Figure S1. Species with statistically significant differences between groups. (A) CO vs. SG0; (B) CO vs. RYGB0; (C) SG0 vs. SG3; (D) RYGB0 vs. RYGB3. The left part in each separate figure displays the LEfSe-derived phylogenetic tree. The right part in each separate figure presents the LDA score of enriched species (LDA >4). The colors of the bars indicate the relative abundance. The detailed statistical method used in LEfSe software (version 1.0) was the Kruskal-Wallis test. LEfSe, linear discriminant analysis effect size; CO, control group; SG, sleeve gastrectomy; RYGB, Roux-en-Y gastric bypass; SG0/3, group prior to/3 months after SG.

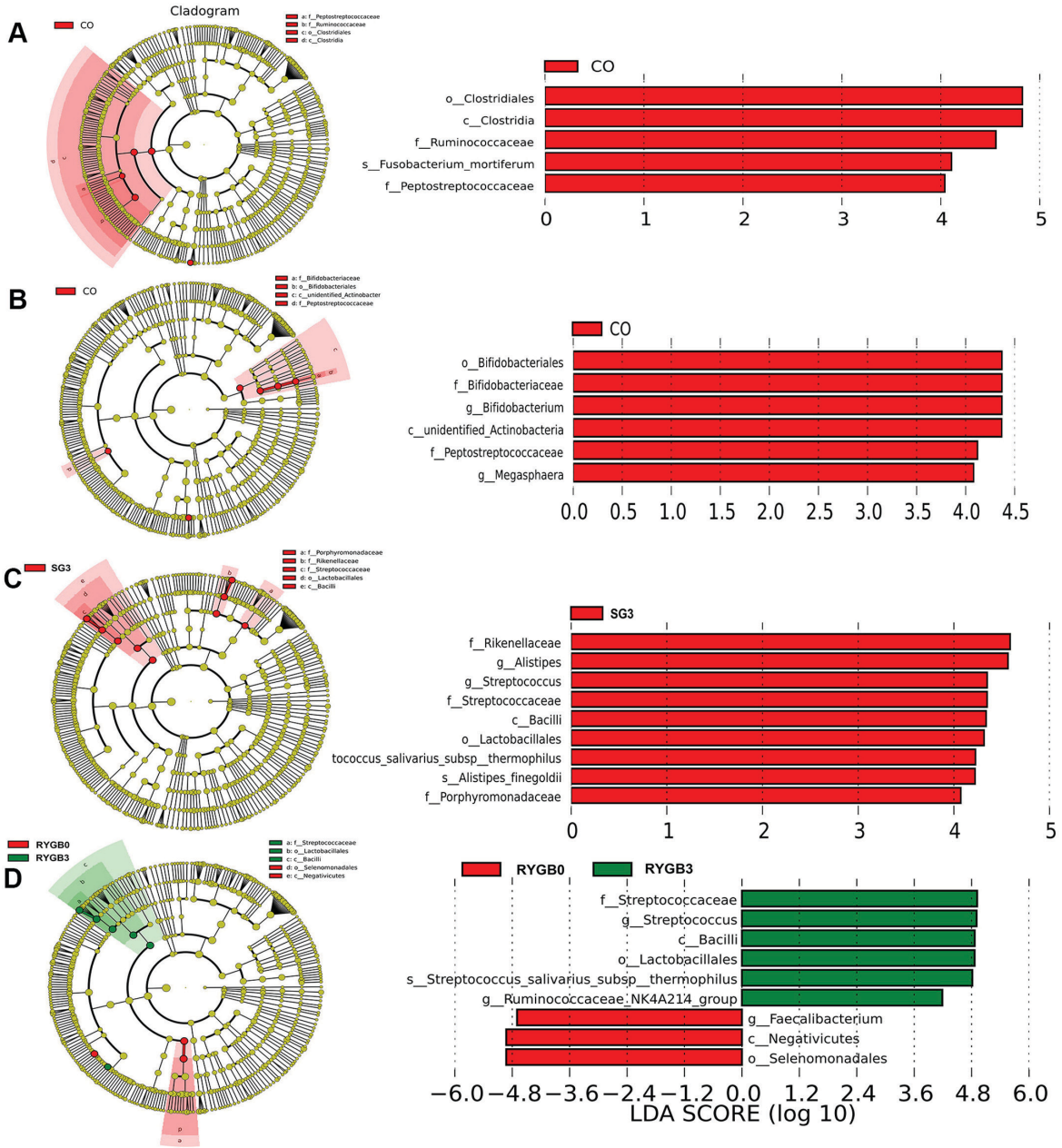

Figure S2. Spearman correlation between the abundance of species and the BMI, GHb and Glu at the phylum level. Blue represents a negative correlation and red represents a positive correlation. The depth of the colors represents correlation coefficients. *P<0.05. BMI, body mass index; GHb, glycosylated hemoglobin; Glu, blood glucose.

