

Supplementary Materials to:

Long-term persistence of gastric dysbiosis after eradication of *Helicobacter pylori* in patients who underwent [endoscopic submucosal dissection for early gastric cancer](#)

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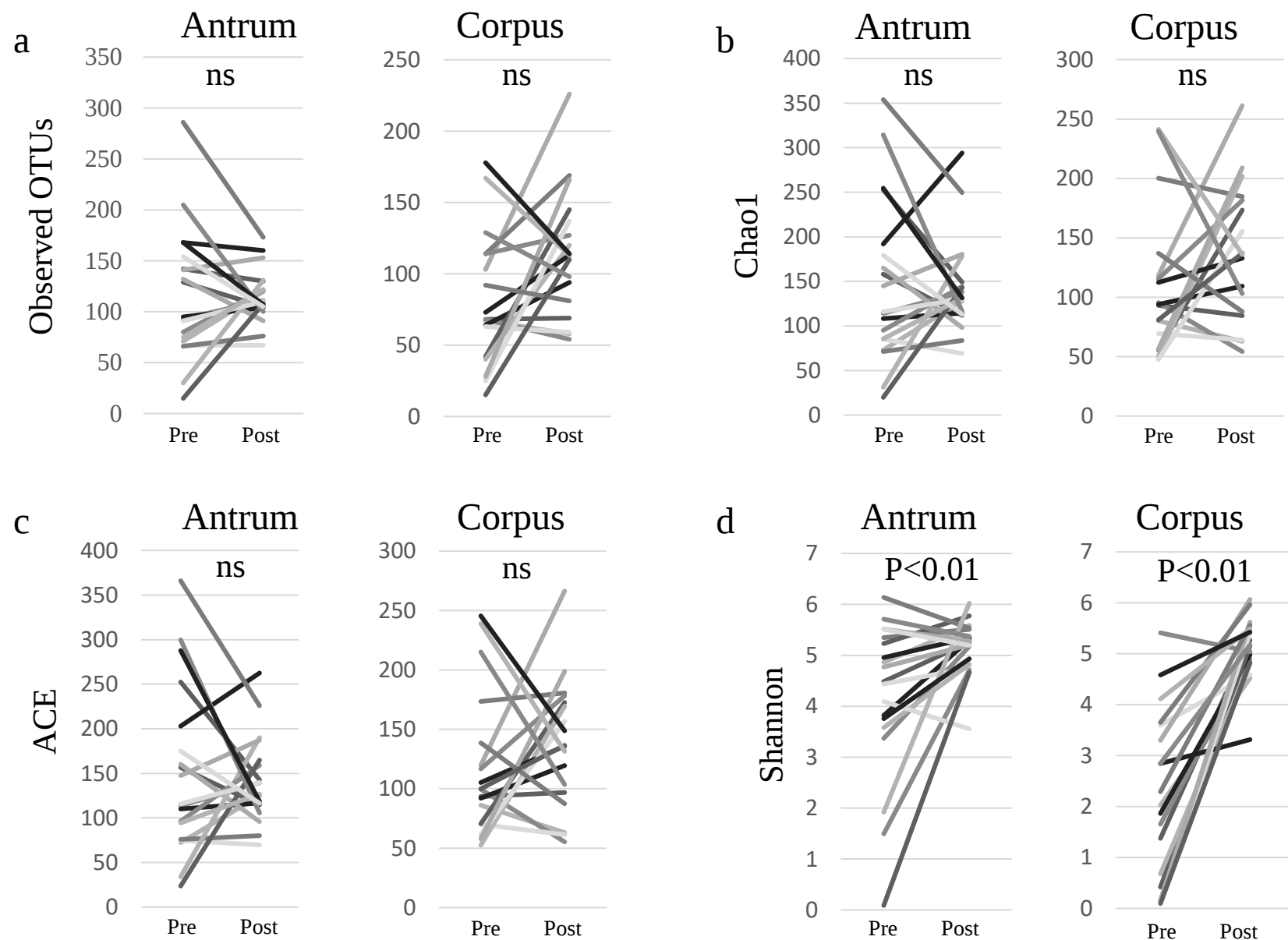
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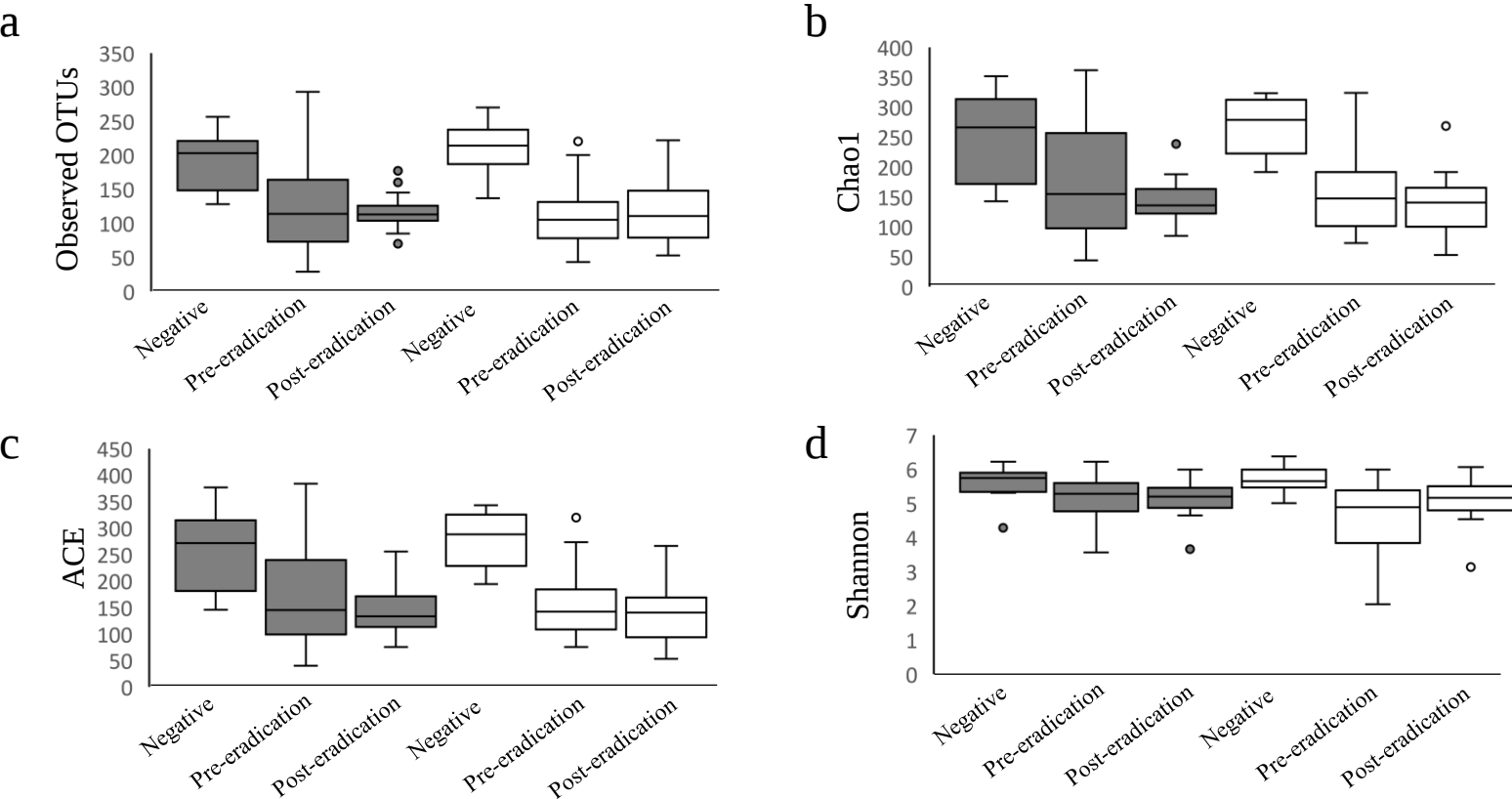
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Short running head: Dysbiosis after eradication of *H. pylori*

