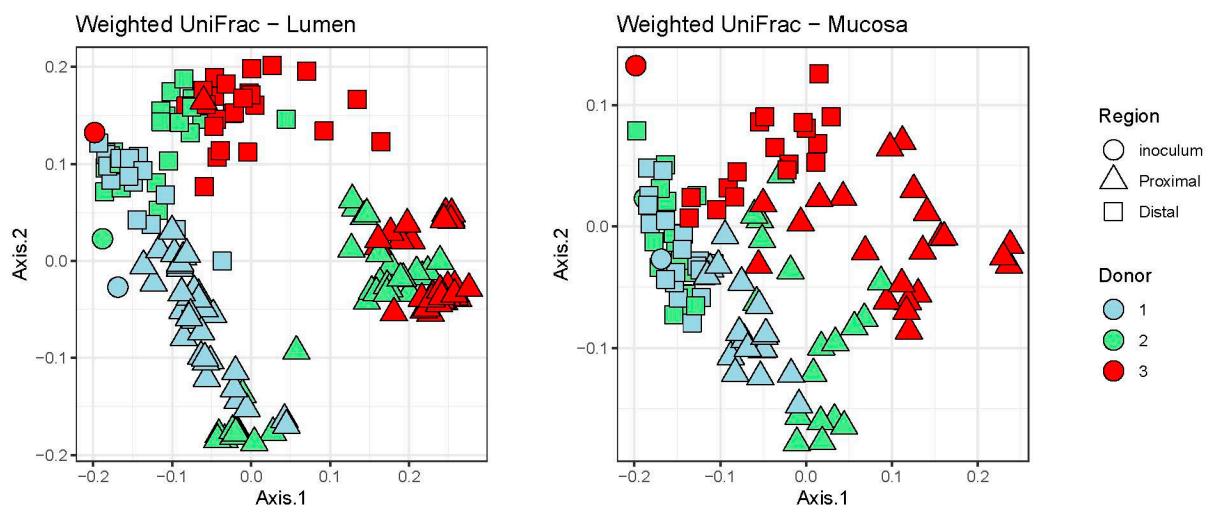
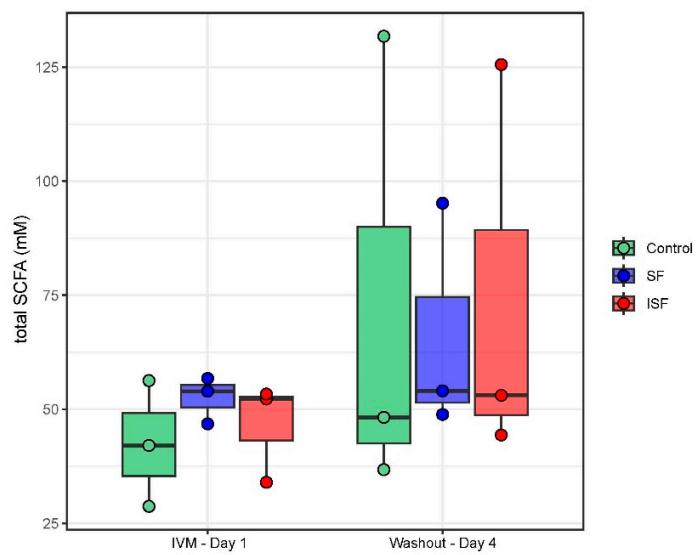


