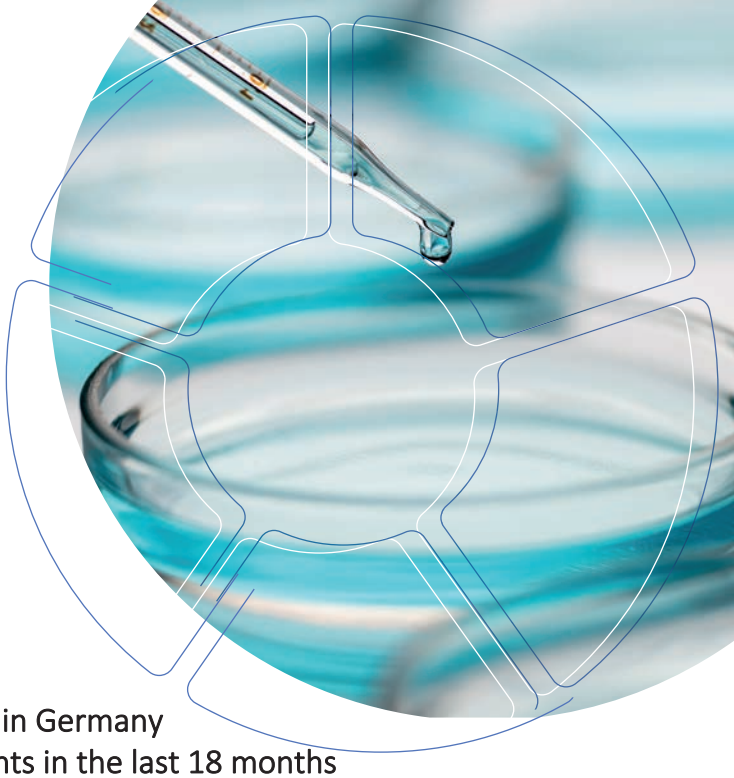
MICROBE
the Microbiome Biobanking (RI) Enabler



## 4th MICROBE project newsletter *(January 2026)*

Dear colleagues, friends and innovators,

Welcome to our third project update! We are thrilled to share the latest developments and milestones with you. In this edition, you'll find:

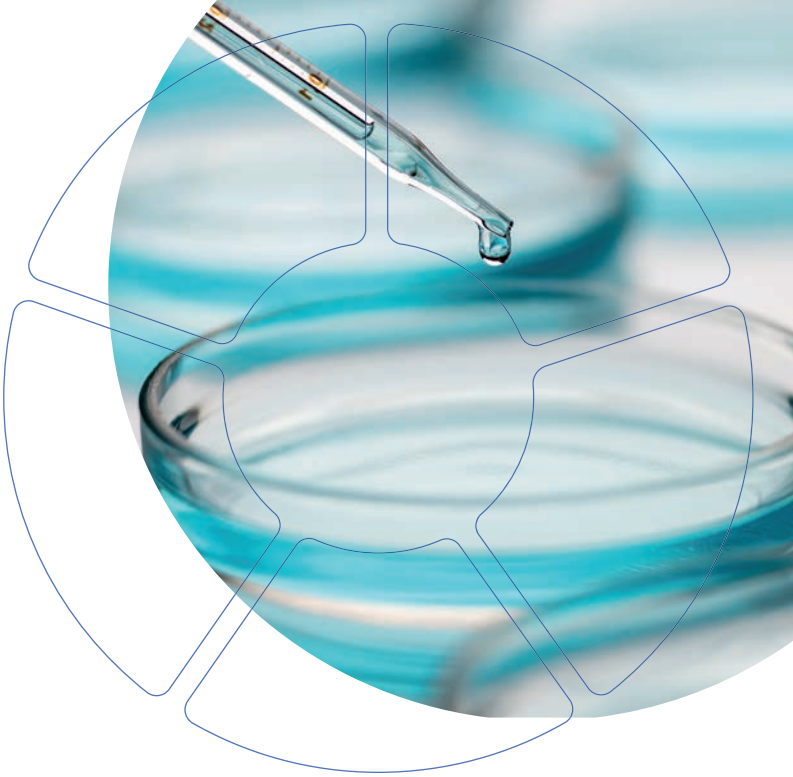
- Information on 2nd annual project meeting at DSMZ in Germany
- Information on 2nd reporting period and achievements in the last 18 months
- MICROBE Experts Campaign - Introduction to talented MICROBE researchers
- Retrospect on MICROBE's participation in several key conferences and workshops

