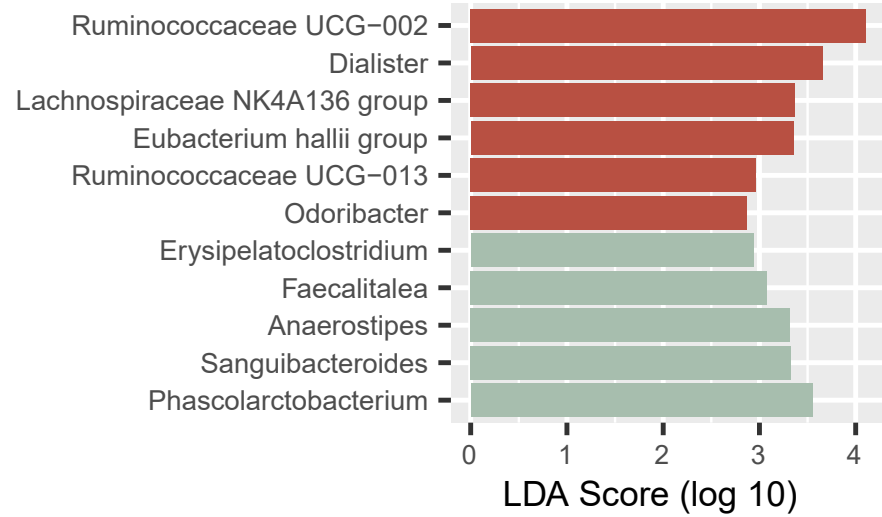
Fig S4: Changes in the alpha diversity and composition using Linear discriminant effect size (LEfSe) analysis in DTG-treated patients divided into groups based on the length of antiretroviral therapy (</≥5 years) in (A-B) the gut environment and (C-D) the oral environment. ≥5 years, n=26; <5years, n=15.

Fig S5: Changes in the alpha diversity and composition using Linear discriminant effect size (LEfSe) analysis in DTG-treated patients divided into groups based on CD4<sup>+</sup> T-cell count (</≥350) in (A-B) the gut environment and (C-D) the oral environment. ≥350 CD4<sup>+</sup> T-cell count, n=29; <350 CD4<sup>+</sup> T-cell count, n=12.

Fig S1

A.

**Gut environment**



B.

