



UNIVERSITÀ
DI PARMA

SIMTR3A

7TH INTERNATIONAL CONFERENCE ON MICROBIAL DIVERSITY

**AGRI-FOOD MICROBIOTA
AS A TOOL FOR A
SUSTAINABLE FUTURE**

*September 26-29 • 2023
PARMA, ITALY*

PROGRAMME





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SIMTR3A

SESSIONS

- 01** FOOD microbiota as a tool for a sustainable future
- 02** HUMAN microbiota as a tool for a sustainable future
- 03** ENVIRONMENT microbiota as a tool for a sustainable future
- 04** Exploiting microbiomes for a sustainable future
- 05** A sustainable future has come

TUESDAY **26** | September
2023

PALAZZO CENTRALE UNIVERSITÀ DI PARMA
Via Università 12, 43121 Parma

- 16:00** | Registration
- 16:45** | Institutional greetings
- 17:00** | Opening lecture: "How to manage with fermentation microbiomes: metabolic framework of spontaneous versus synthetic metacommunities"
Marco Gobetti, (Free University of Bolzano, Italy)
Chair: Rosalba Lanciotti, Erasmo Neviani

18:00



WELCOME CEREMONY

*Atrio delle Colonne,
Palazzo centrale Università
di Parma*

Via Università 12, 43121 Parma



08:30 | Registration

SESSION 01 | **FOOD microbiota as a tool for a sustainable future**
Chair: Paul Cotter, Eugenio Parente

- 09:00** | Plenary lecture: "A MASTER Plan: Leveraging food and food chain microbiome data for a sustainable future" Paul Cotter, (Teagasc & SeqBiome, University of Cork, Ireland)
- 10:00** | Twenty years of investigation on riboflavin overproducing food-grade bacteria: Biotechnological applications and perspectives, **Pasquale Russo**, (University of Milano, Italy)
- 10:20** | Back to the complexity: the challenge of natural starter cultures development, **Luigi Chessa**, (Agris Sardegna, Italy)
- 10:40** | Dairy environment and seasons affect the microbiome of artisanal cheese, **Ilario Ferrocino**, (University of Torino, Italy)

11:00 | **COFFE BREAK**

- 11:15** | Poster session
- 11:45** | Dynamics and acidification properties of raw milk bacterial communities during serial fermentations, **Chloe Gapp**, (University of Lorraine, France)
- 11:55** | Variation of microbiota, chemical composition and B-vitamins in milk from alpine pasture and indoor dairy cows, **Giorgia Secchi**, (Edmund Mach Foundation, Italy)
- 12:05** | Microbiome of kefir produced using Amiata donkey milk: characterization of the microbial communities and of fatty acid profile, **Matteo Daghigho**, (University of Firenze, Italy)
- 12:15** | Characterization of lactic acid bacteria in pursue of potential candidates for starter, adjunct and probiotic cultures, **Maria Aspri**, (Cyprus University of Technology, Lemesos, Cyprus)

12:30 | **LUNCH**

SESSION 02 | **HUMAN microbiota as a tool for a sustainable future**
Sarah Lebeer, Marco Gobbetti

- 14:00** | Keynote: "The uniqueness of the microbiome of the human reproductive tract" Sarah Lebeer (University of Antwerp, Belgium)
- 14:30** | Environmental pollution drives adaptation in gut microbiome functions of highly exposed individuals, **Francesca De Filippis**, (University Federico II, Napoli, Italy)
- 14:50** | Development of inhalation powders containing lactic acid bacteria: a way to the lungs to possibly boost respiratory health, **Benedetta Bottari**, (University of Parma, Italy)
- 15:10** | Sourdough fermentation supports in vitro eubiotic effects of gluten-free bread fortified by insect flour, **Andrea Gianotti**, (University of Bologna, Italy)

