



EUROPEAN BIOTECHNOLOGY CONGRESS 2025

DAY 1 (11 SEPTEMBER 2025)

9.00-10.30 Opening Remarks

Plenary Session 1 - Albania Biotechnology Panel

Chair: Ariola Bacu

Prof. Anila Babameto-Laku, Head of Genetic Lab Service, "Mother Teresa" University Hospital Centre & Medical University of Tirana, Albania: "Genomics in diagnosis and treatment of rare diseases in Albania: Current Status & Upcoming challenges".

Acad. Prof. Anila Hoda, General Secretary of the Academy of Sciences of Albania: "Biotechnology for Sustainable development in Albania's and Kosova's livestock and aquaculture".

Prof. Bashkim Ziberi, University of Tetova, North Macedonia: "Nanoparticle-aided radiotherapy using immunogenic biomaterials in cancer treatments".

Prof. Burim Ametaj, University of Alberta, Canada: Mining Probiotic Solutions as Alternatives to Antibiotics: From Bench to Market".

Prof. Hysen Bytyqi, Vice-Rector, University of Pristina, Kosovo: "Bridging Science & Society: Biotechnology Innovation and Accessibility in Kosovo".

Prof. Ariola Bacu, Head of Group for Molecular Biotech, Univ of Tirana, Albania: "Emerging green and blue biotechnologies & Services prospects at University of Tirana, Albania".

FROM 11:00 TO 12:30

Plenary Session 2

Chair: Munis Dundar, Donald Martin

Satya Prakash: Microbiome and Longevity: A New Era in Chronic Disease Management.

Ratnesh Lal: Life in your hand: diagnose yourself using a handheld electrical molecular biosensor

Tristan Cardon: Chasing the ghost proteome in cancer

Ercüment Ovalı: Recent developments and current applications in CAR-T Cell therapy

FROM 12:30 TO 13:30

Lunch

FROM 13:30 TO 15:00

Parallel Session 1 - Medical Biotechnology-MAGIs 10th Anniversary

Chairs: Matteo Bertelli, Tommaso Beccari, Natale Capodicasa

Ornela Gordani: A Novel Machine Learning Algorithm for Enhanced Polygenic Risk Score Estimation

Luca Ferrari: Machine Learning-Based Polygenic Risk Score Analysis in Rare Diseases: A Case Study on Anorexia Nervosa, Lipedema, and Lymphedema

Jurgen Kaftalli: Integrating Machine Learning into ACMG-Based Variant Classification Pipelines for Improved Clinical Interpretation.

Sara Feizyab, Matteo Bertelli: Multivector Embedding and Bioinformatics Analysis of Genomic Data

Kristjana Dhuli: In Vivo Evaluation of Natural Molecules on Molecular Pathways in *Drosophila melanogaster*

Immacolata De Luca, Kevin Donato: Multilayer Data Integration Models for Omics Analysis

Parallel Session 2 - Nano-Biotechnology

Chairs: Valbona Aliko, Albana Halili

Albana Halili: Pioneering use of nano-fibres in biomaterials: first studies in Albania

Nilgun Baydogan: Optical features of solgel synthesized NiO thin films.

Valbona Aliko: TBA

Sibora Biti: In depth characterisation of a hybrid TiO₂ nanocatalyst.

Liridon Berisha: Electrochemical sensor for 5-hydroxymethylfurfural determination based on Molecularly Imprinted Polymers

FROM 15:30 TO 17:30

Parallel Session 3 - Biosensors for Toxicity Testing

Chairs: Shimshon Belkin, Marisa Manzano, Hakan Akca

Shimshon Belkin: Remote sensing of buried landmines by microbial bioreporters: modulating the risks of GMMs release

Gal Carmeli: Monitoring toxicity in sediment using a dispatchable fiber-optic whole-cell bioreporter biosensor (SUNDANSE).

Fred Narcross: Footprints a new tool to enhance collaboration in biotechnology

Abraham Paul: Harnessing the power of bio-hydrogels in biotechnology applications.

Marisa Manzano: Antibiotic resistant genes detection utilizing an electrochemical biosensor.

Evgeni Eltzov: Development of the whole cell based biosensors for determination of pollutants in the air and water.

Michela Maifreni: Use of a natural exogenous photosensitizer for Photodynamic Inactivation (PDI) on pathogens

Parallel Session 4. Biocatalysis & Biopolymers

Chairs: Adam Mechler, Gary Henehan

Gary Henehan: Biocatalytic Activation in Deep Eutectic Solvents

Iza Radecka: Microbial polymer of poly- γ -glutamic acid: biosynthesis, diverse applications, and future perspectives.

Polona Žnidaršič Plazl: Immobilized Enzyme Microreactors for Sustainable Valorization of Biobased Materials

Igor Plazl: Parallel-plate microbioreactors

Adam Mechler: Fluorescence correlation spectroscopy in the study of the bioactivity of natural products: a case study of aurein1.2

EUROPEAN BIOTECHNOLOGY CONGRESS 2025 DAY 2 (12 September 2025)

FROM 9:00 TO 10:30

Plenary Session 3

Hall: "Aleks Buda"

Chairs: Laurine Lagache, Robert Marks, Kaya Suer

Donald Martin: Structural interactions of proteins with lipid bilayer membranes

Laurine Lagache: Mass Spectrometry Imaging: A multi-faceted tool to challenge precision medicine and surgery

Robert Marks: ER triage of infectious disease phyla using phagocytic luminescent imprints.

