Successful dietary therapy in paediatric Crohn’s disease is associated with shifts in bacterial dysbiosis and inflammatory metabotype towards healthy controls

Verburgt & Dunn et al.
Supplemental Figures
May 2022
Supplemental Figure 1

- Increased in CD week 0 compared to HC
- Decreased in CD week 0 compared to HC
Supplemental Figure 2

CDED+PEN week 0 vs. week 6

EEN week 0 vs. week 6

Decreased between week 0 and 6

Increased between week 0 and 6
Supplemental Figure 3

CDED+PEN Week 6 vs Healthy

Increased in CD week 6 compared to HC
Decreased in CD week 6 compared to HC
Supplemental Figure 4

A. Firmicutes/Bacteroidetes

B. Proteobacteria/Bacteroidetes

C. Gammaproteobacteria/Bacteroides

D. Escherichia/Bacteroides

D. Escherichia coli/Bacteroides
Supplemental Figure 5

A. Firmicutes/Bacteroidetes

B. Proteobacteria/Bacteroidetes

C. Gammaproteobacteria/Bacteroides

D. Escherichia/Bacteroides

E. E. coli/Bacteroides
Supplemental Figure 6

CDED+PEN week 12 vs healthy

EEN week 12 remission vs healthy

Increased in CD week 12

Decreased in CD week 12
Supplemental Figure 7
Supplemental Figure 9

CDED

EEN

Acetate
0 vs 6 p=<0.01
0 vs 6 p=0.02
6 vs 12 p=0.02

Propionate

Butyrate
0 vs 6 p<0.01
6 vs 12 p<0.01

Concentration μmol/g

wk0 wk6 wk12

Concentration μmol/g

wk0 wk6 wk12
Supplemental Figure 10

**Acetate**

**Propionate**

**Butyrate**

**Valeric**

**Isobutyrate**

**Isovalerate**

P = 0.022

P = 0.0003
Four different pathways for butyrate synthesis and corresponding genes

![Diagram of butyrate synthesis pathways]

- L-glutamate degradation
- L-lysine fermentation
- 4-aminobutanoate degradation
- Acetyl-CoA fermentation

Counts

Supplemental Figure 13

Adapted from Vital et al. mBio 2014; doi:10.1128/mBio.00889-14
Supplemental figure 14

Counts

| K00929_sum     | K00634_sum     | K00248_sum     |
|----------------|----------------|----------------|
| p=0.017        | p=0.0041       | p=0.1          |

| K00074_sum     | K01692_sum     | K01843_sum     |
|----------------|----------------|----------------|
| p=0.2          | p<2.2e-16      | p=0.68         |
Supplemental figure 16

Counts

| Sample          | M1 | M2 |
|-----------------|----|----|
| K14534_sum      |    |    |
| p=0.00024       |    |    |
| K01029_sum      |    |    |
| p=0.00095       |    |    |
| K01039_sum      |    |    |
| p=0.035         |    |    |
| K01040_sum      |    |    |
| p=0.011         |    |    |
| K01825_sum      |    |    |
| p=0.0013        |    |    |
| K01782_sum      |    |    |
| p=6.5e-13       |    |    |
Supplemental Figure 17
N= No remission
SR= sustained remission
NR= No sustained remission