

Supplementary Materials

In Vitro Effect of Enzymes and Human Milk Oligosaccharides on FODMAP Digestion and Fecal Microbiota Composition

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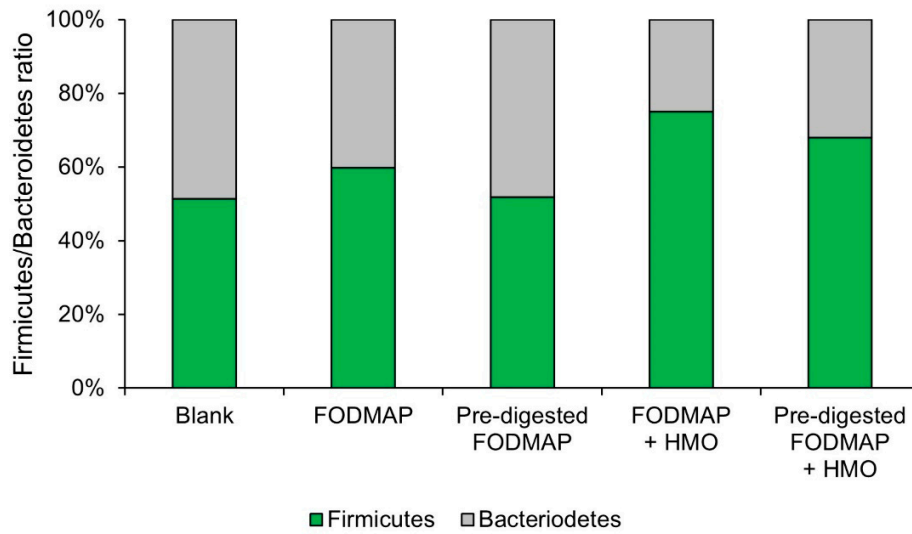
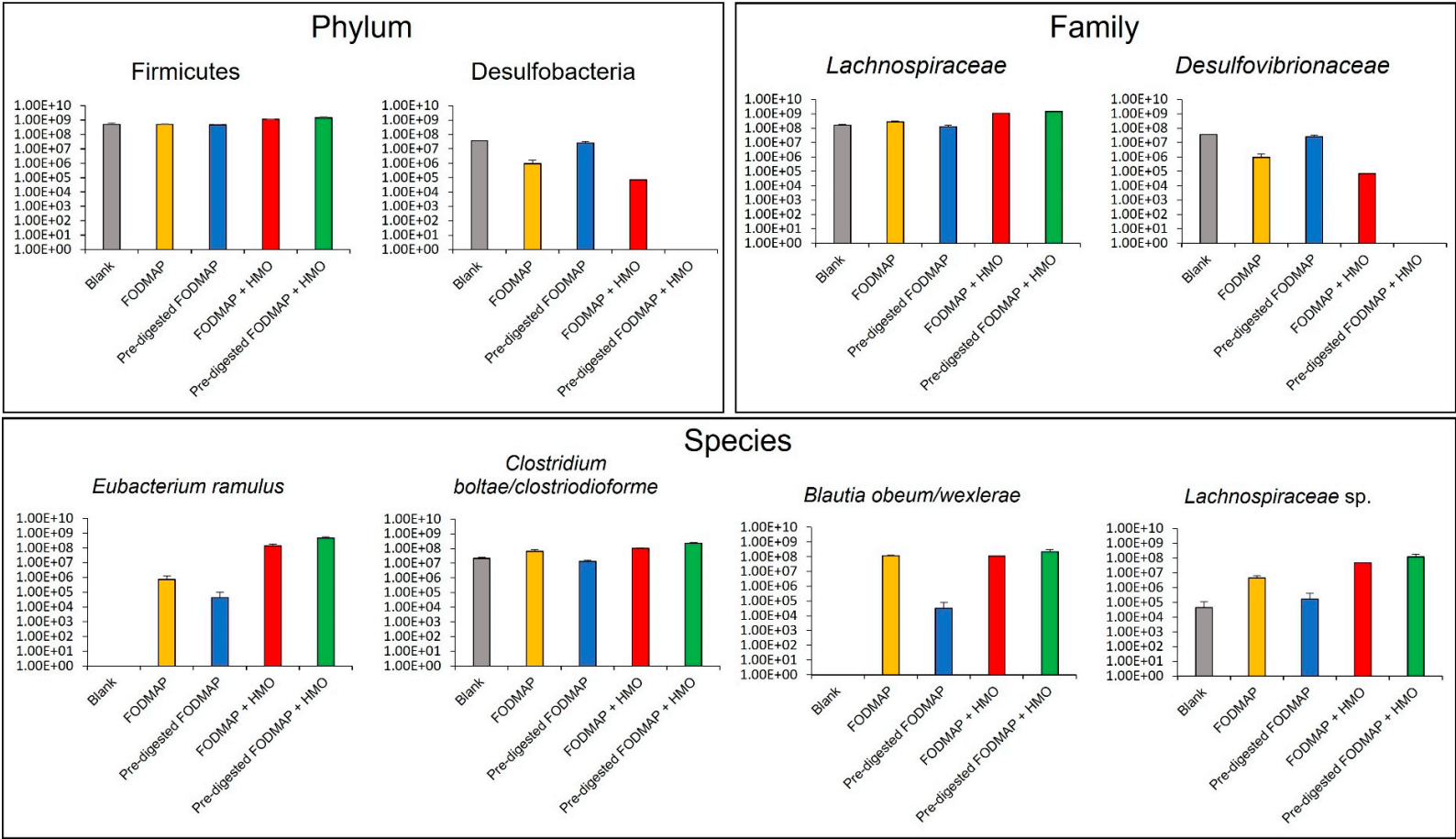


