

Supplementary material

Gut microbial signatures of distinct trimethylamine N-oxide response to raspberry consumption

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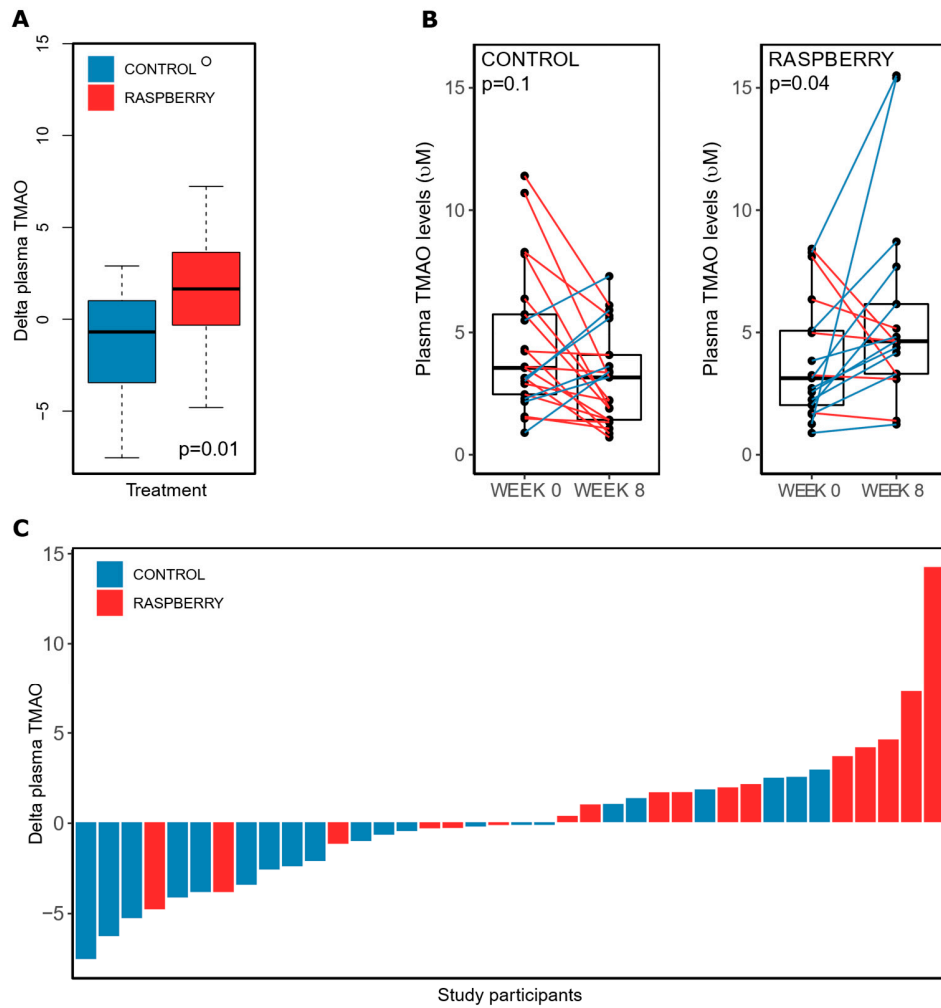


Figure S1. Global and individual plasma changes in plasma TMAO levels after an 8-week raspberry consumption. The y axis represents delta values in plasma TMAO in pre-versus post-intervention. **A.** Box and whisker plots show median, first, and third quartiles, and maximum and minimum values for the delta plasma TMAO values in the control (n=21) and raspberry-treated (n=17) groups. p stands for a p-value obtained from unpaired and two-tailed Student's *t* test. **B.** Plasma TMAO levels before (week 0) and after (week 8) the intervention in the control (n=21) and raspberry-treated (n=17) groups, respectively. Blue and red lines stand for increase or decrease in plasma TMAO levels, respectively, for each individual during the intervention. p stands for a p-value of the time effect obtained from linear mixed models. **C.** Each bar on the x axis represents

one participant from the control group (blue bars) and the raspberry-treated group (red bars).

