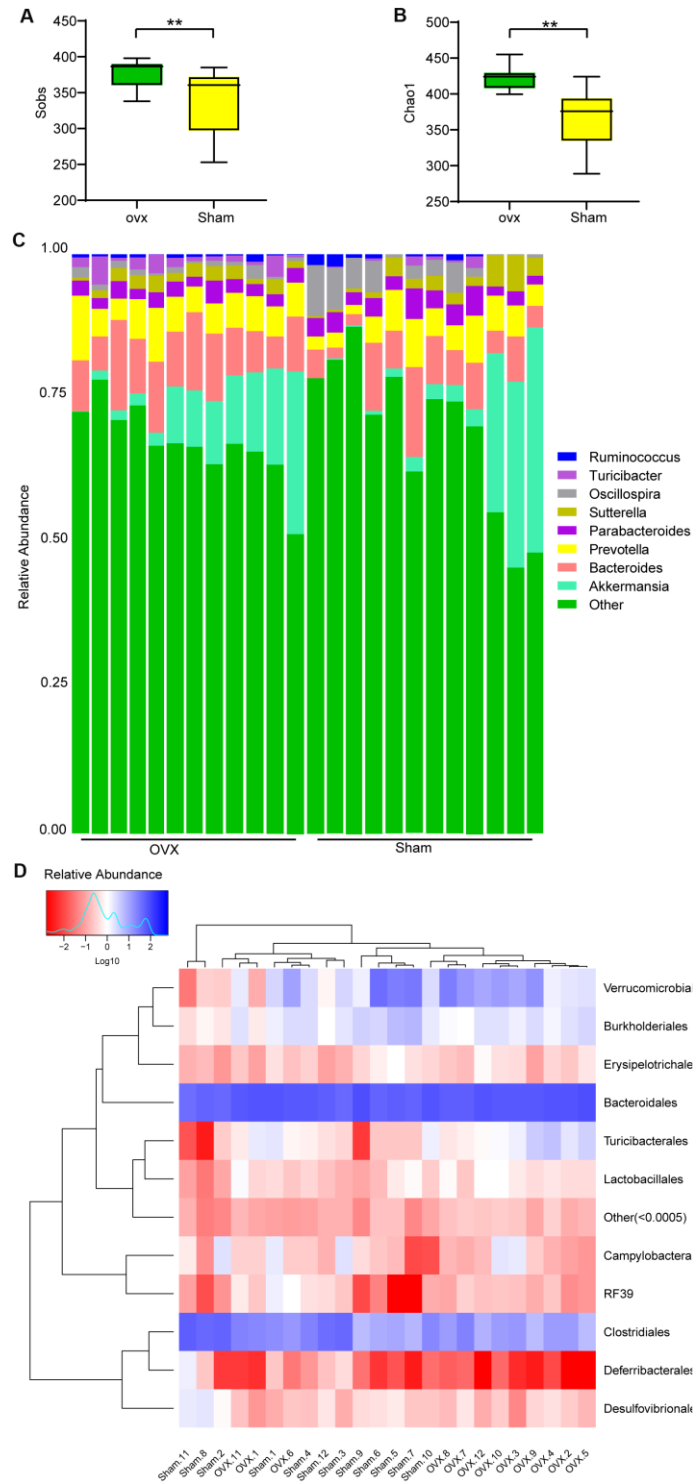
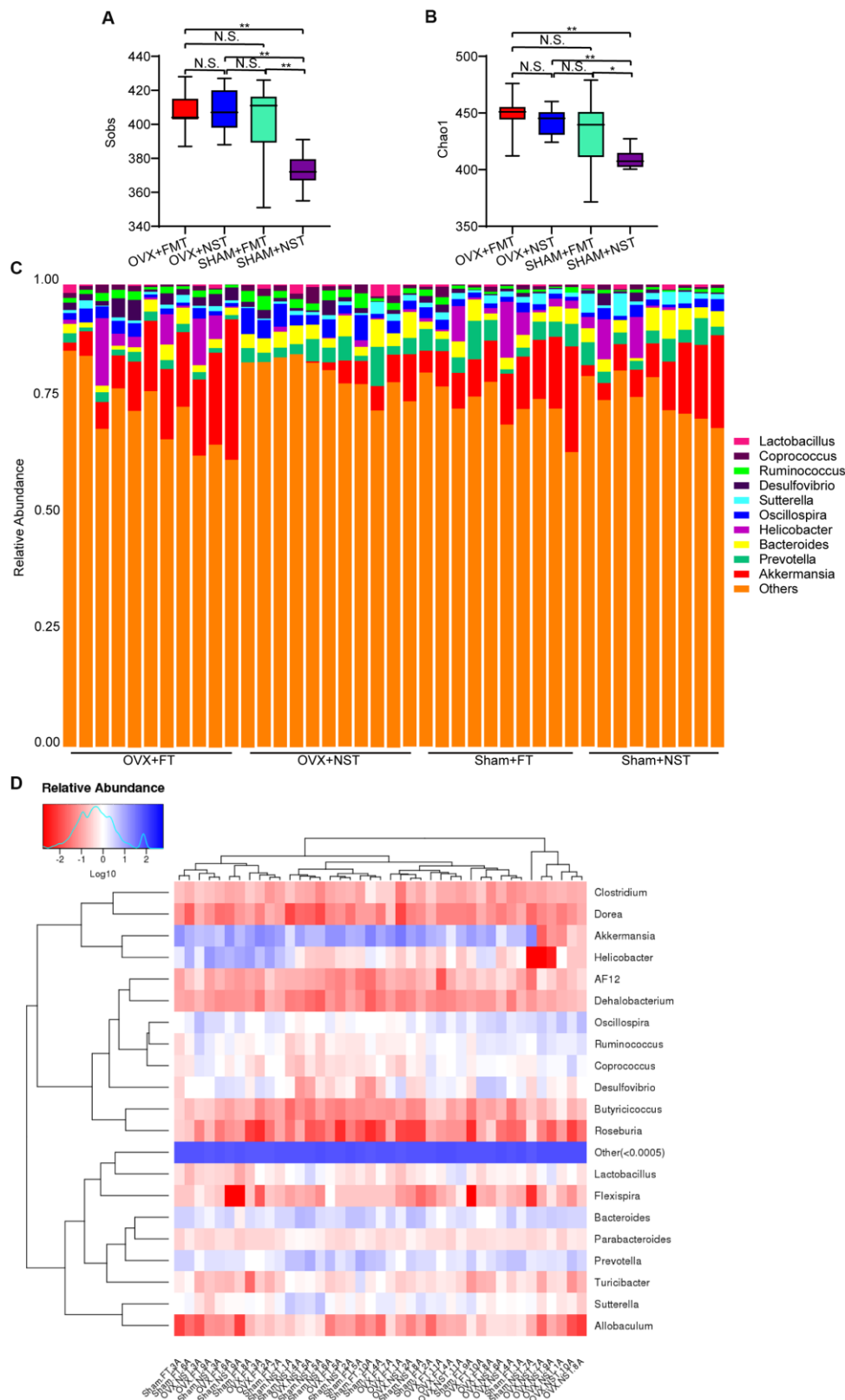


