Differences in the Stool Microbiome Before and After Colorectal Cancer Treatment

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Supplemental

Table S1: P-values of Differences between Initial and Follow Up Samples for Richness, Shannon Diversity, and Evenness.

Comparison	Alpha Metric	P-value	BH Adjusted P-value
all	sobs	0.2542809	0.3536011
all	shannon	0.3536011	0.3536011
all	evenness	0.3251909	0.3536011
adn	sobs	0.7195598	0.7195598
adn	shannon	0.6168494	0.7195598
adn	evenness	0.4485818	0.7195598
crc	sobs	0.1573652	0.1573652
crc	shannon	0.0407472	0.0611208
crc	evenness	0.0236109	0.0611208

Table S2: Summary of Most Important Variables For the Model

Variable	Lowest Taxonomic ID	Total Model Appearances
fit_result	NA	100
Age	NA	100
Otu000013	Bacteria	100
Otu000018	Escherichia/Shigella	100
Otu000020	Bacteria	100
BMI	NA	100
Otu000017	Ruminococcus	99
Otu000153	Porphyromonas	99
Otu000012	Blautia	99
Otu000010	Blautia	98
Otu000007	Bacteroides	98
Otu000003	Roseburia	97
Gender.mYes	NA	92
Otu000006	Bacteria	92
Otu000045	Bacteria	90
Otu000114	Clostridium_XlVa	88
Otu000015	Parabacteroides	88
Otu000008	Faecalibacterium	86
Otu000016	Bacteroides	86
Otu000046	Bacteroides	85
Otu000061	Bacteria	83
Otu000032	Bacteroides	81
Otu000089	Ruminococcus	80
Otu000231	Alistipes	69
Otu000002	Anaerostipes	67
Otu000088	Bacteria	65
Otu000005	Bacteroides	65
Otu000124	Bacteria	61
Otu000034	Clostridium_XlVa	57
Otu000220	Clostridium_IV	55
Otu000036	Phascolarctobacterium	54
Otu000049	Barnesiella	52

Table S3: Summary of Probability Assignment of Follow Up Individuals

Initial Positive Probability	Follow Up Positive Probability	Disease Free on Follow Up	Initial Diagnosis
0.9855	0.9275	No	cancer
0.9570	0.7255	Yes	cancer
0.9300	0.7975	Unknown	cancer
0.9635	0.8785	Yes	cancer
0.9820	0.7580	Unknown	cancer
0.9380	0.3340	Unknown	cancer
0.9500	0.4930	Yes	cancer
0.9610	0.3465	Unknown	cancer
0.9845	0.7365	Yes	cancer
0.8090	0.6040	Yes	cancer
0.9515	0.8870	Yes	cancer
0.9705	0.6820	Yes	cancer
0.9785	0.7600	Yes	cancer
0.9655	0.5860	Yes	cancer
0.9715	0.3440	Yes	cancer
0.9190	0.9290	Yes	cancer
0.8060	0.3600	Yes	cancer
0.9730	0.9370	Yes	cancer
0.7785	0.2710	Yes	cancer
0.8855	0.4750	Yes	cancer
0.9350	0.9020	Yes	cancer
0.9325	0.3420	Unknown	cancer
0.9850	0.3250	Yes	cancer
0.9595	0.6970	Yes	cancer
0.9590	0.8770	Yes	cancer
0.9900	0.4170	Yes	cancer
0.9595	0.6190	Yes	adv_adenoma
0.8070	0.4295	Yes	adenoma
0.7265	0.4200	Yes	adenoma
0.7895	0.4710	Yes	adv_adenoma
0.7390	0.4180	Yes	adenoma
0.7845	0.5715	Yes	adenoma
0.9570	0.7940	Yes	adenoma
0.8310	0.4080	Yes	adenoma
0.8995	0.8525	Yes	adenoma
0.8840	0.7940	Yes	adenoma
0.8625	0.7740	Yes	adenoma
0.9460	0.8350	Yes	adenoma
0.9110	0.6160	Yes	adv_adenoma
0.9545	0.8710	Yes	adenoma

Initial Positive Probability	Follow Up Positive Probability	Disease Free on Follow Up	Initial Diagnosis
0.8350	0.6095	Yes	adv_adenoma
0.9590	0.9185	Yes	adv_adenoma
0.7410	0.4550	Yes	adenoma
0.8825	0.7670	Yes	adv_adenoma
0.9265	0.8790	Yes	adenoma
0.9735	0.6035	Yes	adv_adenoma
0.8425	0.2030	Yes	adenoma
0.8290	0.6525	Yes	adv_adenoma
0.8035	0.3405	Yes	adv_adenoma
0.9940	0.5190	Yes	adenoma
0.9775	0.9715	Yes	adv_adenoma
0.9435	0.5615	Yes	adv_adenoma
0.8220	0.7395	Yes	adv_adenoma
0.9225	0.9285	Yes	adv_adenoma
0.9370	0.3410	Yes	adenoma
0.7685	0.5425	Yes	adv_adenoma
0.9275	0.7890	Yes	adv_adenoma
0.7620	0.3775	Yes	adenoma
0.8775	0.7920	Yes	adenoma
0.7660	0.3530	Yes	adenoma
0.9425	0.3385	Yes	adv_adenoma
0.9550	0.4755	Yes	adenoma
0.7710	0.8150	Yes	adv_adenoma
0.9735	0.9295	Yes	adenoma
0.9870	0.9120	Yes	adenoma
0.7530	0.4330	Yes	adv_adenoma

Table S4: Summary of OTUs in both Lesion and Initial/Follow Up Models

OTU	Lowest Taxonomic ID	P-value	BH Corrected P-value
Otu000012	Blautia	0.0037523	0.0300185
Otu000005	Bacteroides	0.2330135	0.2663011
Otu000008	Faecalibacterium	0.1647056	0.2196075
Otu000018	Escherichia/Shigella	0.0431082	0.1149553
Otu000002	Anaerostipes	0.2694179	0.2694179
Otu000114	Clostridium_XlVa	0.0425792	0.1149553
Otu000124	Bacteria	0.1006246	0.2012493
Otu000020	Bacteria	0.1390492	0.2196075

Table S5: Summary of P-values for Specific CRC OTUs between Initial and Follow Ups

Taxonomic ID	CRC P-value	CRC BH Corrected P-value	Adenoma P-value	Adenoma BH Corrected P-value
Fusobacterium Nucleatum	0.06848	0.2739	0.370	1.000
Parvimonas Micra	0.01385	0.0554	0.159	0.635
Peptostreptococcus Assacharolytica	0.00457	0.0183	1.000	1.000
Porphyromonas Stomatis	0.00384	0.0154	0.236	0.944