Differences in the Stool Microbiome Before and After Colorectal Cancer Treatment

Marc A Sze, Nielson T Baxter, Mack T Ruffin IV, Mary AM Rogers, and Patrick D Schloss

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
adn	sobs	0.2615199	0.2942099
adn	shannon	0.2221074	0.2942099
adn	evenness	0.2347622	0.2942099
srn	sobs	0.1231880	0.2217384
srn	shannon	0.0204124	0.0774651
srn	evenness	0.0258217	0.0774651
crc	sobs	0.5822250	0.5822250
crc	shannon	0.0890290	0.2003153
crc	evenness	0.0072909	0.0656181

Table S2: Summary of OTUs in Adenoma, Advanced Adenoma, and Carcinoma Models

ОТО	Lowest Taxonomic ID	Adenoma Model MDA	SRN Model MDA	Carcinoma Model MDA
Otu000015	Lachnospiraceae	3.041968	1.8180504	1.911064
Otu000012	Clostridiales	2.696589	2.1983685	1.627039
Otu000006	Bacteroides	2.640413	1.9810437	1.981424
Otu000004	Anaerostipes	2.616936	1.7064582	2.017512
Otu000005	Bacteroides	2.559397	1.8487225	1.984175
Otu000009	Blautia	2.475412	1.6421141	1.624362
Otu000061	Ruminococcaceae	2.465404	1.5670809	1.786782
Otu000013	Blautia	2.460082	1.8998363	1.781257
Otu000014	Clostridiales	2.442776	1.7442751	1.631920
Otu000037	Streptococcus	2.380908	1.8260457	2.270322
Otu000003	Blautia	2.374540	1.6702635	1.778629
Otu000058	Lachnospiraceae	2.349425	1.7156720	1.686434
Otu000010	Roseburia	2.343460	1.5518310	1.838269
Otu000001	Bacteroides	2.340546	1.7259761	2.057028
Otu000020	Faecalibacterium	2.336806	1.5495197	1.618113
Otu000059	Bacteroides	2.249638	1.6753030	1.728867
Otu000016	Dorea	2.234038	1.6601572	1.627565

OTU Lowest		Taxonomic ID Adenoma Model MDA SRN Model MDA Carcinoma Model MDA	SRN Model MDA	Carcinoma Model MDA
Otu000002	Anaerostipes	2.230950	1.5690813	1.690690
Otu000041	Clostridium_XI	2.220707	1.6672832	1.796574
Otu000085	Dorea	2.093834	1.4642671	1.836815
Otu000290	Clostridium_IV	2.084194	1.4543894	1.564207
Otu000036	Lachnospiraceae	2.058146	1.5404110	1.524025
Otu000026	Collinsella	2.030799	1.5056659	1.944173
Otu000028	Ruminococcus	1.996705	1.4903721	1.528249
Otu000605	Blautia	1.982990	1.4212318	1.360702
Otu001307	Coprobacillus	1.030555	0.9290894	1.504201

Table S3: Summary of Comparisons based on Chemotherapy or Radiation Received

	Additive	Additive	Removal	Additive	Removal		BH
Variable	Treatment	Treatment Mean	Mean	Treatment SD	SD	P-value	Corrected
sqos	Chemotherapy	-5.15	-12.29	93.58	1e+02	5.9e-01	7.1e-01
sqos	Radiation	-14.22	-10.52	36.51	1e+02	5.9e-01	7.1e-01
Shannon	Chemotherapy	0.23	90.0	0.55	6e-01	1.8e-01	2.7e-01
Shannon	Radiation	0.17	0.09	0.26	6e-01	1.8e-01	2.7e-01
Evenness	Chemotherapy	0.04	0.02	0.08	8e-02	1.6e-01	2.7e-01
Evenness	Radiation	0.03	0.02	0.05	8e-02	1.6e-01	2.7e-01
Thetayc	Chemotherapy	0.69	99.0	0.20	2e-01	8.5e-01	8.5e-01
Thetayc	Radiation	0.71	0.67	0.26	2e-01	8.5e-01	8.5e-01
Positive	Chemotherapy	0.09	0.01	0.11	9e-02	3.3e-02	1.0e-01
Probability							
Positive	Radiation	0.12	0.02	0.15	9e-02	3.3e-02	1.0e-01
Probability							
Positive	Chemotherapy	0.71	0.65	0.04	5e-02	1.3e-04	7.9e-04
Probability							
Positive	Radiation	0.72	99.0	0.04	6e-02	1.3e-04	7.9e-04
Probability							

Table S4: Summary of Adenoma based on Surgery Received

		No		No	
	Surgery	Surgery	Surgery	Surgery	ВН
Variable	Mean	Mean	SD	SD	P-value Corrected
sobs	1e+02	-4e+01	138.9	1e+02	5.6e-03 3.3e-02
Shannon	6e-01	-1e-01	0.9	4e-01	4.5e-02 1.4e-01
Evenness	6e-02	-9e-03	0.1	5e-02	1.0e-01 2.1e-01
Thetayc	7e-01	6e-01	0.2	2e-01	4.1e-01 5.6e-01
Adenoma Only					
Positive Probability	2e-02	1e-03	0.2	7e-02	9.0e-01 9.0e-01
SRN Only					
Positive Probablity	-9e-03	4e-02	0.1	8e-02	4.7e-01 5.6e-01