

Conference Book



20th International Congress of the International Society for Ethnopharmacology

Virtual Congress

18-20 APRIL 2021

www.ethnopharmacology2021.org



Local Organiser



ARISTOTLE UNIVERSITY OF
THESSALONIKI
FACULTY OF HEALTH SCIENCES
School of Pharmacy

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Hellenic
Ethnopharmacology
Society



HELLENIC REPUBLIC
National and Kapodistrian
University of Athens



UNIVERSITY OF PATRAS, DEPARTMENT OF PHARMACY

Under the Auspices



HELLENIC REPUBLIC
MINISTRY OF INTERIOR
(MACEDONIA-THRACE)





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of the International Society for
Ethnopharmacology

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WELCOME LETTER

Dear friends and colleagues,

On behalf of the International Society for Ethnopharmacology (ISE) it is a special privilege and a pleasure to welcome you to the 20th International Congress of the International Society for Ethnopharmacology (ISE), which will be held from April 18th – 20th, 2021 on a Virtual Congress Platform.

Greece, that was to host the physical Congress, is one of the most influential cultures in European and Mediterranean area. Through the emblematic figures of Hippocrates, Dioscorides and later on, with the Byzantine physicians, Greece has deeply influenced the European Traditional Medicine and has left a legacy which is traced down today in modern Pharmacopoeias. A common feature of this rich heritage of traditional medicine, which covers three millennia, is the wealth of the Greek Flora, endowed with more than 6500 plant species and still under exploration.

ISE International Virtual Congress 2021 brings together renowned scientists from all over the world and we hope you will enjoy your active participation in this exciting event. The congress aims to increase our knowledge on traditional medicinal products the influence of herbal medicinal products in the Pharmacopoeias and the role of natural products in drug discovery, nutrition and applied chemistry. The scientific program of the main conference includes plenary lectures and invited short lectures, contributed short lectures and posters.

On behalf of the Universities of Thessaloniki, Athens and Patras and the Hellenic Society of Ethnopharmacology,

We welcome you to the ISE 2021 International Virtual Congress and wish you a fruitful meeting!



Karioti Anastasia

Assistant Professor
Department of Pharmacognosy-Pharmacology
Aristotle University of Thessaloniki, Greece



Lazari Diamanto

Associate Professor
Department of Pharmacognosy-Pharmacology
Aristotle University of Thessaloniki, Greece



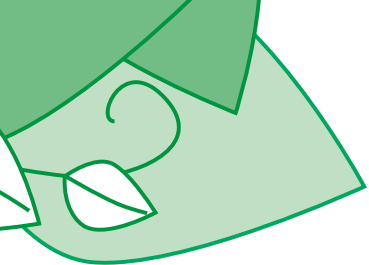


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Chairman of ISE 2019

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Pulok K. Mukherjee

Jadavpur University, India

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SCIENTIFIC COMMITTEE

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National and Kapodistrian University of Athens

Caroline Weckerle

University of Zurich, Switzerland

Zhao Zhongzhen

Hong Kong Baptist University, China



KEYNOTE SPEAKERS

Prof. **Anna Rita Bilia**, University of Florence, Italy

Prof. **Alessandra Braca**, University of Pisa, Italy of America

Assoc. Prof. **Angela Calderon**, Auburn University, United States

Assist. Prof. **Ilias Giannenas**, Aristotle University of Thessaloniki, Greece

Prof. **Chris Hogstrand**, King's College London, United Kingdom

Dr. **Eleni Maloupa**, Hellenic Agricultural Organization – Demeter-ELGO, Greece

Prof. **Helen Skaltsa**, National and Kapodistrian University of Athens, Greece

Prof. **Hermann Stuppner**, University of Innsbruck, Austria

Prof. **Alvaro Viljoen**, Tshwane University of Technology, Pretoria, South Africa

Prof. **Merlin Willcox**, University of Southampton, United Kingdom

Prof. **Günter Vollmer**, Technische Universität Dresden, Germany



INVITED SPEAKERS

Assoc. Prof. **Nektarios Aligiannis**, National and Kapodistrian University of Athens, Greece