Luis Izguerdo Lopez: The impact of Genomic screening in general population

FROM 10:30 TO 11:00

Coffee Break

FROM 11:00 TO 12:30

Parallel Session 5: Medical Biotechnology

Hall: "Aleks Buda"

Chairs: Michele Maffia, Anargyros Moulas, Genc Sulçebej

Anargyros Moulas: Neoantigen vaccines for cancer

Michele Maffia: Metabolic Signatures in Plasma and Pericardial Fluid and the Regulatory Role of miRNAs in Ischemic Heart Disease

Sehime G. Temel: From Sequence to Significance: Functional Insights into Rare Genetic Disorders

M. Cerkez Ergoren: Beyond the Exome: Long-Read Sequencing for Solving the Diagnostic Odyssey in Rare Genetic Disorders"

Cihan Tastan: Xeno-Nucleic Acid-Based Approaches for Treating Genetic Disorders

Adem Alemdar: In house cell line authentication and mycoplasma test development and validation for affordable cell line security

Ilia Mikerezi: Genetic Investigation of the Albanian Population

Parallel Session 6: Satellite RECROP COST Session on Plant Biotechnology

Hall: "Libri Akademik"

Sotirios Fragkostefanakis, RECROP CA Chair: Introduction of RECROP CA
Goal and objectives

Helene Boisvon, CEITEC, Czech Republic.

Hairy roots as a powerful tool to study hormonal and abiotic stress response.

Jan Hila, Institute of Experimental Botany ASCR, Czech Republic.

Revealing protein phosphorylations in male gametophyte by phosphoproteomic approaches.

Christos Bazakos, ELGO DIMTRA, Greece.

Multi-Omics insights into chilling injury responses in peach (*Prunus persica*) fruit.

Stela Papa, Department of Biotechnology, University of Tirana, Albania.

Metabolome profiling for a better selection of winter wheat cultivars (*Triticum aestivum* L.) tolerant to heat stress.

FROM 12:30 TO 13:30

Lunch

FROM 13:30 TO 15:00

Parallel Session 7 - Plant Biotechnology, Industrial Biotechnology and Bioprocess Engineering

Hall: "Aleks Buda"

Chairs: Oscar Vicente, Juraj Krajovic

Oscar Vicente: Invasive species: A threat to plant biodiversity under the current climatic emergency

Polikseni Drazho: VALORIZATION OF BREWERY ORGANIC WASTE BY PRODUCTS FOR SUSTAINABLE LIVESTOCK FEED

Ilirjan Malollari: Industrial Waste Valorization: Next-Generation Bioenergy for a Greener Future

Juraj Krajovic: Microscopic algae and their biotechnological potency

Parallel Session 8: Pharmaceutical Biotechnology

Hall: "Libri Akademik"

Chairs: Ledjan Malaj, Brunilda Myftari

Goda E: Biotechnological advances in lipid-lowering therapies-shaping the future of dyslipidemia treatment

Eni Bushi: Aseptic Process Simulation (Media Fill) for Injectable Manufacturing at Profarma sh.a: Validation of Sterility Assurance Under Routine and Worst-Case Conditions

Zela I.: Antioxidant potential of some albanian medicinal plants and challenges of their inclusion in semisolid preparations

Brunilda Myftari: Liposomal topical delivery systems incorporating natural functional bioactives: advances and perspectives

Gentjan Mataj: Substitutes for Titanium Dioxide in the Pharmaceutical Industry: Scientific and Regulatory Perspectives

FROM 15:00 TO 15:30

Coffee Break

FROM 15:00 TO 15:30
GENERAL ASSEMBLY MEETING OF EBTNA

FROM 15:30 TO 17:00

Parallel Session 9: Medical Biotechnology

Hall: "Aleks Buda"

Chairs: Carmela Conte, Merita Xhetani

Carmela Conte: Role of Toll-like receptors in synucleinopathies.

Luana Conte: Deep Learning-based object detection for the automatic classification of intestinal organoids

Merita Xhetani: Uncovering genetic factors in miscarriages: A Biotech perspective from Albania's clinical experience.

Karla Josefina Santacruz Gomez: Au-NDs@Chs for Photothermal Therapy and Nanothermometry in Breast Cancer

Federico Fiorani: The differentiating role of sphingomyelin in the central nervous system

Mark Nujiten: Clinical and Economic Valuation of Medical Innovation

Bernard Fioretti: The Role of Ovarian Innervation in the Development and Treatment of PolyCystic Ovary Syndrome (PCOS)

Parallel Session 10: Satellite RECROP COST Session on Plant Biotechnology

Hall: "Libri Akademik"

Chairs: Christos Bazakos

Federico Martinelli, University of Florence, Italy.
Investigating drought intergenerational memory in legumes using chickpea as a model.