In this first half year of 2025 we all met at our 2nd Annual Consortium meeting in Braunschweig, Germany, organized by our partner DSMZ. The project partners presented progress made towards achieving the stated objectives and results. Results and achievements have also been discussed with the members of our Advisory Group coming from biobanking infrastructures and related collections and our REA project officer. The consortium and participants discussed and agreed on establishing active collaboration between MICROBE and the advisory board members. Ongoing collaborative activities are dedicated mainly to common development and writing of scientific publications and common approaches in method validation. Further cooperation has been agreed in training activities and ring trial implementation. Finally, it was agreed to present MICROBE results and achievements at flagship events, webinars and conferences organized by members of our Advisory Board in 2026 (e.g. European Biobank Week Congress, International Phytobiomes Conference, ECCO annual meeting).

During the second reporting period, the project focused on advancing methodologies for the preservation and functional assessment of microbiomes. Comprehensive cryopreservation trials were executed for soil, seed, and marine microbiomes, with careful selection of representative samples to support inter-laboratory validation and leverage existing datasets. Concepts for both in silico and in vivo functional assessment of microbiomes were further developed and partially applied to monitor cryopreservation performance. In parallel, independent trials evaluated stabilization reagents that do not require cooling chains, facilitating nucleic acid-based analyses. Significant progress was made in standardising data-analysis methods for the identification of keystone taxa and bioinformatic workflows for metagenome analysis allowing establishment of and strain selection procedures. Harmonization of sample metadata across partners was achieved, establishing the foundation for the MICROBE Data Hub and the open-access MICROBE data catalogue, which support discoverability, interoperability, and long-term usability of microbiome datasets in line with FAIR principles. Guidelines for sample pre-analytics were developed and the project also established liaison relationships with ISO technical committees to contribute to emerging microbiome biobanking standards. Regulatory work addressed ELSI and Nagoya/ABS-related requirements for access and use of microbiome samples and related data. Guidance documents were developed in collaboration with external experts.

Funded by the European Union

## MICROBE Experts Campaign



MICROBE has designed a MICROBE Experts Campaign to promote the people behind MICROBE. The campaign is based on the teams of each project partner and also focuses on promoting our young researchers and colleagues in their workspace. We produce videos, photos and personal statements that are shared via the MICROBE social media channels and YouTube. The videos are also available on the MICROBE website.

The following videos are available:

- Coordinator Dr. Tanja Kostic (AIT)
- Dr. Sara Pipponzi (AIT)
- Mag. Cornelia Stumptnr (MUG)
- Dr. Katrin Panzitt (MUG)
- Dr. Michael Schloter (HMGU)
- Dr. Pamela Espindola Hernandez (HMGU)

In this newsletter we present our team from DSMZ, Germany:

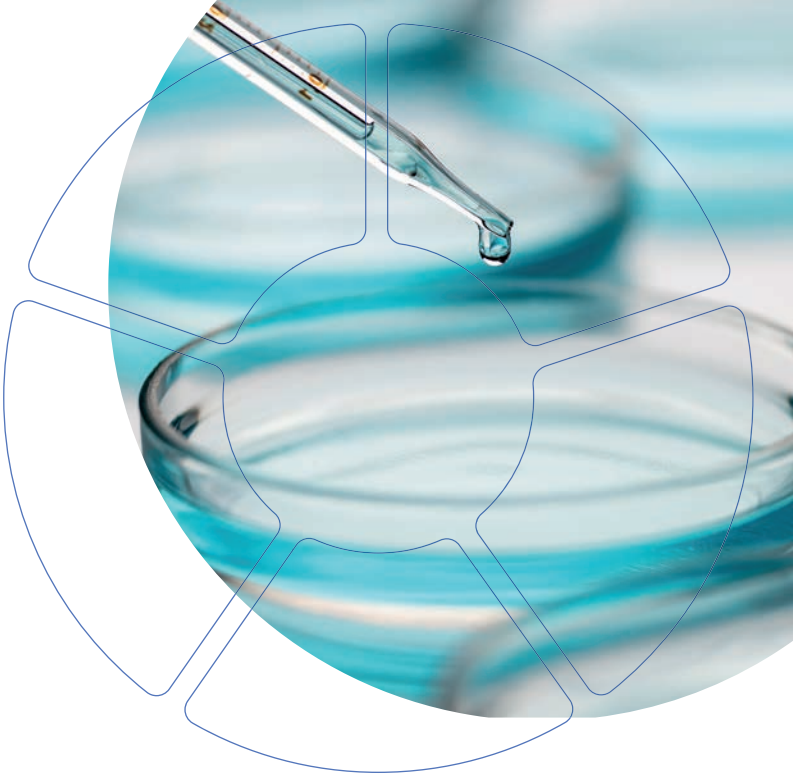
Link to the MICROBE website and related interview videos: MICROBE Videos

