

Diet compositions

Chontrol diet composition (1000 g): casein 197 g; corn starch 446 g; dextrin 130 g; sucrose 66 g; lard 62 g; cellulose 49 g; mineral 34 g; vitamin 10 g; L-cystine 3 g; choline bitartrate 2 g; cholesterol 0 g; TBHQ 0.01 g.

HFD diet composition (1000 g): casein 224 g; corn starch 274 g; dextrin 148 g; sucrose 75 g; lard 164g; cellulose 56 g; mineral 39 g; vitamin 11 g; L-cystine 3 g; choline bitartrate 3 g; cholesterol 1 g; TBHQ 0.03 g.

Ory diet composition (1000 g): casein 224 g; corn starch 274 g; dextrin 148 g; sucrose 75 g; lard 159 g; oryzanol 5 g; cellulose 56 g; mineral 39 g; vitamin 11 g; L-cystine 3 g; choline bitartrate 3 g; cholesterol 1 g; TBHQ 0.03 g.

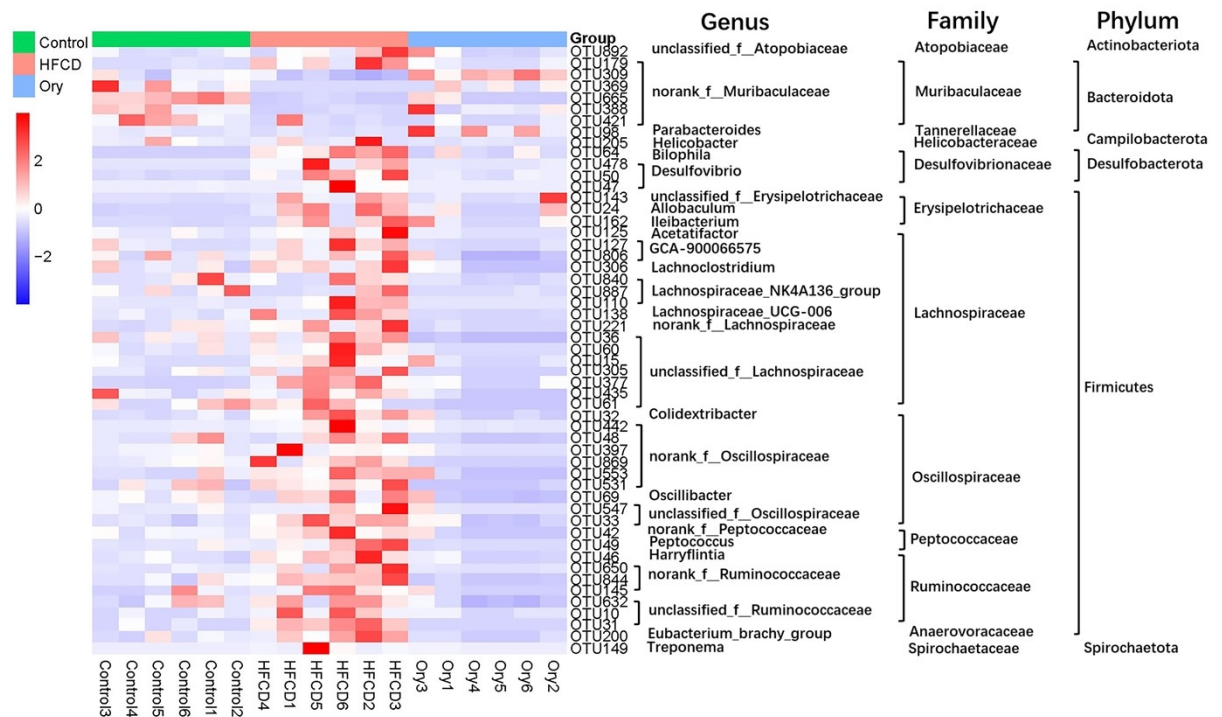


Figure S1. Heatmap of the OTUs in Control group altered by HFCD responding to Ory treatment. Control: control; HFCD: high fat and cholesterol diet; Ory: HFCD supplemented with 0.5% w/w oryzanol. n=6

