

**Supplementary Table 9: Wilcoxon-rank sum test with continuity correction
of genera between patients with left and right sided cancers**

	padjust	mean distal [%]	mean proximal [%]	ratio
Acetanaerobacterium	0.945541348	0.23063887	0.081149785	2.842137782
Actinomyces	0.608021848	0.055654162	0.012710207	4.378698225
Akkermansia	0.248430939	3.58793859	0.590535784	6.07573442
Alistipes	0.642413177	1.498149875	1.048103246	1.429391504
Anaerorhabdus	0.847001136	0.004011111	0.007821666	0.512820513
Anaerostipes	0.945541348	0.60868606	0.83887368	0.725599187
Anaerotruncus	0.945541348	0.078718049	0.031286664	2.516025641
Bacteroides	0.945541348	15.89402645	16.95932734	0.937184957
Barnesiella	0.731963774	0.440219408	0.950332421	0.46322676
Bifidobacterium	0.299426945	2.032128997	0.476143919	4.267888169
Bilophila	0.945541348	0.138383322	0.115369574	1.199478488
Blautia	0.731963774	5.064027356	5.968908878	0.848400848
Butyricococcus	0.403810203	0.091754159	0.150567071	0.609390609
Butyricimonas	0.847001136	0.128355545	0.068439578	1.875457875
Campylobacter	0.847001136	0.14790971	0.062573328	2.363782051
Catenibacterium	0.945541348	0.22612637	0.092882284	2.434547908
Clostridium_IV	0.839668716	0.993752695	0.453656629	2.190539346
Clostridium_sensu_stricto	0.131634029	0.685899943	1.926085256	0.356110894
Clostridium_XI	0.131634029	0.720495773	1.138052405	0.633095427
Clostridium_XIVa	0.403810203	1.851629012	2.087407118	0.887047379
Clostridium_XIVb	0.403810203	0.177993041	0.38032851	0.467998154
Clostridium_XVIII	0.847001136	0.174483319	0.192608526	0.905896134
Collinsella	0.654564646	0.16946943	0.095815409	1.768707483
Coprococcus	0.708909165	1.473080433	1.75596402	0.838901262
Desulfovibrio	0.945541348	0.383562468	0.040086038	9.5684803
Dialister	0.847001136	0.427684687	0.527962456	0.810066477
Dorea	0.847001136	0.733030494	0.634532655	1.155228952
Eggerthella	0.406102353	0.02155972	0.003910833	5.512820513
Erysipelotrichaceae_incertae_sedis	0.529459669	0.16946943	0.152522487	1.111111111
Escherichia_Shigella	0.406837333	5.061019023	2.992764959	1.691084697
Eubacterium	0.406837333	0.154929154	0.06159562	2.515262515
Faecalibacterium	0.131634029	5.751932854	7.898904967	0.728193703
Flavonifractor	0.750627908	0.383562468	0.312866641	1.225961538
Fusobacterium	0.847001136	3.20939001	1.410833007	2.274819198
Gemella	0.847001136	0.314370807	0.091904576	3.420621931
Gemmiger	0.403810203	1.763885964	1.797027767	0.981557434
Granulicatella	0.847727579	0.718490218	0.060617912	11.85277089
Haemophilus	0.131634029	1.114587407	0.784122018	1.421446384
Halomonas	0.008385529	3.100087242	0.090926867	34.0942928
Holdemania	0.847001136	0.037604164	0.009777083	3.846153846
Howardella	0.847001136	0.066183328	0.053773954	1.230769231
Klebsiella	0.642413177	0.037604164	1.344348846	0.027972028
Lachnospiracea_incertae_sedis	0.642413177	5.178344013	6.491982792	0.797652147
Lactobacillus	0.945541348	0.167463875	0.183809151	0.911074741
Mogibacterium	0.945541348	0.027074998	0.029331248	0.923076923

Odoribacter	0.847001136	0.376543024	0.124168948	3.032505552
Oscillibacter	0.847001136	1.277538782	0.814430974	1.568627451
Parabacteroides	0.406837333	0.861887428	0.305044975	2.825443787
Paraprevotella	0.847001136	0.141391655	0.066484161	2.126696833
Parasutterella	0.987132023	0.386570801	0.118302698	3.267641449
Parvimonas	0.945541348	0.651304112	0.200430192	3.249530957
Peptococcus	0.406837333	0.036099997	0.037152914	0.971659919
Peptostreptococcus	0.915818446	0.480330516	0.474188502	1.012952683
Phascolarctobacterium	0.847727579	0.625733281	0.353930387	1.767955801
Porphyromonas	0.642413177	1.223388787	0.252248729	4.849930431
Prevotella	0.33965366	4.084313549	15.45365663	0.264294312
Pseudoflavonifractor	0.847001136	0.041113885	0.015643332	2.628205128
Roseburia	0.847001136	4.077795494	5.599335158	0.728264227
Ruminococcus	0.939007448	1.690181804	1.317950724	1.282431713
Shewanella	0.015086122	1.760877631	0.052796246	33.35232669
Slackia	0.847727579	0.005515277	0.009777083	0.564102564
Sporobacter	0.847001136	0.270248589	0.115369574	2.3424598
Streptococcus	0.945541348	4.414728799	2.078607743	2.123887401
Sutterella	0.591485009	0.637265225	1.805827141	0.352893813
Turicibacter	0.847001136	0.089748604	0.043019163	2.086247086
unclassified.Bacteroidetes	0.708909165	0.17398193	0.06159562	2.824582825
unclassified.Clostridiales	0.847001136	1.816531793	0.644309738	2.819345551
unclassified.Coriobacteriaceae	0.759139155	0.057158329	0.020531873	2.783882784
unclassified.Firmicutes	0.654564646	0.185012485	0.158388737	1.168091168
unclassified.Lachnospiraceae	0.403810203	2.391624801	3.325185765	0.719245471
unclassified.Porphyromonadaceae	0.698461597	0.072199994	0.093859992	0.769230769
unclassified.Rhodospirillaceae	0.839668716	0.112812491	0.020531873	5.494505495
unclassified.Rhodospirillales	0.945541348	0.174483319	0.048885413	3.569230769
unclassified.Ruminococcaceae	0.945541348	2.012073443	1.509581541	1.332868341
Veillonella	0.131634029	0.070194439	0.083105201	0.844645551
Victivallis	0.33965366	0.028077775	0.003910833	7.179487179