### *Dr. Amber Scholz*

My name is Amber Hartman Scholz and I am the Head of the Science Policy & Internationalisation Department at DSMZ. I work on international policy frameworks that impact microbiome research -- especially under the UN Convention on Biological Diversity and its rules on Access and Benefit-Sharing (ABS) under the Nagoya Protocol. I also work on the topic digital sequence information (DSI) across multiple UN instruments and the emergence of microbial conservation and biodiversity policy. I support the DSMZ´s overall strategy development, international cooperations, and compliance with global biological-resource regulations. I co-founded the DSI Scientific Network and the German Nagoya Protocol Hub which serve as forums to support the scientific community´s engagement in policymaking. Within MICROBE I am working with Davide in legal and ethical aspects of microbiome biobanking and business modeling.

### *Dr. Davide Faggionato*

My name is Davide Faggionato, and I work at the Leibniz Institute DSMZ. By integrating legal and ethical requirements, we ensure comprehensive ABS compliance across all MICROBE activities involving microbiomes. Information and awareness are key to ABS compliance, therefore in WP5 we have developed guidelines and organized an awareness-raising training event to support consortium partners and the wider community in navigating ethical and legal best practices for ABS. Building on this foundation, our work in MICROBE also aims to develop sustainable business models for microbe and microbiome collections that balance commercial services, innovation, and equitable benefit-sharing.



## *Dr. Lars Möller*

My name is Lars Möller, and I am working as a PostDoc as part of the MICROBE project. I work on long-term preservation techniques to sustain complex microbial communities from soil samples. By employing various combinations of methods, we aim to determine the best approach to preserve not only the taxonomic diversity, but also the functionality of these communities. Also, the targeted isolation and subsequent characterization of key stone organisms is part of my work. These so-called key stone taxa were beforehand determined by our project partners using bioinformatic tools and were later isolated through large scale-experiments. After their isolation, these strains are added and maintained in the collection here at the DSMZ. These new strains form the basis for potential representative consortia, that should mimic soil properties to a certain extend. The MICROBE project, with its diverse partners and resulting perspectives and areas of expertise, provides an ideal environment to study these complex research tasks.

## *Dr. Selma Vieira*

My work revolves primarily around soil and plant associated microbiomes. I am interested in what drives communities and individual species in soils and to cultivate and characterize novel, so far uncultivated lineages of soil bacteria. MICROBE tackles important practical questions in microbiome research, from how to gather said microbiome to how to best preserve it. These are issues present in everyday life of a researcher dealing with any kind of microbiomes and for which there are no clear guidelines. Therefore, I am very happy to be able to contribute to it. I began working on the MICROBE project due to its close association with another project I am involved with, which is in the scope of the Biodiversity Exploratories. Since soil is one of the use cases targeted by MICROBE, I was responsible for providing soil samples to the consortium and for setting up the initial soil preservation experiments at DSMZ. Meanwhile, Lars Möller joined our team and carried this work further, so now my focus within the project is on setting up a bacterial consortium representative of grassland soil. This consortium is made up of important soil bacteria (so called “keystones”), which were previously pinpointed by network analysis (made possible by the long-term diversity data provided by the Biodiversity Exploratories), and it also incorporates members of the main taxonomical groups found in soil. For this, I set up targeted cultivation experiments to retrieve as many keystone bacteria are possible, employing different media and cultivation conditions. Work is still in progress, but we hope to deliver a stable consortium of representative soil bacteria, which could be used by the scientific community as a tool for answering many questions in soil microbiome research.

