



IMMC13

13th International Medicinal
Mushrooms Conference

—— 22 - 25 September 2026 | Bragança, Portugal ——

SCIENTIFIC PROGRAM

MEDICINAL MUSHROOMS FOR A SUSTAINABLE FUTURE IN FOOD & HEALTH



Universidade
Politécnica
Bragança



Centro de
Investigação
de Montanha



Associate
Laboratory for
Sustainability and
Technology in
Mountain Regions

Day 1 | Tuesday, 22 September

Session Registration & Welcome

Venue Rio de Onor Room, Exe São Lázaro Hotel

09:00 – 12:00 Registration

10:00 – 11:30 Wines of Trás-os-Montes Masterclass

Trás-os-Montes Altitude & Old Vines – The Unique Terroir of Trás-os-Montes
Vinhos de Trás-os-Montes

13:00 – 14:00 Transfer by Bus

Exe São Lázaro Hotel → Bragança Municipal Theatre

Session Welcome Ceremony

Venue Bragança Municipal Theatre

14:00 – 14:15 Prelude to IMMC13

Léo Delibes – The Nightingale
Trio Majestoso

14:15 – 15:00 Welcome Ceremony

Lillian Barros
Universidade Politécnica de Bragança, IMMC13 Executive Chair
Orlando Rodrigues
Universidade Politécnica de Bragança
Isabel Ferreira
Câmara Municipal de Bragança

Session 1 | Sustainable Innovation in Mushrooms

Venue Bragança Municipal Theatre
Chair João Barreira

15:00 – 15:45 Reflective Lecture

RL1.1 | Medicinal Mushrooms: Multidisciplinary Approaches to Studying
Therapeutic Potential
Giuseppe Venturella
University of Palermo

15:45 – 16:30 Plenary Lecture

PL1.1 | Can Polypore Mycelium be Useful in Defending Against Viral Storms?

Paul Stamets

Fungi Perfect

16:30 – 17:15 Plenary Lecture

PL1.2 | Redox Potential Scale-up of *Ganoderma lucidum* Submerged Cultivation from Laboratory to Higher Pilot Scale

Marin Berovič

Academy of Engineering

17:15 – 17:30 Harmony Beyond Science

Dimitri Cervo – A Voice

Adolphe Adam – Bravour-Variationen - "Ah! Vous dirais je Maman!"

Trio Majestoso

Social Activities

Venue	Bragança Castle
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18:30 – 19:30 Transfer by Tourist Train

Bragança Municipal Theatre → Bragança Castle

19:30 – 21:30 Bragança with History - Sunset at the Castle

Bragança Castle

21:30 – 22:30 Transfer by Tourist Train

Bragança Castle → Exe São Lázaro Hotel

Day 2 | Wednesday, 23 September

Session 2 | Personalized Nutrition & Precision Medicine

Venue Armindo Correia Room, Exe São Lázaro Hotel
Chairs Carmenza Jaramillo & Ulrike Lindequist

09:00 – 09:40 Plenary Lecture

PL2.1 | Individualized Nutrition, Health, and Artificial Intelligence: Opportunities for Precision Metabolomic Dietary Intake Assessment

J. Alfredo Martínez

IMDEA Nutrition

09:40 – 10:05 Keynote Lecture

KN2.1 | Fungal Wisdom Meets Omic-Tech

Liudmila Kalitukha

Good Feeling Products

10:05 – 10:20 Industrial Lecture

IL2.1 | From Market Signals to Meaningful Science: Aligning Functional Mushroom Research with Consumer Needs

Eric Puro

KÄÄPÄ Biotech

10:20 – 10:35 Industrial Lecture

IL2.2 | Methodology for Testing the Efficacy of Chaga for Support of Stem Cell Surveillance and Mitochondrial Resilience; Additional Insights to Chaga's Role in Immune Health and Cellular Integrity

Chris Fields

Applied Food Sciences

10:35 – 10:50 Industrial Lecture

IL2.3 | Exploring the Nootropic Potential of *Herichium erinaceus* Extract in Murine Models

Rojison Koshy

Ujala Life Sciences

10:50 – 11:05 Industrial Lecture

IL2.4 | *Ophiocordyceps sinensis*: An Adaptogenic Medical Mushroom from a Network Pharmacology Perspective

