



ICGEB Meeting and
Courses 2023

ICGEB WORKSHOP

TRENDS IN MICROBIAL SOLUTIONS FOR SUSTAINABLE AGRICULTURE

13 – 15 September 2023. Belgrade, SERBIA

WORKSHOP PROGRAMME



ICGEB WORKSHOP

Trends in microbial solutions for sustainable agriculture

13 – 15 September 2023. Belgrade, Serbia

Ivica Dimkić

Scientific & Organizing Committee Chairperson

Vittorio Venturi

Scientific & Organizing Committee Co-Chairperson

Slavoljub Vukićević

Organizing Committee Co-Chairperson

ORGANIZED AND HOSTED BY



University of Belgrade,
Faculty of Biology, Serbia



International Centre
for Genetic Engineering and
Biotechnology (ICGEB), Italy



FERTICO, Serbia

SUPPORTED BY



Federation of European
Microbiological Societies

Federation of European
Microbiological Societies
(FEMS)



Serbian Society
of Microbiology



Република Србија
Министарство просвете,
науке и технолошког развоја

Ministry of Science,
Technological Development
and Innovation

SPONSORED BY





ICGEB Workshop

Trends in microbial solutions for sustainable agriculture

13 – 15 September 2023. Belgrade, SERBIA

📅 Tuesday, September 12, 2023

Arrival of participants and accommodation

📅 Wednesday, September 13, 2023

📍 Venue - Great Hall of the Municipality of Stari Grad, Makedonska 42

🕒 **08:00-09:00 Registration of participants (COFFEE & SNACKS)**

🕒 **09:00-09:40 WELCOME ADDRESS**

- **Ivica Dimkić, Vittorio Venturi & Slavoljub Vukićević**
- **Jelena Begović**, Serbian Minister of Science, Technological Development and Innovation
- **Lawrence Banks**, Director General of ICGEB, Italy
- **Luciano Catani**, Science Attaché, Embassy of Italy in Belgrade, Serbia
- **Ljubiša Stanisavljević**, Dean of the Faculty of Biology, University of Belgrade, Serbia

🕒 **09:45-10:15 Ivica Dimkić (University of Belgrade - Faculty of Biology, Belgrade, Serbia):** Smart biofertilizers as powerful organomineral-microbial soil improvers

Session I: Biopesticides, biofertilizers & biostimulants – biological control approach (Part 1)

Chaired by: **Marc Ongena, Ken-ichi Yoshida**

🕒 **10:15-10:45 Ken-ichi Yoshida (FEMS Ambassador, Kobe University, Japan):** Co-inoculation of *Bacillus velezensis* strain S141 and *Bradyrhizobium* strains promotes nodule growth and nitrogen fixation

🕒 **10:50-11:20 Marc Ongena (University of Liège, Belgium):** Ecological and biocontrol functions of secondary metabolites produced by *Bacillus velezensis*

🕒 **11:25-11:55 Dennis Obonyo Ndolo (ICGEB, Cape Town, South Africa):** Potential of microbial biopesticides in addressing trade challenges

🕒 **12:00-13:00 LUNCH BREAK**

Session II: Biopesticides, biofertilizers & biostimulants – biological control approach (Part 2)

Chaired by: **Monica Höfte, Jovana Grahovac**

🕒 **13:00-13:30 Monica Höfte (Faculty of Bioscience Engineering, Ghent University, Belgium):** Potential of cyclic lipopeptide-producing *Pseudomonas* strains in biocontrol

🕒 **13:35-14:05 Jovana Grahovac (University of Novi Sad - Faculty of Technology, Serbia):** Microbial products for agriculture – challenges of technology transfer to commercial application



ICGEB Workshop

Trends in microbial solutions for sustainable agriculture

13 – 15 September 2023. Belgrade, SERBIA

- 🕒 14:10-14:40 **Marina Soković (Institute for Biological Research “Siniša Stanković” - National Institute of Republic of Serbia, University of Belgrade):** Biosolution against microbes for safety and sustainable agriculture
- 🕒 14:45-15:15 **Antonio Ferrante (University of Milano, Italy):** Application of biostimulants for counteract abiotic stresses
- 🕒 15:20-15:50 **Aleksandra Bešlić & Rebeca Fuzinatto Dall’ Agnol (Fertico DOO, Serbia & Simbiotica S.r.l., Italy):** The future prospect of bacterial fertilizers: from lab to market
- 🕒 15:50-16:15 **COFFEE BREAK**

Session III Microbial products for sustainable agriculture (Part 1)

Chaired by: **Ivica Dimkić, Vittorio Venturi**

- 🕒 16:15-16:45 **Vincenzo Michele Sellitto (Biolchim spa, Italy/University of Life Sciences “King Mihai I”, Faculty of Agriculture - Timisoara, Romania):** Living soil: a new paradigm for an innovative agriculture. A practical case to phytoparasitic nematodes biocontrol using probiotics and prebiotics approach
- 🕒 16:45-17:15 **Wolfgang Vogt (Agrobiota, Germany):** Diverse functions of microorganisms in agriculture: which function is fulfilled when, or all at once?

