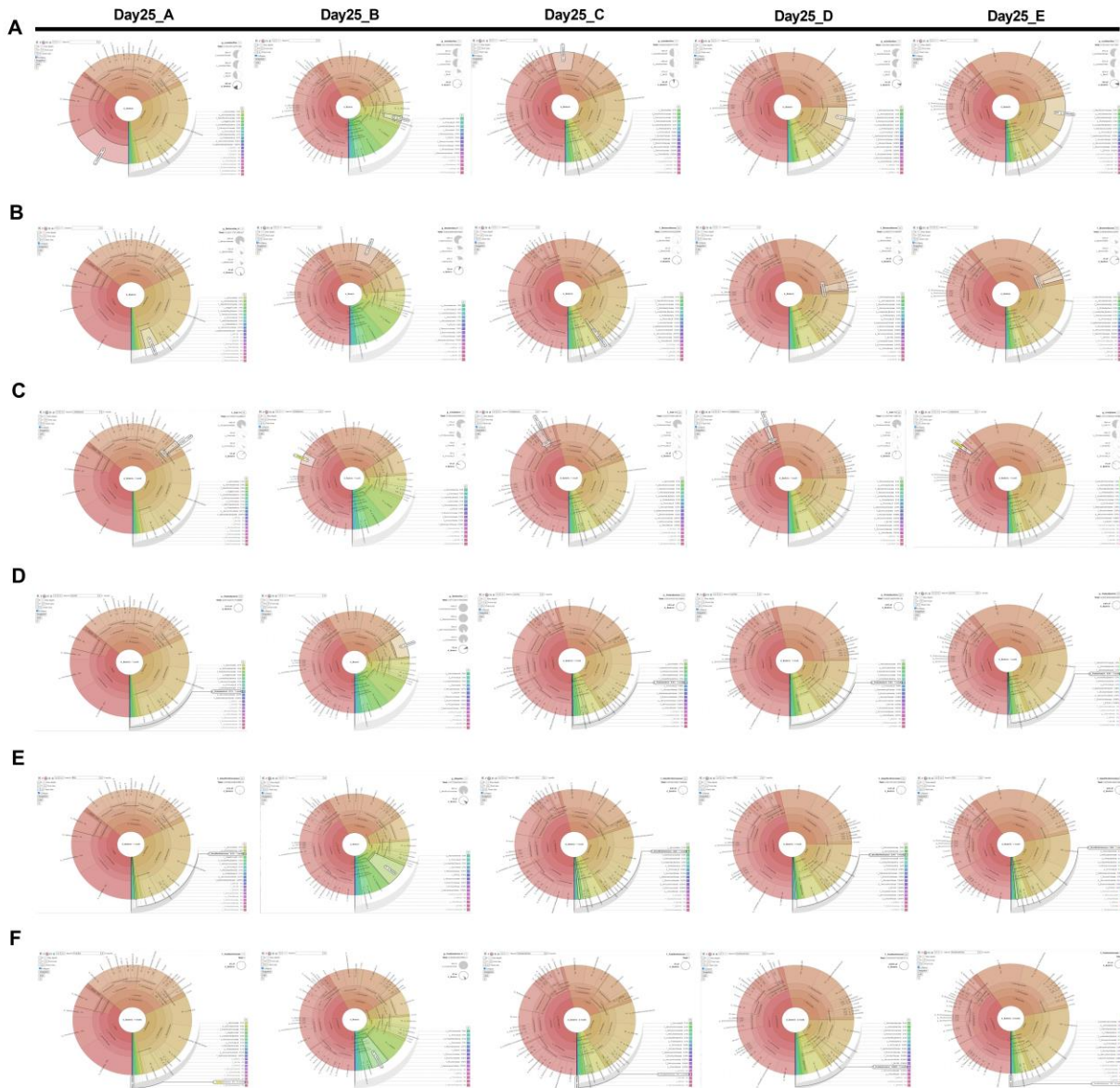
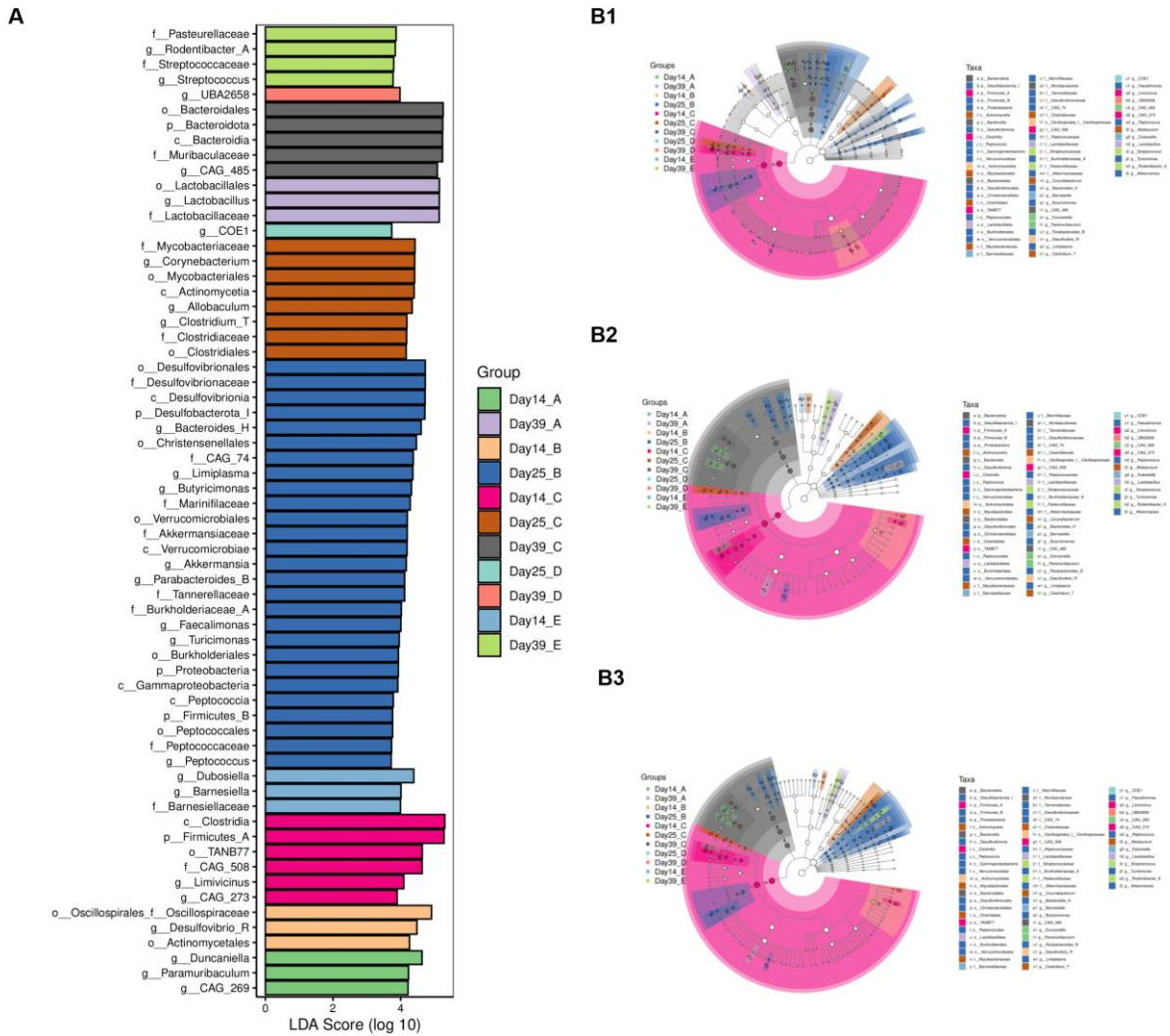