Per Björk

100% Natural

11:05 – 11:10 Journal Launch

Journal of Edible and Medicinal Fungi

Omon Isikhuemhen & Ayman Turk

North Carolina A&T State University & In Silico Bio-Solutions

11:10 – 11:35 Coffee Break | E-Poster Session**Session 2 | Personalized Nutrition & Precision Medicine**

Venue	Armando Correia Room, Exe São Lázaro Hotel	Rio de Onor Room, Exe São Lázaro Hotel
Chairs	Ayman Daba & Jaime Carrasco	Cristina Caleja & Eliana Pereira

11:35 – 11:45 Oral Presentation

OP2.1 | From Academic Discovery to Industrial Innovation: *Cordyceps* as a Bioconversion Factory and CordyScan AI-TLC Platform for High-value Cordycepin Applications

Ayman Turk

In Silico Bio-Solutions

Oral Presentation

OP2.2 | Full-Spectrum Standardization of *Hericium erinaceus*: A Multi-Component Cultivation Approach to Clinically Relevant Bioactive Delivery

William Goss

Monterey Nutra/Amycel

11:45 – 11:55 Oral Presentation

OP2.3 | Linking Fungal Biodiversity and Bioactive Potential of Indigenous Serbian Mushrooms from the Balkan Region: The ProFungi Group Perspective

Maja Karaman

University of Novi Sad

Oral Presentation

OP2.4 | Personalized Mycotherapy and Precision Medicine: Diagnosis to Dispensary

Sayen Scantlebury

Integrative Health

11:55 – 12:05 Oral Presentation

OP2.5 | LENTICHOL Study: Effects of Shiitake Mushroom (*Lentinula edodes*) Consumption on Lipid Metabolism in Adults with Borderline Elevated LDL-Cholesterol – A Placebo-Controlled Study

Sara Meiss

Charité – Universitätsmedizin Berlin

Oral Presentation

OP2.6 | Lions mane (*Hericium erinaceus*) Recent Research in Human Health; Linking Actives to Outcome

Chris Fields

Applied Food Sciences

12:05 – 12:15 Oral Presentation

OP2.7 | Linking Metabolomic Complexity to Clinically Significant Cognitive Outcomes in U.S.-Grown Functional Mushrooms: Analytical Method Development and Human Dietary Intervention Validation

Julie Daoust

M2 Ingredients

Oral Presentation

OP2.8 | A Multicriteria Strategy for Selecting Amazonian Mushroom-Derived Functional Ingredients for Sustainable Plant-Fungi-Based Food Development

Ceci Sales-Campos

Instituto Nacional de Pesquisas da Amazônia

12:15 – 12:25 **Oral Presentation**

OP2.9 | Influence of the Digestion Process on the Anti-Inflammatory Compounds of *Hericium erinaceus*

Paula García-Ponsoda
Universidad Autónoma de Madrid

Oral Presentation

OP2.10 | Rapid Minimal Residual Disease Clearance and Durable Remission in Pediatric Common B-Cell Acute Lymphoblastic Leukemia During Standard Therapy with an Exploratory Adjunct Proprietary Mycotherapy Protocol: A Case Report

Boris Jakopović
Dr Myko San - Health from Mushrooms

12:25 – 12:35 **Oral Presentation**

OP2.11 | Preliminary in vitro Results on the Use of the Culinary-Medicinal Mushroom *Pleurotus eryngii* var. *Eryngii* as Potential Secondary Starter in the Cheese Aging Process

Fortunato Cirlincione
University of Bari

Oral Presentation

OP9.5 | Valorization of *Agaricus bisporus* By-Products Through Lactic Fermentation for Functional Penne Pasta Development

Ana Saldanha
MORE CoLAB

12:35 – 14:30 **Lunch | E-Poster Session**

Session **3 | Agro-food Systems & Circular Integration**

Venue Armindo Correia Room, Exe São Lázaro Hotel
Chairs Ewa Zapora & Maria Letizia Gargano

14:30 – 15:10 **Plenary Lecture**

PL3.1 | Medicinal Mushroom Biomass: From Bioactive Characterization and Bioaccessibility to Gut Microbiota Modulation and Neuroprotection

