

Table SI. Significant differences in class levels between the two groups.

Name	IQR						P-value <sup>a</sup>
	Median (%)		P 25 (%)		P75 (%)		
	Group A	Group B	Group A	Group B	Group A	Group B	
Actinobacteria	2.095	1.042	1.256	0.285	3.188	2.557	0.040
Fusobacteria	0.683	4.017	0.246	1.358	1.345	7.050	<0.001
Deltaproteobacteria	0.051	0.003	0.001	0.000	0.297	0.051	0.008
Epsilonproteobacteria	0.051	0.263	0.014	0.143	0.478	1.161	0.034
Spirochaetes	0.007	0.189	0.000	0.022	0.161	1.463	0.007
Verrucomicrobiae	0.250	0.000	0.000	0.000	0.591	0.074	0.004

<sup>a</sup>Wilcoxon rank-sum test. IQR, interquartile range; Group A, esophageal cancer postoperative tissues; Group B, esophageal mucosa group.

Table SII. Significant differences in order levels between the two groups.

Name	IQR						P-value <sup>a</sup>
	Median (%)		P 25 (%)		P75 (%)		
	Group A	Group B	Group A	Group B	Group A	Group B	
Bifidobacteriales	1.073	0.066	0.475	0.003	1.497	0.765	<0.001
Fusobacteriales	0.683	4.017	0.246	1.358	1.345	7.050	<0.001
Campylobacteriales	0.051	0.263	0.014	0.143	0.478	1.161	0.034
Enterobacteriales	7.152	1.655	2.789	0.251	13.218	6.819	0.001
Pasteurellales	0.421	2.647	0.163	0.457	3.381	11.535	0.030
Spirochaetales	0.007	0.189	0.000	0.022	0.161	1.458	0.006
Verrucomicrobiales	0.250	0.000	0.000	0.000	0.591	0.074	0.004

<sup>a</sup>Wilcoxon rank-sum test. IQR, interquartile range; Group A, esophageal cancer postoperative tissues; Group B, esophageal mucosa group.

Table SIII. Significant differences in family levels between the two groups.

Name	IQR						P-value <sup>a</sup>
	Median (%)		P 25 (%)		P75 (%)		
	Group A	Group B	Group A	Group B	Group A	Group B	
Bifidobacteriaceae	1.073	0.066	0.475	0.003	1.497	0.765	<0.001
Bacteroidaceae	12.194	0.907	7.543	0.176	27.594	4.786	<0.001
Prevotellaceae	5.757	12.227	2.510	4.770	8.104	22.868	0.001
Rikenellaceae	0.334	0.011	0.028	0.000	1.032	0.189	<0.001
S24-7	0.112	0.001	0.019	0.000	0.529	0.029	<0.001
Barnesiellaceae	0.167	0.002	0.017	0.000	0.378	0.077	<0.001
Odoribacteraceae	0.148	0.004	0.029	0.000	0.384	0.029	<0.001
Paraprevotellaceae	0.460	2.615	0.195	0.961	1.325	5.784	<0.001
Aerococcaceae	0.082	0.009	0.011	0.002	0.289	0.080	0.007
Enterococcaceae	0.075	0.010	0.002	0.000	0.177	0.070	0.029
Peptostreptococcaceae	0.013	0.303	0.002	0.071	0.169	1.567	<0.001
Ruminococcaceae	5.621	0.254	2.096	0.040	10.442	1.983	<0.001
Mogibacteriaceae	0.005	0.114	0.000	0.027	0.022	0.265	<0.001
Tissierellaceae	0.014	0.064	0.001	0.011	0.047	0.259	0.016
Fusobacteriaceae	0.413	2.577	0.101	1.040	1.251	5.611	<0.001
Leptotrichiaceae	0.061	0.252	0.008	0.036	0.135	0.905	0.001
Bradyrhizobiaceae	0.016	0.145	0.000	0.009	0.060	0.884	0.002
Methylobacteriaceae	0.050	0.006	0.000	0.000	0.254	0.038	0.043
Alcaligenaceae	0.808	0.015	0.224	0.000	1.301	0.434	<0.001
Campylobacteraceae	0.034	0.228	0.011	0.066	0.381	1.088	0.007
Enterobacteriaceae	7.152	1.655	2.789	0.251	13.218	6.819	0.001
Pasteurellaceae	0.421	2.647	0.163	0.457	3.381	11.535	0.030
Spirochaetaceae	0.007	0.189	0.000	0.022	0.161	1.458	0.006
Verrucomicrobiaceae	0.250	0.000	0.000	0.000	0.591	0.074	0.004

<sup>a</sup>Wilcoxon rank-sum test. IQR, interquartile range; Group A, esophageal cancer postoperative tissues; Group B, esophageal mucosa group.