**Oral environment**

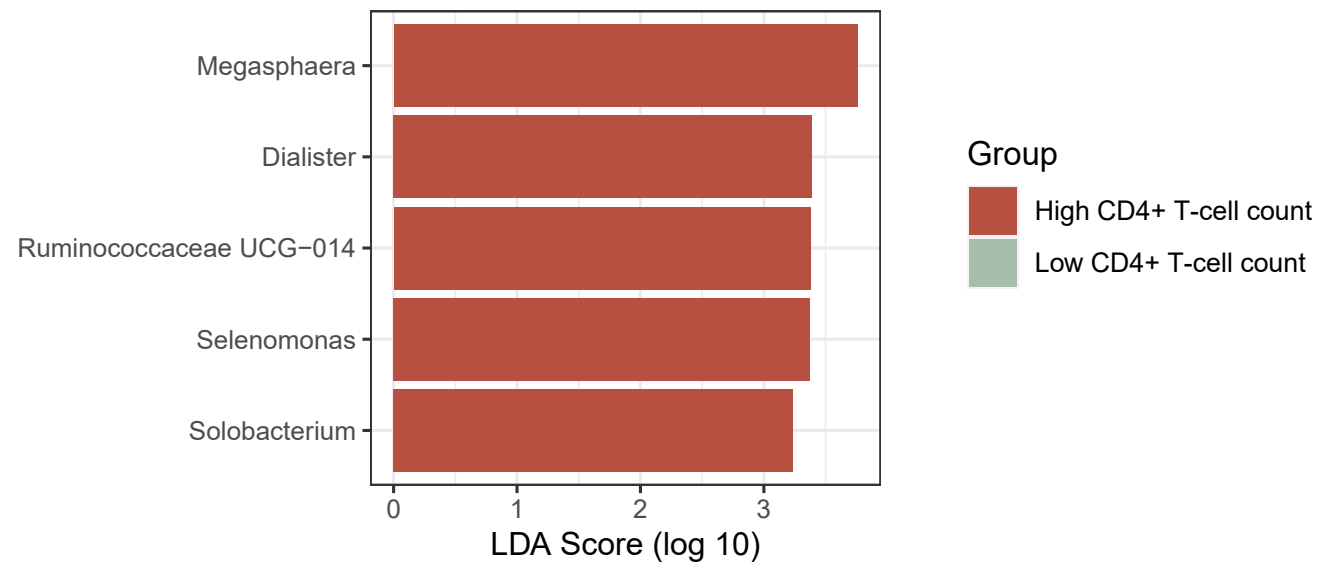
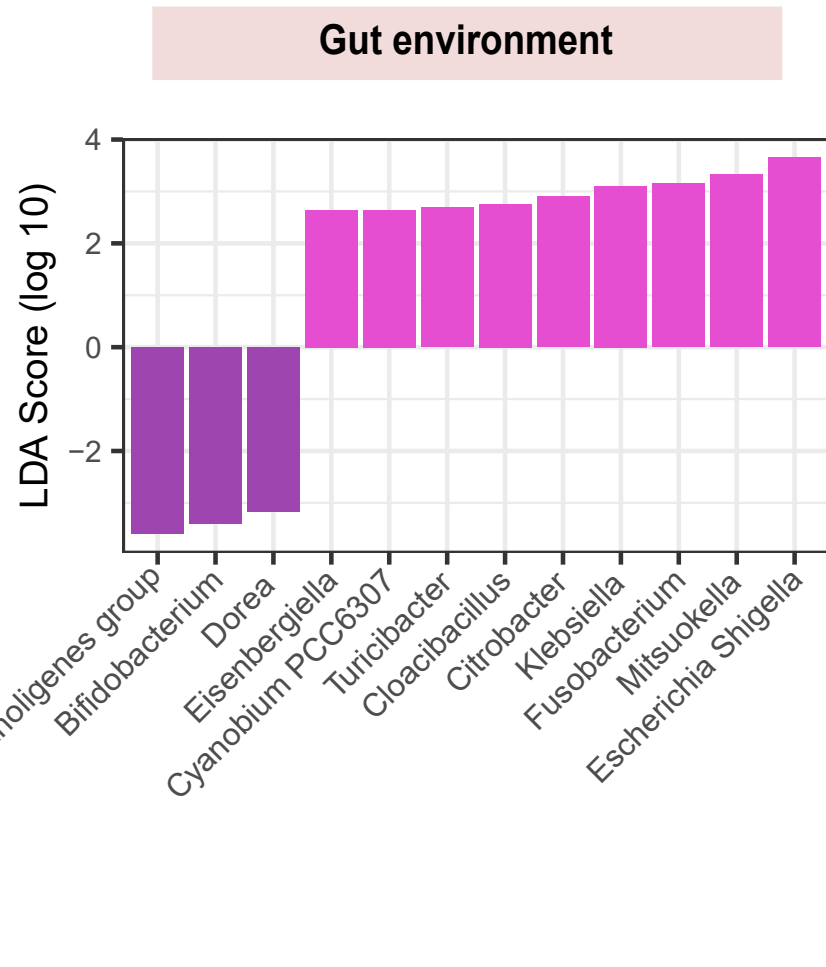


Fig S2

A.



B.