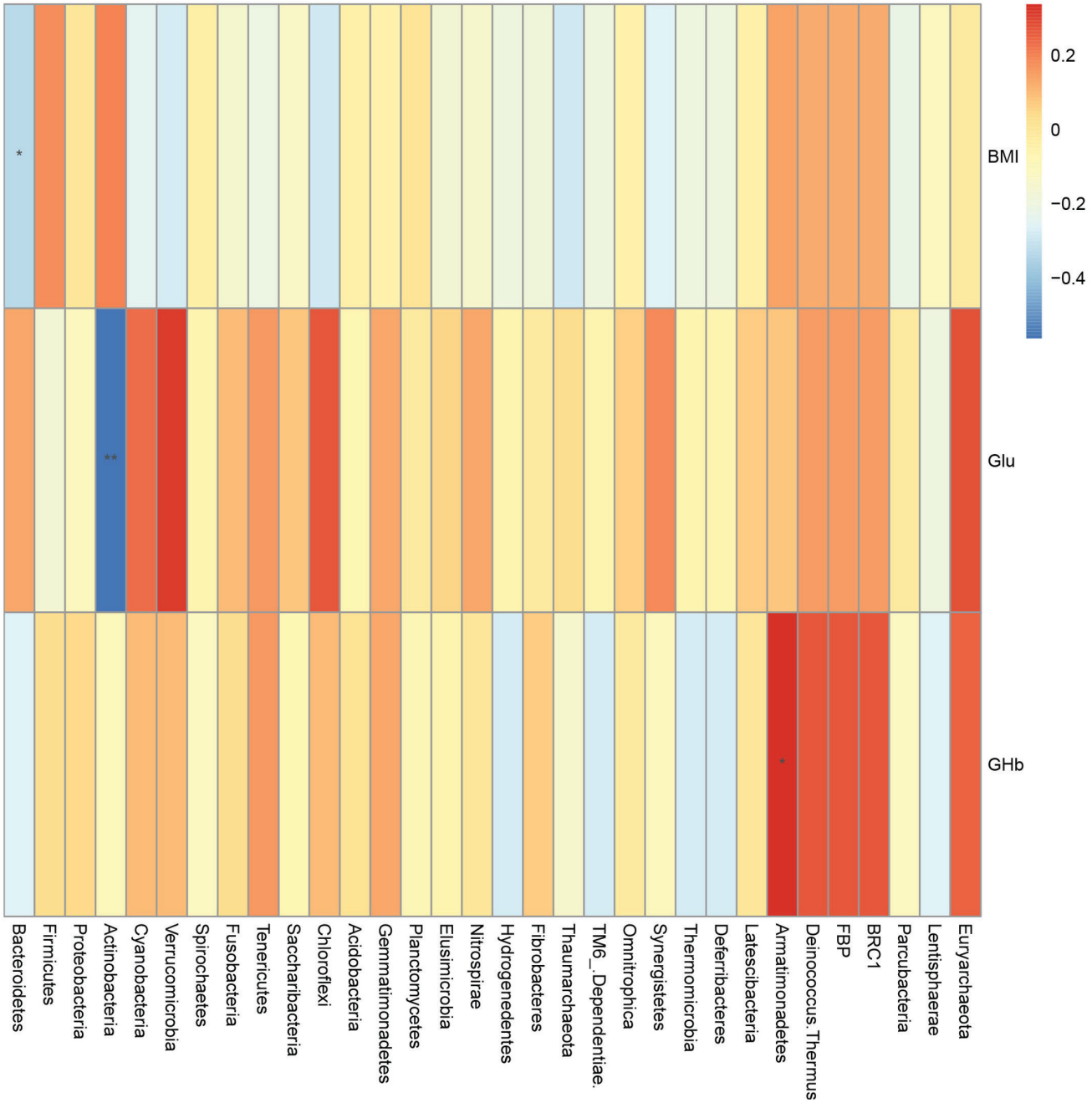

Figure S3. Spearman correlation between the abundance of species and the BMI, GHb and Glu at the class level. Blue represents a negative correlation and red represents a positive correlation. The depth of the colors represents correlation coefficients. *P<0.05. BMI, body mass index; GHb, glycosylated hemoglobin; Glu, blood glucose.

