Sustain Natural

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Safe and Sustainable Natural Products and Climate-Resilient Innovations Conference

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November 23-25, 2026 | Hybrid

IMG Conference Centre, Institute of Molecular Genetics of the CAS, Prague, Czech Republic

08:00-08:45 On-site Registration / Badge Pickup

08:45-09:00 Opening Message

Plenary and Keynote Sessions

Chair: Patricia Rijo, CBIOS, Universidade Lusófona, Portugal
Co-chair: Przemysław Sitarek, Medical University of Łódź, Poland

09:00-09:40 **Andreas Schieber**, University of Bonn, Germany **(Plenary Talk)**
Phenolic Compounds as Multifunctional Food Ingredients: Sources, Conversions and Applications

09:40-10:10 **Kateřina Valentová**, Institute of Microbiology of the CAS, Czech Republic **(Keynote Talk)**
Sustainable Production of Flavonoid Metabolites Using Microbial Enzyme

10:10-10:40 **Ilkay Erdogan Orhan**, Lokman Hekim University, Turkey **(Keynote Talk)**
Annual Phytochemical and Bioactivity Changes in Medicinal Plants: The Cases of *Origanum* L. Species and *Myrtus communis* L

10:40-11:00 Break

Session I: Biological and Pharmacological Activities of Natural Products

Chair: Kateřina Valentová, Institute of Microbiology of the CAS, Czech Republic
Co-chair: Kristýna Slámová, Institute of Microbiology of the CAS, Czech Republic

11:00-11:20 **Daniele Passarella**, University of Milan, Italy **(Invited Talk)**
Beyond Discovery: Designing New Functions from Natural Products

11:20-11:40 **Fabio Boylan**, Trinity College Dublin, Ireland **(Invited Talk)**
***Capparis cartilaginea* Essential Oil as an Anti-Inflammatory Agent: Investigating Its Role in NLRP3 Inflammasome Modulation**

11:40-12:00 **Maria Laura Alfieri**, University of Naples Federico II, Italy **(Invited Talk)**
Development of Sulfur-containing Phenolic Polymers with Anticoagulant and Antifouling Activity

12:00-12:20 **Anna Nowak**, Pomeranian Medical University in Szczecin, Poland **(Invited Talk)**
Sustainable Cosmetic Hydrogels Based on Post-harvest *Ginkgo biloba* L. Yellow Leaves

12:20-12:40 **Opeyemi Joshua Olatunji**, Mohammed VI Polytechnic University (UM6P), Morocco
Antidiabetic Potential of *Bifurcaria bifurcata* Metabolites and Probiotic Properties of Associated Bacteria

12:40-13:40 Lunch

Session II: Green Innovations, Chemical Ecology and Environmental Sustainability

Chair: Fabio Boylan, Trinity College Dublin, Ireland
Co-chair: Daniel dos Santos, CBIOS, Universidade Lusófona, Portugal

13:40-14:00 **Paula C. Castilho**, CQM, University of Madeira, Portugal **(Invited Talk)**
(Re)combination of Wastes from Beer Production for Added-Value Substances Isolation

14:00-14:20 **Ludmila Martínková**, Institute of Microbiology of the CAS, Czech Republic **(Invited Talk)**
Sustainable Nitrile Synthesis for Fragrance Compounds

14:20-14:40 **Lucia Panzella**, University of Naples Federico II, Italy **(Invited Talk)**
Natural Phenolic Polymers as Multifunctional Additives for Sustainable Materials

14:40-15:00 **Rebeca André**, CBIOS, Universidade Lusófona, Portugal **(Invited Talk)**
Recovering Bioactive Phenolics from Olive Pomace for Health and Nutrition Applications

15:00-15:20 Break

15:20-15:40 **Onur Yolay**, Boğaziçi University, Turkey
AQUARES: Smart Water and Renewable Energy for Climate-Resilient Agriculture

15:40-16:00 **Elvira Turcu**, Alexandru Ioan Cuza University, Romania
Sunflower and Corn Stalk Pith-Derived Carbonaceous Materials with Preserved Foam-like Morphology for Sorption Applications

