



**ROOT-BENEFIT**  
Symposium & 3rd MC Annual  
Meeting, Granada 26

# **BENEFICIAL MICROORGANISMS FOR SOIL HEALTH AND AGRICULTURE**

**Program**



**Root-Benefit**  
Beneficial root-associated micro-organisms for sustainable agriculture



**Funded by  
the European Union**



# BENEFICIAL MICROORGANISMS FOR SOIL HEALTH AND AGRICULTURE

Wednesday 13 May 2026

**13:30-14:00** Reception and poster mounting

**14:00-14:30** Welcome and presentation

**14:30-16:30** WG1 session I (Chairs: Davide Bulgarelli and Hanna Koch)

**14:30-15:00** Keynote lecture. **Carmen Escudero-Martinez** (IRNASA-CSIC, Spain). Integrative crop trait profiling using combined root exudate and rhizosphere microbiota to identify traits that predict plant–microbe interactions

**15:00-15:15** **Ismail Bezirganoğlu** (Erzurum Technical University, Turkey). Advances in endophytic microbial biostimulants for alfalfa (*Medicago sativa* L.) cultivation

**15:15-15:30** **Kevin Bretscher** (Leiden University, The Netherlands). Towards a rice paddy microbiome atlas

**15:30-15:45** **Sara Borin** (University of Milan, Italy). Sunflower in contaminated soil “cry-for-help” of beneficial bacteria

**15:45-16:00** **Alessandro Ciampanelli** (University of Turin, Italy). Leveraging lettuce genetic diversity to identify phosphate responsive root endophytes

**16:00-17:45** Coffee break and poster session

**17:45-19:00** WG1 session II (Chairs: Davide Bulgarelli and Hanna Koch)

**17:45-18:15** Keynote lecture. **Michael Schloter** (TUM, Germany). Reprogramming the rhizosphere: Synthetic microbial communities to combat apple replant disease

**18:15-18:30** **Giacomo Chiarelli** (University of Bologna, Italy). Waste organic amendments increased Ammonia Oxidizing Archaea (AOA) in the rhizosphere of grapevines

**18:30-18:45** **Micol Guaschino** (CREA-VE, Italy). Decoding plant-microbiome interactions: insights into genetic players involved in beneficial microorganisms’ recruitment in grapevine genotypes

**18:45-19:00** **Alexandros Mosca** (University of Catania, Italy). A multi-layer metagenomic framework uncovers a dominant *Acinetobacter* sp. driving tomato rhizosphere microbiota structure and functional potential

## Thursday 14 May 2026

### 9:00-10:30 WG2 session I (Chairs: Florian Frugier and Joanna Banasiak)

- 9:00-9:30 **Keynote lecture. Simona Radutiou** (Aarhus University, Denmark). **XXXX**
- 9:30-9:45 **Michal Jasinski** (Polish Academy of Sciences, Poland). Cytokinins in and out - how ABC transporters may shape *Medicago* root morphology upon nitrogen deficiency
- 9:45-10:00 **Maria J. Soto** (EEZ-CSIC, Spain). The role of rhizobial volatile compounds in plant-microbe interactions
- 10:00-10:15 **Peter Kalo** (HUN-REN Biological Research Centre, Hungary). Loss of Uridine diphosphate (UDP)-dependent glycosyltransferase gene UGT73F3 compromises root development and symbiotic performance in *Medicago truncatula*
- 10:15-10:45 **CAOS Program. Francisco Martinez-Abarca** (EEZ-CSIC, Spain)

### 10:45-11:30 Coffee break and poster session

### 11:30-13:00 WG2 session II (Chairs: Florian Frugier and Joanna Banasiak)

- 11:30-12:00 **Keynote lecture. Marc Ongena** (Gembloux Agro-Bio Tech, Belgium). Molecular basis of unsuspected mutualism between *Bacillus* and *Rhizophagus*
- 12:00-12:15 **Lidia Błaszczuk** (Polish Academy of Sciences, Poland). MicroRNA mediating multidirectional interaction of wheat with pathogenic *Fusarium culmorum* and beneficial *Trichoderma atroviride*
- 12:15-12:30 **Francisco J. Colina** (EEZ-CSIC, Spain). A novel tomato NAC transcription factor regulates lipid metabolism during microbe-induced resistance to herbivory
- 12:30-12:45 **Rosa Sanchez-Lucas** (University of Birmingham, United Kingdom). Effect of enhanced CO<sub>2</sub> atmospheric levels in mycorrhiza colonisation and its role in plant defence
- 12:45-13:00 **Nicolas Marro** (Institute of Botany of the Czech Academy of Sciences, Czech Republic). Time matters: mycorrhizal colonization dynamics shape plant interaction with parasitic nematodes
- 13:00-13:05 **How to manage COST reimbursement (Iaroslavna Fable, Grant holder manager)**