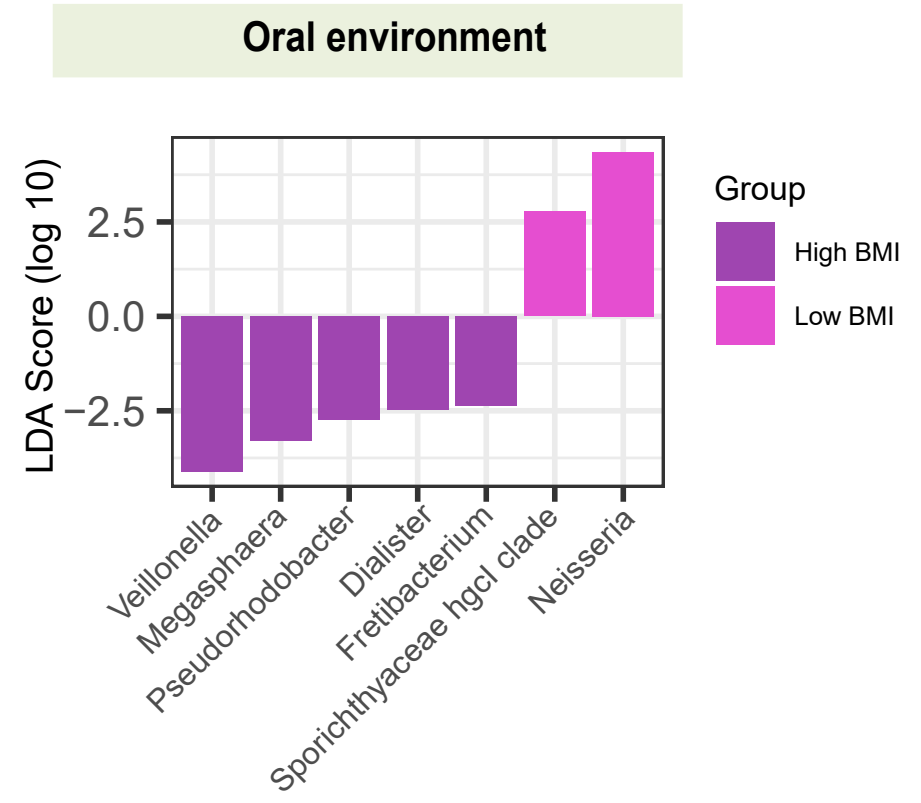
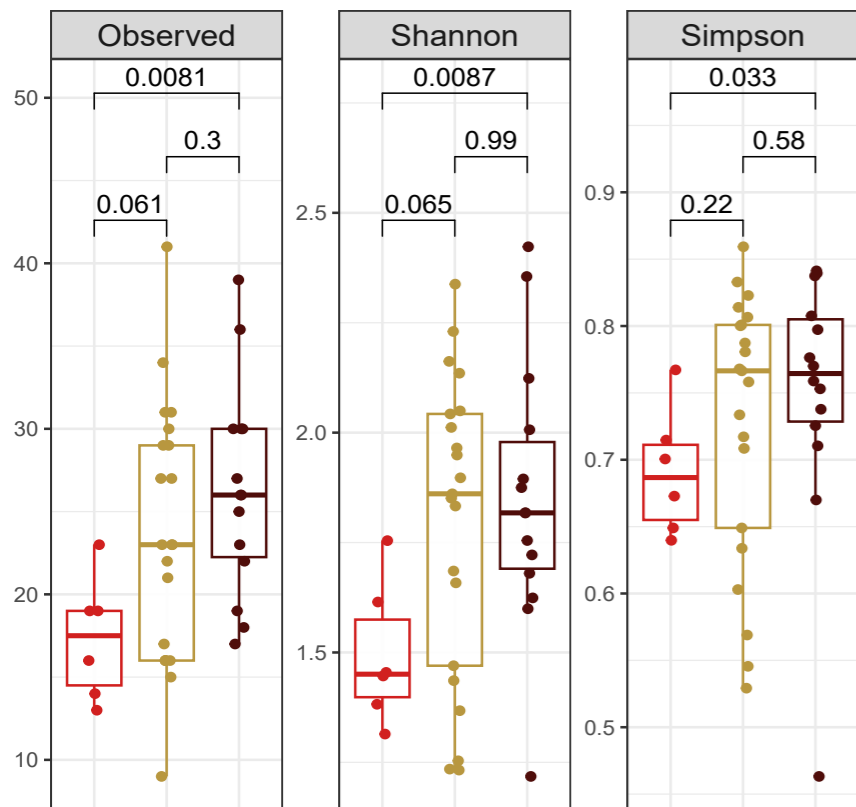


