



Supplemental Figure S2. Eating-responsive bacteria. (A) Non-oral bacteria (especially chloroplast) peaked during eating and fell down quickly afterwards. Each panel corresponds to a subject. Samples were sorted in time order. The sample that pointed by red arrow in MO was likely contaminated and discarded. All the non-oral ASVs were removed from downstream analyses. (B) Multiple *Lactobacillus* were detected in saliva samples upon ingestion of fermented products, which were marked in red dot. (C) Heatmap displaying the z-scores of each ASV for eating activity. Inner ring was the phylogenomic tree colored by phylum. Three outside concentric circles correspond to z-scores in subject MA, ME and MO from the inside to the outside, respectively. Grey color indicates that the ASV was not present or with prevalence lower than 10% in the corresponding individual. (D) Eating-increased bacteria increased later than the food-derived chloroplast. (E) Microbial composition variation explained by host ID and sampling time points in the lunch dataset. (F-G) The changes of both eating-increased bacteria (F) and eating-decreased bacteria (G) were reproduced in the MA validation dataset. (H) The temporal patterns of eating-increased bacteria were reproduced in the MA validation dataset.