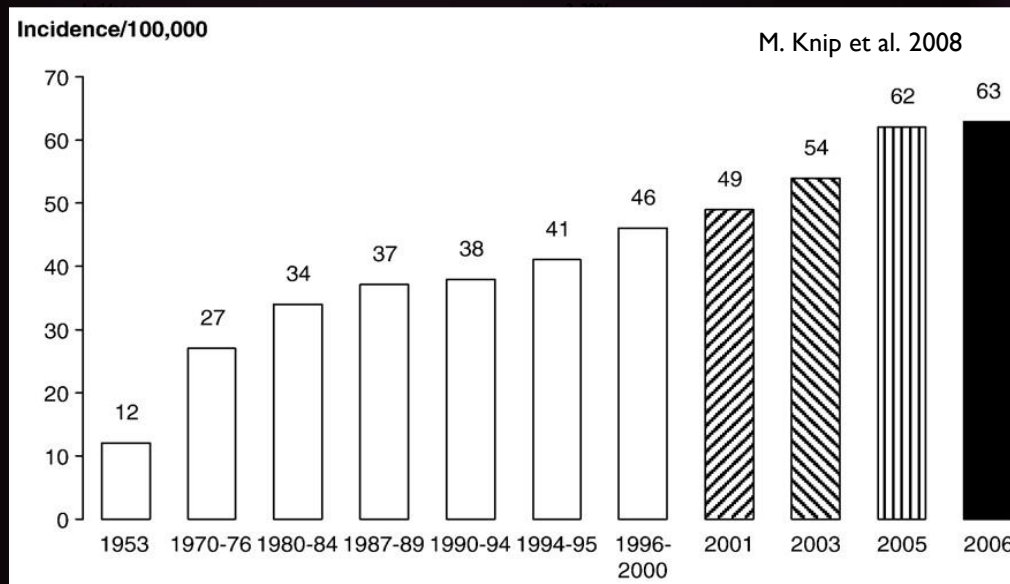


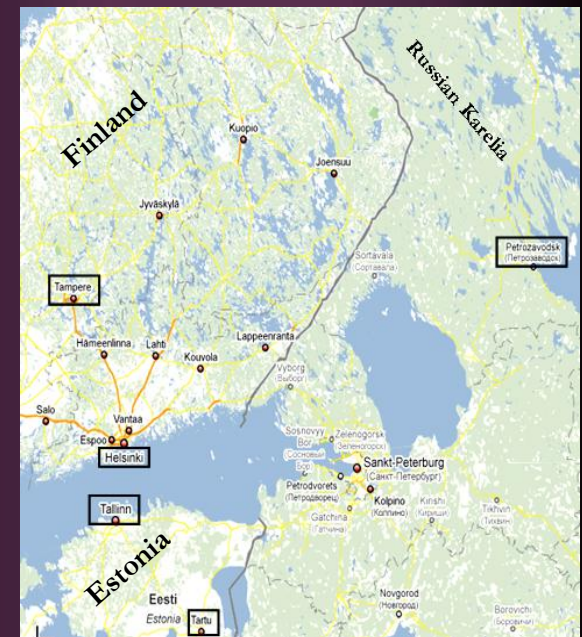
THE IDENTIFICATION OF GUT MICROBIAL BIOMARKERS RELATED TO THE INCIDENCE OF TYPE I DIABETES IN CHILDREN

Danai Dimitropoulou, Hermie J. M. Harmsen, Bartholomeus van den Bogert, Erwin G. Zoetendal, Michiel Kleerebezem, Heikki Hyöty, Gjalte W. Welling

- Finland $\left\{ \begin{array}{l} \text{Highest rate of juvenile Type I Diabetes in the world – rapid increase during the last decade} \\ \text{Incidence } \sim 6 \text{ times higher than in children from Russian Karelia and Estonia} \end{array} \right.$
- Aim \longrightarrow Investigate differences in gastrointestinal composition between diabetic and control cases



The incidence of Type I Diabetes among Finnish children < 15 years of age 1953–2006



Department of Medical Microbiology
University Medical Center Groningen (UMCG)

- The microbial diversity is mainly similar between diabetic and control samples
- 3 bacterial groups are significantly different between diabetic and control samples ($p < 0.05$)

HITChip-analysis

Statistical analysis