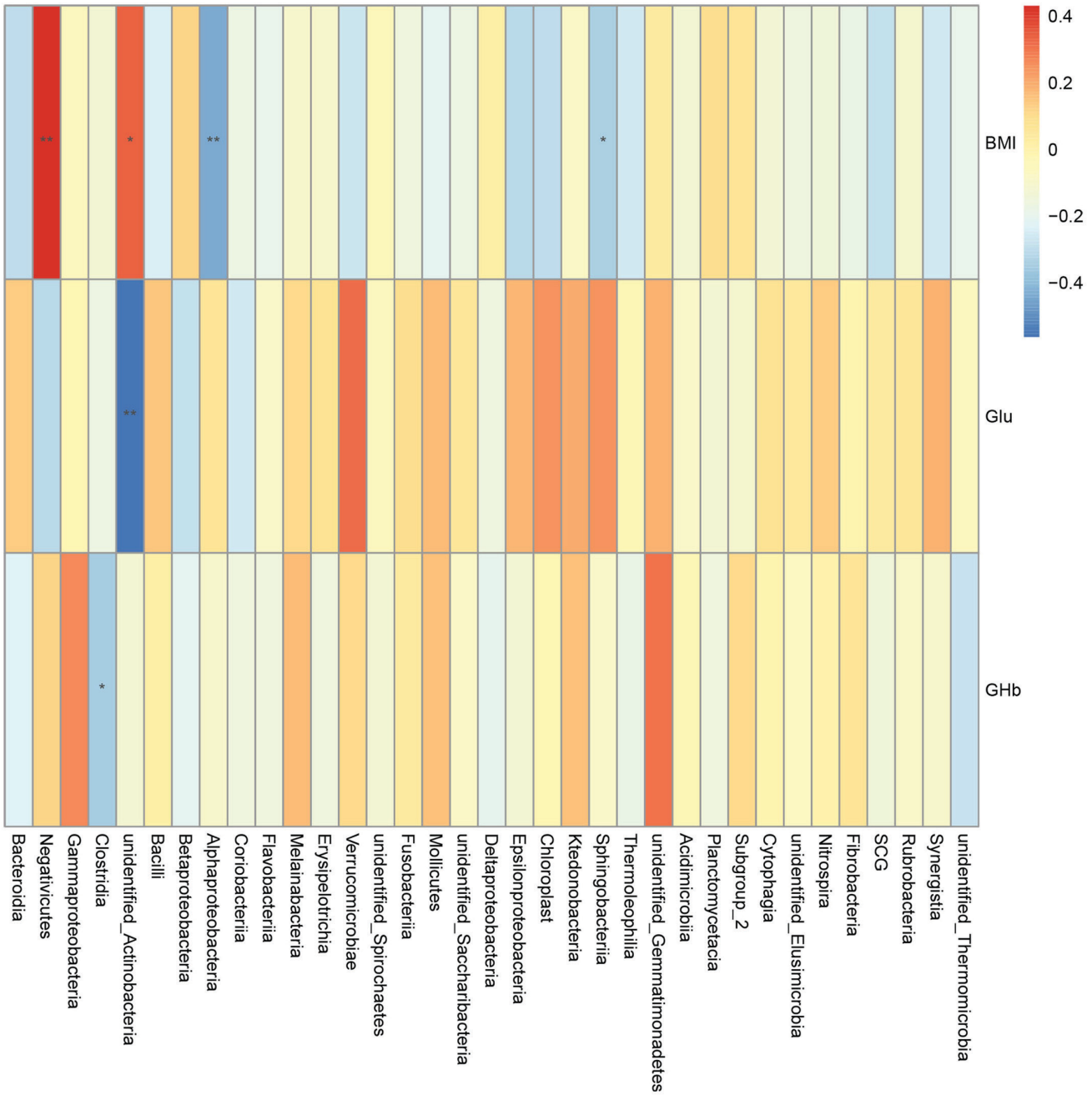

Figure S4. Spearman correlation between the abundance of species and the BMI, GHb and Glu at the order level. Blue represents a negative correlation and red represents a positive correlation. The depth of the colors represents correlation coefficients. *P<0.05. BMI, body mass index; GHb, glycosylated hemoglobin; Glu, blood glucose.