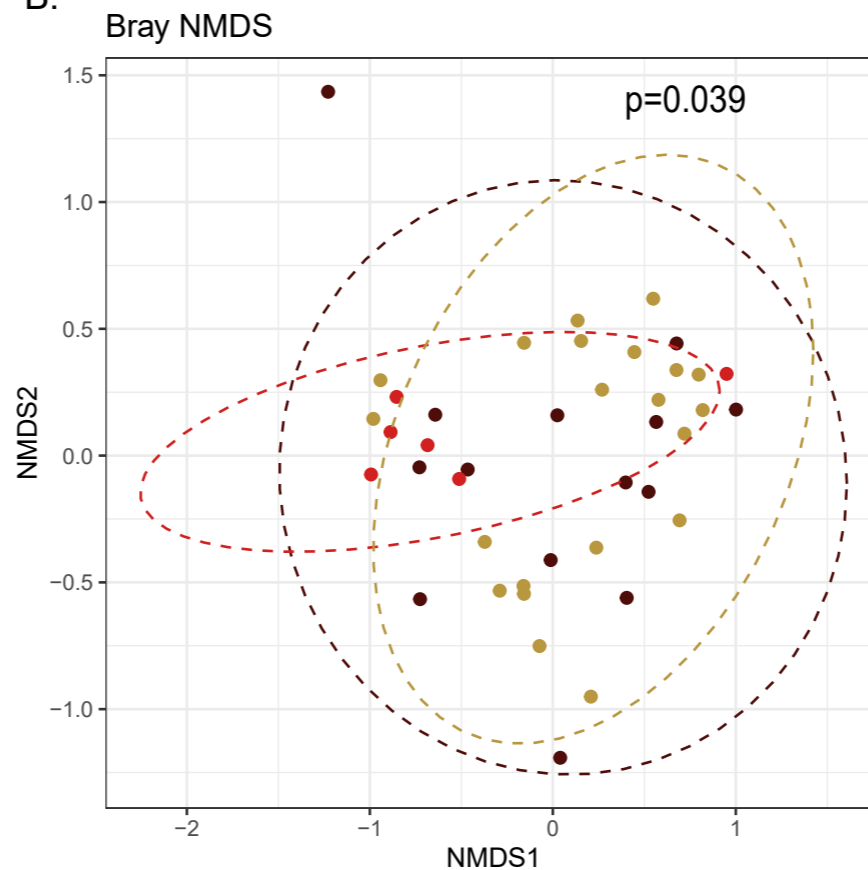
Fig S3

## Gut environment

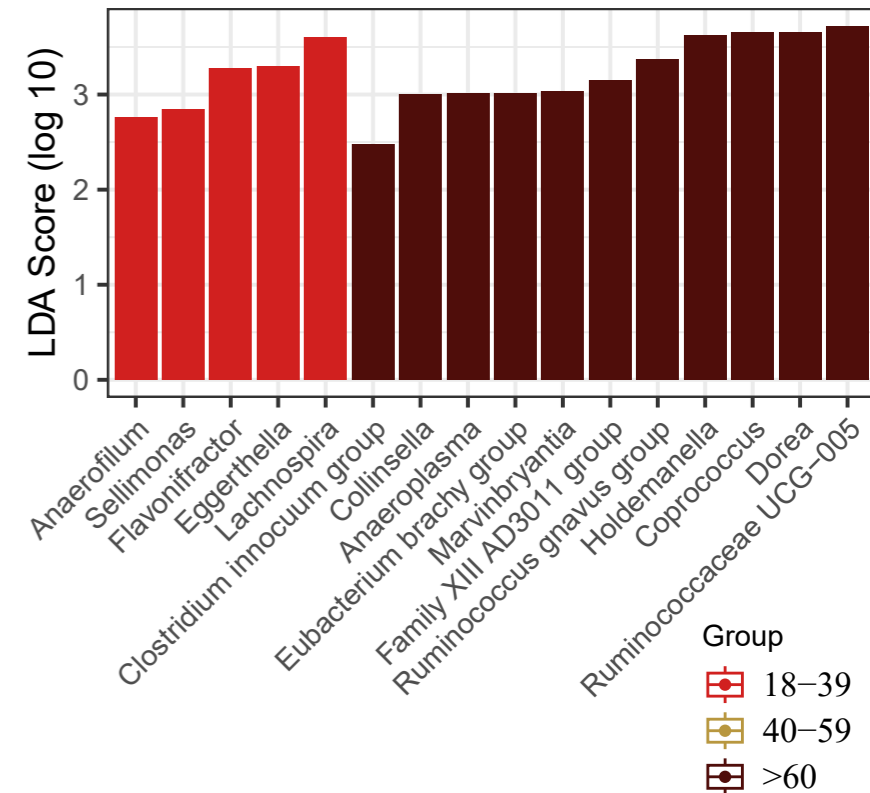
A.



B.

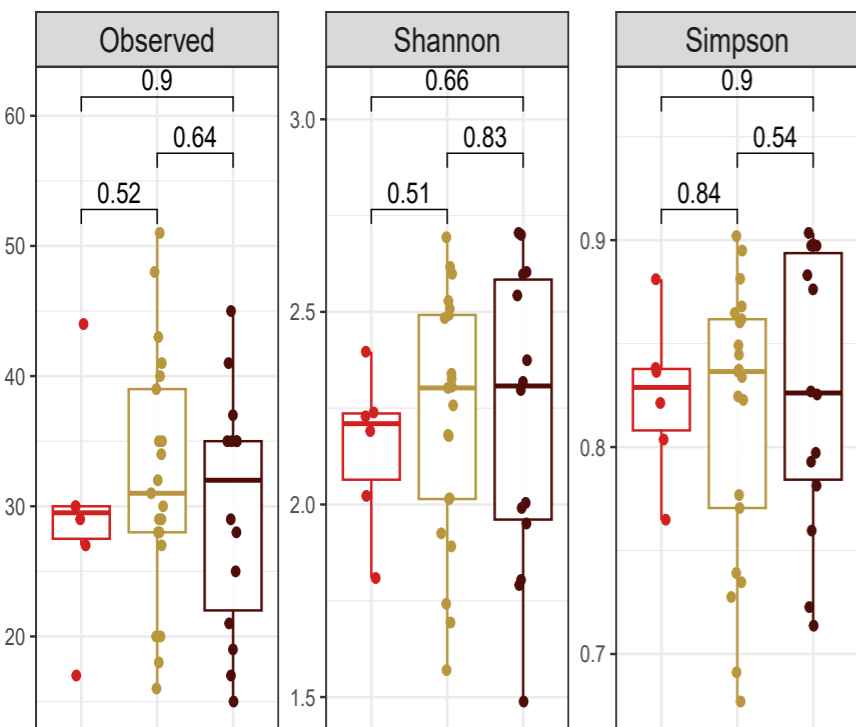


C.