Manuela Pintado
Universidade Católica Portuguesa

15:10 – 15:50 **Plenary Lecture**

PL3.2 | *Hericium erinaceus* as a Neuroregenerative Medicinal Mushroom: Bioactive Compounds, Clinical Evidence and Emerging Production Technologies

John Holliday
Highland Mushrooms

15:50 – 16:20 **Coffee Break | E-Poster Session**

Session	3 Agro-food Systems & Circular Integration	
Venue	Armindo Correia Room, Exe São Lázaro Hotel	Rio de Onor Room, Exe São Lázaro Hotel
Chairs	Liudmila Kalitukha & Marin Berovič	Filipa Mandim & Sara Vieira
16:20 – 16:45	Keynote Lecture KN3.1 An Update of the Worldwide Diversity of the Genus <i>Pleurotus</i> Georgios I. Zervakis Agricultural University of Athens	Keynote Lecture KN3.2 Medicinal Mushrooms as Functional Additives in Animal Health and Production Omon Isikhuemhen North Carolina A&T State University
16:45 – 16:55	Oral Presentation OP3.1 Biodegradable Nursery Containers Produced from Agricultural Residues and Macromycetes Alejandro Echeverri Jaramillo Reishi Colombia	Oral Presentation OP3.2 Sustainable Innovation in Mushroom - Effect of Extraction Solvents on the Selected Bioactive Compounds in Submerged-Cultivated Mycelial Biomass of <i>Ganoderma lucidum</i> and <i>Leatiporus sulphureus</i> Vanja Grahovac University of Belgrade
16:55 – 17:05	Oral Presentation OP3.3 Characterization and Biotechnological Valorization of Spent Mushroom Compost (SMC) Manuela Rollini University of Milano	Oral Presentation OP3.4 Strain-Specific Growth and Reproductive Responses Among Conspecific <i>Inonotus obliquus</i> Strains in Dual Culture Karin Kütt Estonian University of Life Sciences
17:05 – 17:15	Oral Presentation OP3.5 Scaling Full-Spectrum Medicinal Mushroom Production: Lessons from Vertically Integrated Industrial Cultivation at Monterey Mushrooms William Goss Monterey Nutra/Amycel	Oral Presentation OP3.6 Spent Medicinal Mushroom Substrate as a Strategic Feed Resource for Sustainable Beef Cattle Production Felicia Anike North Carolina A&T State University
17:15 – 17:25	Oral Presentation OP3.7 The Influence of Substrate, Perforation Amount, and Perforation Size on the Mushroom Morphometrics of <i>Hericium erinaceus</i> Joel Kwon North Carolina Agricultural and Technical State University	Oral Presentation OP3.8 Circular, Sustainable Model of Mushroom Production Applied in Commercial Farm Ivanka Milenković Ekofungi

17:25 – 17:35 Oral Presentation

OP3.9 | Mushrooms from Farm to Fork, a Coordinated Approach to Develop the Entire Value Chain and Reshape the Position Mushrooms as a “Next-Generation Functional Food” for Metabolic and Environmental Health

Anabela Marisa Azul
University of Coimbra

Oral Presentation

OP3.10 | Breeding, Greenhouse Cultivation, and Nutritional Evaluation of Morel (*Morchella*) in Türkiye

Mustafa Kemal Soylu
Atatürk Horticultural Central Research Institute

Social Activities

Venue	Abade de Baçal Museum
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18:30 – 19:30 Transfer by Tourist Train

Exe São Lázaro Hotel → Abade de Baçal Museum

19:30 – 22:00 Bragança with Culture – Bread & Wine at the Museum

Abade de Baçal Museum

22:00 – 23:00 Transfer by Tourist Train

Abade de Baçal Museum → Exe São Lázaro Hotel

Day 3 | Thursday, 24 September

Session	4 AI & Omics in Medicinal Mushroom Research	5 Climate Resilience via Ecosystem Services
Venue	Armindo Correia Room, Exe São Lázaro Hotel	Rio de Onor Room, Exe São Lázaro Hotel
Chairs	Giuseppe Venturella & Marina Soković	Ángel R. Trigos & Eneribholo Eno-Edobor

09:00 – 09:40 Plenary Lecture

PL4.1 | New Advances in Medicinal Mushroom Proteomics: From Complex Bioactives to Therapeutic Protein Networks

Boris Jakopović

Dr Myko San - Health from Mushrooms

09:40 – 10:05 Keynote Lecture

KN4.1 | Decoding Truffle Aroma, Bioactivity, and Quality Through Omics and Data-Driven Approaches

Eva Tejedor-Calvo

Agrifood Research and Technological Centre of Aragón

Keynote Lecture

KN5.1 | Can Mycosilviculture Optimize the Ecosystem Services Provided by Fungi in the Context of Climate Change?