Prof. **Rudolf Bauer**, University of Graz, Switzerland

Prof. **Mariangela Caroprese**, University of Foggia, Italy

Prof. **Ioanna Chinou**, National and Kapodistrian University of Athens, Greece

Prof. **Raymond Coopaer**, The Hong Kong Polytechnic University

Prof. **Javier Echeverría**, University of Santiago, Chile

Prof. **J.N. (Kobus) Eloff**, University of Pretoria, South Africa

Prof. **Dimitris Fatouros**, Aristotle University of Thessaloniki, Greece

Prof. **Emerson Ferreira Queiroz**, University of Geneva, Switzerland

Dr. **Bertrand Graz**, University of Geneva and Antenna Foundation, Switzerland

Prof. **Namrita Lall**, University of Pretoria, South Africa

Assoc. Prof. **Marco Leonti**, University of Cagliari, Italy

Dr. **Chia-Hsin Lin**, China Medical University

Prof. **Pulok K. Mukherjee**, Jadavpur University, Kolkata, India

Prof. **Stergios Pirintsos**, University of Crete, Greece

Prof. **Hung – Rong Yen**, China Medical University





THEMATIC TOPICS

- > Application of hyphenated techniques in quality assurance of ethnopharmacological sources
- > Aromatic and medicinal plants in animal health: ethnopharmacological approach
- > Aromatic and medicinal plants of the Mediterranean basin as food and dietary supplements
- > Conservation and sustainable use of herbal resources
- > Ethnobotanical approach to drug discovery: Theory, methodology and limitations
- > Formulation of Natural products and medicinal plants: from traditional to modern phytotherapeutics
- > Greek ethnopharmacology
- > Pharmacological and clinical studies of medicinal plants & natural products
- > Traditional use of plants and herbal pharmacopoeias: the contribution of the Mediterranean flora



ARTION CONFERENCES & EVENTS

Official Congress Organiser – Ethnopharmacology 2021

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IT Coordinator: George Kanakaris



SHORT PROGRAM

Agenda time zone: East European Summer Time

Sunday 18 April

10:00-11:00 Opening of the Congress and Welcome Ceremony	
11:00-11:45 Plenary lecture	
11:45-12:15 Break	
12:15-13:50 Plenary lectures: Pharmacological and clinical studies of medicinal plants & natural products	
13:50-14:30 Lunch	
14:30-15:30 Poster session 1	
15:30-18:30 Parallel Sessions	
Breakout 1	Breakout 2
15:30-16:45 ISE-GA African workshop	15:30-16:45 Greek Ethnopharmacology
16:45-17:15 Break	16:45-17:15 Break
17:15-19:00 ISE-GA African workshop	17:15-18:30 Greek Ethnopharmacology

Monday 19 April 2021

10:00-12:00 Plenary lectures - Short lectures: Applications of Hyphenated Techniques in quality assurance of ethnopharmacological sources.	
12:00-12:30 Break	
12:30-14:00 Plenary lectures - Short lectures: Pharmacological and clinical studies of medicinal plants & natural products	
14:00-15:00 Virtual Guided Thessaloniki Tour	
15:00-16:00 Poster session 2	
16:00-18:45 Parallel Sessions	
Breakout 1	Breakout 2
16:00-18:00 Aromatic and medicinal plants in animal health: ethnopharmacological approach	16:00-16:45 Conservation and sustainable use of herbal resources



16:45 - 17:45	Formulation of natural products and medicinal plants: from traditional to modern phytotherapeutics
17:45-18:00	Break
18:00-18:45	Ethnobotanical approach to drug discovery

Tuesday 20 April 2021

10:00-11:30 Parallel Sessions	
Breakout 1	Breakout 2
10:00-11:30 Ethnobotanical approach to drug discovery	09:30-10:30 Traditional use of plants and herbal pharmacopoeias
	10:30-11:30 Pharmacological and clinical studies of medicinal plants & natural products
11:30-12:00 Break	
12:00-13:00 Journal of Ethnopharmacology Workshop	
13:00-14:00 Lunch	
14:00-15:00 Poster session 3	
15:00-17:00 Aromatic and medicinal plants of the Mediterranean basin as food and dietary supplements	
17:00-18:00 Closing Ceremony	



DETAILED PROGRAM

Agenda time zone: East European Summer Time

Sunday 18 April

10:00 - 11:00 **Opening of the Congress and Welcome Ceremony**

11:00 - 11:45 **Plenary lecture**

From Hippocrates to the modern Phytotherapy.

Prof. H. Skaltsa

National & Kapodistrian University of Athens, School of Pharmacy, Department of Pharmacognosy & Chemistry of Natural Products, Greece

11:45 - 12:15 **Break**

12:15 - 13:50 **Plenary lectures: Pharmacological and clinical studies of medicinal plants & natural products**

Moderator: Prof. Rudolf Bauer

Designing clinical trials of herbal medicines as alternatives to antimicrobials.

M. Willcox, C. Simpson, M. Logue, XY. Hu, A. Flower, B. Stuart, P. Little, M. Moore

University of Southampton, United Kingdom

Study of the mechanism of antitubercular and antiplasmodial activities of plants and natural products using mass spectrometry-based assays.