Supplemental Figure 1



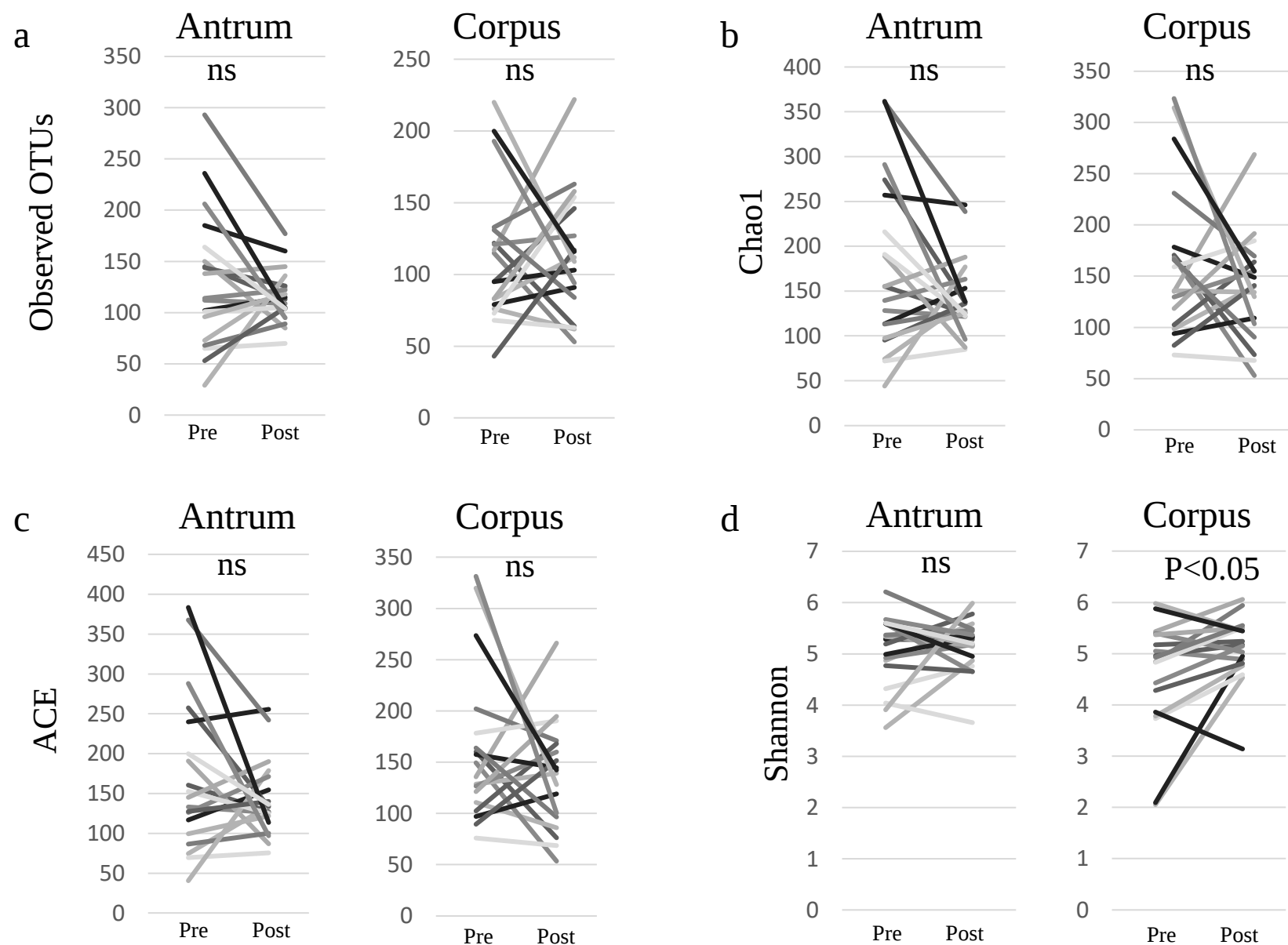
Supplemental Figure 2



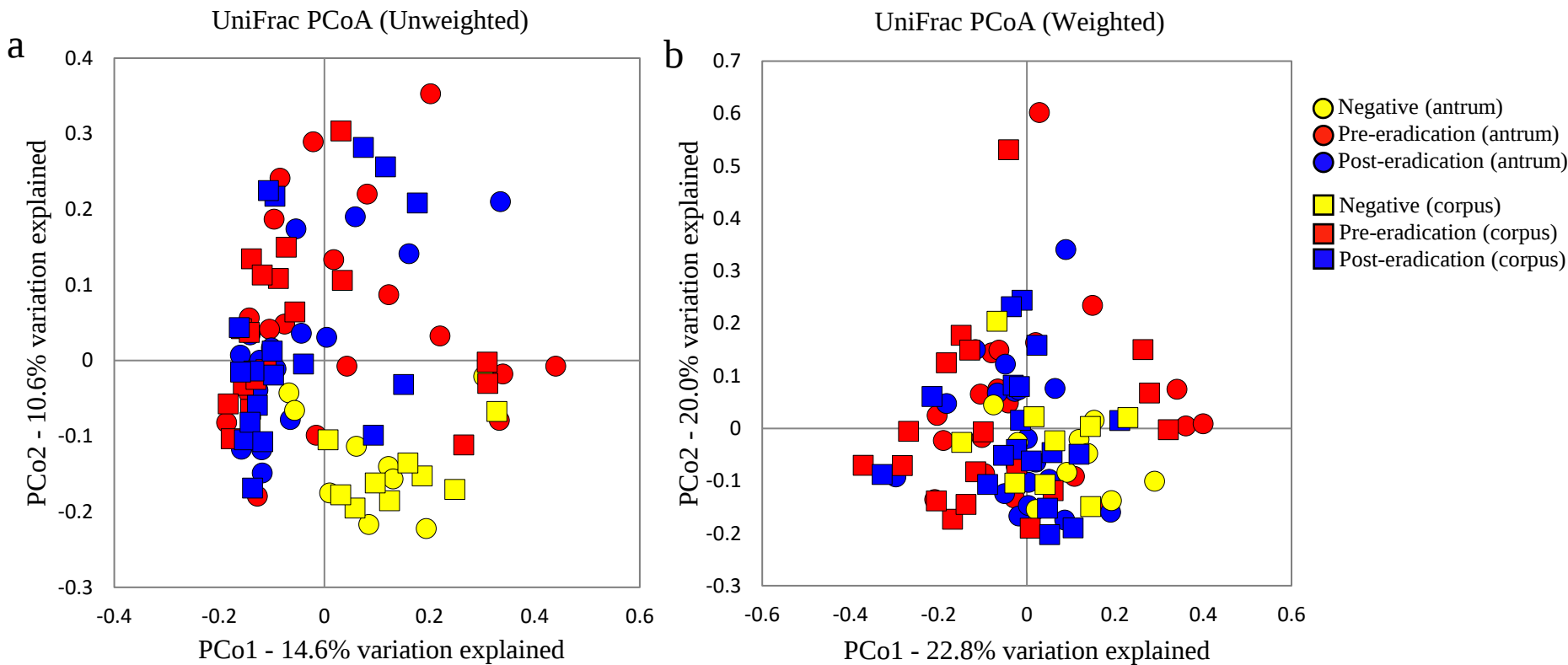
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Group comparison	Observed OTUs	Chao1	ACE	Shannon
Antrum vs. corpus				
Negative	0.945	0.945	0.945	0.641
Pre-eradication	0.433	0.734	0.671	0.196
Post-eradication	0.257	0.212	0.167	0.899
Negative vs. pre-eradication				
Antrum	0.007	0.054	0.016	0.028
Corpus	<0.001	0.002	<0.001	<0.001
Negative vs. post-eradication				
Antrum	<0.001	<0.001	<0.001	0.028
Corpus	<0.001	<0.001	<0.001	0.005
Pre-eradication vs. Post-eradication				
Antrum	0.515	0.374	0.515	0.983
Corpus	0.966	0.347	0.369	0.024

Supplemental Figure 3



Supplemental Figure 4



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Group comparison	Unweighted UniFrac		Weighted UniFrac	
	R ²	<i>P</i> value	R ²	<i>P</i> value
Antrum vs. corpus				
Pre-eradication	0.03	0.287	0.034	0.269
Negative vs. pre-eradication				
Antrum	0.074	<0.007	0.089	0.029
Corpus	0.152	<0.001	0.055	0.187
Negative vs. post-eradication				
Antrum	0.084	<0.002	0.097	0.013
Corpus	0.130	<0.001	0.055	0.204
Pre-eradication vs. Post-eradication				
Antrum	0.040	0.057	0.038	0.179
Corpus	0.032	0.239	0.060	0.049

Supplemental figure legends

Supplemental Figure 1. Effect of *H. pylori* eradication on α -diversity of the gastric microbiome. The Wilcoxon signed-rank test was used to compare the difference in paired samples in the pre- and post-*H. pylori* eradication groups. (a) the numbers of observed OTUs. (b-d) indices of Chao1 (b), ACE (c), and Shannon (d).

