

#### Supplementary Figure 4. Mock Community C Composition

Taxon	Even
Actinobacteria; Actinobacteria (class); Actinobacteridae; Bifidobacteriales;Bifidobacteriaceae; Bifidobacterium;Bifidobacterium adolescentis	0.0147
Actinobacteria; Actinobacteria (class); Actinobacteridae; Bifidobacteriales;Bifidobacteriaceae; Bifidobacterium;Bifidobacterium angulatum	0.0147
Actinobacteria; Actinobacteria (class); Actinobacteridae; Bifidobacteriales;Bifidobacteriaceae; Bifidobacterium;Bifidobacterium breve	0.0147
Actinobacteria; Actinobacteria (class); Actinobacteridae; Bifidobacteriales;Bifidobacteriaceae; Bifidobacterium;Bifidobacterium catenulatum	0.0147
Actinobacteria; Actinobacteria (class); Actinobacteridae; Bifidobacteriales;Bifidobacteriaceae; Bifidobacterium;Bifidobacterium dentium	0.0147
Actinobacteria; Actinobacteria (class); Actinobacteridae; Bifidobacteriales;Bifidobacteriaceae; Bifidobacterium;Bifidobacterium gallicum	0.0147
Actinobacteria; Actinobacteria (class); Actinobacteridae; Bifidobacteriales;Bifidobacteriaceae; Bifidobacterium;Bifidobacterium bifidum	0.0147
Actinobacteria; Actinobacteria (class); Actinobacteridae; Bifidobacteriales;Bifidobacteriaceae; Bifidobacterium;Bifidobacterium pseudocatenulatum	0.0147
Actinobacteria; Actinobacteria (class); Coriobacteridae; Coriobacteriales;Coriobacterineae; Coriobacteriaceae; Collinsella;Collinsella intestinalis	0.0147
Actinobacteria; Actinobacteria (class); Coriobacteridae; Coriobacteriales;Coriobacterineae; Coriobacteriaceae; Collinsella;Collinsella stercoris	0.0147
Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales;Bacteroidaceae; Bacteroides;Bacteroides caccae	0.0147
Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales;Bacteroidaceae; Bacteroides;Bacteroides cellulolyticus	0.0147
Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales;Bacteroidaceae; Bacteroides;Bacteroides coprocola	0.0147
Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales;Bacteroidaceae; Bacteroides;Bacteroides coprophilus	0.0147
Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales;Bacteroidaceae; Bacteroides;Bacteroides dorei	0.0147
Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales;Bacteroidaceae; Bacteroides;Bacteroides eggerthii	0.0147
Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales;Bacteroidaceae; Bacteroides;Bacteroides finegoldii	0.0147
Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales;Bacteroidaceae; Bacteroides;Bacteroides intestinalis	0.0147
Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales;Bacteroidaceae; Bacteroides;Bacteroides ovatus	0.0147
Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales;Bacteroidaceae; Bacteroides;Bacteroides plebeius	0.0147
Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales;Bacteroidaceae; Bacteroides;Bacteroides stercoris	0.0147
Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales;Bacteroidaceae; Bacteroides;Bacteroides pectinophilus	0.0147
Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales;Porphyromonadaceae; Parabacteroides;Parabacteroides johnsonii	0.0147
Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales;Porphyromonadaceae; Parabacteroides;Prevotella copri	0.0147
Bacteroidetes/Chlorobi group; Bacteroidetes; Bacteroidia; Bacteroidales;Rikenellaceae; Alistipes;Alistipes putredinis	0.0147
Firmicutes; Bacilli; Lactobacillales; Streptococcaceae; Streptococcus;Streptococcus infantarius	0.0147
Firmicutes; Clostridia; Clostridiales; Clostridiaceae; Clostridium;Clostridium asparagiforme	0.0147
Firmicutes; Clostridia; Clostridiales; Clostridiaceae; Clostridium;Clostridium bartlettii	0.0147
Firmicutes; Clostridia; Clostridiales; Clostridiaceae; Clostridium;Clostridium hathewayi	0.0147
Firmicutes; Clostridia; Clostridiales; Clostridiaceae; Clostridium;Clostridium hiranonis	0.0147
Firmicutes; Clostridia; Clostridiales; Clostridiaceae; Clostridium;Clostridium hylemonae	0.0147
Firmicutes; Clostridia; Clostridiales; Clostridiaceae; Clostridium;Clostridium celatum	0.0147
Firmicutes; Clostridia; Clostridiales; Clostridiaceae; Clostridium;Clostridium methylpentosum	0.0147
Firmicutes; Clostridia; Clostridiales; Clostridiaceae; Clostridium;Clostridium nexile	0.0147
Firmicutes; Clostridia; Clostridiales; Clostridiaceae; Clostridium;Clostridium orbiscindens	0.0147