Assoc. Prof. A.I. Calderón

Department of Drug Discovery and Development, Harrison School of Pharmacy, Auburn University, AL, USA

Traditional Chinese Medicine for Cancer Patients in Taiwan.

Prof. H.-R. Yen

*School of Chinese Medicine, College of Chinese Medicine, China Medical University, Taichung, Taiwan
Chinese Medicine Research Center, China Medical University, Taichung, Taiwan
Department of Chinese Medicine, China Medical University Hospital, Taichung, Taiwan*

Ethnopharmacological investigations of Vietnamese medicinal plants used for the treatment of inflammation and cancer.

H. Thi Tran, T. Thanh Nguyen, N. Kretschmer, E.-M. Pferschy-Wenzig, R. Bauer

Institute of Pharmaceutical Sciences, Department of Pharmacognosy, University of Graz, Austria

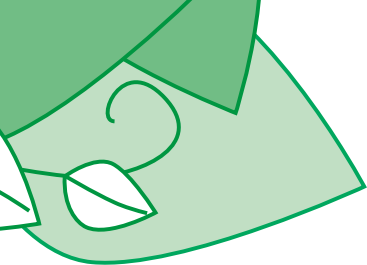
13:50 - 14:30 **Lunch**

<p>14:30 Poster session 1</p> <p>15:30 Aromatic and medicinal plants of the Mediterranean basin as food and dietary supplements.</p> <p>Ethnobotanical approach to drug discovery: Theory, methodology and limitations</p> <p>Greek ethnopharmacology.</p> <p>Traditional use of plants and herbal pharmacopoeias: the contribution of the Mediterranean flora.</p> <p>Pharmacological and clinical studies of medicinal plants & natural products.</p>	
<p>15:30 Parallel Sessions</p>	
<p>15:30 ISE-GA African workshop</p> <p>19:00 Moderator: Dr. Cica Vissienon, African Research Network (on medicinal plants and natural product research) – Mission, Opportunities, Registration</p>	<p>15:30 Greek Ethnopharmacology</p> <p>18:30 Moderator: Prof. Helen Skaltsa</p>
<p>Reverse pharmacology and traditional medicine</p> <p>Dr. B. Graz</p> <p><i>University of Geneva and Antenna Foundation, Switzerland</i></p>	<p>Expanding the scope of Greek Ethnopharmacology - eurasian medicinal plants on the Mediterranean.</p> <p>A. Touwaide¹, E. Appetiti²</p> <p>¹ Division of Humanities, UCLA, Los Angeles, USA</p> <p>² Institute for the Preservation of Medical Traditions, Washington, DC, USA</p>
<p>Multidirectional pharmacotoxicological investigations on <i>Harpagophytum procumbens</i> DC. ex Meisn.: focus on water extract activity.</p> <p>G. Orlando</p> <p><i>Department of Pharmacy, University "G. d'Annunzio" of Chieti-Pescara, Italy</i></p>	<p>Herbal remedies in an Alexandrian manuscript of late antiquity.</p> <p>M. Marselos</p> <p><i>Department of Pharmacology, Medical Faculty, School of Health Sciences, University of Ioannina, Greece</i></p>
<p>The antifibrotic potential and pharmacokinetic assessment of <i>Euclea natalensis</i> A.DC. as a hepatoprotective agent.</p> <p>A.M. Reid, N. Lall</p> <p><i>Plant and Soil Sciences, University of Pretoria, South Africa</i></p>	<p>Galen's formulas in his book on antidotes.</p> <p>C. Grivas¹, E. Appetiti², A. Touwaide³</p> <p>¹ Akadimia of Ancient Greek and Traditional Chinese Medicine, Athens, Greece</p> <p>² Institute for the Preservation of Medical Traditions, Washington, DC, USA</p> <p>³ Division of Humanities, UCLA, Los Angeles, USA</p>



