**Supplementary Table 2. Summary of the permutational multivariate analysis of variance (PERMANOVA).** PERMANOVA statistical tests were performed on the weighted UniFrac distances and Bray Curtis dissimilarity between the (1) fungal and (2) bacterial gut microbial communities profiles of children at risk of the type 1 diabetes development. Statistical tests were run using the *adonis* function in R package vegan (with 999 permutations). The significant (<0.05) values shown in bold.

|  |  |  |
| --- | --- | --- |
|  |  **weighted UniFrac** | **Bray Curtis** |
| **FUNGAL COMMUNITY** | **Variable** | ***F*** | ***R²*** | **p-value** | ***F*** | ***R²*** | **p-value** |
| Age | 0.226 | 0.005 | 0.949 | 0.451 | 0.009 | 0.938 |
| Gender | 0.428 | 0.008 | 0.726 | 1.120 | 0.022 | 0.273 |
| HLA risk class | 1.635 | 0.032 | 0.171 | 1.191 | 0.023 | 0.253 |
| AAb positivity | 0.952 | 0.019 | 0.334 | 1.168 | 0.023 | 0.271 |
| Number Of Aabs | 0.788 | 0.063 | 0.617 | 1.231 | 0.095 | 0.197 |
| T1D diagnosis | 0.666 | 0.013 | 0.499 | 1.518 | 0.029 | 0.139 |
| **Cluster** | 3.968 | 0.301 | **0.001** | 3.119 | 0.253 | **0.001** |
| ***Saccharomyces*** | 92.098 | 0.648 | **0.001** | 20.716 | 0.293 | **0.001** |
| ***Candida*** | 14.420 | 0.224 | **0.001** | 15.223 | 0.233 | **0.001** |
|  |  **weighted UniFrac** | **Bray Curtis** |
| **BACTERIAL COMMUNITY** | **Variable** | ***F*** | ***R²*** | **p-value** | ***F*** | ***R²*** | **p-value** |
| **Age** | 4.479 | 0.082 | **0.015** | 2.671 | 0.051 | **0.001** |
| Gender | 1.103 | 0.022 | 0.293 | 1.019 | 0.020 | 0.428 |
| **HLA risk class** | 8.266 | 0.142 | **0.001** | 2.229 | 0.043 | **0.007** |
| **AAb positivity** | 3.115 | 0.059 | **0.039** | 1.090 | 0.021 | 0.331 |
| Number Of Aabs | 1.550 | 0.117 | 0.129 | 1.057 | 0.083 | 0.324 |
| T1D diagnosis | 0.875 | 0.017 | 0.398 | 1.328 | 0.026 | 0.125 |
| **Cluster** | 7.459 | 0.448 | **0.001** | 1.683 | 0.155 | **0.002** |
| ***Clostridiales*** | 81.447 | 0.620 | **0.001** | 7.890 | 0.136 | **0.001** |
| ***Bacteroidales*** | 85.912 | 0.632 | **0.001** | 8.083 | 0.139 | **0.001** |