

**Additional file 3: Table S3** Metastats analysis of the most proportionally abundant operational taxonomic units (OTUs; those accounting for > 0.5 % of total proportional abundance between *Prevotella*- plus group individual washout period and *Prevotella*- minus group individual washout period). P-values less than  $p < 0.001$  are shown in bold. P values were corrected using the Benjamini-Hochberg method (Benjamini, Hochberg 1995) to account for multiple comparisons.

OTU	<u>MegaBLAST Closest Match (Representative Seq.)</u>	No.of seq	Mean of <i>Prevotella</i> -plus group washout (%)	Mean of <i>Prevotella</i> -minus group washout (%)	p-value	Significant after applying Benjamini-Hochberg correction
Otu0001	<i>Bacteroides vulgatus</i> (99%)	27146	3.80	5.66	0.075	No
Otu0002	<i>Prevotella copri</i>	21446	8.15	0.03	<b>0.001</b>	Yes
Otu0003	<i>Bacteroides uniformis</i>	20348	1.59	4.97	<b>0.001</b>	Yes
Otu0004	<i>Faecalibacterium prausnitzii</i> (99%)	18279	3.08	3.59	0.365	No
Otu0005	<i>Faecalibacterium prausnitzii</i>	10941	1.87	1.86	0.972	No
Otu0006	<i>Ruminococcus bicirculans</i> (99%)	9984	1.63	1.79	0.778	No
Otu0007	<i>Guyana massiliensis</i>	9460	0.54	2.01	0.011	Yes
Otu0008	<i>Faecalibacterium prausnitzii</i> (98%)	8876	1.16	1.75	0.086	No
Otu0009	<i>Bacteroides dorei</i>	8472	1.16	1.90	0.146	No
Otu0010	<i>Faecalibacterium prausnitzii</i> (99%)	8456	1.30	1.33	0.939	No
Otu0011	<i>Bifidobacterium longum</i>	8396	0.36	1.55	<b>0.001</b>	Yes
Otu0012	<i>Prevotella</i> spp.	8221	2.99	0.01	<b>0.001</b>	Yes
Otu0013	<i>Escherichia coli</i>	7427	3.64	0.07	0.143	No
Otu0014	<i>Bifidobacterium adolescentis</i>	7359	0.44	1.16	0.012	Yes
Otu0015	<i>Anaerostipes hadrus</i>	6716	0.58	1.47	<b>0.001</b>	Yes
Otu0016	<i>Barnesiella intestinihominis</i>	6647	1.58	0.92	0.088	No
Otu0017	<i>Faecalibacterium prausnitzii</i>	6603	1.03	1.21	0.415	No
Otu0018	Uncharacterised Ruminococcaceae	6600	1.12	1.18	0.922	No
Otu0019	<i>Streptococcus salivarius</i>	6261	0.27	1.65	0.002	Yes
Otu0020	<i>Bacteroides cellulosilyticus</i>	6160	0.14	1.69	<b>0.001</b>	Yes
Otu0021	<i>Eubacterium rectale</i>	6048	0.69	1.09	0.120	No
Otu0022	<i>Prevotella ruminicola</i>	5974	2.05	0.00	0.043	No
Otu0023	<i>Subdoligranulum</i> sp. (97%)	4820	0.42	1.19	0.006	Yes
Otu0024	Uncharacterised Rikenellaceae	4808	0.01	1.18	0.054	No
Otu0025	<i>Collinsella aerofaciens</i>	4242	0.71	0.73	0.941	No
Otu0026	<i>Bacteroides massiliensis</i>	4218	0.23	1.14	0.033	No
Otu0027	<i>Sutterella wadsworthensis</i>	4097	0.46	0.95	0.189	No
Otu0028	<i>Alistipes putredinis</i>	4079	0.83	0.72	0.308	No
Otu0029	<i>Bacteroides stercoris</i> (99%)	3941	0.24	1.02	0.051	No
Otu0030	<i>Ruminococcus bromii</i> (99%)	3844	0.88	0.70	0.544	No
Otu0031	<i>Bifidobacterium faecale/adolescentis</i>	3722	0.27	0.53	0.117	No
Otu0032	<i>Romboutsia timonensis</i> (99%)	3437	0.74	0.57	0.335	No
Otu0033	Uncharacterised Alphaproteobacteria	3385	0.57	0.91	0.782	No
Otu0034	<i>Collinsella aerofaciens</i>	3261	0.28	0.72	0.041	No
Otu0035	<i>Roseburia faecis</i>	3103	0.57	0.43	0.263	No
Otu0036	<i>Blautia</i> sp. (99%)	3091	0.22	0.66	<b>0.001</b>	Yes
Otu0037	<i>Intestinibacter bartlettii</i> (98%)	3010	1.06	0.35	<b>0.001</b>	Yes
Otu0038	Uncharacterised Firmicutes	2960	0.00	0.87	<b>0.001</b>	Yes
Otu0039	<i>Bacteroides eggerthii</i> (99%)	2927	0.05	0.63	0.006	Yes
Otu0040	Uncharacterised Rikenellaceae	2912	0.00	0.74	0.062	No
Otu0041	<i>Bifidobacterium pseudocatenulatum</i>	2874	0.06	0.51	0.056	No
Otu0042	<i>Bifidobacterium catenulatum</i> (98%)	2866	0.10	0.47	0.060	No
Otu0043	<i>Bacteroides ovatus</i> (99%)	2809	0.30	0.59	0.028	No
Otu0044	Uncharacterised Ruminococcaceae	2807	0.90	0.27	0.005	Yes
Otu0045	<i>Faecalibacterium prausnitzii</i> (97%)	2738	0.56	0.43	0.403	No
Otu0046	<i>Blautia</i> sp. (99%)	2624	0.22	0.47	0.003	Yes
Otu0047	<i>Fusicatenibacter saccharivorans</i> (97%)	2502	0.20	0.53	0.001	Yes