<p>The holistic anti-ageing potential of <i>Persicaria senegalensis</i> (Meisn.) Soják ethanolic and fermented extracts.</p> <p>B. D. Payne¹, C.-H. Lin², N. Lall^{1,2}</p> <p>¹ Medicinal Plant Science, Department of Plant and Soil Sciences, University of Pretoria, South Africa</p> <p>² School of Natural Resources, University of Missouri, Columbia, USA</p>	
<p>16:45 - 17:15 Break</p> <p>Innovative strategies for the efficient isolation of natural products and discovery of potential new leads.</p> <p>E.F. Queiroz, J.L. Wolfender</p> <p><i>Institut des Sciences Pharmaceutiques de Suisse Occidentale (ISPSO), Section des Sciences Pharmaceutiques, Université de Genève, Switzerland</i></p>	<p>16:45 - 17:15 Break</p> <p>Exploration of Traditional Herbal Knowledge in the South Balkan and East Mediterranean region for the discovery of bioactive natural products.</p> <p>N. Aligiannis</p> <p><i>Department of Pharmacognosy and Natural Products Chemistry, Faculty of Pharmacy, National and Kapodistrian University of Athens, Greece</i></p>
<p>Anthelmintic screening of five <i>Palmatilobae</i> species used in Traditional Medicine in Katanga Province (DR Congo).</p> <p>M.G. Nzuzi^{1,2,3}, N.W. Muyumba^{2,4}, M.L. Gauthier², S.K. Panda⁵, W. Luyten⁵, A. Nachtergaele², S. Vandepuut³, S.A. Bakari⁶, E.V. Okombe¹, P. Duez²</p> <p>¹ Faculty of Veterinary Medicine, Unit of Pharmacology and Therapeutic, University of Lubumbashi (UNILU), DR Congo</p> <p>² Unit of Therapeutic Chemistry and Pharmacognosy, University of Mons (UMONS), Belgium</p> <p>³ Bibliothèque des Sciences de la vie, University of Liège (ULiège), Belgium</p> <p>⁴ Department of Chemistry-physics, High college training teachers of Lubumbashi, DR Congo</p> <p>⁵ Animal Physiology and Neurobiology Section, Department of Biology, KU Leuven, Belgium</p> <p>⁶ Laboratory of Pharmacognosy, Faculty of Pharmacy, University of Lubumbashi (UNILU), DR Congo</p>	<p><i>Origanum dictamnus</i>: phytochemical analyzes and relaxing effect on rabbit intestine.</p> <p>C. Paloukopoulou¹, S. Govari¹, A. Soulioti¹, G. Tasi¹, T. Psarra², M. Koutsoviti-Papadopoulou², A. Karioti¹</p> <p>¹ School of Pharmacy, Aristotle University of Thessaloniki, Greece</p> <p>² School of Veterinary Medicine, Aristotle University of Thessaloniki, Greece</p>

<p>Bio-guided fractionation and in vitro anti-inflammatory potential of <i>Entada Africana</i> from Benin used in the management of pain related-conditions.</p> <p>M. Codo-Toafode^{1,4}, V. Spiegler², C. Vissiennon^{3,6}, V. Ahyi¹, A. Hensel², K. Fester^{4,5}</p> <p>¹ University of IRGIB Africa, Inter-Regional University of Industrial Engineering, Biotechnologies and Applied Sciences, Cotonou, Benin</p> <p>² University of Münster, Institute for Pharmaceutical Biology and Phytochemistry (IPBP), Germany</p> <p>³ University of Leipzig, Institute for Medical Physics and Biophysics, Germany</p> <p>⁴ University of Leipzig, Institute of Pharmacy, Germany</p> <p>⁵ University of Applied Sciences Zittau/Görlitz, Faculty of Natural and Environmental Sciences, Germany</p> <p>⁶ REPHA GmbH Biologische Arzneimittel, Langenhagen, Germany</p>	<p>In the course of thyme: the use of <i>Thymus</i> spp. in European traditional medicine & the example of <i>Thymus thracicus</i>.</p> <p>T.K. Papagrighoriou¹, O.St. Tsiftoglou¹, D.I. Hajipavlou-Litina², D.M. Lazari¹</p> <p>¹ Aristotle University of Thessaloniki, Faculty of Health Sciences, School of Pharmacy, Laboratory of Pharmacognosy, Greece</p> <p>² Aristotle University of Thessaloniki, Faculty of Health Sciences, School of Pharmacy, Department of Pharmaceutical Chemistry, Greece</p>
<p>A natural choice for antimicrobial protection using an indigenous South African plant for acne vulgaris.</p> <p>I.A. Lambrechts, N. Lall</p> <p><i>Plant and Soil Sciences, University of Pretoria, South Africa</i></p>	<p>Discovering herbal teas/mountain teas in Kozani-Western Macedonia-Greece, an ethnopharmacological journey.</p> <p>E. Lampretsa</p> <p><i>Earth's Pharmacy, Kozani, Greece</i></p>
<p>The Regulatory aspects and challenges for commercialisation of the natural Products.</p> <p>Prof. N. Lall</p> <p><i>Plant and Soil Sciences, University of Pretoria, South Africa</i></p>	<p>Ethnopharmacological study of the medicinal plants used in the folk medicine in Drama, Northern Greece.</p> <p>S. Tsiotsiou-Papaemmanouil¹, D. Lazari¹, D. Hadjipavlou-Litina², T. Dardavesis³</p> <p>¹ Laboratory of Pharmacognosy, School of Pharmacy, Faculty of Health Sciences, Aristotle University of Thessaloniki, Greece</p> <p>² Laboratory of Pharmaceutical Chemistry, School of Pharmacy, Faculty of Health Sciences, Aristotle University of Thessaloniki, Greece</p> <p>³ Laboratory of Hygiene, Medical School, Faculty of Health Sciences, Aristotle University of Thessaloniki, Greece</p>