16:00-16:20 **Mariana Barreto Martins**, CQM, University of Madeira, Portugal
Inhibition of Insect and Nematode Acetylcholinesterase and Glucosidases by Essential Oils

16:30-17:45 Posters and Networking Drinks

SNL-P01 **Nikolina Mrakovčić**, LBVpam, Université Jean Monnet, France
Biochemical and Functional Characterisation of Microbial-Type Terpene Synthase-Like Enzymes in the *Frullania* genus

SNL-P02 **Elodie Mezzatesta**, Aix-Marseille University, France
Retention, Isolation, and Characterization of Exopolymers from the Marine Microalga *Odontella aurita*

SNL-P03 **Monika Mikušková**, Institute of Organic Chemistry and Biochemistry of the CAS, Czech Republic
Evolutionary Origin of Terpene Synthases in Insects

SNL-P04 **Anna Amirianova**, Institute of Organic Chemistry and Biochemistry of the CAS, Czech Republic
Cytochrome P450 Enzymes in the Biosynthesis of Termite Defensive Diterpenes

SNL-P05 **Thong Cao-Ly-Tan**, University of Medicine and Pharmacy at Ho Chi Minh City, Vietnam
Solvent-Driven Variation in Hypouricemic Activity and Phenolics Profile of Tea Extracts

SNL-P06 **Agnieszka Szopa**, Jagiellonian University Medical College, Poland
Polish-grown *Schisandra chinensis* Fruit as a Rich Source of Lignans and Phenolics

SNL-P07 **Agnieszka Szopa**, Jagiellonian University Medical College, Poland
Nanoparticle Elicitation Enhances Phenolic Metabolism in *B. rapa* var. *japonica*

SNL-P08 **Verónica Raquel Sousa Pereira**, CQM, University of Madeira, Portugal
Brewing a Sustainable Defense: Antifungal Potential of Brazilian Brewery By-products

SNL-P09 **Verónica Raquel Sousa Pereira**, CQM, University of Madeira, Portugal
Antifungal Mechanisms of Action of Brazilian Cascade Hop Extract Against Phytopathogenic Fungi

SNL-P10 **Marlon Heggdorne de Araujo**, University of Padua, Italy
Antimycobacterial Activity of Podocarpusflavone A and Mechanistic Insights Using a PtpB-Overexpressing *Mycobacterium tuberculosis* Strain

SNL-P11 **Ekin Kurtul**, Zonguldak Bülent Ecevit University, Turkey
Comparative Evaluation of Phytochemical Contents in Different Parts of *Mespilus germanica* L.

SNL-P12 **Barbora Petránková**, Institute of Microbiology of the CAS, Czech Republic
Modulating Bacterial Aryl Sulfotransferases through Flexible Loop Mutations

SNL-P13 **Adéla Kovaříčková**, Institute of Microbiology of the CAS, Czech Republic
Glucuronidation of Natural (Poly)phenols by *Streptomyces* Bacteria

SNL-P14 **Esra Kongul Safak**, Erciyes University, Turkey
Assessment of the Antioxidant and Lipoxygenase Enzyme Inhibitory Activities of *Stachys semsurensis* Fırat

SNL-P15 **Rahmancan Yurduseven**, Lokman Hekim University, Turkey
Multi-Targeted Anti-Gout Potential of *Salvia rosmarinus* Spenn. and *Salvia fruticosa* Mill.: Integrating XO/LOX Inhibition with Histopathological, Molecular Genetic, and Inflammatory Parameter Assessments in Experimental Rat Model of Gout

SNL-P16 **Deniz Arca Çakir**, Hacettepe University, Turkey
Chlorogenic Acid Attenuates Inflammation and Oxidative Stress in a Keratinocyte Psoriasis Model

SNL-P17 **Patrícia Marina Medeiros Nogueira**, CBIOS, Universidade Lusófona, Portugal
Valorization of *Ficus carica* L. Leaves and Stems: Phenolic Content, Antioxidant and Antimicrobial Activities

