

**Supplementary Table 6: paired Wilcoxon test (genera) between cancer tissue and paired non-**

	<b>padjust</b>	<b>mean ON [%]</b>	<b>mean OFF [%]</b>
Acetanaerobacterium	0.940136197	0.001556186	0.001874649
Actinomyces	1	0.000448116	0.000284811
Akkermansia	1	0.022768381	0.028719117
Alistipes	0.27128547	0.012783535	0.019605176
Anaerorhabdus	1	6.11068E-05	0.00018704
Anaerostipes	0.967006537	0.0066199	0.00695023
Anaerotruncus	0.940136197	0.000366641	0.000756661
Bacteroides	0.940136197	0.147919111	0.188438387
Barnesiella	1	0.006159562	0.007179779
Bifidobacterium	0.79121168	0.016751401	0.018491439
Bilophila	0.940136197	0.001250652	0.001526075
Blautia	0.27128547	0.048693945	0.067551138
Butyricococcus	1	0.00102252	0.001241264
Butyricimonas	0.940136197	0.001067332	0.001258268
Campylobacter	0.559987118	0.001454341	0.000131778
Catenibacterium	1	0.000545887	0.002282736
Clostridium_IV	1	0.00774019	0.007494346
Clostridium_sensu_stricto	1	0.01141067	0.016939858
Clostridium_XI	0.27128547	0.007703526	0.014044992
Clostridium_XIVa	1	0.019615272	0.021050484
Clostridium_XIVb	1	0.00264796	0.00267807
Clostridium_XVIII	1	0.00195949	0.001241264
Collinsella	0.27128547	0.001262873	0.001942664
Coprococcus	1	0.01556593	0.01492918
Desulfovibrio	1	0.001759875	0.0039916
Dialister	0.940841784	0.004717442	0.004493207
Dorea	1	0.006554719	0.008174491
Eggerthella	1	0.000158878	0.000170036
Erysipelotrichaceae_incertae_sedis	0.967006537	0.001621366	0.001628097
Escherichia_Shigella	0.967006537	0.052225916	0.032897757
Eubacterium	0.68067309	0.001385087	0.001011715
Faecalibacterium	1	0.063045887	0.069757358
Flavonifractor	0.68067309	0.003360872	0.004718505
Fusobacterium	0.967006537	0.031437394	0.003179677
Gemella	0.967006537	0.002924977	0.001122239
Gemmiger	1	0.018046865	0.018606213
Granulicatella	0.385916972	0.006159562	8.50181E-05
Haemophilus	1	0.012225427	0.012569927
Halomonas	0.453685614	0.026149622	0.012659196
Holdemania	1	0.000207763	0.000331571
Howardella	0.940136197	0.000562182	0.000480352
Klebsiella	1	0.005911061	0.009755828
Lachnospiracea_incertae_sedis	0.940136197	0.052800319	0.057799561
Lactobacillus	1	0.002069482	0.00164085
Mogibacterium	1	0.000272944	0.000263556
Odoribacter	1	0.002969789	0.002372005
Oscillibacter	0.251122983	0.010583692	0.01469538
Parabacteroides	1	0.006440653	0.007876928

Paraprevotella	1	0.001083627	0.001186003
Parasutterella	1	0.002334278	0.00253354
Parvimonas	0.940136197	0.006126972	0.001330533
Peptococcus	0.413830507	0.000293312	0.000425091
Peptostreptococcus	0.940136197	0.005760331	0.001254017
Phascolarctobacterium	1	0.004770402	0.005513424
Porphyromonas	0.940136197	0.010970701	0.005577188
Prevotella	1	0.070109829	0.076078455
Pseudoflavonifractor	0.311383735	0.000325903	0.00056537
Roseburia	1	0.043055827	0.045641972
Ruminococcus	0.251122983	0.01291797	0.017590247
Shewanella	0.940136197	0.016107743	0.007634626
Slackia	1	5.7033E-05	9.35199E-05
Sporobacter	0.27128547	0.002020597	0.002962881
Streptococcus	0.79121168	0.042892876	0.016935607
Sutterella	1	0.010192609	0.011354168
Turcibacter	1	0.000700691	0.000871436
unclassified.Bacteroidetes	1	0.001470636	0.002695074
unclassified.Clostridiales	1	0.015268544	0.012569927
unclassified.Coriobacteriaceae	1	0.000358493	0.000408087
unclassified.Firmicutes	1	0.001780244	0.001857646
unclassified.Lachnospiraceae	0.551218933	0.025966302	0.030691537
unclassified.Porphyromonadaceae	1	0.000700691	0.000726905
unclassified.Rhodospirillaceae	1	0.00045219	0.001147744
unclassified.Rhodospirillales	0.940136197	0.000924749	0.001215759
unclassified.Ruminococcaceae	0.79121168	0.018963466	0.02164136
Veillonella	0.967006537	0.000965487	0.000382581
Victivallis	0.940136197	0.000199615	0.000357076

**·cancerous tissue**

**ratio**

0.830120937  
1.573383085  
0.792795293  
0.652049003  
0.326704545  
0.952471967  
0.484550562  
0.784973343  
0.857904085  
0.905900383  
0.81952182  
0.720845657  
0.823772831  
0.848254505  
11.03629032  
0.239137182  
1.032803933  
0.673598913  
0.548489205  
0.931820477  
0.988756614  
1.578624429  
0.650072939  
1.042651386  
0.440894569  
1.049905393  
0.801850407  
0.934375  
0.99586597  
1.587522074  
1.369047619  
0.90378834  
0.712274775  
9.886976381  
2.606376263  
0.969937552  
72.45  
0.972593281  
2.065662077  
0.626602564  
1.170353982  
0.605900508  
0.913507269  
1.261226252  
1.03561828  
1.252016129  
0.72020538  
0.81766055

0.913679809  
0.921350671  
4.604898829  
0.69  
4.593502825  
0.865233873  
1.967066819  
0.921546442  
0.576441103  
0.943338456  
0.734382552  
2.109827394  
0.609848485  
0.681970349  
2.532703732  
0.897697492  
0.804065041  
0.545675605  
1.21468831  
0.878472222  
0.958333333  
0.84604109  
0.963937622  
0.393981481  
0.760635198  
0.876260394  
2.523611111  
0.559027778