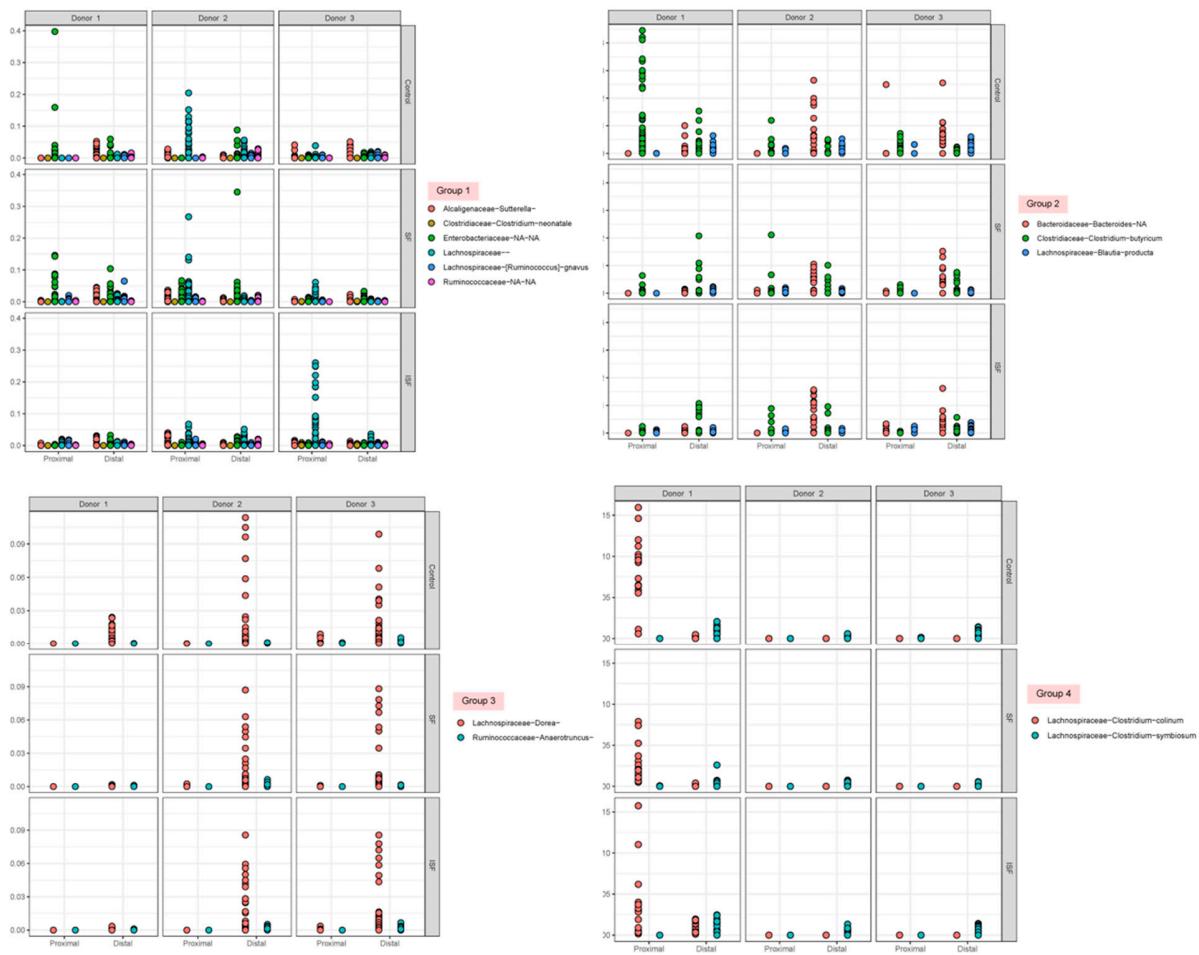
**Figure S1.** Alpha diversity in terms of observed taxa (richness) and evenness (Shannon's index) for the luminal and mucosal communities.

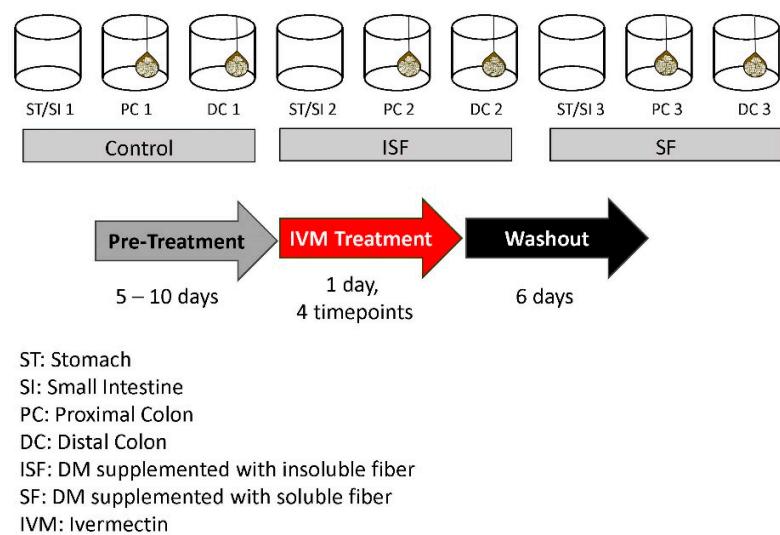


**Figure S2.** Weighted UniFrac distances portrayed as Principal Coordinates Analysis (PCoA) for the luminal and mucosal communities of each donor for the inoculum, proximal and distal colon regions.



**Figure S3.** Concentrations of SCFAs from samples used in TEER experiment (Figure 6.).





**Figure S5.** Schematic showing experimental design.