

**HORIZON 2020**

HEALTH PARTNERING DAY 2017

HEALTH, DEMOGRAPHIC CHANGE & WELLBEING



7 DECEMBER 2017, BRUSSELS

Session 1 Better Health and Care

# **HUMAN MICROBIOME ANALYSIS TOOLS FOR PERSONALISED PREDICTION OF DISEASES**

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## Project idea

To develop:

- a **personalised software tool** for predicting diseases based on data from **existing microbiome projects** and data from **nanopore sequencing**

Required:

- **integration** of data from existing projects
- delivering **more valuable clinical tools**
- **contribution** to Standard Operating Procedures

# Company expertise (consortium core)



## Brno University of Technology (public university)

- genomic signal processing for large genomes
- phylogenetic comparative analyses, metagenomics
- QSAR pharmacophore modelling
- *de novo* genome assembly
- ultrafast algorithms for bioinformatics



## Institute of Biostatistics and Analyses, Ltd. (SME)

- real-world evidence/data management (RWE/RWD)
- collection of data in a real population and therapeutic procedures
- clinical data source integration
- formulation of Standard Operating Procedures for clinical practice
- full nation-wide clinical data access



# Topic and Partners

**SC1-BHC-03-2018:** Exploiting research outcomes and application potential of the human microbiome for personalised prediction, prevention and treatment of disease (deadline: Apr 18, 2018)

## Keywords:

human microbiome consortium, nanopore sequencing, data integration, Standard Operating Procedures

## Partners:

- research institutes: molecular biology, microbiology, computational biology, data analysis
- clinical institutes: human microbiome data

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