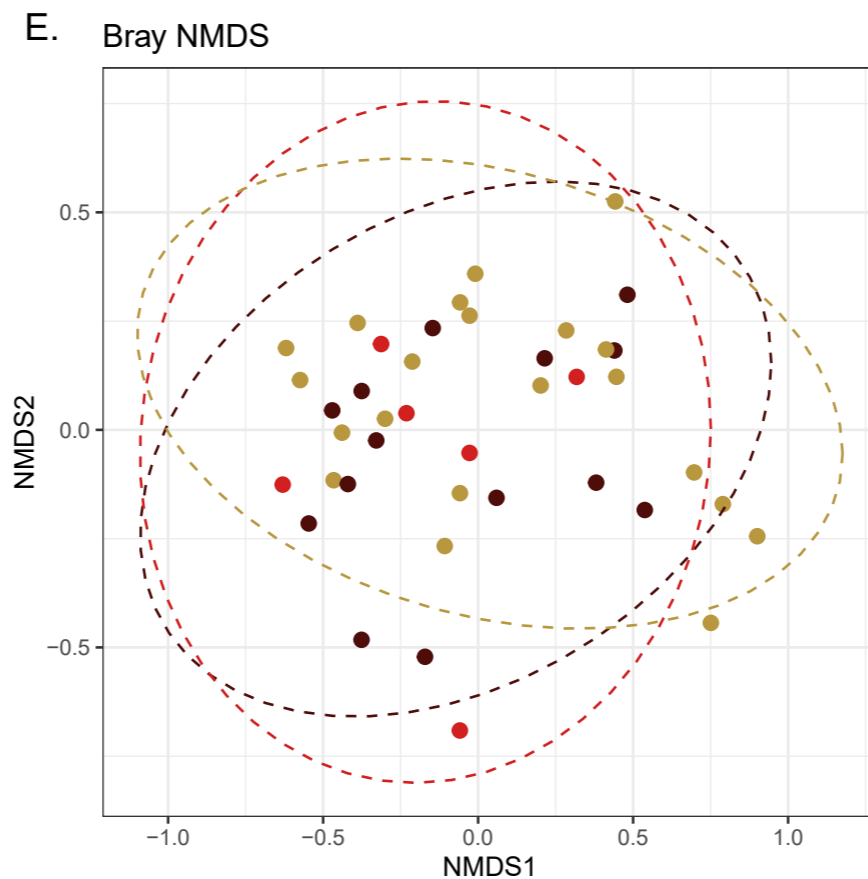


## Oral environment

D.



E.



F.