Monday 19 April 2021

10:00 - 12:00 **Plenary lectures - Short lectures: Applications of Hyphenated Techniques in quality assurance of ethnopharmacological sources.**

Moderator: Assist. Prof. Maria Halabalaki

Modern analytical approaches for Natural Products Analysis.

Prof. H. Stuppner

University of Innsbruck, Austria

The application of classic and modern pharmacognosy in the study of African traditional medicines.

A.M. Viljoen, S. Combrinck, I. Vermaak, M. Sandasi

Department of Pharmaceutical Sciences and SAMRC Herbal Drugs Research Unit, Faculty of Science, Tshwane University of Technology, Pretoria, South Africa

TCM needs TQM: New applications using NMR for standardizing botanical mixtures.

Prof. R. Cooper

The Hong Kong Polytechnic University, Hong Kong SAR China

Qualitative and quantitative characterization of chemical profiles in three different parts of *Poria cocos*.

L. Zhu, J. Xu, X. Dong, Z. Zhao

School of Chinese Medicine, Hong Kong Baptist University, Kowloon, Hong Kong Special Administrative Region, China

PEGASUS: An analytical chemometrics platform for the discovery of bioactive natural compounds.

A. Cheilari¹, A. Vontzalidou¹, VI. Boka¹, D. Benaki², N. Aligiannis¹

¹ *Department of Pharmacognosy and Natural Products Chemistry, Faculty of Pharmacy, National and Kapodistrian University of Athens, Greece*

² *Department of Pharmaceutical Chemistry, Faculty of Pharmacy, National and Kapodistrian University of Athens, Greece*

12:00 - 12:30 **Break**

12:30 - 14:00 **Plenary lectures - Short lectures: Pharmacological and clinical studies of medicinal plants & natural products**

Moderator: Prof. Günter Vollmer

Functional consequences of stimulation of multiple biological targets by botanical extracts and their bioactive compounds – hops as an example.

Prof. G. Vollmer

Faculty of Biology, Technische Universität Dresden, Germany

Risk assessment of chemicals that occur as mixtures: additivity and interactions.

Prof. C. Hogstrand

King's College London, School of Life Course Sciences, London, UK

***Artocarpus tonkinensis*, a remedy from Vietnamese ethnopharmacology, protects mice against collagen-induced arthritis and decreases Th17 cell function.**

S. Adoriso¹, I. Muscari², T.T. Thuy³, D.V. Delfino^{1,2}

¹ Foligno Nursing School, Italy

² Section of Pharmacology, Department of Medicine, University of Perugia, Italy

³ Institute of Chemistry, Vietnam Academy of Science and Technology, Hanoi, Vietnam

Investigation on role of Indigenous medicinal herb of North East India for the management of dysregulated glutathione biosynthesis associated with metabolic syndrome.

B. Deka^{1,2}, P. Manna¹, J.C Borah¹, N.C Talukdar^{1,2}

¹ Biochemistry and Drug Discovery Lab, Institute of Advanced Study in Science and Technology (IASST) PaschimBoragaon, Guwahati-35, India

² Cotton University, Panbazar, Guwahati-01, India

14:00 15:00	Virtual Guided Thessaloniki Tour	
15:00 16:00	Poster session 2	
16:00	Application of hyphenated techniques in quality assurance of ethnopharmacological sources.	
	Aromatic and medicinal plants in animal health: ethnopharmacological approach.	
	Conservation and sustainable use of herbal resources.	
	Formulation of Natural products and medicinal plants: from traditional to modern phytotherapeutics.	
	Miscellaneous.	
	Pharmacological and clinical studies of medicinal plants & natural products.	
16:00 18:45	Parallel Sessions	
16:00 18:00	Aromatic and medicinal plants in animal health: ethnopharmacological approach Moderator: Assist. Prof. Ilias Giannenas	16:00 16:45 Conservation and sustainable use of herbal resources Moderator: Assoc. Prof. Diamanto Lazari
	Challenges and success in using plants to control internal parasites in animals Prof. Dr. J. N. Eloff <i>University of Pretoria, South Africa</i>	Safeguarding threatened species and promoting the use of plant resources in research and development. Dr. E. Maloupa <i>Hellenic Agricultural Organization-DEMETER, Institute of Plant Breeding and Genetic Resources, Laboratory of Protection and Evaluation of Native and Floricultural Species, Thessaloniki, Greece.</i>



