

Bio-Me
Microbiome Profiling

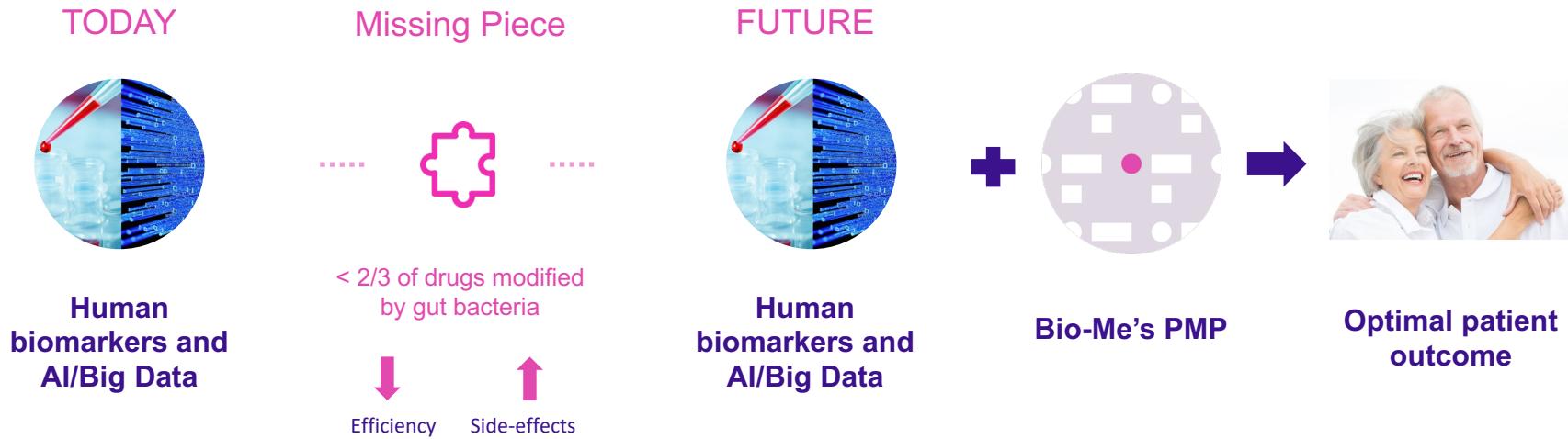
Bio-Me AS

Gaustadalléen 21
N-0349 Oslo
Norway

PMP™ - A Microbiome-based Approach to Precision Medicine and Personalized Nutrition

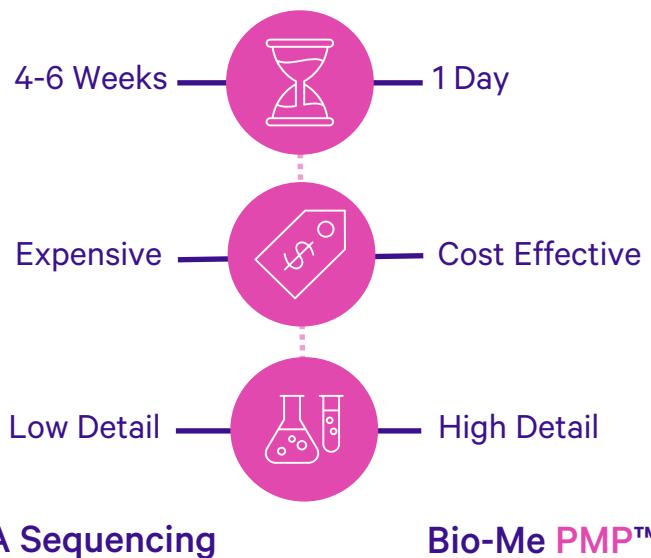
*Morten L. Isaksen, PhD
Chief Executive Officer*

