

Probiotics – Clinical 1

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Molecular Fingerprinting of the
Fecal Microbiota of children
raised according to different
lifestyles

Methods and subjects

- Terminal RFLP
- 90 children of the PARSIFAL studies (Prevention of Allergy – Risk Factors for Sterilization in Children Related to Farming and Anthroposophic Lifestyles) between ages 6 and 13

Anthroposophic Lifestyle

- Breastfed longer
- More organically/biodynamically grown food
- Fermented vegetables
- Fewer vaccines and antibiotics
- Attend so called Steiner Schools

Subjects in specific

- 28 from Germany, 36 from Sweden, 26 from Switzerland
- 23 from Steiner Schools, 19 as reference from same area
- 26 living on farms, 22 as reference from same area

Results

- Steiner School children have higher general diversity due to lower vaccination and use of antibiotics; and to lower consumption of untreated milk
- These are minor tendencies, as every group had high spread

Effect of orally administered *L. casei* DN-114 001 on the composition or activities of the dormal faecal microbiota in healthy humans

Subjects

- 7 women and 5 men, ages 23-44
- Western European diet, healthy, no allergy to milk products

Study design

- Sample: 100ml normally fermented yoghurt with added 10^8 colony-forming units of *L. casei* DN-114-001 per ml, sold as Actimel
- 1 week baseline, 10 days supplementation (3 bottles per day), 10 days wash-out
- 3 samples (after baseline, supplementation and wash-out)

Methods

- Temporal Temperature Gradient Gel Electrophoresis
- Realtime-PCR
- Biochemical Analysis

Results

- Short-term boost of *L. casei* levels during supplementation
- Relatively fast decline during wash-out (almost back to starting level after 10 days)
- No long-term alteration of dominant faecal microbiota
- Biochemical effects as indicated by previous studies