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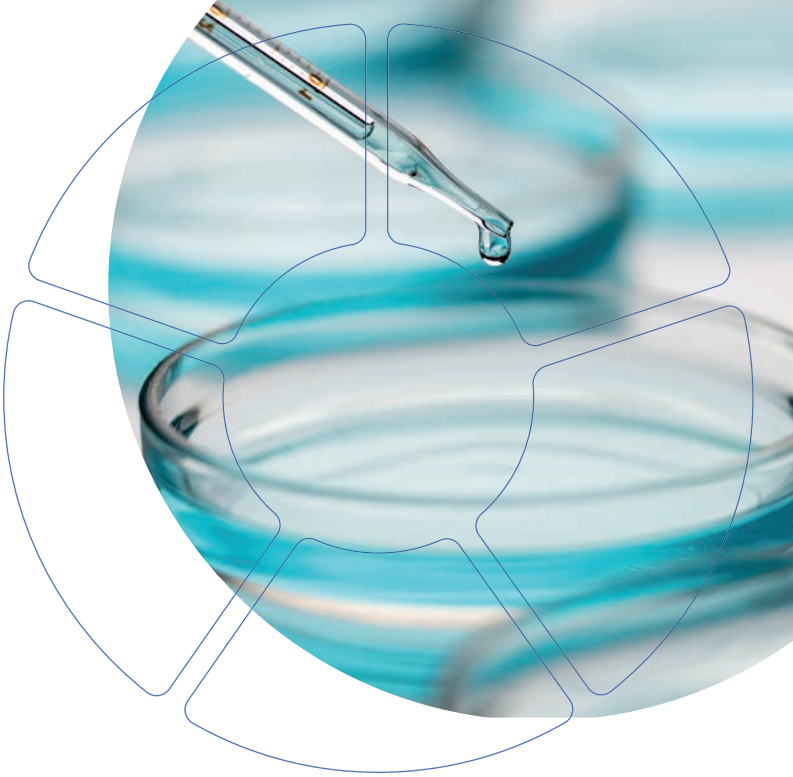

## MICROBE events and news

Here, we present MICROBE events and workshops as well as events related to the areas we are working in.

## MICROBE at Conferences & Meetings

In 2025, MICROBE has been presented at:

- 2nd Fermented Foods forum in Malaga, Spain, February 2025 by our coordinator Taja Kostic (AIT)
- European Biobank Week 2025 in Bologna, Italy, by Cornelia Stumptner (MUG) and Davide Faggionato (DSMZ) with talks about Guide on Nagoya Protocol.
- 2nd Food System Microbiomes International Conference 2025 in Wageningen, Netherlands, by a poster from Sara Pipponzi (AIT)
- Research and Technology Infrastructures (RTI) Summit 2025 in Copenhagen, Denmark, a flagship event under the Danish EU Presidency, by an exhibition stand organised by Andreas Moser (rtds)
- 17th Symposium on Bacterial Genetics and Ecology, BAGECO 2025, in Graz, Austria, by talks and posters from Michael Schloter, Pamela Espindola-Hernández (HMGU), Sara Pipponzi (AIT), Lars Möller, Selma Vieira (DSMZ)
- 43rd Annual Meeting of the European Culture Collections´ Organization, ECCO 2025, in Utrecht, Belgium, with talks from Perrine Portier (INRAe), Matthew Ryan (CABI), Amber Scholz (DSMZ.
- 6th Plant Microbiome Symposium 2025, in Antequerra, Spain with talks by Perrine Portierr (INRAe) and a satellite workshop contribution at EPSO 6th workshop on Plants and Microbiomes by Cornelia Stumptner (MUG)

This is only a selection of dissemination activities but thanks to all our project partner representatives, they are all quite active in promoting MICROBE and disseminating MICROBE results.

## MICROBE at conferences in 2026

- European Biobank Week 2026, Prague, CZ, with a satellite workshop dedicated to MICROBE on 19th May, 1 - 3 pm. Link to EBW 2026

MICROBE is invited to participate in a dedicated collaborative session at MICROBE4CLIMATE project meeting in Braga, Portugal, co-work about microbiome infrastructures and related business models.


### *MICROBE project details*

Duration: 02/2023 – 01/2027
EU Funding: € 5,804,683,-
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www.microbeproject.eu