

Let us pave the way for microbiome biobanking

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MICROBE - the Microbiome Biobanking (RI) Enabler

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Introduction

Microbiomes are complex communities of microorganisms (bacteria, archaea, protists, fungi, microalgae) and their "theatre-of-activity" characteristic of a specific habitat. They are everywhere in, on and around us i.e. in/on humans, animals, plants, in soil and aquatic habitats. They play a key role in mainatining life on earth by providing essential ecosystem services and are indispensable for One Health - the health of humans, animals and environment.

Goals

MICROBE will provide a comprehensive operational blueprint for the establishment of microbiome biobanking infrastructures, including: technological requirements, methodological workflows, data pipelines, pre-analytical standardization guidelines, legal and ethical guidelines, training plans and business opportunities.

Problems

Research infrastructures (RIs) currently lack optimized methodologies and technologies to preserve and provide access to different types of microbiome samples and associated data.

MICROBE EU Project

Duration: 02/2023 - 01/2027 - Funding: € 5,804,683

Project beneficiaries



Project outcomes

Validated protocols for preservation, isolation and co-cultivation of complex microbiome samples

Novel synthetic consortia reproducing the key functionalities of selected ecosystems

Novel isolates representative of key microbiome members from different domains

Data infrastructure tools for microbiome biobanking

Guidelines for microbiome sample pre-analytics for selected environmental samples

Guidelines for establishment of ethical and legal framework conditions for microbiome biobanking

Business models for implementation and exploitation of novel microbiomebased technologies and resources

Training and educational resources

MICROBE's ambition

To ensure widespread uptake of developed methods and guidelines in microbiome reserach communities and to enable RIs to support this field, ultimately enabling the development of novel microbiomebased applications.

Let us connect: Join the MICROBE Community

MICROBE wants to engage and exchange with different stakeholders in the field of microbiome science and relevant research infrastructures (RIs).









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