Figure S1. Firmicutes/Bacteroidetes ratio in short-term colonic batch experiments (48 hours).

The test substrates were as follows: FODMAP (0.86 g/L FOS + 0.21 g/L stachyose + 0.21 g/L raffinose + 1.71 g/L lactose), pre-digested FODMAP (0.05 g/L stachyose + 0.10 g/L raffinose + 0.11 g/L lactose), FODMAP + HMO (FODMAP composition + 2.4 g/L 2'FL/DFL + 0.6 g/L lacto-N-neotetraose), pre-digested FODMAP + HMO (pre-digested FODMAP composition + 2.4 g/L 2'FL/DFL + 0.6 g/L lacto-N-neotetraose). Different letters represent statistically significant differences between the different test conditions ($p < 0.05$). 2'FL = 2'fucosyllactose; DFL = difucosyllactose; FODMAP = fermentable oligosaccharides, disaccharides, monosaccharides and polyols; HMO = human milk oligosaccharide.

(a)



(b)

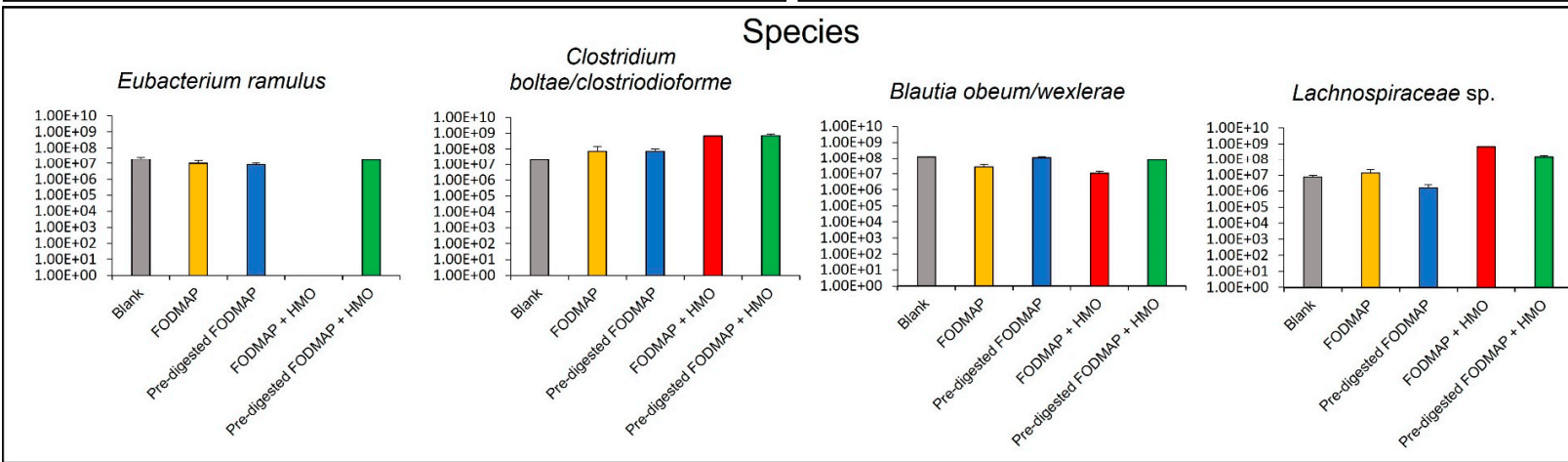
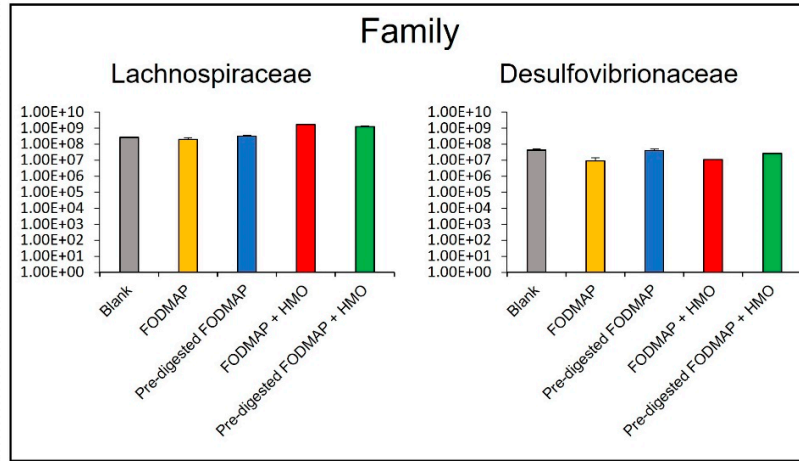
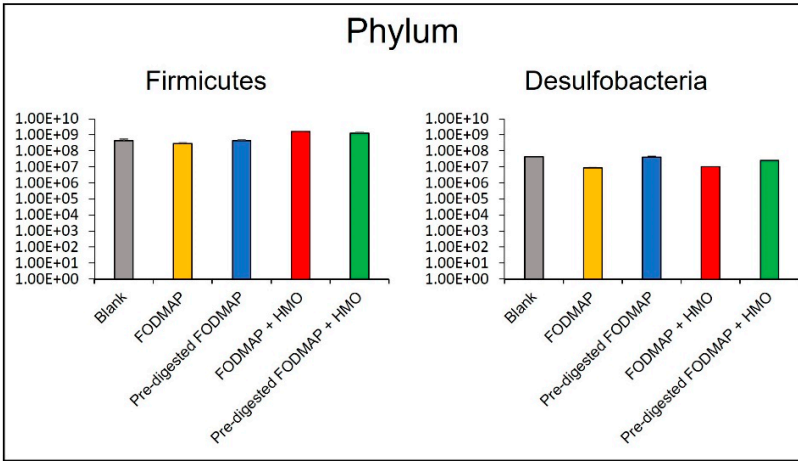


Figure S2. Absolute abundance at the phylum, family, and species level for donor 3 **(a)** and donor 4 **(b)**. FODMAP = fermentable oligosaccharides, disaccharides, monosaccharides and polyols; HMO = human milk oligosaccharide.

