

Supplementary Table 2: Permutational multivariate analysis of variance (PERMANOVA) tests of the bacterial gut microbiota on the unweighted and weighted UniFrac distances and the Bray-Curtis dissimilarity according to individuals' health status and constipation.

	Metric	F	R²	<i>p-value</i>
NT (n=40) vs AD (n=40)	Unweighted Unifrac	2.31	0.02	0.001
	Weighted Unifrac	3.29	0.04	0.010
	Bray-Curtis	2.35	0.02	0.005
AD-C (n=5) vs AD-NC (n=29)	Unweighted Unifrac	1.36	0.04	0.058
	Weighted Unifrac	0.98	0.03	0.397
	Bray-Curtis	1.23	0.03	0.226
NT-C (n=11) vs NT-NC (n=29)	Unweighted Unifrac	2.21	0.05	0.001
	Weighted Unifrac	2.13	0.05	0.048
	Bray-Curtis	1.81	0.04	0.030
AD-C (n=5) vs NT-C (n=11)	Unweighted Unifrac	0.44	0.03	0.991
	Weighted Unifrac	0.37	0.02	0.925
	Bray-Curtis	0.44	0.03	0.989
AD-NC (n=29) vs NT-NC (n=29)	Unweighted Unifrac	3.10	0.05	0.001
	Weighted Unifrac	4.49	0.07	0.002
	Bray-Curtis	2.93	0.04	0.002

NT, neurotypical subjects; AD, autistic subjects; NT-C, constipated neurotypical subjects; NT-NC, non-constipated neurotypical subjects; AD-C, constipated autistic subjects; AD-NC, non-constipated autistic subjects.