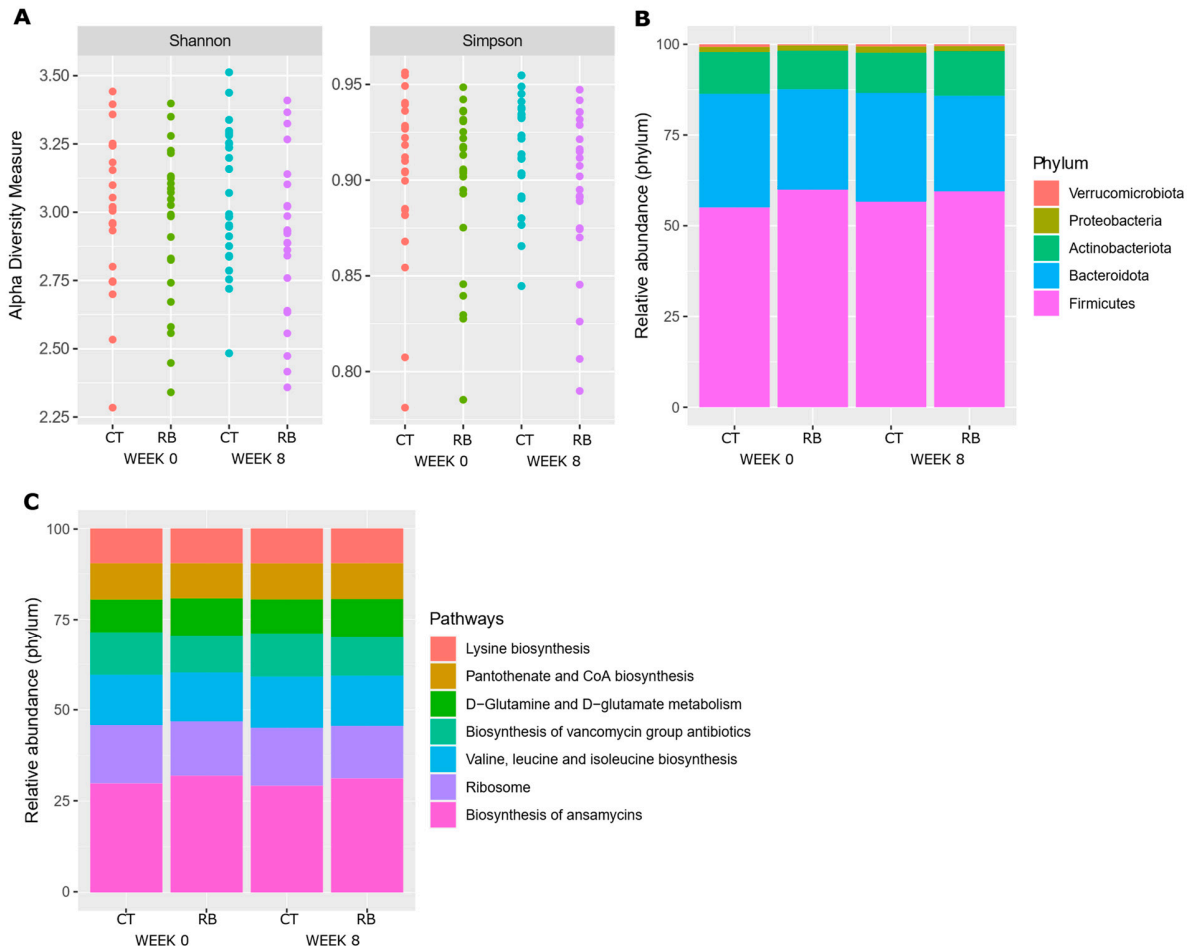


Figure S2. Schematic overview of fecal microbiota composition and evolution according to control and raspberry-treated groups. **A.** The differences in α -diversity between CT and RB groups according to Shannon (left) and Simpson's reciprocal (right) indexes are shown. Each point represents a participant. **B.** The relative abundance of bacterial phyla among CT and RB groups before and after the intervention is depicted. CT and RB stand for control and raspberry-treated groups, respectively. **C.** Relative abundance of the functional pathways showing a relative abundance greater than 10% and identified by using 23 bacterial species identified more than 3 times in at least 10% of the samples analyzed (n=34; 17 RB and 21 CT).