How to optimize Precision Medicine and Personalized Nutrition



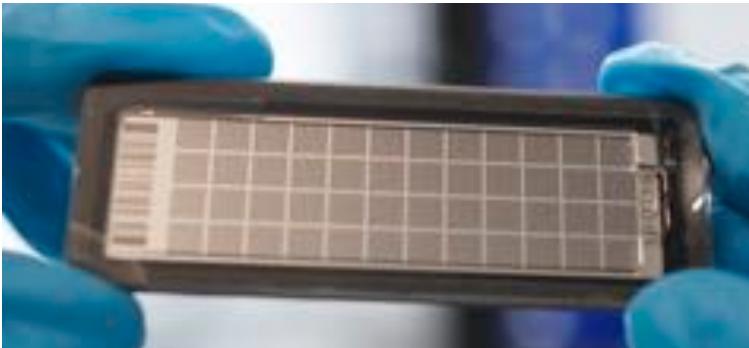
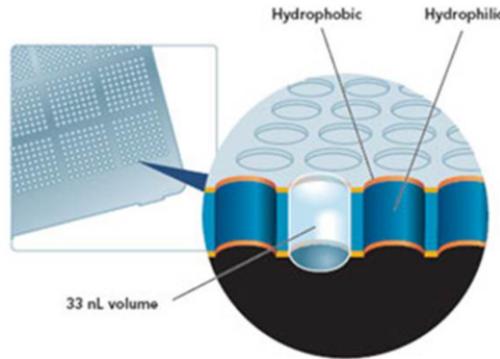
Unlock the Microbiome

with Precision Microbiome ProfilingTM

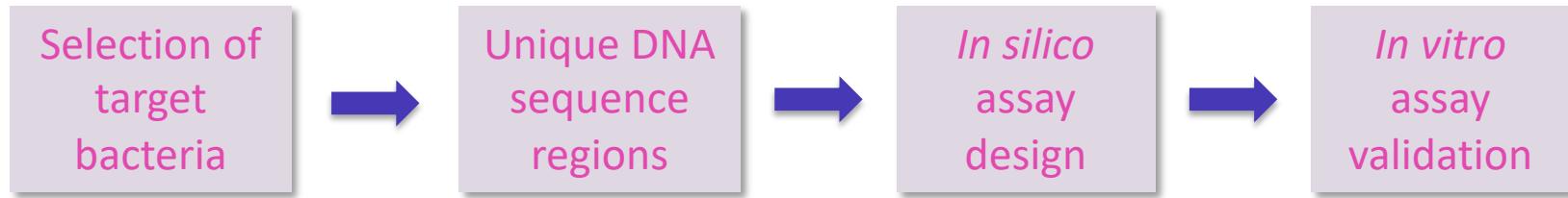


PMP™ - Thermo Fisher collaboration

- TaqMan™ - The ultimate validation in bacterial detection
- OpenArray® - Unique technology allows analysis of 12K independent assays
- 200 samples in one run (2 hours)
- High reproducibility and precision
- Direct quantification of bacterial species

