**Supplementary Table3. Top 10 bacterial phyla in the three study groups**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **All subjects** | | | | **NHL subjects** | | | | **HL subjects** | | |
| **Bacterial phyla** | **NL** | **FL1** | **FL2** | **Bacterial phyla** | **NL** | **FL1** | **FL2** | **Bacterial phyla** | **FL1** | **FL2** |
| *Firmicutes* | 55.50 | 54.36 | 50.89 | *Firmicutes* | 55.50 | 50.59 | 46.14 | *Firmicutes* | 58.13 | 55.65 |
| *Bacteroidetes* | 34.41 | 29.68 | 41.75 | *Bacteroidetes* | 34.41 | 33.54 | 48.60 | *Bacteroidetes* | 25.82 | 34.91 |
| *Proteobacteria* | 6.77 | 9.96 | 3.58 | *Proteobacteria* | 6.77 | 12.94 | 3.84 | *Proteobacteria* | 6.98 | 3.33 |
| *Fusobacteria* | 0.62 | 2.71 | 2.71 | *Actinobacteria* | 2.47 | 0.64 | 1.17 | *Fusobacteria* | 3.15 | 5.25 |
| *Actinobacteria* | 2.47 | 1.44 | 0.97 | *Fusobacteria* | 0.62 | 2.26 | 0.17 | *Verrucomicrobia* | 3.23 | 0.01 |
| *Verrucomicrobia* | 0.17 | 1.62 | 0.01 | *Verrucomicrobia* | 0.17 | 0.01 | 0.01 | *Actinobacteria* | 2.24 | 0.77 |
| *Unclassified* | 0.05 | 0.19 | 0.04 | *Unclassified* | 0.05 | 0.01 | 0.00 | *Unclassified* | 0.38 | 0.08 |
| *Synergistetes* | 0.01 | 0.03 | 0.03 | *Synergistetes* | 0.01 | 0.00 | 0.05 | *Synergistetes* | 0.06 | 0.01 |
| *Candidatus\_Saccharibacteria* | 0.01 | 0.01 | 0.01 | *Candidatus\_Saccharibacteria* | 0.01 | 0.01 | 0.01 | *Candidatus\_Saccharibacteria* | 0.01 | 0.01 |
| *Cyanobacteria* | 0.00 | 0.00 | 0.00 | *Cyanobacteria* | 0.00 | 0.00 | 0.01 | *Cyanobacteria* | 0.00 | 0.00 |

Each column is sorted from top to bottom in order of OTU relative abundance. FL1, mild fatty liver; FL2, moderately severe fatty liver; NL, normal liver; HL, hyperlipidemia; NHL, non-hyperlipidemia.