Supplementary Table 1: The table presents the results of the beta-diversity investigations for the three different subject groups, by comparing the top three PCoA axes obtained using the two different distance measures for the gut microbiome composition at the level of A. Species B. Genus and C. ASVs; and the gut mycobiome composition at the level of D. Species, E. Genus and F. OTUs.

A) **Microbiome – Species Level**

Distance Measure	**Kruskal-Wallis p_value**		
	PCo1	**PCo2**	**PCo3**
Kendall	**0.00012**	0.735	0.431
Jaccard	**0.00002**	0.334	**0.04440**

Distance Measure		**ITB-CD**	**ITB-Controls**	**CD - Controls**
Kendall-PCo1	Z_value	-0.419	-3.906	3.504
	P_value	0.338	**0.00005**	**0.00023**
Kendall-PCo2	Z_value	-0.352	0.448	0.781
	P_value	0.327	0.362	0.217
Kendall-PCo3	Z_value	0.324	-0.947	1.257
	P_value	0.373	0.172	0.104
Jaccard-PCo1	Z_value	-0.286	-4.179	3.905
	P_value	0.388	**0.00001**	**0.00005**
Jaccard-PCo2	Z_value	0.210	-1.185	1.386
	P_value	0.417	0.118	0.083
Jaccard-PCo3	Z_value	2.148	-0.086	-2.230
	P_value	0.466	**0.01585**	**0.01286**

B) **Microbiome – Genus Level**

Distance Measure	**Kruskal-Wallis p_value**		
	PCo1	**PCo2**	**PCo3**
Kendall	**0.00010**	**0.02963**	0.97258
Jaccard	**0.00004**	0.97196	**0.00024**

Distance Measure		**ITB-CD**	**ITB-Controls**	**CD-Controls**
Kendall-PCo1	Z_value	-0.65729	-4.03510	3.40502
	P_value	0.25550	**0.00003**	**0.00033**
Kendall-PCo2	Z_value	-0.43819	2.08631	-2.50636
	P_value	0.33062	**0.01848**	**0.00610**
Kendall-PCo3	Z_value	-0.21910	-0.02847	-0.18156
	P_value	0.41329	0.48864	0.42796
Jaccard-PCo1	Z_value	-0.58108	-4.21290	3.65587
	P_value	0.28059	**0.00001**	**0.00013**
Jaccard-PCo2	Z_value	-0.11431	-0.23850	0.12892
	P_value	0.45450	0.40575	0.44871
Jaccard-PCo3	Z_value	-1.11454	2.91030	-3.97870
	P_value	0.13252	**0.00181**	**0.00003**

C) **Microbiome – ASV Level**

Distance Measure	**Kruskal-Wallis p_value**		
	PCo1	**PCo2**	**PCo3**
Kendall	**0.00005**	0.31623	0.19480
Jaccard	**0.00006**	0.09282	0.33314

Distance Measure		**ITB-CD**	**ITB-Controls**	**CD-Controls**
Kendall-PCo1	Z_value	-0.714	-4.185	3.500
	P_value	0.237	**0.00001**	**0.00023**
Kendall-PCo2	Z_value	0.229	-1.207	1.426
	P_value	0.410	0.114	0.077
Kendall-PCo3	Z_value	-0.410	1.350	-1.743
	P_value	0.341	0.089	**0.04071**
Jaccard-PCo1	Z_value	-0.629	-4.129	3.526
	P_value	0.265	**0.00002**	**0.00021**
Jaccard-PCo2	Z_value	0.010	-1.909	1.918
	P_value	0.496	**0.02813**	**0.02754**
Jaccard-PCo3	Z_value	0.010	-1.297	1.306
	P_value	0.496	0.097	0.096

D) **Mycobiome – Species Level**

Distance Measure	**Kruskal-Wallis p_value**		
	PCo1	**PCo2**	**PCo3**
Kendall	**0.004**	**0.10**	0.9
Jaccard	**0.001**	**0.02**	0.8

Distance Measure		**ITB-CD**	**ITB-Controls**	**CD - Controls**
Kendall-PCo1	Z_value	3.1	2.5	0.1
	P_value	**0.001**	**0.01**	0.5
Kendall-PCo2	Z_value	-0.3	1.8	-2.1
	P_value	**0.39**	**0.03**	**0.02**
Kendall-PCo3	Z_value	0.3	-0.1	0.3
	P_value	0.4	0.5	0.4
Jaccard-PCo1	Z_value	1.8	3.7	-2.2
	P_value	**0.03**	**0.0001**	**0.02**
Jaccard-PCo2	Z_value	-2.3	0.4	-2.3
	P_value	**0.01**	**0.35**	**0.01**
Jaccard-PCo3	Z_value	0.1	0.7	-0.6
	P_value	0.47	0.25	0.3

E) **Mycobiome – Genus Level**

Distance Measure	**Kruskal-Wallis p_value**		
	PCo1	**PCo2**	**PCo3**
Kendall	**0.02**	0.16	0.78
Jaccard	**0.002**	0.23	0.88

Distance Measure		**ITB-CD**	**ITB-Controls**	**CD-Controls**
Kendall-PCo1	Z_value	1.16	2.73	-1.76
	P_value	**0.12**	**0.003**	**0.04**
Kendall-PCo2	Z_value	-1.8	-0.3	-1.3
	P_value	**0.03**	0.4	0.1
Kendall-PCo3	Z_value	-0.46	0.28	-0.67
	P_value	0.32	0.39	0.25
Jaccard-PCo1	Z_value	0.77	3.44	-2.81
	P_value	0.22	**0.0003**	**0.003**
Jaccard-PCo2	Z_value	-0.83	1.0	-1.71
	P_value	0.2	0.16	**0.04**
Jaccard-PCo3	Z_value	0.46	0.01	0.38
	P_value	0.32	0.49	0.35

F) **Mycobiome – OTU Level**

Distance Measure	**Kruskal-Wallis p_value**		
	PCo1	**PCo2**	**PCo3**
Kendall	0.17	**0.0003**	0.07
Jaccard	**0.03**	**0.01**	**0.03**

Distance Measure		**ITB-CD**	**ITB-Controls**	**CD-Controls**
Kendall-PCo1	Z_value	1.35	1.76	-0.63
	P_value	0.09	**0.04**	0.26
Kendall-PCo2	Z_value	1.61	4.06	-2.75
	P_value	**0.05**	**0.00002**	**0.003**
Kendall-PCo3	Z_value	-2.33	-1.05	-0.92
	P_value	**0.01**	0.15	0.18
Jaccard-PCo1	Z_value	1.49	2.67	-1.44
	P_value	**0.07**	**0.004**	0.08
Jaccard-PCo2	Z_value	-0.02	2.796	-2.85
	P_value	0.49	**0.003**	**0.002**
Jaccard-PCo3	Z_value	-2.33	-2.11	0.16
	P_value	**0.01**	**0.02**	0.44