SNL-P18 **Tatiana Calalb**, Nicolae Testemitanu State University of Medicine and Pharmacy, Republic of Moldova
Qualitative Phytochemical Profiling of Optimized Polyphenol-Rich Extract from *Aronia melanocarpa* Pomace

SNL-P19 **Cornelia Fursenco**, Nicolae Testemitanu State University of Medicine and Pharmacy, Republic of Moldova
Sustainable Valorization of *Solidago canadensis* from the Republic of Moldova

SNL-P20 **Maria Ignat**, Alexandru Ioan Cuza University, Romania
Lignocellulosic Agricultural Waste Biomass-Derived Activated Carbon: Synthesis and Characterization

SNL-P21 **Anna Josefová**, Institute of Microbiology of the CAS, Czech Republic
Design and Synthesis of C6-Modified Glucopyranosides as Potential Substrates for Rutinosidase Transglycosylation

SNL-P22 **Jitka Brouzdová**, Institute of Microbiology of the CAS, Czech Republic
Expanding the Glycone Specificity of Fungal Glycosidases: Inorganic Azide Glycosylation

SNL-P23 **Opeyemi Joshua Olatunji**, Mohammed VI Polytechnic University (UM6P), Morocco
***Arbutus unedo* Extract-loaded Electrospun Patches for Diabetic Wound Management**

SNL-P24 **Ricardo Ramos Sanchez**, University of Osijek, Croatia
Effects of Dietary Fiber and Fiber-containing Food on Reactive Carbonyl Scavenging by Phenolic Compounds after *In-vitro* Gastric Digestion of *Aronia melanocarpa*

SNL-P25 **Patrícia Marina Medeiros Nogueira & Luís Pedro Segundo Salvador**, CBIOS, Universidade Lusófona, Portugal
Green Propolis: A Natural Source of Bioactive Compounds

SNL-P26 **Paula C. Castilho**, CQM, University of Madeira, Portugal
Growing Fungi on Brewer's Spent Grain: A Multipurpose Approach

SNL-P27 **Asena Tüylüoğlu Çelik**, Marmara University, Turkey
Synthesis and DAAO Inhibitory Activities of Substituted Metallophthalocyanines

SNL-P28 **Asena Tüylüoğlu Çelik**, Marmara University, Turkey
Dinuclear Ball-Type Phthalocyanines and Carbon-Based Electrodes for Energy Conversion and Storage

SNL-P29 **Irem Topal**, Marmara University, Turkey
Preparation of Novel Polymers via Thiol-Methacrylate Michael Addition Reactions

SNL-P30 **Ieva Zibarte**, Riga Stradins University, Latvia
Screening of Bioactive Polyphenolic Compounds in Japanese Quince Leaves and Twigs by Chromatographic Methods and their Potential Pharmaceutical Applications

08:20-08:30 Opening Message

Keynote Session

Chair: Vladimir Kren, Institute of Microbiology of the CAS, Czech Republic
Co-chair: Daniele Passarella, University of Milan, Italy

08:30-09:00 **Anna Rita Bilia**, University of Florence, Italy
Sustainable Plant Extraction and Formulation: Bridging Regulation and Innovation

09:00-09:30 **Douglas Siqueira Chaves**, Federal Rural University of Rio de Janeiro, Brazil
Veterinary Pharmacognosy in the One Health Framework: Exploring Essential Oils for Companion Animal Care

09:30-10:00 **Juha-Pekka Salminen**, University of Turku, Finland
Novel Tannin Tools Enhance our Understanding of the Previously Invisible Forces of Nature

10:00-10:20 Break

10:20-10:50 **Alessandra Napolitano**, University of Naples Federico II, Italy
Antibacterial Activity and Cellular Redox Protection of Lignin-Loaded PLA-based Electrospun Fibers

10:50-11:20 **Daniel dos Santos**, Universidade Lusófona, Portugal
From Nature to Computation: Integrating Natural Products Chemistry with *In Silico* Drug Discovery and Design

Special Session: Sustainability Processes - Biocatalysis and Biotransformation

Chair: Douglas Siqueira Chaves, Federal Rural University of Rio de Janeiro, Brazil
Co-chair: Patricia Rijo, CBIOS, Universidade Lusófona, Portugal