<p>How can we manage dairy animal health and welfare?</p> <p>Prof. M. Caroprese <i>University of Foggia, Italy</i></p>	<p>Understanding local knowledge as integral factor in designing strategies for sustainably conserving and using herbal resources.</p> <p>Y.M. Scherrer¹, M. Heinrich² <i>¹ Sustainability Research Group, University of Basel, Switzerland</i> <i>² Research Group 'Pharmacognosy and Phytotherapy', UCL School of Pharmacy, London, UK</i></p>
<p>The use of aromatic plants, extracts and essential oils as feed additives in animal nutrition.</p> <p>Assist. Prof. I. Giannenas <i>EBVS® European Specialist in Poultry Veterinary Science</i> <i>Laboratory of Nutrition, Faculty of Veterinary Medicine, School of Health Sciences, Aristotle University of Thessaloniki, Greece</i></p>	<p>16:45 - 17:45</p> <p>Formulation of natural products and medicinal plants: from traditional to modern phytotherapeutics</p> <p>Moderator: Assoc. Prof. Diamanto Lazari</p>
<p>Current status of ethnoveterinary surveys conducted in South Africa.</p> <p>L.J. McGaw¹, I.M. Famuyide¹, E.T. Khunoana¹, A.O. Aremu² <i>¹Phytomedicine Programme, Department of Paraclinical Sciences, University of Pretoria, South Africa</i> <i>²Indigenous Knowledge Systems (IKS) Centre, Faculty of Natural and Agricultural Sciences, North West University, Mmabatho, South Africa</i></p>	<p>Evaluation of sesquiterpenes as permeation enhancers for transdermal delivery</p> <p>Prof. D. Fatouros <i>School of Pharmacy, Aristotle University of Thessaloniki, Greece</i></p>
<p>Of Elephants and Men: From animal observation to veterinary and human pharmacopeia in Laos.</p> <p>JM. Dubost <i>Museum National d'Histoire Naturelle-UMR 7206, Paris, France</i> <i>UMR 152 Pharmadev, Université de Toulouse, IRD, UPS, France</i></p>	<p>Natural products loaded in nanocarriers to cross biological barriers.</p> <p>Prof. AR. Bilia <i>Department of Chemistry "Ugo Schiff", Florence, Italy</i></p>

Effect of dietary aromatic plants and essential oils in combination with tributyrin on broiler chicken meat composition and oxidative stability.

E. Bonos¹, E. Sidiropoulou², I. Giannenas², A. Karamoutsios¹, O. Tsiftoglou³, D. Lazari³, E. Christaki², I. Skoufos¹, A. Tzora¹

¹ Department of Agriculture, School of Agriculture, University of Ioannina, Kostakioi, Arta, Greece.

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³ Laboratory of Pharmacognosy, School of Pharmacy, Faculty of Health Sciences, Aristotle University of Thessaloniki, Greece.

17:45 Break
18:00

18:00 Ethnobotanical approach to drug
18:45 discovery

Moderator: Prof. Michael Heinrich

Archaeoethnopharmacological studies in South America: back to the roots of ethnopharmacology?

Dr. J. Echeverría

*Departamento de Ciencias el Ambiente
Facultad de Química y Biología, Universidad de Santiago de Chile*

Plants used as ethnomedicine for rheumatic disorders by Williche people.