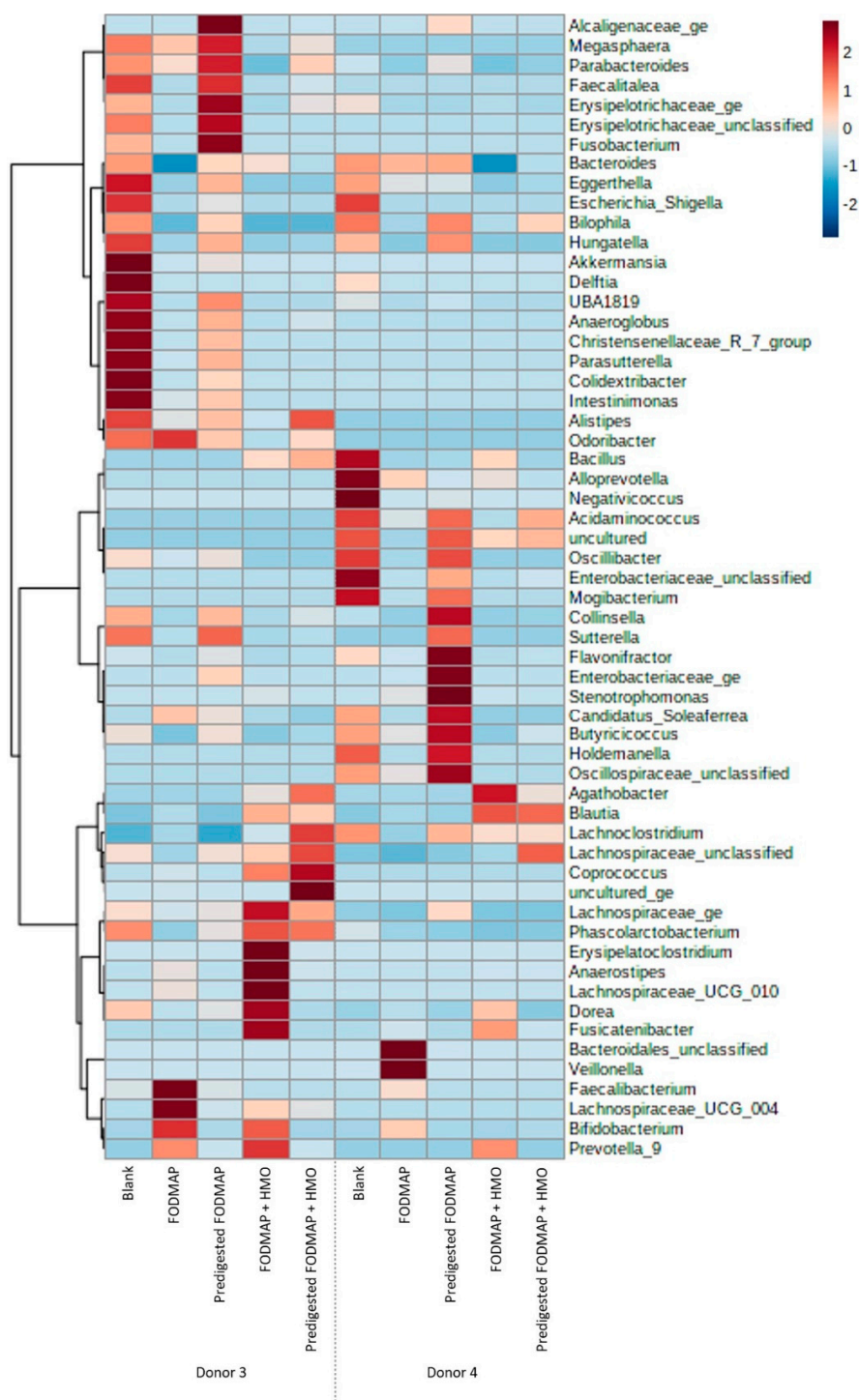


Figure S3. Heatmap of the microbial community composition on day 9/10 according to donor at the genus level in the QuintSHIME® model. TC samples collected on day 9 and day 10 were considered replicates. FODMAP = fermentable oligosaccharides, disaccharides, monosaccharides and polyols; HMO = human milk oligosaccharide; SHIME = simulator of the human intestinal microbial ecosystem; TC = transverse colon.