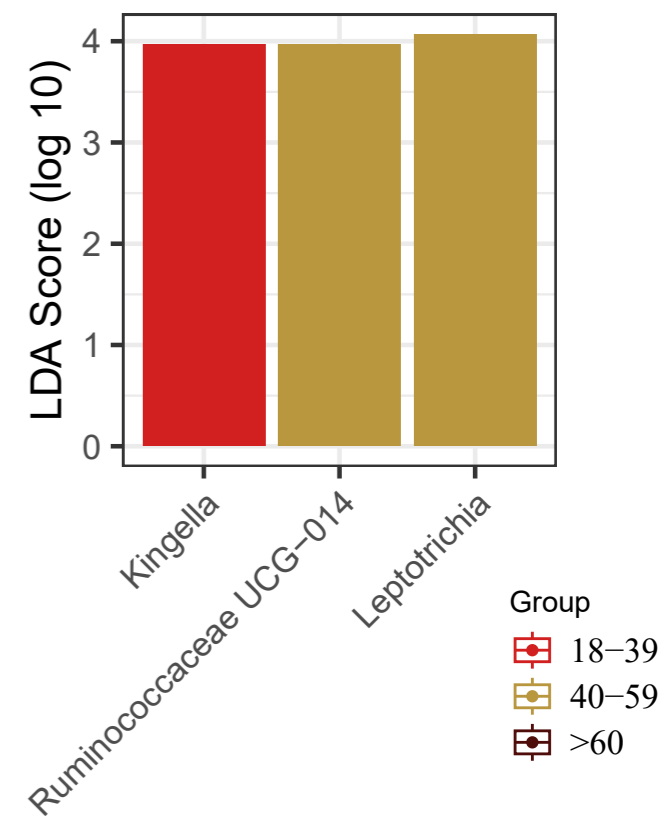
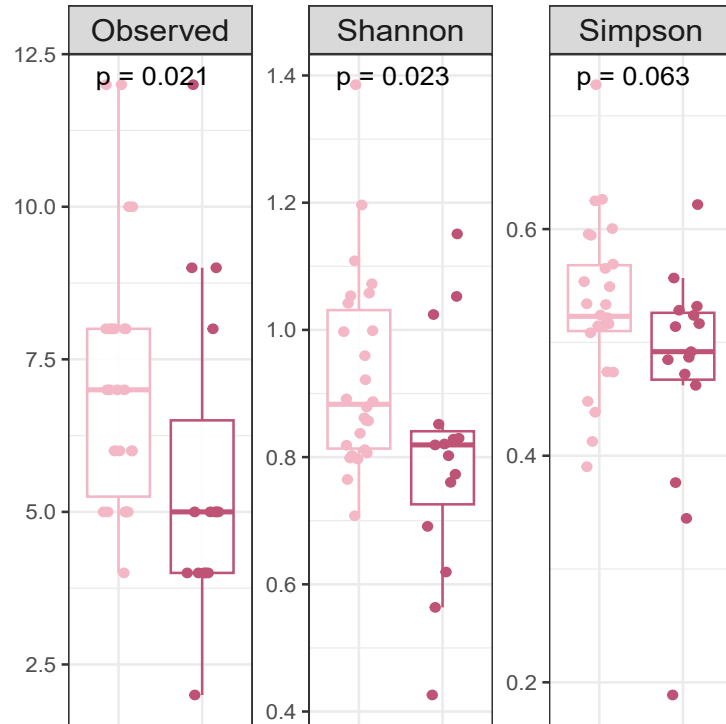


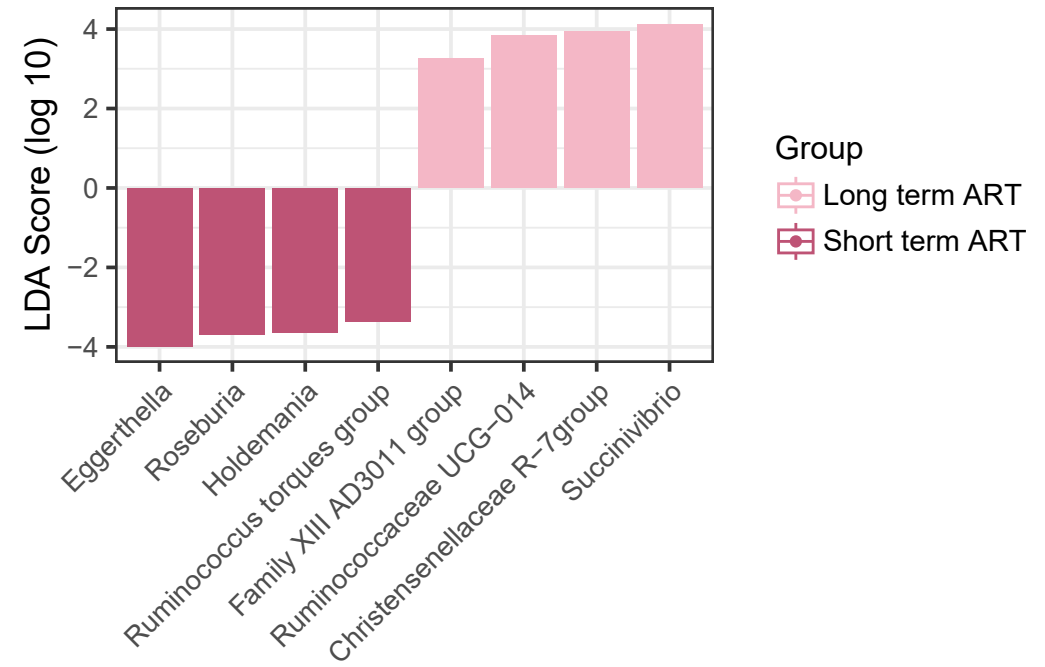
Fig S4

## Gut environment

A.