Dr. R. Saaverdra-Rodríguez

*Departamento de Ciencias Básicas,
Universidad Santo Tomás, Osorno, Chile*



Tuesday 20 April 2021

10:00 - 11:30 Parallel Sessions	
<p>10:00 - 11:30 Ethnobotanical approach to drug discovery Moderator: Assoc. Prof. Marco Leonti</p>	<p>09:30 - 10:30 Traditional use of plants and herbal pharmacopoeias Moderator: Prof. Pulok K. Mukherjee</p>
<p>Recommended standards for conducting and reporting ethnopharmacological field studies. M. Leonti <i>Department of Biomedical Sciences, University of Cagliari, Italy</i></p>	<p>Pharmacopoeias on herbal medicine in India. Prof. P.K. Mukherjee <i>Professor, Dept. of Pharmaceutical Technology, Jadavpur University, India</i></p>
<p>Traditional Chinese Medicine: A Global Exchange. E.R. Qi, E. Brand, M. Zhou, Z. Zhao <i>School of Chinese Medicine, Hong Kong Baptist University, Kowloon Tong, Hong Kong SA</i></p>	<p>Traditional Herbal Resources and Herbal Pharmacopoeia: the contribution of the Taiwanese flora Dr. Chia-Hsin Lin <i>China Medical University, Taiwan</i></p>
<p>Nagoya protocol and the need for new forms of collaboration. F. Scotti¹, M. Berger², A. Hesketh³, M. Hitziger⁴, M. Heinrich¹ ¹ UCL School of Pharmacy, London, UK ² Centro de Estudios en Salud, Universidad del Valle de Guatemala ³ Indigena Biodiversity Limited, Gerrards Cross, UK ⁴ CITES Secretariat, Palais des Nations, Genève 10, Switzerland</p>	<p>10:30 - 11:30 Pharmacological and clinical studies of medicinal plants & natural products</p> <p>Efficacy of honey-based ophthalmic formulation in patients with corneal ulcer: A randomized clinical trial. M. Nejabat, K. Soltanzadeh, M. Yasemi, S. Daneshamouz, AR Akbarizadeh, M. Heydari <i>Shiraz University of Medical Sciences, Iran</i></p>

<p>Mitigating climate change in Valmalenco (so, Italy): how can Ethnobotany contribute?</p> <p>M. Bottoni^{1,2}, C. Giuliani^{1,2}, L. Colombo^{1,2}, F. Milani^{1,2}, K. Nallio^{1,2}, P.S. Colombo^{1,2}, P. Bruschi³, G. Fico^{1,2}</p> <p>¹ Department of Pharmaceutical Sciences, University of Milan, Italy ² Ghirardi Botanic Garden, Department of Pharmaceutical Sciences, University of Milan, Toscolano Maderno, Brescia, Italy ³ Department of AgriFood Production and Environmental Sciences, University of Florence, Italy</p>	<p>Wound-healing activity of essential oils from five <i>Hypericum</i> spp. growing wild in Greece.</p> <p>M.E. Grafakou¹, A. Diamanti¹, E. Simirioti², A. Terezaki², C. Barda¹, I. Sfiniadakis³, M. Rallis², H. Skaltsa¹</p> <p>¹ Section of Pharmacognosy & Chemistry of Natural Products, Department of Pharmacy, School of Health Sciences, National & Kapodistrian University of Athens, Greece ² Laboratory of Pharmaceutical Technology, Unity of Dermatopharmacology, Department of Pharmacy, School of Health Sciences, National & Kapodistrian University of Athens, Greece ³ Laboratory of Pathology, Nautical Hospital of Athens, Greece</p>
<p>Ethnopediatric knowledge among mothers living in Southern Romania.</p> <p>M. Petran, M. Gilca</p> <p>Department of Functional Sciences 1- Biochemistry, Carol Davila University of Medicine and Pharmacy, Bucharest, Romania</p>	<p>In vitro assessment of anti-influenza activity and neuraminidase inhibition of <i>Cistus creticus</i> L. subsp. <i>eriocephalus</i> (Viv.) Greuter & Burdet grown in sea coast area of South Tuscany, Italy.</p> <p>M. Biagi¹, G. Bainsi¹, E. Miraldi¹, C. Terrosi², M.G. Cusi²</p> <p>¹ University of Siena, Department of Physical Sciences, Earth and Environment, Italy ² University of Siena, Microbiology Unit, Department of Medical Biotechnologies, Italy</p>



Antiprion effects of naturally occurring compounds.

A. Karsanidou¹, E. Kanata¹, A. Karioti², N. Bekas³, A. Sachinidis¹, A.K. Kanellis⁴, D. Dafou³, K. Xanthopoulos¹, T. Sklaviadis¹

¹ Neurodegenerative Diseases Research Group, Laboratory of Pharmacology, School of Pharmacy, Aristotle University of Thessaloniki, Greece

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**11:30
12:00 Break**

12:00 Journal of Ethnopharmacology Workshop
13:00 Mrs. Anne Pordon, Prof. Alvaro Viljoen

**13:00
14:00 Lunch**

14:00 Poster session 3
15:00 Pharmacological and clinical studies of medicinal plants & natural products.

15:00 Aromatic and medicinal plants of the Mediterranean basin as food and dietary supplements
17:00

Moderator: Assist. Prof. Anastasia Karioti

Chemical profile and nutraceutical features of some Mediterranean food plants.