SUPPLEMENTARY FIGURES



**Supplementary Figure 1. Gut microbiota analysis for OVX group and Sham group. (A)** Sobs index of  $\alpha$ -diversity for OVX group and Sham group (t-test,  $P < 0.01$ ). **(B)** Chao 1 index of  $\alpha$ -diversity for OVX group and Sham group (t-test,  $P < 0.01$ ). **(C)** Bar plots of fecal microbial categories at Genus level for OVX group and Sham group; **(D)** Heat map clustering based on fecal microbial categories' relative abundance at Genus level for OVX group and Sham group.



**Supplementary Figure 2. Gut microbiota analysis for OVX+FMT, OVX+NST, Sham+FMT and Sham+NST group.** (A) Sobs index of  $\alpha$ -diversity for OVX+FMT, OVX+NST, Sham+FMT and Sham+NST groups (one-way ANOVA,  $F_{3,37}=7.54$ ,  $P<0.01$ ); (B) Chao 1 index of  $\alpha$ -diversity for OVX+FMT, OVX+NST, Sham+FMT and Sham+NST groups (one-way ANOVA,  $F_{3,37}=9.28$ ,  $P<0.01$ ); (C) Bar plots of fecal microbial categories at Genus level for OVX+FMT, OVX+NST, Sham+FMT and Sham+NST groups; (D) Heat map clustering based on fecal microbial categories' relative abundance at Genus level for OVX+FMT, OVX+NST, Sham+FMT and Sham+NST groups.