Otu0048	<i>Subdoligranulum</i> sp.	2377	0.59	0.35	0.129	No
Otu0049	<i>Alistipes onderdonkii</i>	2372	0.11	0.65	0.003	Yes
Otu0051	<i>Catenibacterium mitsuokai</i> (99%)	2286	0.91	0.00	<b>0.001</b>	Yes
Otu0052	<i>Sutterella massiliensis</i>	2221	0.90	0.10	0.008	Yes
Otu0053	Uncharacterised <i>Rikenellaceae</i>	2217	0.00	0.58	0.081	No
Otu0054	<i>Sutterella</i> sp.	2132	0.00	0.55	<b>0.001</b>	Yes
Otu0058	Uncharaterised <i>Bacteria</i>	2079	0.90	0.02	<b>0.001</b>	Yes
Otu0059	<i>Parabacteroides merdae</i>	2075	0.11	0.58	0.002	Yes
Otu0060	<i>Faecalibacterium prausnitzii</i> (98%)	2059	0.58	0.24	0.059	No
Otu0062	<i>Eubacterium siraeum</i> (99%)	1962	0.06	0.53	0.070	No
Otu0063	Uncharacterised <i>Clostridiales</i>	1959	0.07	0.51	0.066	No
Otu0067	Uncharacterised <i>Erysipelotrichaceae</i>	1914	0.72	0.19	0.199	No
Otu0072	<i>Dialister invisus</i>	1821	0.61	0.05	0.041	No
Otu0073	<i>Phascolarctobacterium</i> sp. (99%)	1783	0.61	0.22	0.090	No
Otu0075	<i>Prevotella copri</i> (97%)	1669	0.89	0.01	0.003	Yes
Otu0079	<i>Alistipes</i> spp.	1565	0.55	0.16	0.166	No
Otu0092	<i>Bacteroides</i> spp.	1344	0.85	0.00	<b>0.001</b>	Yes
Otu0100	Uncharacterised <i>Bacteria</i>	1238	0.49	0.01	0.174	No
Otu0106	Uncharacterised <i>Bacteroidetes</i>	1204	0.66	0.00	0.001	Yes