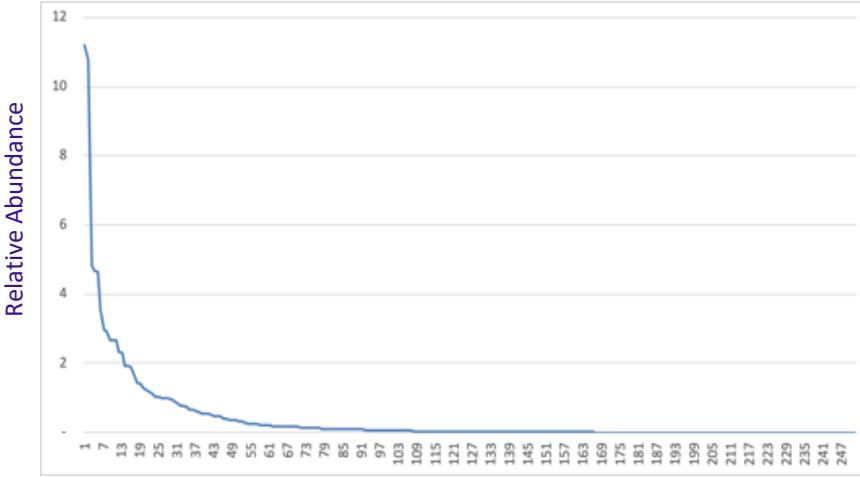


Assay development

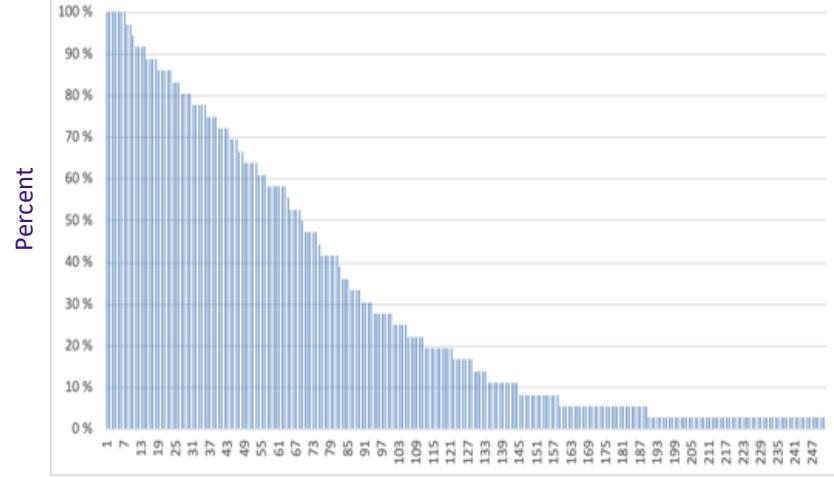


PMP™ targets the most dominant and important gut bacteria

Abundance



Frequency



Rapid and high throughput analysis process



Sample Collection Kit



Sample (punch)