11:20-11:40 **Vladimir Kren**, Institute of Microbiology of the CAS, Czech Republic **(Invited Talk)**
Engineering Fungal Rutinosidases for Sustainable Glycoside Synthesis

11:40-12:00 **Kristýna Slámová**, Institute of Microbiology of the CAS, Czech Republic **(Invited Talk)**
Enzymatic Remodeling of Chitooligomers Applicable in Crop Protection

12:00-12:20 **Daniel Ohde**, Hamburg University of Technology, Germany
Versatile Application of Stimuli-Responsive Hydrogels in Bioreactors

12:20-12:40 **Amol Dilip Pagar**, University College London, UK
Mechanochemical Deracemization of Chiral Amines Using Whole-Cell MAO-N

12:40-13:40 Lunch

Session III: Herbal Medicinal Products and Quality Control

Chair: Ilkay Erdogan Orhan, Lokman Hekim University, Turkey
Co-chair: Nazim Şekeroğlu, Gaziantep University, Turkey

13:40-14:00 **Florian Ploberger**, University of Vienna, Austria **(Invited Talk)**
Materia Medica of Sowa Rigpa - A Pharmacopoeia for Bad-kan Disorders

14:00-14:20 **Vera M. S. Isca**, CBIOS, Universidade Lusófona, Portugal **(Invited Talk)**
Bioactive Potential of Centauri® Honey: Antimicrobial, Antioxidant, and Anti-Inflammatory Properties

14:20-14:40 **Sakan Warinhomhoun**, Rangsit University, Thailand
Formulation of a Nanoemulgel Loaded *Justicia gendarussa* Extract

14:40-15:00 **Anthony Barreau**, Aix-Marseille University, France
Spice Identification by Chemometric Treatment of Near-Infrared Spectra

15:00-15:20 **Norazlan Mohmad Misnan**, National University of Malaysia, Malaysia
Phytochemical Variation and Anti-SARS-CoV-2 Activity of *Eurycoma longifolia* Across Different Growing Environments in Malaysia

15:20-15:40		**Break**

Session IV: Biodiversity, Isolation, and Characterization of Natural Products

Chair: Paula C. Castilho, CQM, University of Madeira, Portugal
Co-chair: Anna Nowak, Pomeranian Medical University in Szczecin, Poland

15:40-16:00	**Nazim Şekeroğlu**, Gaziantep University, Turkey **(Invited Talk)** **Innovative Wild-Harvesting Strategies and Field Cultivation Approaches to Enhance Yield and Bioactive Quality of Medicinal and Aromatic Plants**
16:00-16:20	**Laura Jūrienė**, Kaunas University of Technology, Lithuania **Comprehensive Chemical Characterization of *Alaria esculenta* and Comparative Recovery of Lipophilic Compounds**
16:20-16:40	**Thong Cao-Ly-Tan**, University of Medicine and Pharmacy at Ho Chi Minh City, Vietnam **An Integrated HPLC-MS/MS Metabolomics-Docking Strategy Reveals Anti-Inflammatory Phytoconstituents in *Lactuca indica***
16:40-17:00	**Hélène Paris**, Aix-Marseille University, France **Chemical Variability of *Thymus vulgaris* L. as Climate Change Indicator**
17:00-17:20	**Awards and Closing Remarks**

08:50-09:00 **Opening Remarks**

Session I: Sustainable Cultivation, Biodiversity & Valorization of Natural Resources

Chair: Anna Muzykiewicz-Szymańska, Pomeranian Medical University in Szczecin, Poland

09:00-09:30 **Olaf Kelber**, Phytomedicines Supply and Development Center, Bayer Consumer Health, Steigerwald Arzneimittelwerk GmbH, Germany **(Keynote Talk)**
Cultivation of Medicinal Plants Leads to Higher Biodiversity

09:30-10:00 **Azzurra Stefanucci**, University of Chieti-Pescara, Italy **(Keynote Talk)**
The Potential of Waste Recovery in Sustainable Habit: Grape Pomace, Tomato Peels and Other Stories

