The gut in control of health and disease: Unraveling the role of short-chain fatty acids in human metabolism

1. Increasing acetate concentrations in the distal colon serves as an important nutritional and therapeutic target to promote fat oxidation and improve the human metabolic profile. *This thesis*

2. Ingestion of the prebiotic inulin results in formation of acetate, propionate, and butyrate, and provides an improved metabolic profile in overweight to obese subjects. *This thesis*

3. Despite an increase in fecal bifidobacteria, long-term galacto-oligosaccharides (GOS) supplementation does not result in metabolic changes in prediabetic subjects. *This thesis*

4. Short-chain fatty acid treatment as a stand-alone therapy will not prove effective in treating or preventing human colonic diseases. *This thesis*

5. Transfer of sterile filtrates from donor stool, rather than fecal microbiota, is sufficient to restore normal stool habits and eliminates symptoms in patients with *Clostridium difficile* infection. (*S. Ott et al, Gastroenterology, 2017*)

6. Recommending a low-FODMAP (Fermentable Oligo-, Di-, Mono-saccharides And Polyols) diet for the entire population is difficult to justify. (*F. Brouns et al, Cereal foods world, 2017*)

7. Interference with resilient adult microbiota by antibiotics has no clinically relevant effects on metabolic parameters. (*D. Reijnders et al, Cell Metabolism, 2016*)

8. A patient-specific treatment, driven by a specific microbial response, is an important future perspective.

9. The secret of the care of the patient is in caring for the patient. (*Dr Francis Weld Peabody*)

10. If you think you are too small to make a difference, try sleeping with a mosquito in the room. (*Dalai Lama*)

11. Er gaat meer boven je pet dan eronder. (*Toon Hermans*)

Kirsten van der Beek, 4 oktober 2017