

Supplemental Table 1. The changes from the baseline of the relative abundance of each intestinal microbiome

Order	Taxonomy		Group	0 week	Δ4 weeks – 0 week	Δ8 weeks – 0 week
	Family	Genus				
Bacteroidales	<i>Bacteroidaceae</i>	<i>Bacteroides</i>	T0 (n = 19)	6.686 ± 6.481	-0.57 ± 9.04	4.78 ± 11.21
			T3 (n = 14)	10.31 ± 9.623	-0.14 ± 7.68	-1.36 ± 7.03
			T5 (n = 17)	8.029 ± 8.086	1.86 ± 8.60	8.01 ± 9.32
Bacteroidales	<i>Prevotellaceae</i>	<i>Paraprevotella</i>	T0 (n = 19)	0.193 ± 0.732	-0.16 ± 0.64	0.03 ± 0.12
			T3 (n = 14)	0.081 ± 0.166	-0.05 ± 0.14	-0.03 ± 0.13
			T5 (n = 17)	0.369 ± 0.652	-0.12 ± 0.37	-0.17 ± 0.43
Desulfovibrionales	<i>Desulfovibrionaceae</i>	<i>Desulfovibrio</i>	T0 (n = 19)	0.046 ± 0.147	-0.04 ± 0.15	0.08 ± 0.27
			T3 (n = 14)	0.092 ± 0.345	-0.07 ± 0.25	-0.06 ± 0.27
			T5 (n = 17)	0.141 ± 0.294	0.07 ± 0.29	0.18 ± 0.52
Lachnospirales	<i>Lachnospiraceae</i>	<i>Dorea</i>	T0 (n = 19)	2.139 ± 1.881	0.65 ± 2.11	0.11 ± 2.15
			T3 (n = 14)	0.802 ± 1.164	0.15 ± 0.26	0.09 ± 0.70
			T5 (n = 17)	1.190 ± 1.825	-0.01 ± 0.85	-0.37 ± 1.26
Lachnospirales	<i>Lachnospiraceae</i>	<i>[Ruminococcus]_torques_group</i>	T0 (n = 19)	2.454 ± 3.239	0.23 ± 1.62	0.35 ± 3.04
			T3 (n = 14)	1.430 ± 1.479	0.05 ± 0.84	0.70 ± 1.54
			T5 (n = 17)	1.034 ± 1.618	-0.50 ± 1.32	-0.59 ± 1.18
Oscillospirales	<i>Ruminococcaceae</i>	<i>Incertae_Sedis</i>	T0 (n = 19)	2.269 ± 5.175	0.55 ± 5.05	-0.93 ± 5.50
			T3 (n = 14)	1.090 ± 0.940	-0.39 ± 0.74	0.92 ± 2.03
			T5 (n = 17)	1.256 ± 1.586	-0.29 ± 1.22	-0.45 ± 1.35
Oscillospirales	Unclassified	Unclassified	T0 (n = 19)	0.001 ± 0.002	0.00 ± 0.01	0.01 ± 0.02
			T3 (n = 14)	0.002 ± 0.005	0.00 ± 0.00	0.00 ± 0.00
			T5 (n = 17)	0.001 ± 0.002	0.00 ± 0.00	0.00 ± 0.00
Lachnospirales	<i>Lachnospiraceae</i>	<i>Sellimonas</i>	T0 (n = 19)	0.137 ± 0.311	-0.03 ± 0.10	-0.05 ± 0.09
			T3 (n = 14)	0.432 ± 0.652	0.07 ± 0.71	0.19 ± 0.80
			T5 (n = 17)	0.441 ± 0.784	-0.24 ± 0.72	-0.27 ± 0.68
Monoglobales	<i>Monoglobaceae</i>	<i>Monoglobus</i>	T0 (n = 19)	1.126 ± 1.037	0.09 ± 0.95	-0.26 ± 1.07
			T3 (n = 14)	0.761 ± 0.959	-0.05 ± 0.76	-0.23 ± 0.72
			T5 (n = 17)	0.450 ± 0.489	0.14 ± 0.66	-0.04 ± 0.41

Data are represented as Mean ± SD. T0, Placebo; T3, PHGG 3 g/day; T5, PHGG 5 g/day.