Table 2. Bacterial taxa that differ between IBS, IBS+bloat, IBS-bloat, and healthy controls

Y Variable	Group	Mean Abundance*	Std Dev.	Std Err.	N	P ANOVA	P Tukey
Lactobacillus	IBS Bloat	-3.215	0.599	0.084	51	0	
Lactobacillus	IBS No Bloat	-2.995	1.465	0.598	6	0	0
Lactobacillus	HC	-4.283	0.344	0.092	14	0	0.001
Anaerotruncus	IBS Bloat	-3.479	0.563	0.079	51	0.007	0.01
Anaerotruncus	IBS No Bloat	-4.198	0.369	0.151	6	0.007	
Anaerotruncus	HC	-3.767	0.571	0.153	14	0.007	
Streptococcus thermophilus LMG 18311	IBS Bloat	-2.379	0.692	0.097	51	0.007	
Streptococcus thermophilus LMG 18311	IBS No Bloat	-1.887	0.567	0.232	6	0.007	0.034
Streptococcus thermophilus LMG 18311	HC	-2.913	0.746	0.199	14	0.007	0.01
Ruminococcaceae	IBS Bloat	-0.954	0.584	0.082	51	0.009	0.011
Ruminococcaceae	IBS No Bloat	-1.703	1.02	0.416	6	0.009	
Ruminococcaceae	HC	-0.841	0.242	0.065	14	0.009	0.009
Streptococcus parasanguinis (T)	IBS Bloat	-3.381	0.671	0.094	51	0.011	
Streptococcus parasanguinis (T)	IBS No Bloat	-2.861	0.912	0.372	6	0.011	0.071
Streptococcus parasanguinis (T)	HC	-3.843	0.623	0.166	14	0.011	0.012
Streptococcus	IBS Bloat	-2.255	0.642	0.09	51	0.013	
Streptococcus	IBS No Bloat	-1.776	0.546	0.223	6	0.013	0.078
Streptococcus	HC	-2.679	0.653	0.175	14	0.013	0.014
Subdoligranulum variabile DSM 15176	IBS Bloat	-2.047	1.115	0.156	51	0.023	0.017
Subdoligranulum variabile DSM	IBS No Bloat	-3.4	1.23	0.502	6	0.023	

Subdoligranulum variabile DSM 15176	HC	-2.248	1.038	0.277	14	0.023	
OTU4438	IBS Bloat	-3.6	0.742	0.104	51	0.028	
OTU4438	IBS No Bloat	-4.059	0.659	0.269	6	0.028	
OTU4438	HC	-3.152	0.653	0.174	14	0.028	0.032
OTU2915	IBS Bloat	-3.199	0.916	0.128	51	0.03	
OTU2915	IBS No Bloat	-3.847	1.017	0.415	6	0.03	
OTU2915	HC	-2.682	0.838	0.224	14	0.03	0.028
Anaerovorax_OTU14	IBS Bloat	-3.432	0.608	0.085	51	0.036	0.028
Anaerovorax_OTU14	IBS No Bloat	-4.136	0.688	0.281	6	0.036	
Anaerovorax_OTU14	HC	-3.476	0.631	0.169	14	0.036	
Oscillibacter_OTU4	IBS Bloat	-2.704	0.73	0.102	51	0.052	
Oscillibacter_OTU4	IBS No Bloat	-3.369	0.909	0.371	6	0.052	
Oscillibacter_OTU4	HC	-2.494	0.626	0.167	14	0.052	0.042

IBS+B = IBS with Bloating; IBS-B = IBS without Bloating; HC=Healthy Controls

*mean of log10-transformed relative abundances