Supplemental Figure 2. Comparison of α -diversity of the gastric microbiome between different gastric regions or *H. pylori* status upon removing *H. pylori* reads. The numbers of observed OTUs (a) and indices of Chao1 (b), ACE (c), and Shannon (d) in each group are expressed as medians and interquartile ranges. (E) *P*-values between different groups are shown. The Wilcoxon rank sum test was used to compare the values of the *H. pylori*-negative group with those of the pre-eradication or post-eradication patients. The Wilcoxon signed-rank test was used to compare the difference in paired samples of the pre- and post-*H. pylori* eradication groups.

Supplemental Figure 3 . Effect of *H. pylori* eradication on α -diversity of the gastric microbiome (after removing *H. pylori* reads). The Wilcoxon signed-rank test was used to compare the difference in paired samples from the pre- and post-*H. pylori* eradication groups. (a) the numbers of observed OTUs. (b-d) indices of Chao1 (b), ACE (c), and Shannon (d).

Supplemental Figure 4. β -Diversity distances between different *H. pylori* status groups using PCoA (after removing *H. pylori* reads). (a) Unweighted UniFrac PCoA (b) Weighted UniFrac PCoA. (c) PERMANOVA data comparing β -diversity of the gastric bacterial communities between different *H. pylori* status groups using unweighted and weighted UniFrac distances.