15:30 | **COFFEE BREAK**

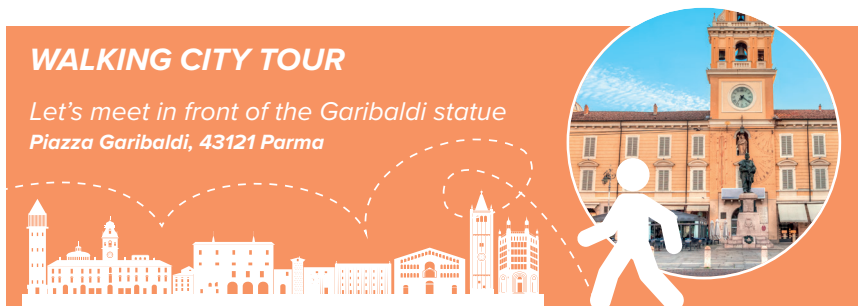
- 15:45** | Poster session

- 16:15** The middle-term intake of hydrolyzed and fermented arabinoxylan-oligosaccharides (AXOS) modulates gut microbiome and its metabolic answer, **Andrea Polo**, (Free University of Bolzano, Italy)
- 16:25** Food-associated *Lactiplantibacillus plantarum* for the development of innovative non-dairy fermented foods with a beneficial role in ameliorating intestinal inflammation, **Roberta Prete**, (University of Teramo, Italy)
- 16:35** A dietary supplement based on Mediterranean diet beneficial ingredients modulates gut microbiome composition and activities, **Vincenzo Valentino**, (University Federico II, Napoli, Italy)
- 16:45** Revitalizing the gut microbiome: unleashing the power of low-sugar fermented juices, **Tlais Ali Zein Alabide** (Free University of Bolzano, Italy)
- 16:55** NAFLD: behind a statistical approach used for the inspection and association of omics and clinical data, **Francesco Maria Calabrese**, (University Aldo Moro, Bari, Italy)
- 17:05** End of the scientific programme of the day

18:00

WALKING CITY TOUR

*Let's meet in front of the Garibaldi statue
Piazza Garibaldi, 43121 Parma*



THURSDAY **28** | September
2023

PAGANINI CONGRESSI
Via Toscana 5/a, 43121 Parma

08:30 | Registration

SESSION **03** | ENVIRONMENT microbiota as a tool for a sustainable future Chair: Peiying Hong, Monica Agnolucci

- 09:00** Plenary lecture: "Building a resilient and sustainable water system for our future urban farms", Peiying Hong, (Kaust, King Abdullah University of Science and Technology, Saudi Arabia)
- 10:00** Ecology of soil bacterial communities and evaluation of rhizoremediation potential in a historical polychlorinated biphenyl polluted site, **Sara Borin**, (University of Milano, Italy)
- 10:20** Molecular and functional diversity of culturable bacterial strains associated with *Tuber borchii* fruit bodies from different Italian sites, **Caterina Cristani**, (University of Pisa, Italy)
- 10:40** GenBank mining reveals novel clues on rhizobium phylogeny: identical 16S is mostly uncoupled to species name, host plant and country of isolation. How these data suggested the definition of a bacterial h index", **Andrea Squartini**, (University of Padova, Italy)

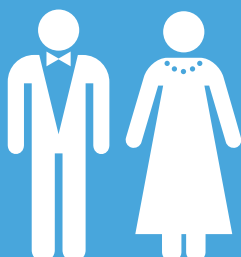
11:00	COFFE BREAK
11:15	Poster session
11:45	Sabofleur: isolating and characterising the strawberry flower and bee microbiome for novel and improved microbial control of <i>Botrytis cinerea</i> , Jari Temmermans , (University of Antwerp, Belgium)
11:55	Fermented wasted bread and brewers' spent grain as next-generation soil amendments: unraveling the interaction with soil microbiota, Michela Verni , (University Sapienza, Roma, Italy)
12:05	Metagenome mining reveals how anaerobic and aerobic integrated treatments shape the resistome profile of municipal solid wastes, Alessandra Fontana , (University Cattolica del Sacro Cuore, Piacenza, Italy)
12:15	The importance of considering the 'plant microbiome factor' in engineering phytodepuration systems, Valentina Riva , (University of Milano, Italy)
12:30	LUNCH