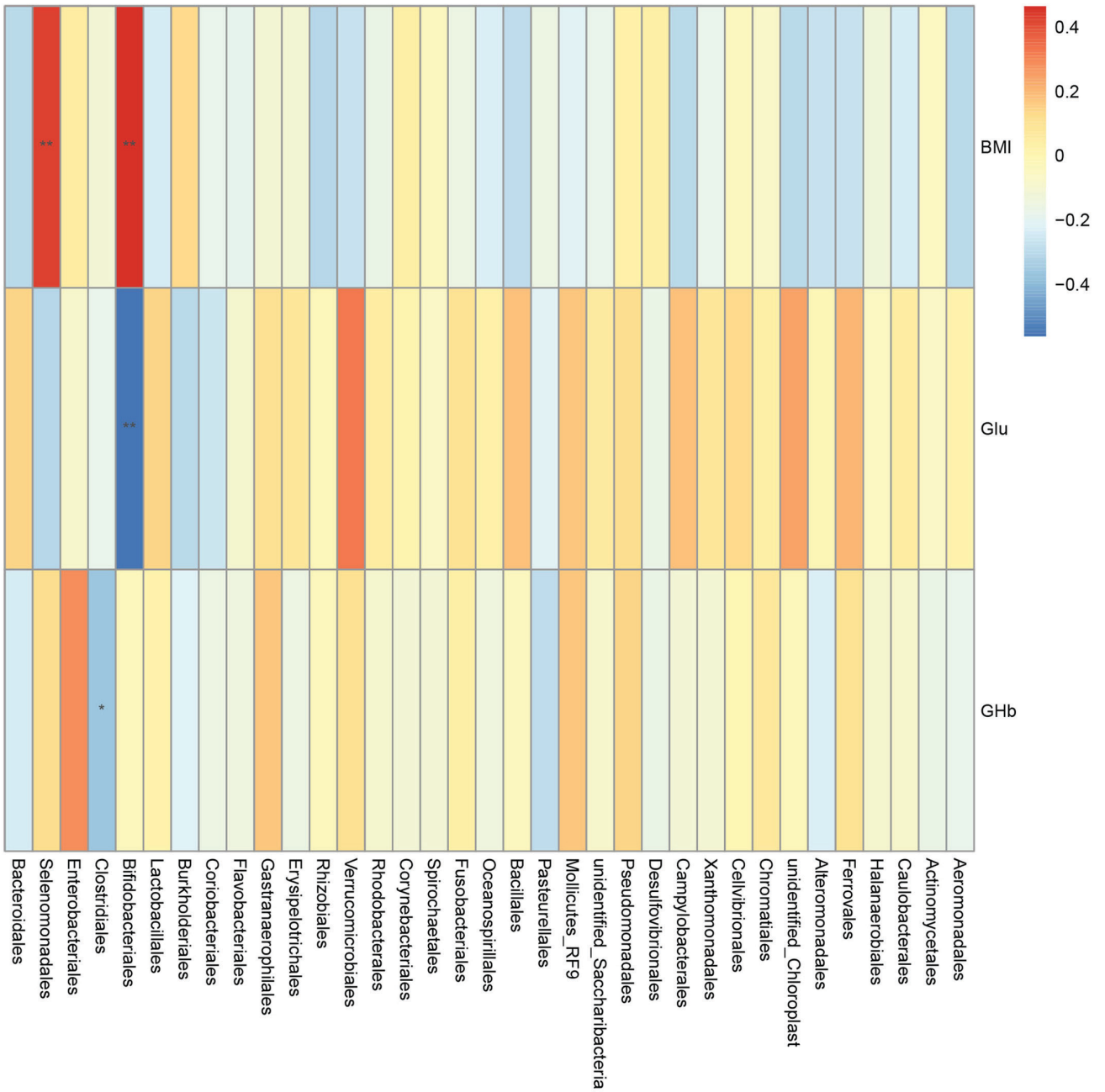

Figure S5. Spearman correlation between the abundance of species and the BMI, GHb and Glu at the family level. Blue represents a negative correlation and red represents a positive correlation. The depth of the colors represents correlation coefficients. *P<0.05. BMI, body mass index; GHb, glycosylated hemoglobin; Glu, blood glucose.