**Supplementary Figure 4. Mock Community C Composition (CONTINUED)**

<b>Taxon</b>	<b>Even</b>
Firmicutes; Clostridia; Clostridiales; Clostridiaceae; Clostridium;Clostridium ramosum	0.0147
Firmicutes; Clostridia; Clostridiales; Clostridiaceae; Clostridium;Clostridium saccharolyticum-related	0.0147
Firmicutes; Clostridia; Clostridiales; Clostridiaceae; Clostridium;Clostridium sporogenes	0.0147
Firmicutes; Clostridia; Clostridiales; Clostridiales incertae sedis; Clostridiales Family XI. Incertae Sedis; Anaerococcus;Anaerococcus hydrogenalis	0.0147
Firmicutes; Clostridia; Clostridiales; Eubacteriaceae; Anaerofustis;Anaerofustis stercorihominis	0.0147
Firmicutes; Clostridia; Clostridiales; Eubacteriaceae; Eubacterium;Eubacterium bifforme	0.0147
Firmicutes; Clostridia; Clostridiales; Eubacteriaceae; Eubacterium;Eubacterium ramulus	0.0147
Firmicutes; Clostridia; Clostridiales; Lachnospiraceae; Butyrivibrio;Butyrivibrio crossotus	0.0147
Firmicutes; Clostridia; Clostridiales; Lachnospiraceae; Coprococcus;Coprococcus comes	0.0147
Firmicutes; Clostridia; Clostridiales; Lachnospiraceae; Dorea;Dorea formicigenerans	0.0147
Firmicutes; Clostridia; Clostridiales; Lachnospiraceae; Roseburia;Roseburia intestinalis	0.0147
Firmicutes; Clostridia; Clostridiales; Lachnospiraceae; Roseburia;Roseburia inulinivorans	0.0147
Firmicutes; Clostridia; Clostridiales; Lachnospiraceae; Roseburia;Roseburia faecis	0.0147
Firmicutes; Clostridia; Clostridiales; Ruminococcaceae; Anaerotruncus;Anaerotruncus colihominis	0.0147
Firmicutes; Clostridia; Clostridiales; Ruminococcaceae; Ruminococcus;Ruminococcus hansenii	0.0147
Firmicutes; Clostridia; Clostridiales; Ruminococcaceae; Ruminococcus;Ruminococcus gnavus	0.0147
Firmicutes; Clostridia; Clostridiales; Ruminococcaceae; Ruminococcus;Ruminococcus lactaris	0.0147
Firmicutes; Clostridia; Clostridiales; Ruminococcaceae; Ruminococcus;Ruminococcus torques	0.0147
Firmicutes; Clostridia; Clostridiales; Ruminococcaceae; Subdoligranulum;Subdoligranulum variabile	0.0147
Firmicutes; Clostridia; Clostridiales; Veillonellaceae; Mitsuokella;Mitsuokella multacida	0.0147
Firmicutes; Erysipelotrichi; Erysipelotrichales; Erysipelotrichaceae; Catenibacterium;Catenibacterium mitsuokai	0.0294
Firmicutes; Erysipelotrichi; Erysipelotrichales; Erysipelotrichaceae; Holdemania;Holdemania filiformis	0.0147
Proteobacteria; Gammaproteobacteria; Enterobacteriales; Enterobacteriaceae;Citrobacter;Citrobacter sp	0.0147
Proteobacteria; Gammaproteobacteria; Enterobacteriales; Enterobacteriaceae;Enterobacter;Enterobacter cancerogenus	0.0147
Proteobacteria; Gammaproteobacteria; Enterobacteriales; Enterobacteriaceae;Edwardsiella;Edwardsiella tarda	0.0147
Proteobacteria; Gammaproteobacteria; Enterobacteriales; Enterobacteriaceae; Proteus;Proteus penneri	0.0147
Proteobacteria; Gammaproteobacteria; Enterobacteriales; Enterobacteriaceae;Providencia;Providencia rettgeri	0.0147
Proteobacteria; Gammaproteobacteria; Enterobacteriales; Enterobacteriaceae;Providencia;Providencia rustigianii	0.0147
Proteobacteria; Gammaproteobacteria; Enterobacteriales; Enterobacteriaceae;Providencia;Providencia stuartii	0.0147
Proteobacteria; Gammaproteobacteria; Enterobacteriales; Enterobacteriaceae;Providencia;Providencia alcalifaciens	0.0147
Proteobacteria; Gammaproteobacteria; Enterobacteriales; Enterobacteriaceae;Cedecea;Cedecea davisae	0.0147
Firmicutes; Clostridia; Clostridiales; Peptococcaceae; Desulfitobacterium;Desulfitobacterium hafniense	0.0147