Dragana Dudic, Bojana Banović Đeri, Ana Nikolić, Faculty of Computer Science and Informatics Union-Nikola Tesla University, Belgrad, Serbia.
Genetic Background-Dependent Cold Stress Response in Maize.

Kostandinos Vlachonasios, Aristotle University, Thessaloniki, Greece.
Histone Acetyltransferase Gcn5 And The Associated Coactivator Ada2b Interplay With Plant Hormones Biosynthesis And Signaling In Arabidopsis"

Prof.Dr.Ariola Bacu, Department of Biotechnology, University of Tirana, Albania.
Does Fusarium infection impact the epigenetic memory of wheat to repeated HT.

Linda Luarasi, Department of Biotechnology, University of Tirana, Albania.
Micro and macro morphology for Fusarium detection at wheat cultivars in use in Albania and more..

FROM 17:00

Oral Presentations

**EUROPEAN BIOTECHNOLOGY CONGRESS 2025
DAY 3 (13 September 2025)**

FROM 9:00 TO 10:30

Plenary Session 4

Hall: "Aleks Buda"

Chairs: Ariel Kushmaro, Qun Sun

Ariel Kushmaro: What do the wastewater say about us?

Dana Tapaloaga: Sustaining Animal Genetic Diversity: Traditional and Innovative Approaches to Livestock Conservation

Osman Eroglu: Autonomous Vascular Route Opening Device for Military Terrain Conditions

Qun Sun: Heat stress on the structure and response of multiorgan microflora in humans.

FROM 10:30 TO 11:00

Coffee Break

FROM 11:00 TO 12:30

Paralell Session 11: Environmental Biotechnology and Animal Biotechnology

Hall: "Aleks Buda"

Chairs: Anila Hoda, Daria Sanna

Granit Thaqi: Novel Adipokines Dynamics in Bovine Corpus Luteum during induced Superovulation

Dapi Menglin Chiang: Pre- and Post-Surgical EV Proteomic Profiling Reveals Platelet-Related Biomarkers in Peripheral and Tumor-Draining Plasma of HNSCC Patients

Christian Grätz: Monitoring off-label therapy in anaplastic thyroid cancer – an in vitro application of our extracellular vesicle-based transcriptomic biomarker development pipeline

Anila Hoda: Genetic diversity of goat breeds in Albania estimated by 15 microsatellite markers

Chiara Locci: Genetic diversity of four Ohrid Trout forms as estimated by molecular markers

Daria Sanna: Unravelling the Evolutionary History of *Pinna nobilis*.

Parallel Session 12: RECROP - Problem Solving through Green Biotechnology

Hall: "Libri Akademik"

Chairs: Adi Avni, Helene Boisvon

Andre Rosado, Department of Plant Breeding, Swedish University of Agricultural Sciences.

Policy and legal developments of agricultural biotechnologies: A focus on the European Union and the Global South.

Bekim Gashi, University of Pristina, Kosovo.

Leveraging stress tolerance mechanisms of resurrection plants for climate-resilient crop breeding: The role of modern technologies.

Elektra Papakosta, Centre for Agricultural Technology Transfer, Vlorë, Albania.

Interaction of Biological and Physical Factors in Optimizing Microclimatic Conditions for the Preservation and in Vitro Conservation of Indigenous Grapevine Cultivars Kallmet, Vlosh and Shesh i Zi.

Adi Avni, Tel Aviv University, Israel.

Can I put some logic inside my sensor plants?

FROM 13:30 TO 14:30

Parallel Session 13: Aquaculture & Marine Biotechnology

Hall: "Aleks Buda"

Chairs: Susana Gaudencio, Rigerta Sadikaj

Martina Torricelli: Molecular Investigation for *Toxoplasma Gondii* and *Leptospira* spp. Monitoring in Freshwater Fish as Passive Carriers.

Dritan Arapi: Evaluations on some quantitative parameters of the stocks of Ohrid trout (*Salmo letnica*) and Ohrid belvica (*Salmo ohridanus*) as well as on the analytical indicators that express the levels of exploitation of them from the professional fisheries.

Rigerta Sadikaj: Length-weight relationship (LWRs) and condition factors of the stocks of Scoranza bleak (*Alburnus scoranza*) and common chub (*Squalius cephalus*) from Albanian part of Ohrid Lake.

Marco Melita: Impact of sustainable aquaculture practices on environmental microbiomes: structural and functional insights through high-throughput techniques

Susana Gaudencio: Valorization of the invasive ascidian *Styela plicata* from mussel aquaculture systems: metabolite profiling and bioactivity screening

Parallel Session 14: RECROP

Hall: "Libri Akademik"

David Honys, Institute of Experimental Botany ASCR, Czech Republic.
Molecular Strategies for Thermotolerant Pollen: A Translational Perspective

Evgeni Eltzov, VOLCANI Centre, Israel.

Rapid identification of quiescent *C. gloeosporoides* in fruits: A new approach to minimize postharvest losses.

Sotirios Fragkostefanakis, Goethe University, Frankfurt, Germany.

From understanding heat stress response to developing a thermos-resilient tomato.

FROM 14:30

Closing Ceremony and Awards