

## Enterotypes influence temporal changes in gut microbiota

Roager, Henrik Munch; Licht, Tine Rask; Kellebjerg Poulsen, Sanne; Meinert Larsen, Thomas; Bahl, Martin Iain

*Publication date:*  
2013

*Document Version*  
Publisher's PDF, also known as Version of record

[Link back to DTU Orbit](#)

*Citation (APA):*  
Roager, H. M., Licht, T. R., Kellebjerg Poulsen, S., Meinert Larsen, T., & Bahl, M. I. (2013). Enterotypes influence temporal changes in gut microbiota. Abstract from 8th Danish Conference on Biotechnology and Molecular Biology, Vejle, Denmark.

## DTU Library

Technical Information Center of Denmark

---

### General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

## **Abstract for 8<sup>th</sup> Danish Conference on Biotechnology and Molecular Biology**

May 30-31, 2013

Vejle, Denmark

### **Enterotypes influence temporal changes in gut microbiota**

Henrik Munch Roager<sup>1\*</sup>, Tine Rask Licht<sup>1</sup>, Sanne Kellebjerg Poulsen<sup>2</sup>, Thomas Meinert Larsen<sup>2</sup>, Martin Iain Bahl<sup>1</sup>

<sup>1</sup>National Food Institute, Technical University of Denmark, Mørkhøj Bygade 19, DK-2860 Søborg, Denmark.

<sup>2</sup>University of Copenhagen, Department of Nutrition, Exercise and Sports, DK-1958 Frederiksberg C, Denmark

\*hemro@food.dtu.dk

The human gut microbiota plays an important role for human health. The question is whether we can modulate the gut microbiota by changing diet. During a 6-month, randomised, controlled dietary intervention, the effect of consuming a diet following the New Nordic Diet recommendations (NND) as opposed to Average Danish Diet (ADD) on the gut microbiota in humans (n=62) was investigated. Quantitative PCR analysis showed that the microbiota did not change significantly by the intervention. Nevertheless, by stratifying subjects into two enterotypes, distinguished by the *Prevotella/Bacteroides* ratio (*P/B*), we were able to detect significant changes in the gut microbiota composition resulting from the interventions. Subjects with a high-*P/B* experienced more pronounced changes in the gut microbiota composition than subjects with a low-*P/B*. The study is the first to indicate that enterotypes influence microbiota response to a dietary intervention. The distinguishment of enterotypes by *P/B* could be a simple approach to assess the effect of diets and other treatments on the gut microbiota.