

# **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 Common OTUs for All Diagnosis Groups**

OTU	Lowest Taxonomic ID	Adenoma Median MDA	Advanced Adenoma Median MDA	Carcinoma Median MDA
OTU15	Lachnospiraceae	3.04	1.82	1.91
OTU12	Clostridiales	2.70	2.20	1.63
OTU6	Bacteroides	2.64	1.98	1.98
OTU4	Anaerostipes	2.62	1.71	2.02
OTU5	Bacteroides	2.56	1.85	1.98
OTU9	Blautia	2.48	1.64	1.62
OTU61	Ruminococcaceae	2.47	1.57	1.79
OTU13	Blautia	2.46	1.90	1.78
OTU14	Clostridiales	2.44	1.74	1.63
OTU37	Streptococcus	2.38	1.83	2.27
OTU3	Blautia	2.37	1.67	1.78
OTU58	Lachnospiraceae	2.35	1.72	1.69
OTU1	Bacteroides	2.34	1.73	2.06
OTU10	Roseburia	2.34	1.55	1.84
OTU20	Faecalibacterium	2.34	1.55	1.62
OTU59	Bacteroides	2.25	1.68	1.73
OTU16	Dorea	2.23	1.66	1.63
OTU2	Anaerostipes	2.23	1.57	1.69
OTU41	Clostridium_XI	2.22	1.67	1.80
OTU85	Dorea	2.09	1.46	1.84
OTU290	Clostridium_IV	2.08	1.45	1.56
OTU36	Lachnospiraceae	2.06	1.54	1.52
OTU26	Collinsella	2.03	1.51	1.94
OTU28	Ruminococcus	2.00	1.49	1.53
OTU605	Blautia	1.98	1.42	1.36
OTU1307	Coprobacillus	1.03	0.93	1.50

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

Variable	Additive		Removal		Additive		BH
	Treatment	Mean	Mean	Treatment SD	SD	P-value	Corrected
Richness	Chemotherapy	-5.15	-12.29	93.58	1e+02	5.9e-01	7.1e-01
Richness	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	Surgery	No Surgery	P-value	BH Corrected
	Mean	Mean	SD	SD		
Richness	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