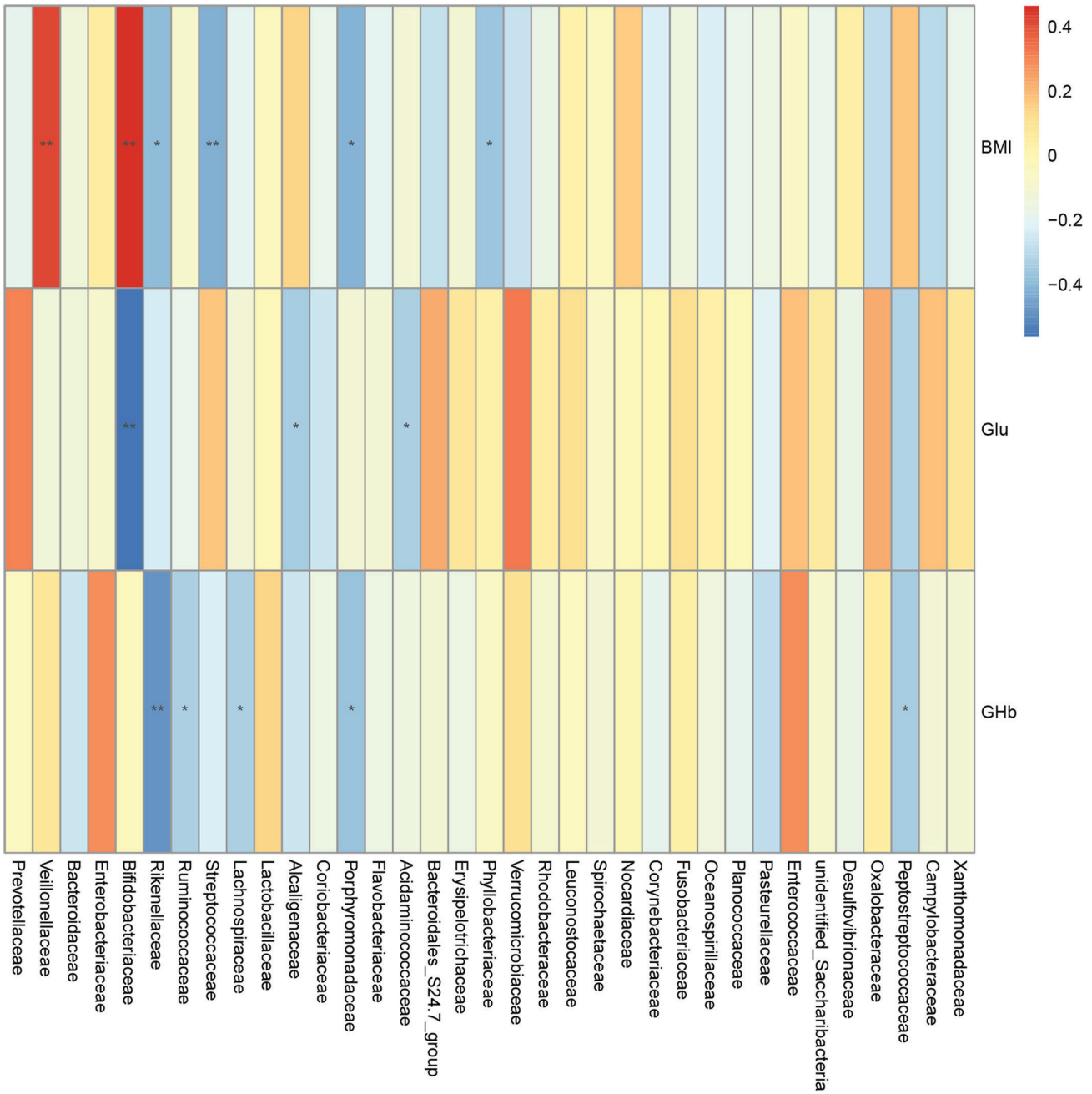

Figure S6. Spearman correlation between the abundance of species and the BMI, GHb and Glu at the genus level. Blue represents a negative correlation and red represents a positive correlation. The depth of the colors represents correlation coefficients. *P<0.05. BMI, body mass index; GHb, glycosylated hemoglobin; Glu, blood glucose.