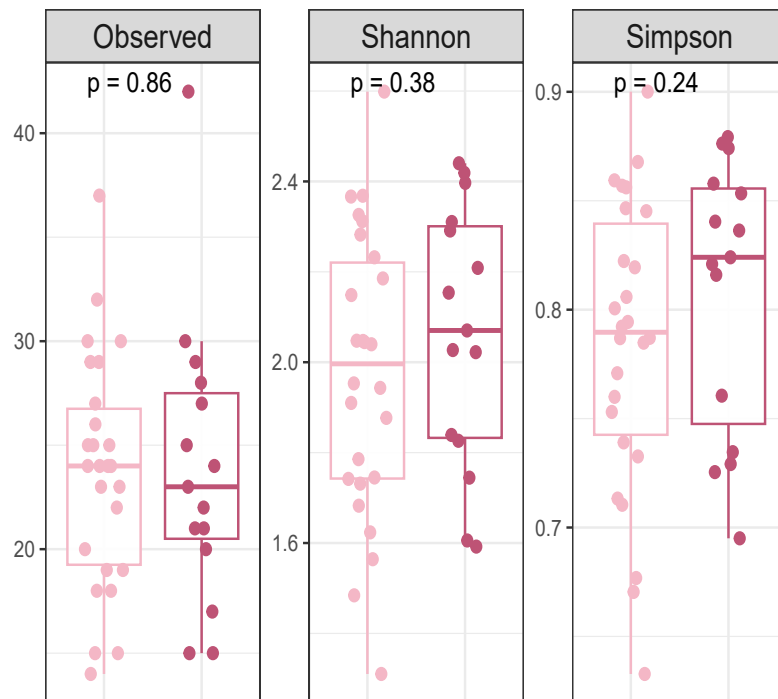


B.



## Oral environment

C.



D.