Prof. A. Braca

Department of Pharmacy, University of Pisa, Italy

Evaluating Greek honey-bees' products (Honey, Propolis, Royal Jelly) through centuries, as vehicle of high value chemical and pharmacological potential.

Prof. I. Chinou

Laboratory of Pharmacognosy and Chemistry of Natural Products, Dept. of Pharmacy, National and Kapodistrian University of Athens

***Pistacia lentiscus* resin (Chios mastic gum): chemistry and biology.**

Assist. Prof. M. Halabalaki

Laboratory of Pharmacognosy and Natural Products Chemistry, Department of Pharmacy, University of Athens, Greece

A case of pharmaceutical development based on the therapeutic potential of the essential oil combination of three Cretan herbs (Cretan IAMA®).

Prof. S.A. Pirintsos

*Department of Biology, University of Crete, Greece
Botanical Garden, University of Crete, Greece*

Human gastrointestinal and colonic metabolism study of olive secoiridoids using an in vitro continuous flow dialysis system.

M.E. Sakavitsi¹, A. Breynaert², A. Angelis¹, L. Pieters², N. Hermans², S. Mitakou¹, M. Halabalaki¹

¹ *Department of Pharmacognosy and Natural Products Chemistry, Faculty of Pharmacy, University of Athens, Greece*

² *Research group Natural Products & Food Research and Analysis, Department of Pharmaceutical Sciences, University of Antwerp, Belgium*

**17:00
18:00**

Closing Ceremony

O15. Mitigating climate change in Valmalenco (so, Italy): how can Ethnobotany contribute?

M. Bottoni^{1,2}, **C. Giuliani**^{1,2}, **L. Colombo**^{1,2}, **F. Milani**^{1,2}, **K. Nallio**^{1,2}, **P.S. Colombo**^{1,2}, **P. Bruschi**³, **G. Fico**^{1,2}

¹ Department of Pharmaceutical Sciences, University of Milan, Italy

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³ Department of AgriFood Production and Environmental Sciences, University of Florence, Italy

This ethnobotanical survey is part of the Interreg Italy-Switzerland project *B-ICE* [1], which is aimed to create a new management model for the ongoing climate change and to reach new sources for the local enhancement. The work was performed in Valmalenco (SO, Italy) and aimed at investigating the traditional uses of the local plants. The retreat of the glaciers and the snowfall reduction are the main transformations in the natural landscape [2,3,4]. The territory is no longer suitable for winter tourism and this has major consequences for the local economy. Traditional ethnobotanical uses are an important part of the rich biocultural heritage locally available; promotion of this heritage could represent an alternative strategy for the economic development of the area. Attention was paid to the common and dialectal names of the plants, their survival, their past or actual use, the preparation forms, the administration methods and the therapeutic indications. In summer 2019, 300 interviews were collected and it emerged that the used species are 150. Out of the most cited ones, *Achillea moschata* Wulfen is used for digestive purposes, as analgesic, hypotensive, for gynaecological infections caused by *Candida* spp., as anti-inflammatory and ulcers healing in the lower limbs and against intestinal swelling in bovine. *Malva sylvestris* L. is used as emollient, relaxing and purifying, in case of allergies, for acne reactions and soothing baths, *Thymus pulegioides* L., as expectorant, for sore throat and cold and *Achillea millefolium* L., for menopause symptoms, footbaths, as disinfectant for wounds on bovine paws. This knowledge will define the "cultural landscape" of the territory and will allow to select symbol species, with the purpose of realizing a high-rise Botanic Garden. This place will aim to preserve the plants and the biocultural diversity and to attract a new form of tourism based on the rediscovery of ethnobotanical traditions.

[1] B-ICE (ID. 63143) Bernina Terra Glacialis. Study and enhancement of a precious natural and cultural heritage in an open Alpin region, with innovative approaches to the future. Valmalenco (SO): study and enhancement of the plant and cultural biodiversity through an ethnobotanical survey, December 2018 – December 2021.

[2] Damm A., Greuell W., Landgren O., Prettenhaler F. 2017. Impacts of +2 °C global warming on winter tourism demand in Europe. *Climate Services*, 7, 31-46.

[3] Gobiet A., Kotlarski S., Beniston M., Heinrich G., Rajczack J., Stoffel M. 2014. 21st century climate change in European Alps – A review. *Science of the Total Environment*, 493, 1138-1151.

[4] Yang J., Wan C. 2010. Progress in research on the impacts of global climate change on winter ski tourism. *Advances in Climate Change Research*, 1(2), 55-62.