## GROUP PHOTO

### 13:05-14:00 Lunch

### 14:00-15:30 WG3 session I (Chair: Jan Jansa)

- 14:00-14:30 **Keynote lecture. Tania Galindo** (ETH Zurich, Switzerland). Synergies in the hidden half: root phenotypes as regulators of microbial ecosystem services

- 14:30-14:45**      **Fatjon Cela** (University of Pisa, Italy). Arbuscular Mycorrhizal Fungi (AMF) can overcome phosphorus deficiency and increase antioxidant activity and yield in lettuce
- 14:45-15:00**      **Pierre-Emmanuel Courty** (INRAE, France). Engineer the soil microbiome to improve strawberry fruit quality
- 15:00-15:15**      **Emanuel Gaši** (Institute for Adriatic Crops and Karst Reclamation, Croatia). Grapevine physiology facing virus stress: Arbuscular mycorrhiza on the front line
- 15:15-15:30**      **Valeriia Belova** (Czech Academy of Sciences, Czech Republic). Engineering rhizosphere microbiomes to enhance plant nitrogen acquisition via arbuscular mycorrhizal fungi
- 15:30-17:15**      **Coffee break and poster session**
- 17:15-18:30**      **WG3 session II (Chair: Jan Jansa)**
- 17:15-17:45**      **Keynote lecture. Lena Neuenkamp** (Bielefeld University, Germany). Leveraging root architecture and symbionts for ecosystem understanding and restoration
- 17:45-18:00**      **Salme Timmusk** (Swedish University of Agricultural Sciences, Sweden). Soil Health and One Health implications in the Anthropocene: A perspective on microbial biotechnology
- 18:00-18:15**      **Anukool Vaishnav** (Czech Academy of Sciences, Czech Republic). Arbuscular mycorrhizal symbiosis regulates nitrification and enhances nitrogen retention across soil contexts
- 18:15-18:30**      **Zoran Mastilo** (University of East Sarajevo, Bosnia and Herzegovina). Capital allocation and financial sustainability of regenerative agriculture systems: Economic valuation of plant-soil-microbiome interactions under the EU Green Deal
- 18:30-19:30**      **General information about the Action and presentations by WG leaders**
- 20:00-23:00**      **Guided walking tour and Gala dinner**

**Friday 15 May 2026**

- 8:30-10:00**      **WG4 session I (Isabel Brito and Marcela Mendoza Suarez)**
- 8:30-9:00**      **Keynote lecture. Marcel van der Heijden** (University of Zurich, Switzerland). **XXXX**
- 9:00-9:15**      **Stephanie Watts-Fawkes** (Wageningen University, The Netherlands). Beyond crop yield and nutrition: can mycorrhizal fungi contribute to biofortification?
- 9:15-9:30**      **Serghei Sprincean** (Moldova State University, Moldova). Ethical and safety aspects in the research of beneficial microorganisms for soil health and agriculture
- 9:30-9:45**      **Maria J. Pozo** (EEZ-CSIC, Spain). Mycorrhiza Induced Resistance: Functioning and applications in agriculture

- 9:45-10:00**      **Juan Ignacio Vilchez** (ITQB-NOVA, Portugal). Nature knows first: Learning from tomato exudates to build better SynComs
- 10:00-10:45**      **Coffee break**
- 10:45-12:00**      **WG4 session II (Isabel Brito and Vera Karlicic)**
- 11:00-11:30**      **Keynote lecture. Elisa Pellegrino** (Institute of Crop Science, Italy). Field performance of native and exotic AMF consortia: implications for agroecosystem functioning and microbial networks
- 11:30-11:45**      **Amaia Nogales** (IRTA, Spain). Pathogen infection and mycorrhizal inoculation differentially shape the root-associated microbiome of *Prunus* rootstocks with contrasting susceptibility to white root rot disease
- 11:45-12:00**      **Jose Carvalho** (Certis, Portugal). Microorganisms registerability: how to transform EU agriculture
- 11:45-12:00**      **Lucas Marginedas** (IRTA, Spain). Arbuscular mycorrhizal fungi and dark septate endophyte dual inoculation shapes grapevine physiological responses and root carbon exudation under drought stress
- 12:00-12:30**      **General information about the Action**
- 12:30-13:00**      **Update on Horizon Europe Cluster 6 and Mission Soil calls for 2026-2027**