📍 **Venue - Garden and Hall Club of the Hotel Palace, Topličin venac 23**

- 🕒 17:45-17:55 **Group photo in front of the monument to Vojvoda Vuk on Topličin venac square**
- 🕒 18:00-19:30 **POSTER PARTY with Serbian beverages**
- 🕒 19:30-23:00 **Welcome Reception**

📅 **Thursday, September 14, 2023**

📍 **Venue - Hall “Beogradska Panorama” of the Hotel Palace, 6th floor, Topličin venac 23**

- 🕒 08:30-09:00 **Registration of participants (COFFEE & SNACKS)**
- 🕒 09:00-09:30 **Vittorio Venturi (ICGEB, Trieste, Italy):** Contact-independent bacterial signalling in the plant beneficial microbiome

Session IV Plant–microbe interactions

Chaired by: **Ines Mandić Mulec, Alessio Mengoni**

- 🕒 09:30-10:00 **Alessio Mengoni (University of Florence, Italy):** When biodiversity preservation meets biotechnology: the challenge of developing synthetic microbiota and the case of symbiotic nitrogen-fixing bacteria



ICGEB Workshop

Trends in microbial solutions for sustainable agriculture

13 – 15 September 2023. Belgrade, SERBIA

- 🕒 10:05-10:35 **Cayo Ramos (Universidad de Málaga-Spanish Research Council, Málaga, Spain):** The virulence factors orchestra of the bacterial pathogen of woody hosts *Pseudomonas savastanoi*
- 🕒 10:40-11:10 **Ines Mandić Mulec (Biotechnical Faculty, University of Ljubljana, Slovenia):** Unveiling the role of bacterial sociality in designing plant growth promoting inoculants
- 🕒 11:30-12:00 **Stéphane Compant (Austrian Institute of Technology, Tulln, Austria):** Bacterial-fungal interactions and impacts on plant growth and health
- 🕒 12:05-12:35 **Gergely Maróti (Institute of Plant Biology, Hungary/University of Public Service, Faculty of Water Sciences, Hungary/Seqomics Biotechnology Ltd.):** Molecular-level investigation of algal-bacterial interactions and their utilization for plant biostimulation
- 🕒 12:40-13:40 **LUNCH BREAK - Restaurant Klasik of the Hotel Palace**

Session V **Plant-microbe interactions and the role of synthetic microbial communities**
Chaired by: **Daniele Daffonchio, Aleš Lapanje**

- 🕒 13:40-14:10 **Vittoria Catara (University of Catania, Italy):** Microbiome-assisted selection of endophytic bacteria for the sustainable cultivation of tomatoes in greenhouse
- 🕒 14:15-14:45 **Djordje Bajić (Technical University Delft, The Netherlands):** Using fitness landscapes to engineer microbial communities
- 🕒 14:50-15:20 **Daniele G. Daffonchio (King Abdullah University of Science and Technology, Saudi Arabia):** Bacterial VOCs contrast rice blast infection by inhibiting fungal virulence rather than growth
- 🕒 15:25-15:55 **Ákos T. Kovács (Institute of Biology, Leiden University, The Netherlands):** *Bacilli* in the rhizosphere: interaction and evolution within the biofilm
- 🕒 16:00-16:30 **Aleš Lapanje (Jozef Stefan Institute, Ljubljana, Slovenia):** Engineering microbial communities by the colloid biology approach
- 🕒 16:35-17:05 **COFFEE BREAK**

Session VI **Microbial products for sustainable agriculture (Part 2)**
Chaired by: **Vittorio Venturi, Ivica Dimkić**

- 🕒 17:05-17:30 **Vincent Lefebvre du Prey (ITAKA S.r.l., Italy):** The place of microorganisms in the transition to new farming systems with reference to research, agronomy and IT, using greenhouse vegetables as example
- 🕒 17:35-18:05 **Vesna Dragičević (Maize research Institute Zemun Polje Belgrade, Serbia):** The effects of bio-fertilizer application on grain yield and quality of maize grown in long-term monoculture



ICGEB Workshop

Trends in microbial solutions for sustainable agriculture

13 – 15 September 2023. Belgrade, SERBIA

📍 Botanical Garden “Jevremovac”, Takovska 43

🕒 19:00-23:00 GALA DINNER

📅 Friday, September 15, 2023

📍 Studentski trg 3, Belgrade (in front of Faculty of Phylology)

🕒 08:00-13:00 Visit to FERTICO enterprise with lunch break (Indjija, Serbia)

📍 Venue - Hall “Beogradska Panorama” of the Hotel Palace, 6th floor, Topličin venac 23

Session VII Microbial products for sustainable agriculture (Part 3)

Chaired by: **Vlad Stoian, Marko Vinceković**

- 🕒 13:00-13:30 Amitava Rakshit (Banaras Hindu University, Varanasi, India):** Seed bio-priming with microbial inoculants: A tailored approach towards improved crop performance, nutritional security, and agricultural sustainability for smallholder farmers
- 🕒 13:35-14:05 József Fail (Institute of Plant Protection, Hungarian University of Agriculture and Life Sciences, Hungary):** Challenges in the management of some key horticultural pests
- 🕒 14:10-15:40 Vlad Stoian (Faculty of Agriculture, University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca, România):** The use of microscopic tools for the increase of resolution in mycorrhizal assessment
- 🕒 15:45-16:30 Marko Vinceković (Faculty of Agriculture University of Zagreb, Croatia):** New types of biofertilizers: microparticles with biological and chemical active components
- 🕒 16:30-17:00 COFFEE BREAK**
- 🕒 17:00-17:15 ORGANIZATIONAL CLOSING REMARKS - Ivica Dimkić & Vittorio Venturi**
- 🕒 17:30 Sightseeing of Belgrade Fortress “Kalemegdan” with professional guide and free evening**
- 🕒 19:00-20:30 Optional Danube and Sava Cruise with extra charge - get to know Belgrade from the rivers**



Dr. Djordje Fira

1959 – 2022

Full Professor, University of Belgrade,
Faculty of Biology, Serbia

**In loving memory of Djordje Fira,
a great scientist and friend**

**YOUR PRESENCE WE MISS,
YOUR MEMORIES WE TREASURE**



fertico



Evaluation
Questionnaire