10:00-10:20 **Kylie O'Brien**, Torrens University, Australia **(Invited Talk)**
Hemp and Sustainability - Why Hemp Makes So Much Sense for Health

10:20-10:40 **Dina Costa Simes**, Centre of Marine Sciences, University of Algarve, Portugal
Rethinking Invasive Seaweed Biomass: From Environmental Challenge to Bioactive Resource

10:40-11:00 **Cathrina Geldard**, Southern Cross University, Australia
Steeped in Complexity: Polyphenol-Rich Herbal Teas Target Polymicrobial Urinary Tract Infection Biofilms

11:00-11:15 **Break**

Session II: Bioactive Compounds, Functional Foods & Health-Promoting Applications

Chair: Olaf Kelber, Phytomedicines Supply and Development Center, Bayer Consumer Health, Steigerwald Arzneimittelwerk GmbH, Germany

11:15-11:35 **Emily Siu Mei Choi**, Technological and Higher Education Institute of Hong Kong, Hong Kong
Sustainable Utilization of Food By-products and Chinese Medicine Residues: Exploring their Prebiotic Potential

11:35-11:55 **Ravi Kiran Suripeddi**, R.B.V.R.R. Women's College, Hyderabad, India
Exploring Anti-Diabetic and Wound Healing Potential of Bioactives from *Terminalia chebula* (Retz.) Supported by ADMET Studies

11:55-12:15 **Mohammad Kordkatouli**, Islamic Azad University, Iran **(Invited Talk)**
LC-MS/MS Identifies Catharanthine in *Vinca herbacea*: First Global Report for Genus *Vinca*

12:15-12:35 **Dwi Hartanti**, Muhammadiyah University of Purwokerto, Indonesia
Spray-Dried Polyherbal Powders with Inulin or Arabic Gum Lower Blood Glucose Levels

12:35-12:55 **Maciej Kowalski**, Medical University of Lodz, Poland
Smart Wound Dressings: Anthocyanins for Novel Therapy and Visual Diagnostics Advances

12:55-13:25 **Lunch**

Session III: Green Extraction, Biotransformation & Sustainable Processing of Natural Products

Chair: Ravi Kiran Suripeddi, R.B.V.R.R. Women's College, Hyderabad, India

13:25-13:45 **Anna Muzykiewicz-Szymańska**, Pomeranian Medical University in Szczecin, Poland
Sustainable Optimization of Extraction and Fermentation Processes for *Sanguisorba officinalis* L. Herb

13:45-14:05 **Barbara Hanna Roman**, Pomeranian Medical University in Szczecin, Poland
Natural Deep Eutectic Solvents as an Alternative to Conventional Methods for Extracting Active Compounds from *Galium aparine* L.

14:05-14:25 **Tuba Serbetci**, Cukurova University, Turkey
Evaluation of Total Phenolic and Flavonoid Contents and Biological Activities of Peel Extracts from Selected Citrus Species Cultivated in Adana, Türkiye

14:25-14:45 **Mounia Merabet-Khelassi**, Badji Mokhtar Annaba-University, Algeria
Biocatalytic Amidation of Selected Carboxylic Acids and *In Silico* Evaluation of their Anti-Inflammatory Activity

Flash Talks

14:45-14:50	**Mounia Merabet-Khelassi**, Badji Mokhtar Annaba-University, Algeria **Enantioselective Synthesis of Four Itaconic Anhydride Derivatives: DFT Calculations and Molecular Docking Investigations**
14:50-14:55	**Karina N. Veiga**, CBIOS, Universidade Lusófona, Portugal **Medicinal Plants in Oral Health: Antimicrobial Properties and Prosthodontic Relevance**
14:55-15:00	**Flavia Maria Soares Godinho**, HC Lagos, Brazil **Bioregulatory Therapy in the Integrative Management of Lipedema: A Case Report**
15:00-15:05	**Marcelo Romeiro Alves Moreira**, Hermínio Ometto Foundation University Center, Brazil ***Plantago major* Biofunctionalization of Titanium: Cytocompatibility and Mineralization**
15:05	**Closing Remarks and End of the Conference**

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