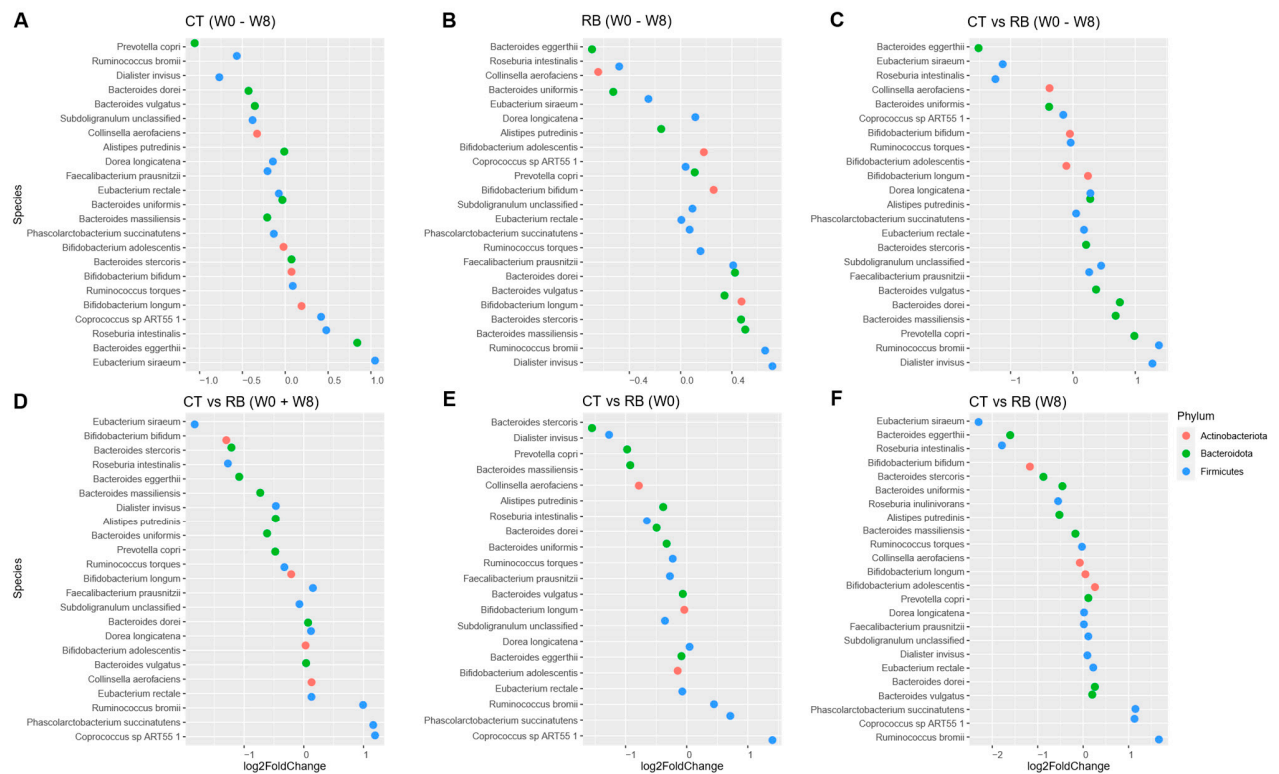


Figure S3. Differential abundance of fecal microbiota according to CT and RB groups at the species level. Each bacterial species is represented by a point and each color represent a different phylum. **A, B.** Changes in the abundance of bacterial species between weeks 0 and 8 in CT and RB groups. **C.** Differential change in the abundance of bacterial species between CT and RB groups during the intervention. **D.** Change in the abundance of bacterial species between CT and RB groups, irrespective of the time. **E, F.** Changes in the abundance of bacterial species between CT and RB groups at weeks 0 and 8, respectively. CT and RB stand for control and raspberry-treated groups,

respectively. W0 and W8 stand for week 0 (baseline) and week 8 (end of the intervention).