Punching



Bead-beating



DNA purification



Sample loading



Analysis

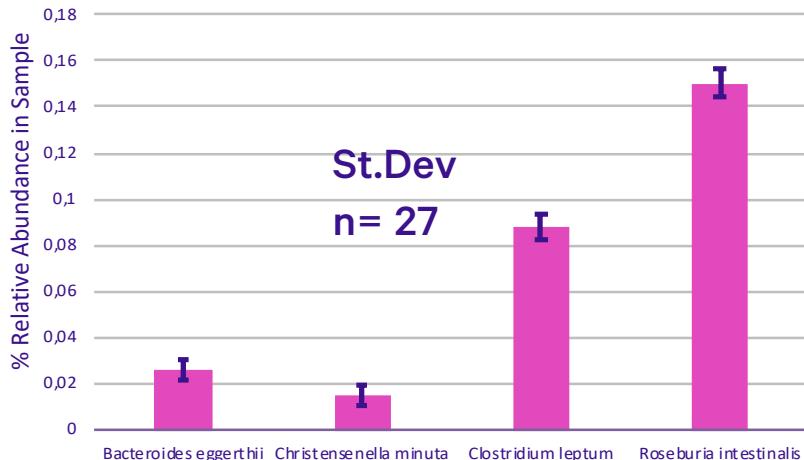


Database & Report

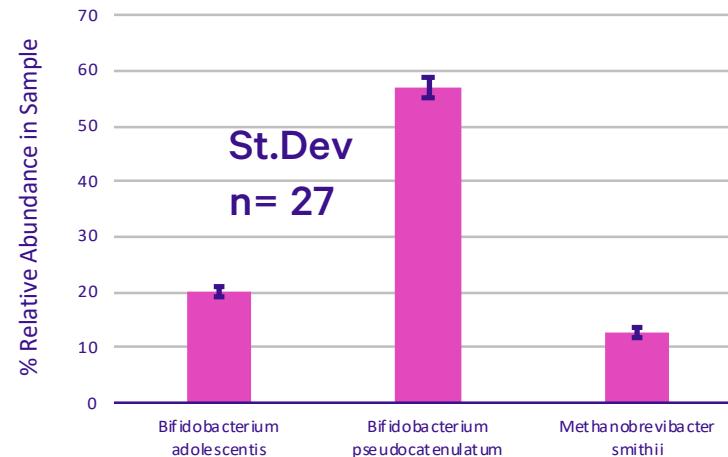
PMP™ - Precision

3 Purifications of Master Poo – Each run on 3 OA plates – Each OA plate 3 assays

Precision: Lowest Abundance

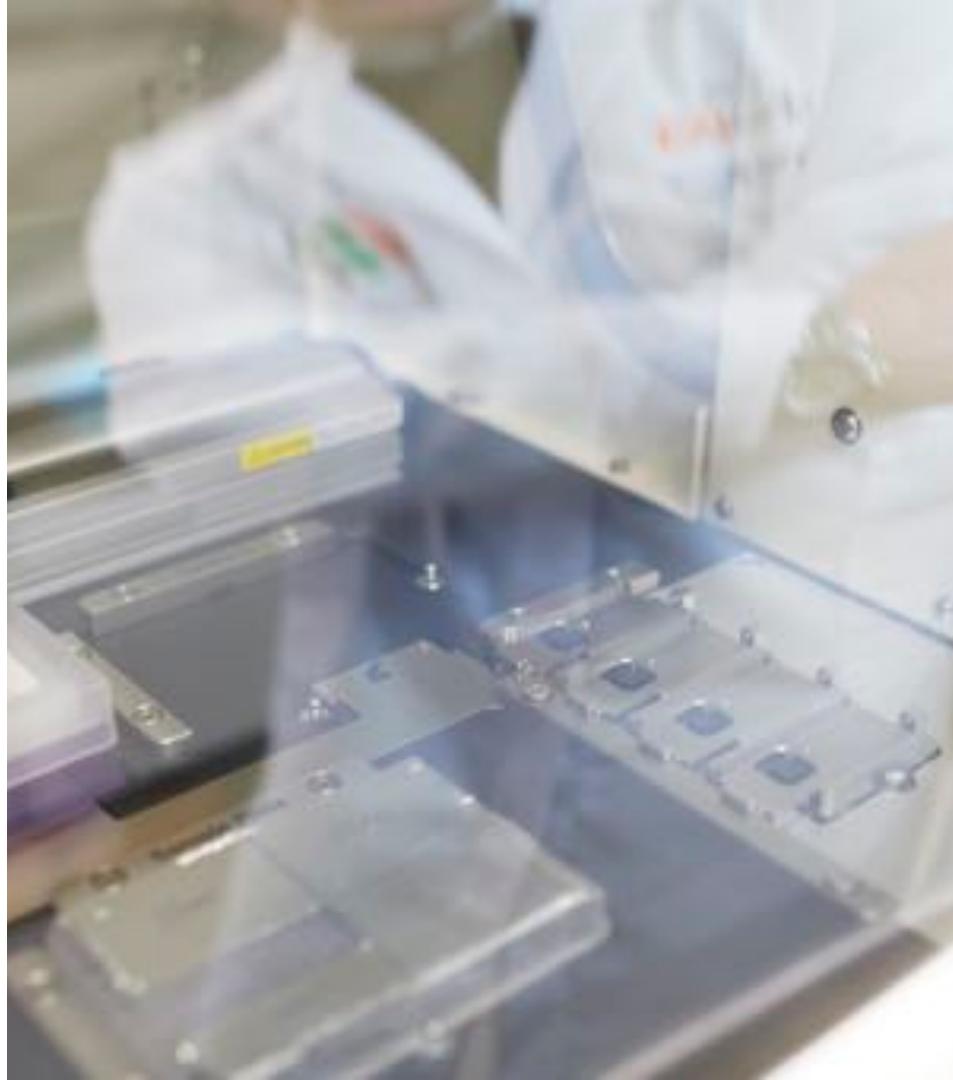


Precision: Highest Abundance



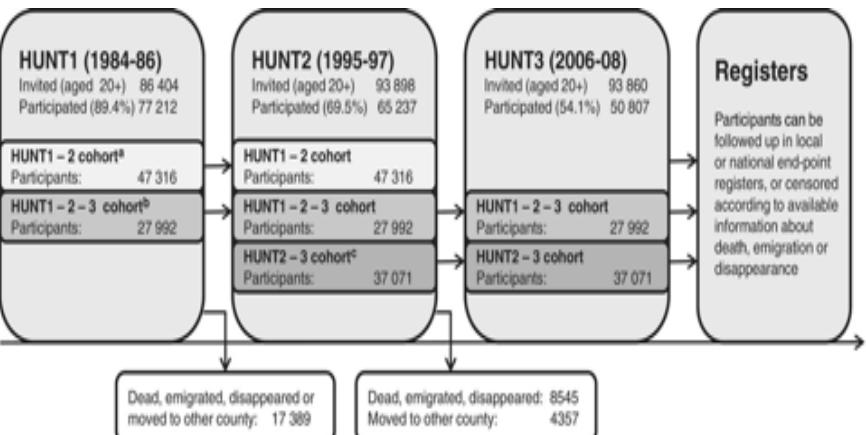
Service Laboratory

- Production - Since beginning of April:
 - 77 OpenArray® runs
 - 3,696 samples analyzed
 - 207,000 datapoints
 - ...**incl. 1,000 healthy HUNT samples**
- Capacity:
 - 384 samples per day
 - 100.000 samples per year
- Speed:
 - From fecal sample to finished result: 5 hrs

