

**Supplementary Figure 3.** Abundance of bacterial OGAs-encoding genes in 1130 metagenomic samples from healthy people. **(A)** The overall abundance of OGAs-encoding genes. **(B)** The abundance of OGAs-encoding genes according to different phylum. **(C)** The abundance of genes that encode OGAs with or without NAGidase domain. **(D)** The abundance of OGAs-encoding genes in different genders. **(E)** The abundance of OGAs-encoding genes in samples from different countries. **(F)** Correlation between the abundance of OGAs-encoding genes and BMI (upper) or age (lower) calculated by Spearman correlation analysis.