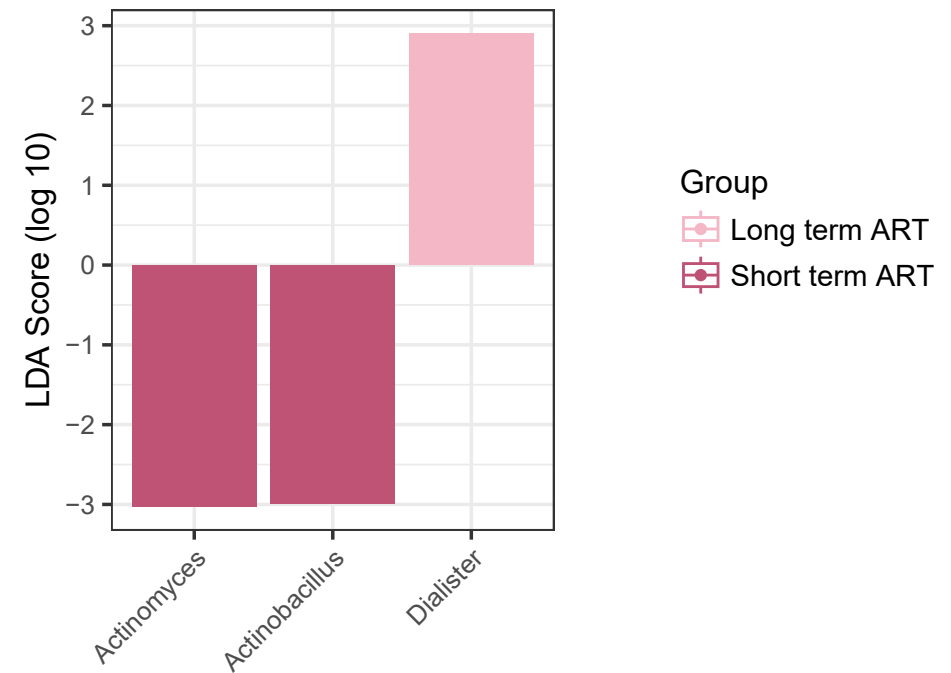
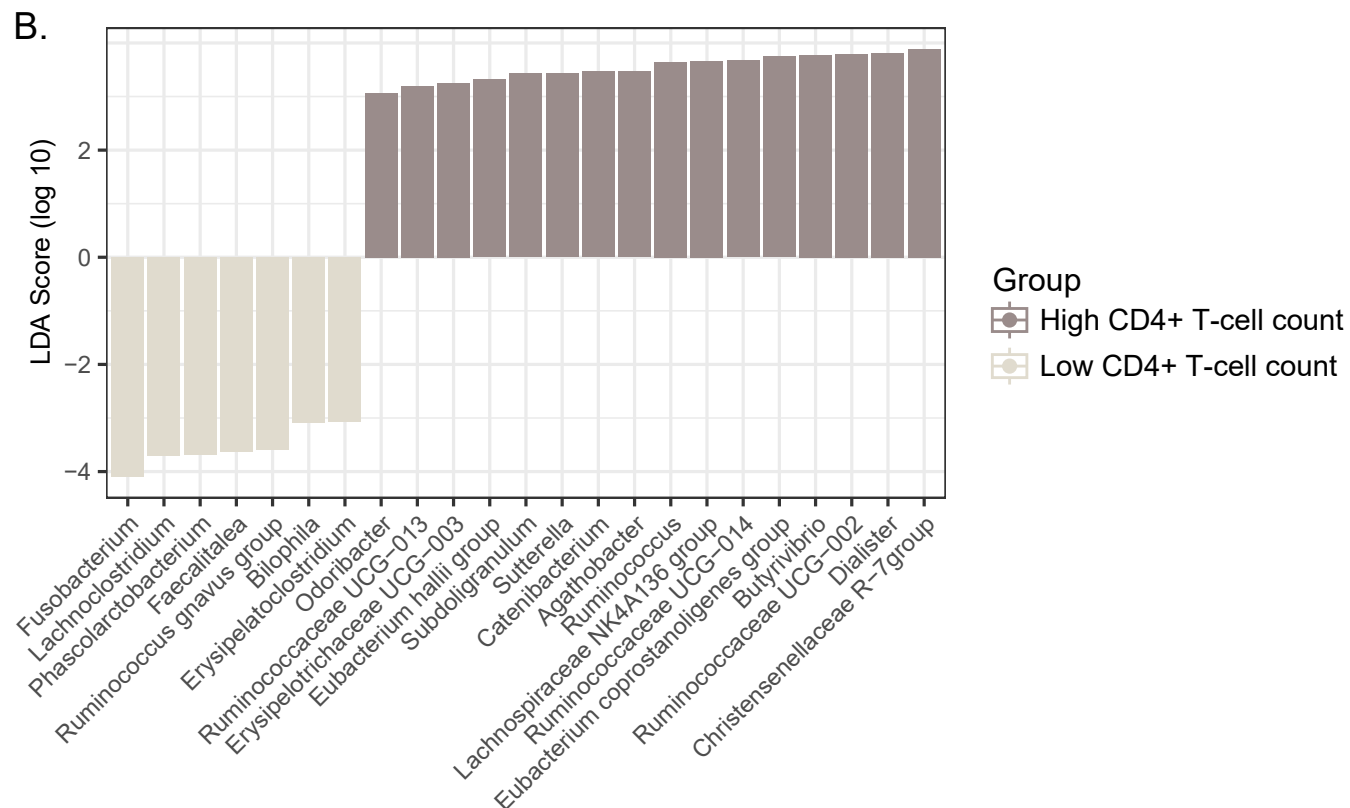
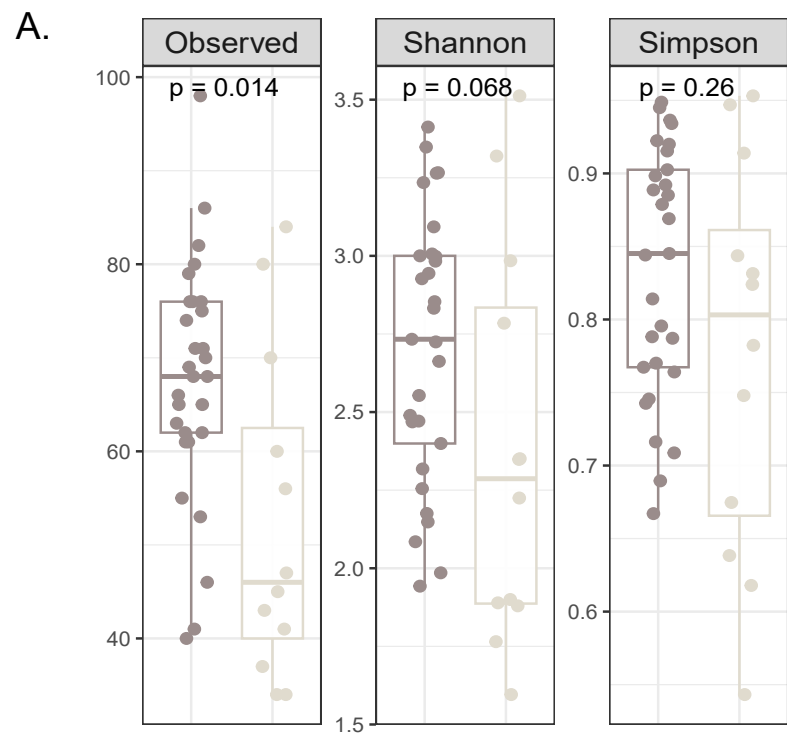


Fig S5

## Gut environment



## Oral environment