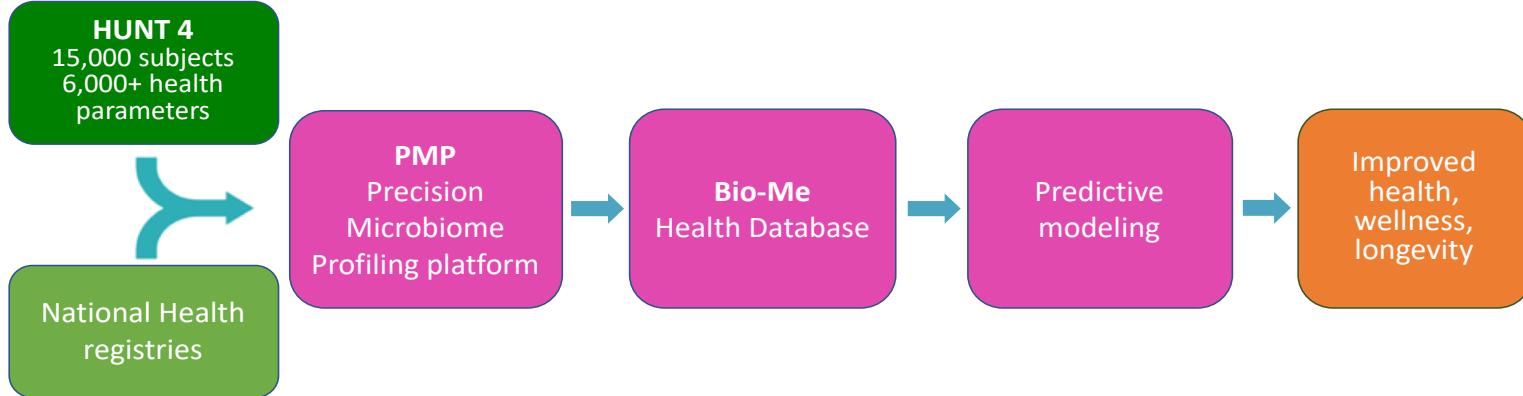


HUNT (Helseundersøkelsen i Nord-Trøndelag)

- World-leading population-wide Biobank
- HUNT 4: 56,073 participants (54% response rate)
- Approx. 15,000 provided fecal sample
- Population-wide – normal representation of diseases and healthy in population
- Link and verify data with National health registries
- Possible to invite participants for follow-up studies



Bio-Me Health database – combining large health datasets

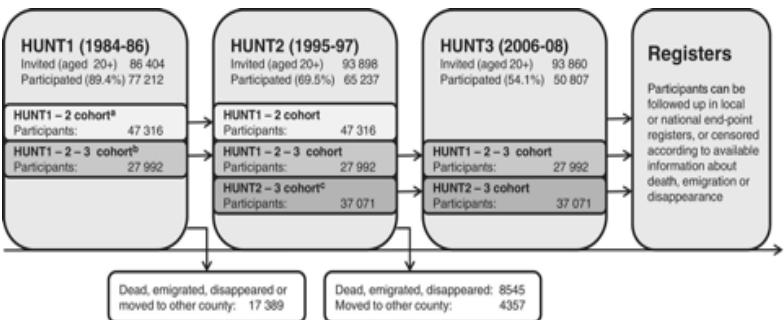


HUNT (Helseundersøkelsen i Nord-Trøndelag):

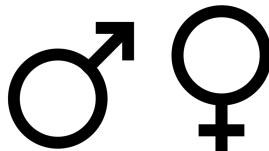
Normal population (self reported n=1045):

- Good or very good health
- No diagnosed disease
- No prescription drugs

Normal population = non-sick people



Phenotypic data first 1000+ healthy population from HUNT 4



481

562



Underweight
BMI < 18.5

6



Normal
18.5-24.9

482



Overweight
25-29.9

410



Obese
30 - 39.9

143



Morbidly obese
40+

2



Bristol Stool Chart

Type 1		Separate hard lumps, like nuts (hard to pass)
Type 2		Sausage-shaped but lumpy
Type 3		Like a sausage but with cracks on its surface
Type 4		Like a sausage or snake, smooth and soft
Type 5		Soft blobs with clear-cut edges (passed easily)
Type 6		Fluffy pieces with ragged edges, a mushy stool
Type 7		Watery, no solid pieces. Entirely Liquid