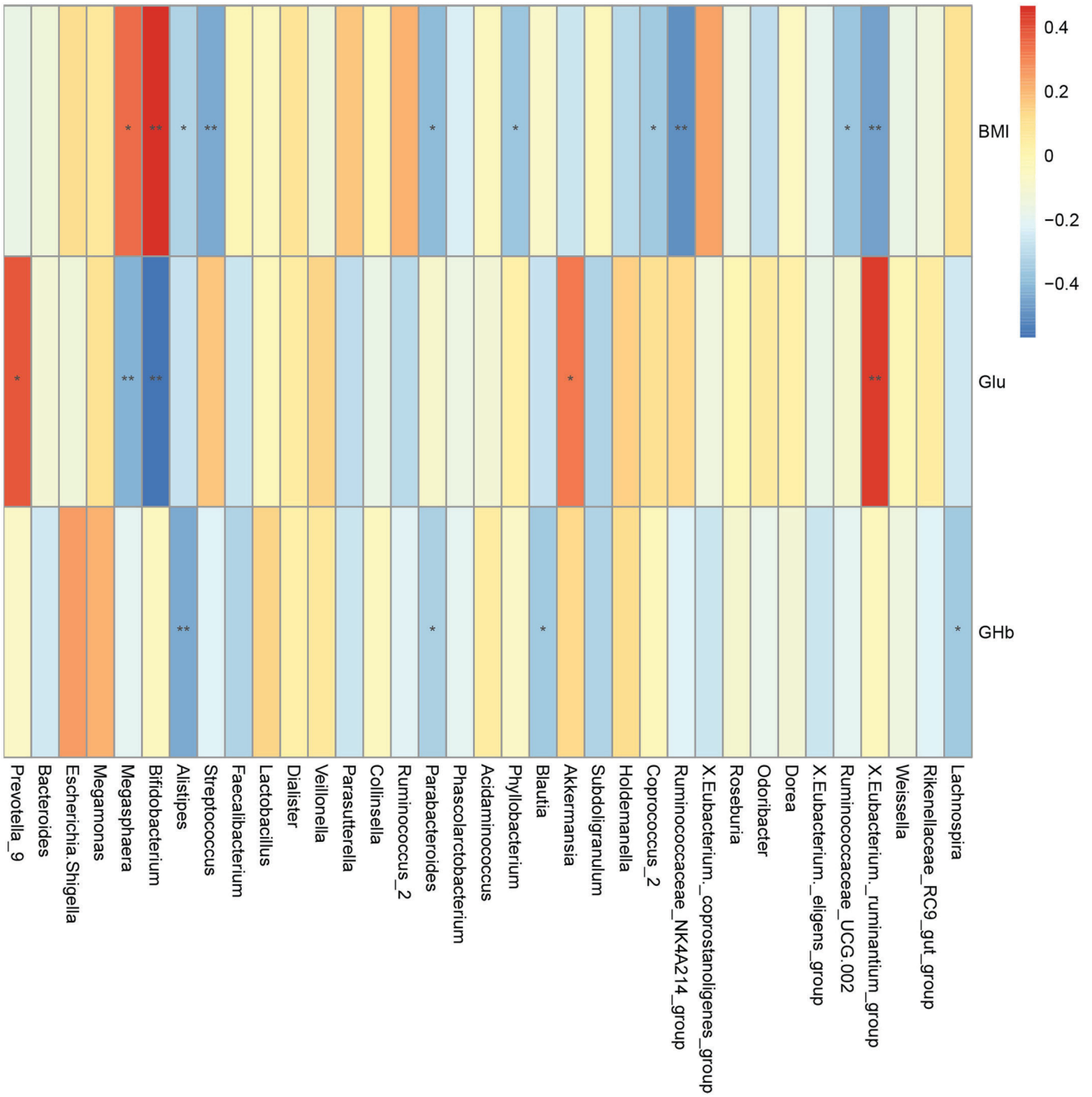

Figure S7. Spearman correlation between the abundance of species and the BMI, GHb and Glu at the species level. Blue represents a negative correlation and red represents a positive correlation. The depth of the colors represents correlation coefficients. *P<0.05. BMI, body mass index; GHb, glycosylated hemoglobin; Glu, blood glucose.