

Results Poster Presentation

Citrus flavonoids and gut health: effects in vitro and in human volunteers on microbiome modulation and gut inflammation

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Results – In vitro study

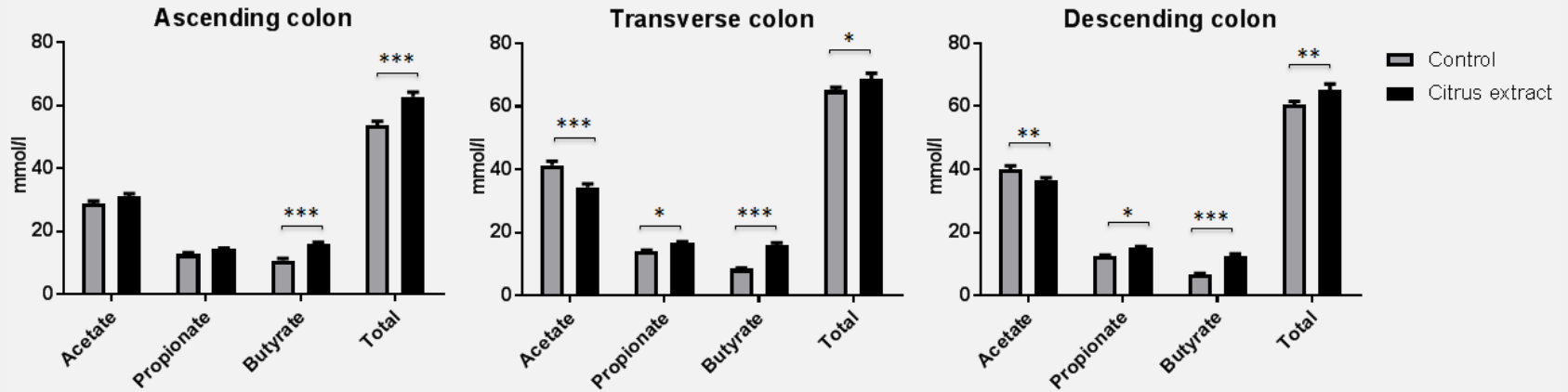


Figure 3. SCFA production during the TWINSHIME experiment as analyzed by gas chromatography. Values are represented as the mean of three collected samples per week over a period of three weeks (treatment period). * represents significant differences between citrus extract treated SHIME and control SHIME (* = $p < 0.05$; ** = $p < 0.01$; *** = $p < 0.001$).

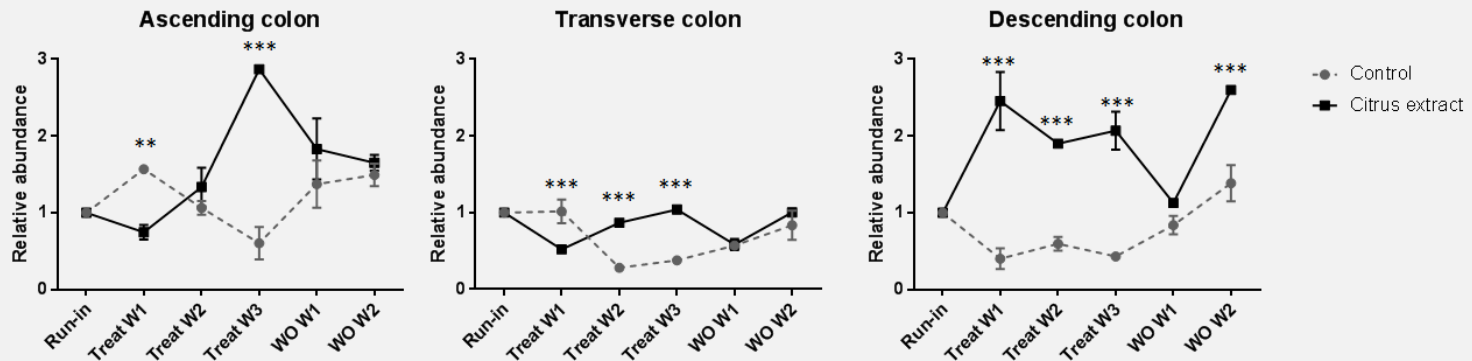


Figure 4. Relative abundance of *Eubacterium rectale/Clostridium coccoides* group (Clostridium cluster XIVa) to the quantities (of copies/mL) present in the control weeks as analyzed by qPCR. * represents significant differences from control SHIME (* = $p < 0.05$; ** = $p < 0.01$; *** = $p < 0.001$)

Results – Human intervention study

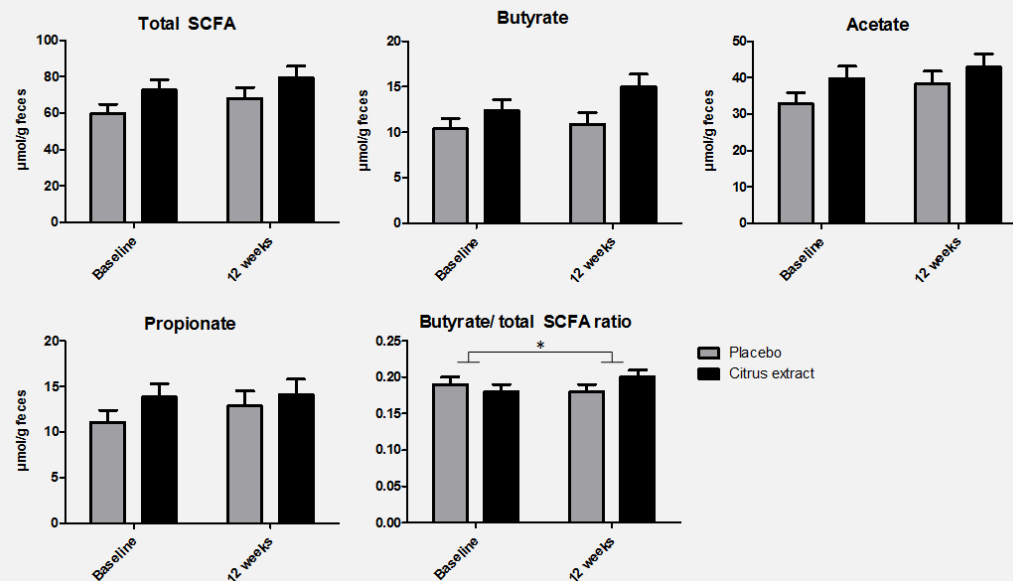


Figure 5. SCFA concentrations at baseline and after 12 weeks of supplementation with placebo or citrus extract as analyzed by gas chromatography. * indicates significant differences between placebo and citrus extract treatment as compared to baseline ($p < 0.05$).

Table 1. Calprotectin concentrations at baseline and after 12 weeks of supplementation with placebo or citrus extract as analyzed by ELISA.

| | Placebo | | Citrus extract | | <i>P</i> value |
|----------------------|------------|------------|----------------|------------|-------------------|
| | Baseline | 12 wks | Baseline | 12 wks | |
| Calprotectin (ng/mL) | 32.9 ± 7.8 | 42.5 ± 7.6 | 47.5 ± 8.7 | 37.1 ± 8.4 | 0.058 |

P value represents the *p*-value for the analysis of baseline versus 12 weeks intervention between placebo and citrus extract using a linear mixed model. Estimated mean ± SEM (all such values)