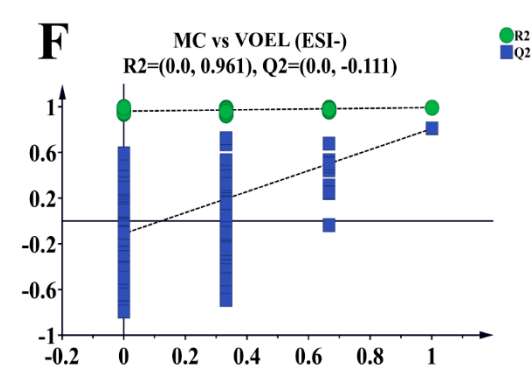
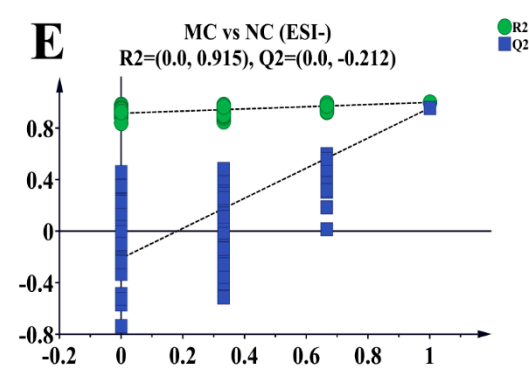
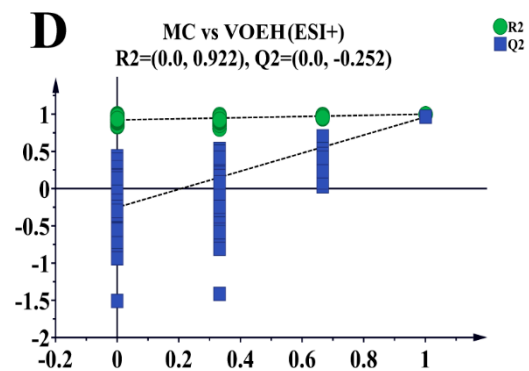
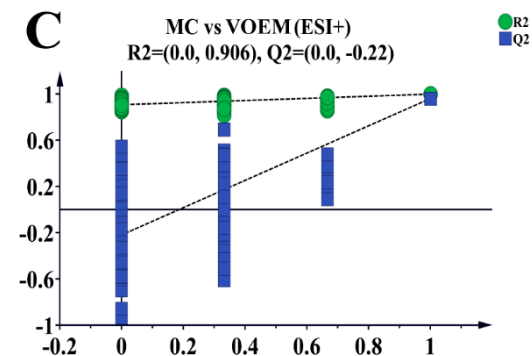
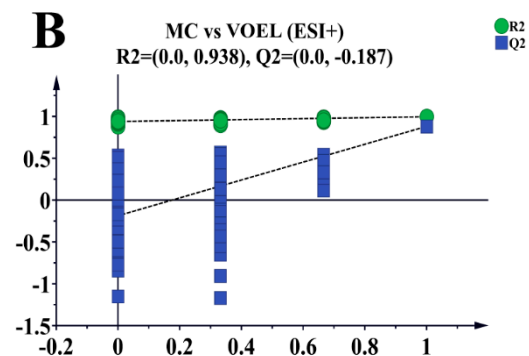
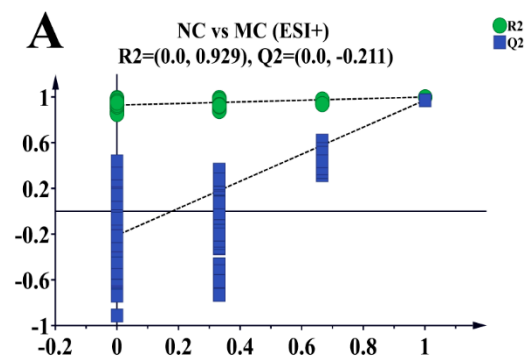


Figure S1. Effects of VOE on the α diversity of gut microbiota in immunosuppressed mice. (A) Chao 1, (B) ACE, (C) Shannon and (D) Simpson indexes. Values with different letters of the same indicator are significantly different ($p < 0.05$).