José-Antonio Bonet

Center of Research in Agrotechnology

10:05 – 10:15 Oral Presentation

OP4.1 | Functional Impact of *Hericium erinaceus*-Derived Metabolites on Transcriptional Programs in Glial Cells

Idan Pereman

Migal Galilee Research Institute

Oral Presentation

OP5.1 | *Inonotus obliquus* in Finland: Use History, Cultural Significance, and Transatlantic Diffusion

Henri Vanhanen

Natural Resources Institute Finland

10:15 – 10:25 Oral Presentation

OP4.2 | Temporal Deployment of Lignocellulolytic Carbohydrate-Active Enzymes During Fungal Colonization of a Hardwood Sawdust-Corn Stover Substrate

Melvin Mensah-Bonsu

North Carolina A&T State University

Oral Presentation

OP5.2 | Unlocking the Potential of Thermotolerant Medicinal Mushroom Species and Strains for Climate Resilience and Circular Bioeconomy

Georgios Koutrotsios

Agricultural University of Athens

10:25 – 10:35 Oral Presentation

OP4.3 | From Fungi to Pharma: Machine Learning and Molecular Docking Reveal a Potent Antidiabetic Steroid in *Cordyceps sinensis*

Rui M. V. Abreu
Universidade Politécnica de Bragança

Oral Presentation

OP5.3 | Sustainability of Medicinal and Edible Mushrooms Abundance in the Soil Under Forest Thinning

Segula Masaphy
Tel Hai College and MIGAL- Galilee Research Institute

Session	6 Cultural Heritage & Biocultural Conservation
Venue	Armindo Correia Room, Exe São Lázaro Hotel
Chairs	Giuseppe Venturella & Marina Soković

10:35 – 11:00 Keynote Lecture

KN6.1 | Cultural Heritage & Biocultural Conservation of Mushrooms Around the World

Dennis Walker
Mycopreneur

11:00 – 11:30	Coffee Break E-Poster Session
Session	7 Ethics, Safety & Regulatory Foresight
Venue	Armindo Correia Room, Exe São Lázaro Hotel
Chairs	Georgios I. Zervakis & Lillian Barros

11:30 – 11:55 Keynote Lecture

KN7.1 | Mushroom-Derived Polysaccharides: Translational Challenges in Efficacy, Safety, and Regulatory Standardization

Ayman Daba
Doctor's Data

11:55 – 12:05 Oral Presentation

OP7.1 | From Lab Scale to Market Application: Bottlenecks in Medicinal Mushroom Product Development

Ewa Zapora
Bialystok University of Technology

12:05 – 12:15 Oral Presentation

OP7.5 | The Future of Mushroom Farming

John Holliday
Highland Mushroom

12:15 – 12:25 Oral Presentation

OP7.3 | Fungal Names and DNA-Based Authentication: Applied Research and Policies

Alona Yu. Biketova
Royal Botanical Gardens, Kew

12:25 – 12:35 Oral Presentation

OP7.4 | The Mushroom Was More Alive and Vibrant: Patient Reports of Synthetic *versus* Organic Forms of Psilocybin

Pamela Kryskow

Psychedelic Association of Canada

12:35 – 14:30 Lunch | E-Poster Session

Session 8 | Public Health & Policy Applications

Venue Armindo Correia Room, Exe São Lázaro Hotel

Chairs Boris Jakopović & John Holliday

14:30 – 15:10 Plenary Lecture

PL8.1 | Safety Aspects of Medicinal Mushrooms

Ulrike Lindequist

University of Greifswald

15:10 – 15:35 Keynote Lecture

KN8.1 | Microsterols: Beyond their Function and Regulation in Membrane Fluidity and Structure