Time lapsed since start of day:

38

132

111

573

34

54

20

0 – 2 hrs. 472

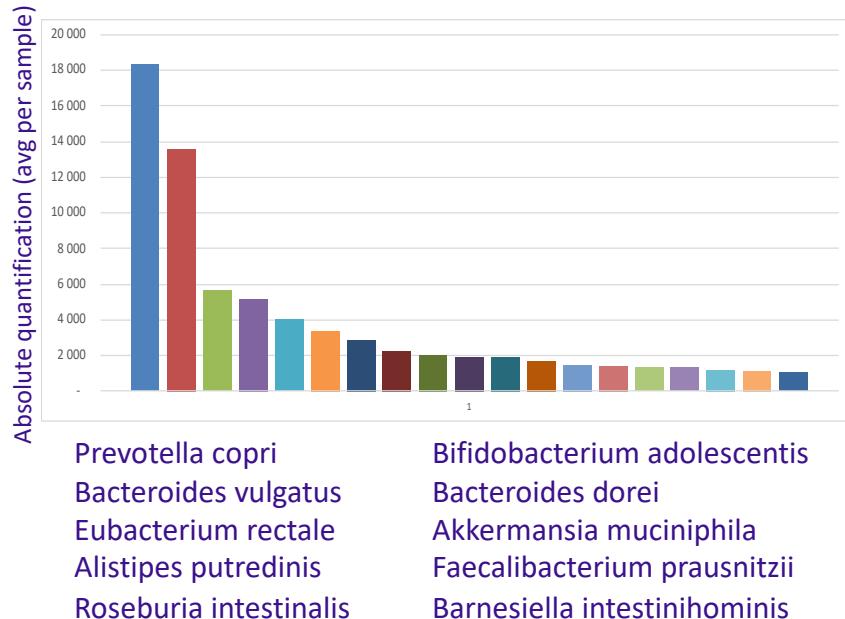
2 – 5 hrs. 190

5 – 10 hrs. 145

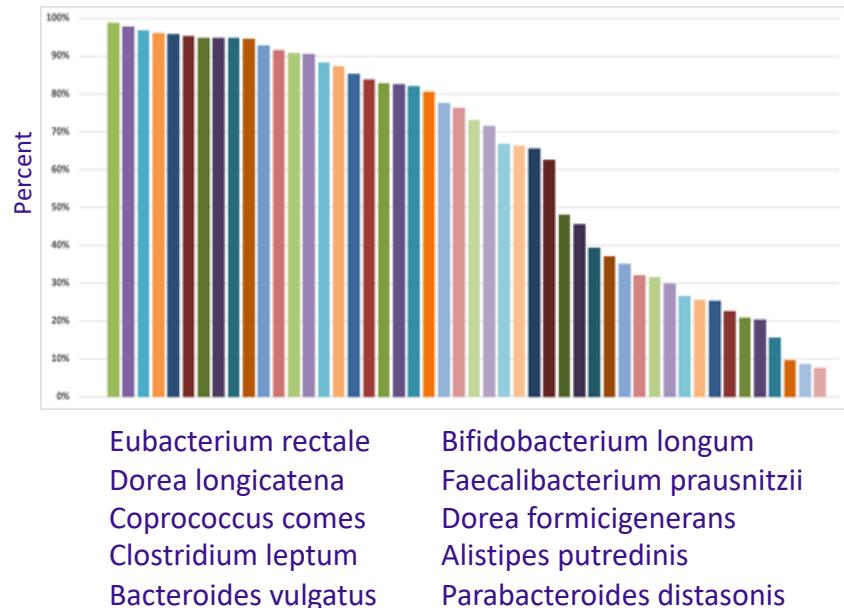
10+ hrs. 173

The first 1000+ healthy population from HUNT 4

Abundance



Frequency





Acknowledgments

Bio-Me:

Warren Flood
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Bio-Me AS

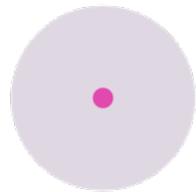
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