

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, SRN, and Carcinoma Models

OTU	Lowest Taxonomic ID	Adenoma Model MDA	SRN Model MDA	Carcinoma Model MDA
Otu0000015	Clostridiales	3.126522	1.8221222	1.919119
Otu0000012	Bacteroides	2.717247	2.2165864	1.640497
Otu0000006	Ruminococcaceae	2.659278	2.0048273	1.979737
Otu0000004	Blautia	2.620130	1.7248431	1.996376
Otu0000005	Anaerostipes	2.602046	1.8550292	1.981313
Otu0000061	Anaerostipes	2.502559	1.5702850	1.801272
Otu0000009	Lachnospiraceae	2.491952	1.6463709	1.626295
Otu0000013	Roseburia	2.459223	1.9026124	1.806951
Otu0000014	Clostridium_IV	2.443286	1.7517497	1.652342
Otu0000037	Clostridiales	2.381182	1.8354497	2.288402
Otu0000058	Bacteroides	2.372238	1.7317735	1.700232
Otu0000003	Clostridium_XI	2.359965	1.6867406	1.772932
Otu0000010	Blautia	2.337592	1.5584822	1.846684
Otu0000020	Collinsella	2.331734	1.5611831	1.642300
Otu0000001	Lachnospiraceae	2.324719	1.7297725	2.055777
Otu0000002	Lachnospiraceae	2.269469	1.5649045	1.676276
Otu0000059	Ruminococcus	2.233240	1.6977572	1.732715

OTU	Lowest Taxonomic ID	Adenoma Model MDA	SRN Model MDA	Carcinoma Model MDA
Otu000016	Blautia	2.220259	1.6631335	1.636882
Otu000041	Streptococcus	2.208709	1.6859464	1.794736
Otu000290	Dorea	2.092202	1.4546159	1.564923
Otu000085	Bacteroides	2.089347	1.4712106	1.833839
Otu000036	Dorea	2.045360	1.5433170	1.535794
Otu000028	Coprobacillus	2.024564	1.4991148	1.545580
Otu000605	Faecalibacterium	2.013637	1.4255001	1.357402
Otu000026	Blautia	2.006866	1.5147193	1.988949
Otu001307	Bacteroides	1.050678	0.9537085	1.519419

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

Variable	Additive		Removal		Additive		Removal		BH	
	Treatment	Treatment Mean	Mean	SD	Treatment	Treatment SD	SD	P-value	Corrected	
sobs	Chemotherapy	-5.15	-12.29	93.58	1e+02	5.9e-01	7.1e-01			
sobs	Radiation	-14.22	-10.52	36.51	1e+02	5.9e-01	7.1e-01			
Shannon	Chemotherapy	0.23	0.06	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	0.66	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	0.66	0.04	6e-02	1.3e-04	7.9e-04			
Probability										

Table S4: Summary of Adenoma based on Surgery Received

Variable	Surgery		No Surgery		P-value	BH Corrected
	Mean	Mean	SD	SD		
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 Probability	-9e-03	4e-02	0.1	8e-02	4.7e-01	5.6e-01