Ángel R. Trigos

University of Veracruz

15:35 – 15:45 Oral Presentation

OP8.1 | The Possibility of Reducing Stress Response in Humans Using Chitin/Chitosan-Glucan-Melanin-Complex from *Fomes fomentarius* (ChMGC)

Nataliia Kurochko

LLC «Mikoton-Original»

15:45 – 15:55 Oral Presentation

OP8.2 | The Ability of Chitin/Chitosan-Glucan-Melanin Complex from *Fomes fomentarius* (ChGMC) to Modify the Course of Cancer

Olga Seniuk

LLC «Mikoton-Original»

15:55 – 16:05 Oral Presentation

OP8.3 | Medicinal Mushrooms in Reproductive Medicine: Emerging Evidence, Orthodox Limitations, and Opportunities for Clinical Research in Nigeria

Eneribholo Clement Eno-Edobor

Vigor Hospital

16:05 – 16:15 Oral Presentation

OP8.4 | Protective Effects of a Polysaccharide-Rich *Hericium erinaceus* Extract Blend Against Fipronil-Induced Oxidative Stress in the *Galleria mellonella* Insect Model

Soumya Biswas

The Fungamentalists LLP

16:15 – 16:25 Oral Presentation

OP8.5 | Mushroom Polysaccharides as Cholesterol-Lowering Functional Ingredients

Helena Laronha

University of Aveiro

Social Activities

Venue	Rio de Onor & Quinta da Carvalhinha
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17:00 – 17:30 Transfer by Bus

Exe São Lázaro Hotel → Rio de Onor

17:30 – 19:00 Traditional Village Visit

Rio de Onor

19:00 – 19:30 Transfer by Bus

Rio de Onor → Quinta da Carvalhinha

19:30 – 22:30 Bragança with Elegance - Gala Dinner

Quinta da Carvalhinha

22:30 – 23:00 Transfer by Bus

Quinta da Carvalhinha → Exe São Lázaro Hotel

Day 4 | Friday, 25 September

Session 9 | Therapeutic Potential of Psychedelic Mushrooms

Venue Armindo Correia Room, Exe São Lázaro Hotel
Chairs Maja Karaman & Miomir Nikšić

09:00 – 09:40 Plenary Lecture

PL9.1 | Beyond Trials in Psychedelic Medicine: Ethics, Implementation, and Equity

Albino Oliveira-Maia
Champalimaud Foundation

09:40 – 09:50 Oral Presentation

OP9.1 | Optimizing *Psilocybe cubensis* Bioactivity by Submerged Fermentation

Eyal Kurzbaum
University of Haifa

09:50 – 10:00 Oral Presentation

OP9.2 | From Molecule to Mushroom: Regulatory Futures of Psychedelic Psilocybin Therapies

Sofia Batista
SYLOR Health

10:00 – 10:10 Oral Presentation

OP9.3 | *Amanita muscaria* - Ancient Wisdom and Healing Properties of The Iconic Toadstool

Dominique Prevost
Mamanita.Love

10:10 – 10:20 Oral Presentation

OP9.4 | How the Mycophilous Poland Embraced the use of Fly Agaric (*Amanita muscaria*)

Łukasz Łuczaj
University of Rzeszów

10:20 – 11:00 Coffee Break | E-Poster Session

Roundtable	Scientific and Industrial Perspectives on Medicinal Mushroom Research and Innovation
Venue	Armindo Correia Room, Exe São Lázaro Hotel
Moderator	Eric Puro, KÄÄPÄ Biotech, FI

- 11:00 – 12:00 Roundtable**
- 100% Natural**
Per Björk, ES
- Highland Mushrooms**
John Holliday, USA
- Mycology Research Laboratories**
David Law, UK
- Ujala Life Sciences**
Rojison Koshy, IN

- 12:00 – 12:15 Awards**

- 12:15 – 12:30 Final Remarks**
- Lillian Barros**
IMMC13 Chair, Universidade Politécnica de Bragança

12:30 – 14:00	Lunch Boxes E-Poster Session
Social Activities	
Venue	Rio de Onor Room, Exe São Lázaro Hotel

- 14:00 – 15:30 Wines of Trás-os-Montes Masterclass**
- Trás-os-Montes Altitude & Old Vines – The Unique Terroir of Trás-os-Montes
- Vinhos de Trás-os-Montes**