Supplementary Figure 1 Abundance and diversity of intestinal flora in different groups at different time points. Sparse graph of Shannon in Alpha diversity index on (A1) day 14, (A2) day 25, and (A3) day 39; Grouping box plot of Alpha diversity index on (B1) day 14, (B2) day 25, and (B3) day 39; Abundance grade plot on (C1) day 14, (C2) day 25, and (C3) day 39.



Supplementary Figure 2 Percentage of generic taxonomic level, including *Lactobacillus*, *Bacteroides*, *Limiplasma*, *Escherichia*, *Bilophila*, and *Fusobacterium*. 5 columns of pictures were day 25_A, day 25_B, day 25_C, day 25_D, and day 25_E, which represent control group, model group, hUC-MSC-low group, hUC-MSC-middle group, and hUC-MSC-high group on day 25 from left to right, respectively. A: *Lactobacillus*; B: *Bacteroides*; C: *Limiplasma*; D: *Escherichia*; E: *Bilophila*; F: *Fusobacterium*.



Supplementary Figure 3 Linear discriminant analysis effect size analysis of different taxa. A: Bar chart of linear discriminant analysis value distribution of significantly different species; B1: Phylogenetic tree of species classification. The size of the nodes corresponds to the average relative abundance of the classification unit. Hollow nodes: Classification units with no significant inter-group differences; nodes of other colors indicate that these classification units show significant intergroup differences and have a higher abundance in the samples of the group represented by that color. B2 and B3 are the branch diagrams removing nodes with low abundance and no significance using 001% and 0.001% as thresholds, respectively.