SESSION **04** | **Exploiting microbiomes for a sustainable future**

Chair: Daniele Daffonchio, Olimpia Pepe

14:00	Keynote: "Ecology of the thermal adaptation of microbial communities in time and space", Daniele Daffonchio, (Kaust, King Abdullah University of Science and Technology, Saudi Arabia)
14:30	Exploitation of microbial metabolic diversity to support human life in space, Francesco Canganella , (University of Tuscia, Italy)
14:50	Microbial consortium adaptation to improve shelf-life, sensorial and nutritional features in sprouted cereals, Maria De Angelis , (University Aldo Moro, Bari, Italy)
15:10	Mediterranean spontaneously fermented sausages as a source of lactic acid bacteria for new improved bio-protective cultures and functional starters, Giulia Tabanelli , (University of Bologna, Italy)
15:30	COFFEE BREAK
15:45	Poster session
16:15	Microbial dynamics and competition in the rhizosheath-root system of xerophytic plants, Ramona Marasco , (Kaust, King Abdullah University of Science and Technology, Saudi Arabia)
16:25	<i>Bacillus haynesii</i> WVC18 as a sustainable and eco-friendly solution for agricultural application, Elia Pagliarini , (University of Bologna, Italy)
16:35	Microorganisms for maize sustainable production: new practices in agriculture, Maria Elena Antinori , (University Cattolica del Sacro Cuore, Piacenza, Italy)
16:45	Effect of livestock manure vs digestate as organic fertilizers on bacterial communities of corn silage for dairy cow feed, with a focus on spore-forming bacteria, Miriam Zago , (Council for Agricultural Research, CREA Lodi, Italy)
16:55	Wooden shelves: an ancient tool for sustainable cheese ripening in future, Gabriele Busetta , (University of Palermo, Italy)
17:05	Group photo
17:30	End of the scientific programme of the day

20:30



GALA DINNER

Palazzo Marchi

Strada della Repubblica 57, 43121 Parma



FRIDAY **29** | September
2023

PAGANINI CONGRESSI
Via Toscana 5/a, 43121 Parma

SESSION **05** | A Sustainable future has come

Chair: Daniele Del Rio, Danilo Ercolini, Erasmo Neviani, Camilla Lazzi

- 09:00** keynote, “Research and innovation network on Food and Nutrition Sustainability, Safety and Security: the ONFOODS national partnership” Daniele Del Rio and “The National Center for the Development of New Technologies in Agriculture (Agritech): Microbiota as tools for a sustainable development of agri-food production”, Danilo Ercolini, (University of Parma, Italy -University Federico II, Napoli, Italy)
- 10:00** TITAN project: Transparency Solutions for Transforming the Food System - Focus on 2 pilots related to microbes, **Antonio Del Casale**, (MICROBION srl, Italy)
- 10:10** The need of a standard approach in microbiome science: the SUS-MIRRI.IT project, **Maghrebi Sahar**, (University of Torino, Italy)
- 10:20** Innovative metabolomic and metagenomic approach applied to Parmigiano Reggiano PDO cheese to support traditional features, **Alessia Levante**, (University of Parma and Consorzio del Formaggio Parmigiano Reggiano, Italy)
- 10:30** MinION sequencing of yeast mock communities to assess the effect of databases and ITS-LSU markers on the reliability of metabarcoding analysis, **Debora Casagrande Pierantoni**, (University of Perugia, Italy)
- 10:40** **COFFE BREAK**
- 10:55** Poster session
- 11:25** Yeasts against grape pathogenic fungi: a sustainable alternative to agrochemicals, **Ileana Vigentini**, (University of Milano, Italy)
- 11:35** *Hanseniaspora valbyensis*-bioprocessed pomegranate seeds to produce a novel food ingredient, **Fabio Minervini**, (University Aldo Moro, Bari, Italy)
- 11:45** Exploiting of the agri-food waste and by-products potential to be used as substrate for bioplastic production through *Haloferax mediterranei* fermentation, **Angela Longo**, (Sapienza University of Roma, Italy)
- 11:55** By-products fermentation: a step forward for the production of new antimicrobial, **Annalisa Ricci**, (University of Parma, Italy)
- 12:10** Question and answer session of session 5

12:30	Closing ceremony and awards.
12:30	END OF THE CONFERENCE AND LIGHT LUNCH
14:00	SIMTREA meeting

SOCIAL EVENTS



WELCOME CEREMONY

TUESDAY 26TH, 6:00 pm

*Atrio delle colonne,
Palazzo centrale Università di Parma,
Via Università 12, 43121 Parma*



PARMA WALKING TOUR • *prebooked people*

WEDNESDAY 27TH, 6:15 pm

During the Parma city tour we will walk through silent alleys and hidden squares getting to know the city from a local point of view. We will explore the city's most interesting monuments as the Cathedral, the Medieval Baptistry designed by Benedetto Antelami, the Pilotta monument, the Regio Theatre but also the local traditions, people, and styles!

(We will not enter in the monuments)

time: 1,5h of tour

LET'S MEET IN FRONT OF THE GARIBALDI STATUE,
Piazza Garibaldi, 43121 Parma



GALA DINNER • *prebooked people*

THURSDAY 28TH, 8:30 pm

*Palazzo Marchi,
Strada della Repubblica 57, 43121 Parma*

PLEASE BRING YOUR TICKET





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