

Variable	Factor class	Total samples	R <sup>2</sup>	q-value
<b>Vegetable consumption frequency (longitudinal)</b>	numeric	405	0.027	0.002
<b>Fruit consumption frequency*</b>	numeric	432	0.012	0.002
<b>Outdoor pet</b>	categorical	366	0.011	0.002
<b>Non celiac gluten sensitivity</b>	categorical	432	0.011	0.002
<b>Other GI symptoms</b>	categorical	366	0.01	0.002
<b>Sugary food consumption frequency</b>	numeric	432	0.01	0.002
<b>Pets in home</b>	categorical	432	0.009	0.002
<b>Dairy consumption frequency (longitudinal)*</b>	numeric	405	0.009	0.002
<b>Toilet trained</b>	categorical	405	0.008	0.002
<b>Lactose intolerance</b>	categorical	432	0.008	0.002
<b>Dietary restrictions*</b>	categorical	432	0.008	0.002
<b>Seafood consumption frequency</b>	numeric	429	0.007	0.002
<b>Dietary supplement*</b>	categorical	366	0.007	0.003
<b>Multivitamin</b>	categorical	432	0.007	0.002
<b>Fermented vegetable consumption frequency</b>	numeric	432	0.007	0.002
<b>GI symptoms within 3 months*</b>	categorical	432	0.006	0.004
<b>GI issues this week*</b>	categorical	432	0.005	0.003
<b>GI issues two weeks ago</b>	categorical	432	0.004	0.013

Supplementary File 5: Lifestyle and dietary features significantly associated with overall microbiome composition (as determined by a PERMANOVA test) but NOT significantly different between the ASD and TD cohort.