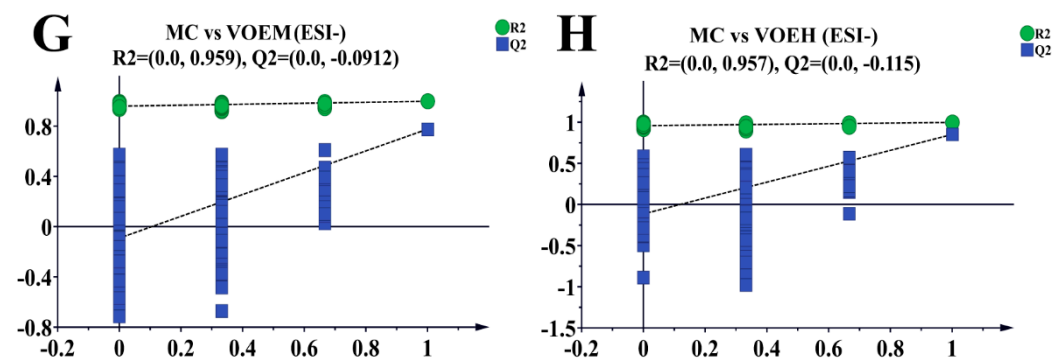


Figure S2. The permutation of OPLS-DA (A), (C), (E), (G) in positive ion mode and (B), (D), (F), (H) in negative ion mode in feces samples of mice

Table S1 Fecal differential metabolites in NC, MC, and VOEH groups

| No. | Compound | MC vs NC | | MC vs VOEH | | HMDB ID/ KEGG ID | RT | Mass |
|-----|---|---------------------|--------|---------------------|--------|---------------------|-------|---------|
| | | log ₂ FC | Change | log ₂ FC | Change | | | |
| 1 | 7-Sulfocholic acid | 2.27 | up | 2.27 | up | HMDB0002421 | 9.70 | 488.24 |
| 2 | 3-Pyridylacetic acid | 1.92 | up | 1.92 | up | HMDB0001538 | 1.63 | 137.05 |
| 3 | Cyclopassifloic acid B | 2.31 | up | 1.49 | up | HMDB0038388 | 21.12 | 580.40 |
| 4 | Urobilinogen | -9.23 | down | -8.85 | down | C05791 | 10.74 | 590.31 |
| 5 | Formamidopyrimidine nucleoside triphosphate | 1.62 | up | 1.62 | up | C05922 | 10.39 | 562.98 |
| 6 | Ganglioside GD1a (d18:1/22:0) | 1.94 | up | 1.94 | up | HMDB0011799 | 10.59 | 1892.05 |
| 7 | Cer (d18:1/18:0) | 2.25 | up | 1.48 | up | HMDB0000829 | 21.89 | 1092.73 |
| 8 | L-655,240 | 2.85 | up | 3.52 | up | HMDB0341170 | 25.10 | 373.13 |
| 9 | N-arachidonoyl tyrosine | 2.40 | up | 1.64 | up | HMDB0062331 | 17.30 | 513.31 |
| 10 | N-docosahexaenoyl phenylalanine | 2.17 | up | 1.36 | up | HMDB0062333 | 24.85 | 475.31 |
| 11 | N-oleoyl tyrosine | 2.46 | up | 1.07 | up | HMDB0062337 | 24.27 | 445.32 |
| 12 | PA (22:6/20:5) | 1.93 | up | 1.15 | up | HMDB0115418 | 9.38 | 766.46 |
| 13 | PA (20:0/22:4) | 1.95 | up | 1.22 | up | HMDB0115085 | 22.32 | 824.59 |
| 14 | Pantetheine | 2.22 | up | 1.57 | up | C00831 | 6.67 | 300.11 |
| 15 | PC (15:0/0:0) | 1.63 | up | 1.19 | up | HMDB0010381 | 18.39 | 481.32 |
| 16 | Rhizocticin A | 1.96 | up | 1.16 | up | C17944 | 4.89 | 397.13 |
| 17 | Siroheme | 1.96 | up | 1.96 | up | C00748 | 10.82 | 914.22 |
| 18 | Trichostatin A | 2.22 | up | 1.44 | up | HMDB0259177 | 9.41 | 302.16 |