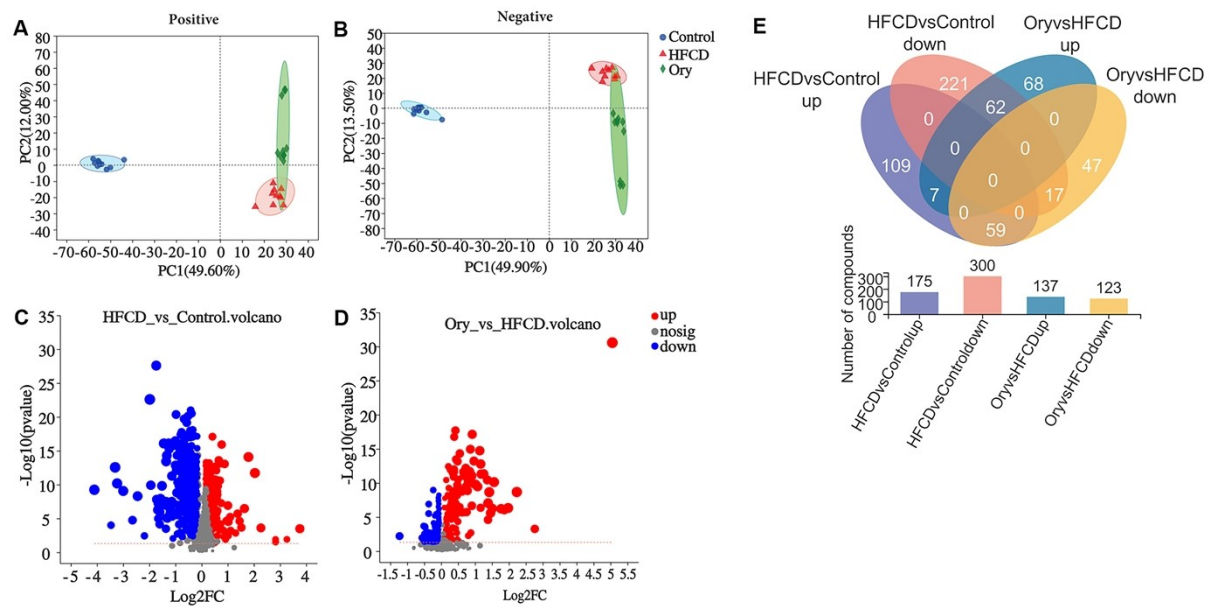


Figure S2. (A) principal component analysis (PCA) of the positive model; (B) principal component analysis (PCA) of the negative model; (C) volcano plots of HFCD group vs Control group, and Ory group vs HFCD group; (D) volcano plots of Ory group vs HFCD group; (E) venn analysis of significant differential metabolites. Control: control; HFCD: high fat and cholesterol diet; Ory: HFCD supplemented with 0.5% w/w oryzanol. n =10.

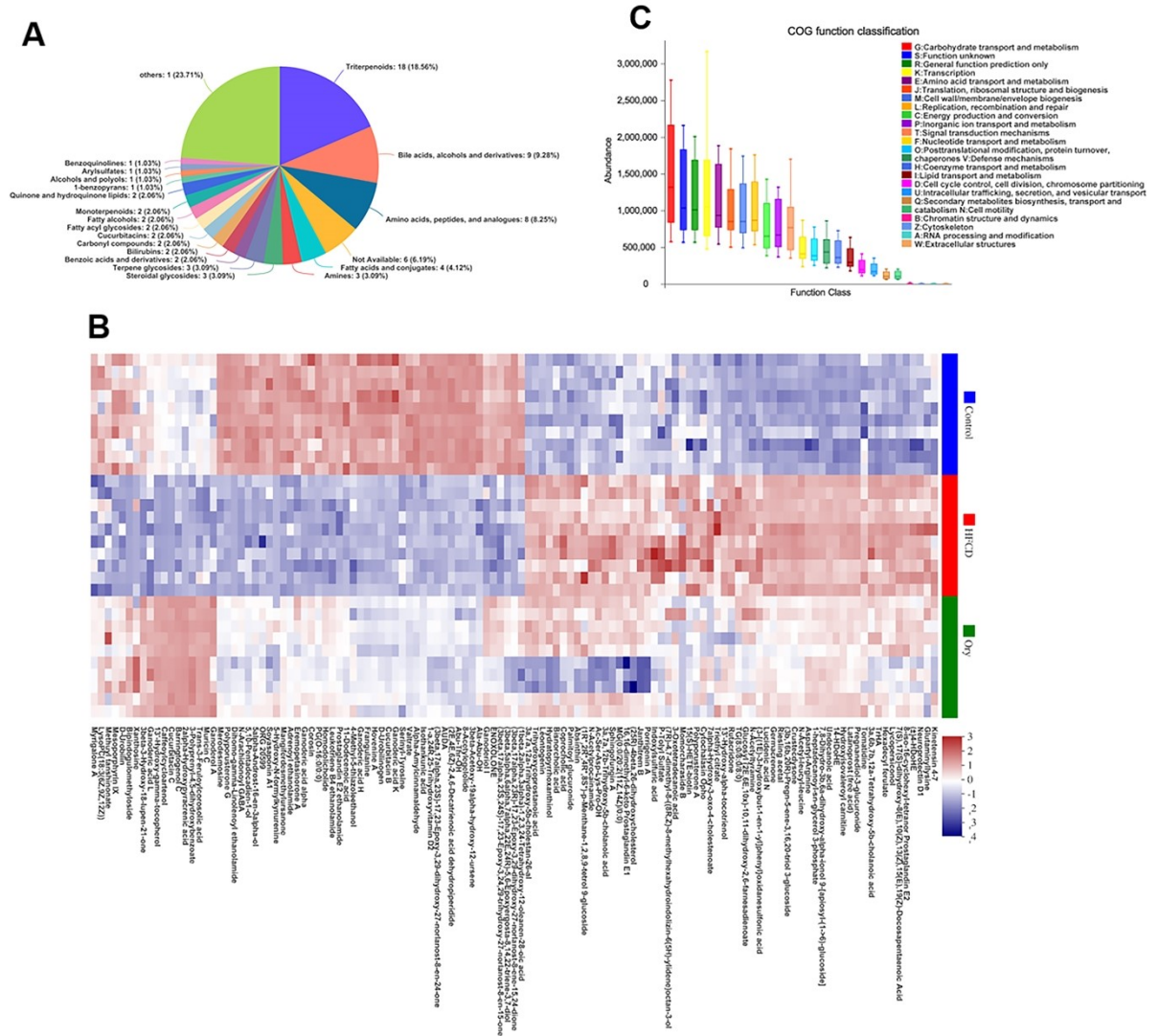


Figure S3. (A) human metabolome database (HMDB) classification; (B) Heatmap of the metabolites in Control group altered by HFCD responding to Ory treatment; (C) cluster of orthologous groups (COG) of microbiotas. Control: control; HFCD: high fat and cholesterol diet; Ory: HFCD supplemented with 0.5% w/w oryzanol. A-B, n=10; C, n=6.