

2nd Panhellenic Congress of Ethnopharmacology

From the Vikos traditional healers (Vikoyiatroi)
to modern phytotherapy

BOOK OF
ABSTRACTS

1-3
March
2024

Hotel du Lac, Ioannina

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Welcome letter



Dear colleagues and friends,

On behalf of the Hellenic Society of Ethnopharmacology, I have the pleasure to announce and to invite you to the 2nd Panhellenic Congress of Ethnopharmacology, under the title "From the Vikos traditional healers (Vikoyiatroi) to modern phytotherapy" which will be held at Hotel du Lac, 1-3 March 2024.

The Hellenic Society of Ethnopharmacology boasts a rich legacy of studying and documenting traditional treatment methods and practices, while researching and building knowledge derived from the latest scientific developments.

Perpetuating our commitment to our legacy, we now look forward to a fruitful three-day Congress of oral presentations and written announcements, including round tables on the most topical issues of interest to researchers from a variety of disciplines related to ethnopharmacology, to community pharmacists, and to all those involved in sectors directly or indirectly related to health and healthcare.

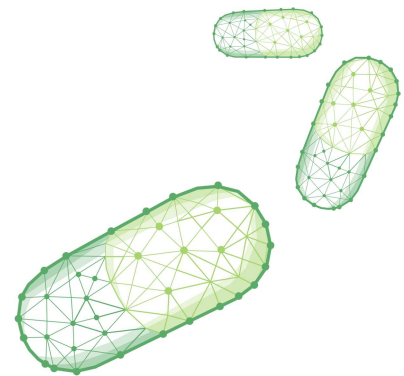
Last but not least, in the context of networking with the international research community, and in our effort to revive traditional treatment methods in the countries of South Europe, we invite you to meet our guest speakers from all over the Balkans.

See you all in Ioannina!

Nadina Merkouri

Pharmacist

President of the Hellenic Society of Ethnopharmacology



Organiser



HELLENIC SOCIETY OF ETHNOPHARMACOLOGY

The Hellenic Society of Ethnopharmacology is a non-profit scientific society. It was founded in 1995 and its members are Pharmacists, Doctors and Agronomists. Its purpose is to record, study, disseminate and develop traditional treatments and uses of plants. In order to achieve these aims and to meet the urgent need to record traditional knowledge and practices related to therapeutic methods, our Society organizes scientific conferences, lectures and seminars, develops its own research projects and participates in international societies with a similar purpose.

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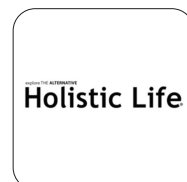
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Chemical characterization and biological evaluation of *Momordica charantia* L. and *Cistus creticus* subsp. *eriocephalus* extracts for their wound healing properties

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The extensive study of the ethnobotanical knowledge for the treatment of skin diseases in the Balkans and the Mediterranean region, along with two ethnopharmacological studies conducted in Greece, revealed the use of *Momordica charantia* L. and *Cistus creticus* subsp. *eriocephalus* for wound management. *M. charantia* fruits are traditionally used as a seed oil preparation and *C. creticus* subsp. *eriocephalus* aerial parts are topically applied fresh, as a decoction, or as a poultice. *M. charantia* fruits were separated from the oil and extracted using successively *c*-hexane (*c*-hex), ethyl acetate (EtOAc), methanol (MeOH) and methanol:water (MeOH:H₂O) 50:50. GC-MS analysis demonstrated an identical chemical composition of the remaining oil and the *c*-hex extract. The methanolic fruit extract (MP extract) after liquid-liquid extraction, was fractionated employing Fast Centrifugal Partition Chromatography (FCPC). Moreover, the species was cultivated, the fruits were lyophilized and extracted using successively EtOAc, MeOH (M extract) and MeOH:H₂O 50:50. MP and M extracts were evaluated for cell viability by the 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide (MTT) assay and for their wound healing properties by an in vitro scratch wound assay using HaCat human keratinocytes and L929 murine fibroblasts as skin cell experimental model, exhibiting a low cytotoxic effect and a significant cicatrizing activity. *C. creticus* subsp. *eriocephalus* aerial parts were extracted using successively dichloromethane (DCM), MeOH and MeOH:H₂O 50:50. The methanolic extract (CCM extract) was free from tannins through liquid-liquid extraction and fractionated by Sephadex LH-20 gel column. MP, M and CCM were evaluated for their antioxidant, anti-tyrosinase and anti-collagenase properties, as well as for the total phenolic and flavonoid content. MP, M and CCM were chemically characterized through HPTLC, HPLC-DAD & -ELSD and LC-MS. Structure elucidation of compounds was facilitated by 1D&2D-NMR experiments and revealed the presence of cucurbitane-type triterpene glycosides for MP and of phenols, flavonoids and tannin derivatives for CCM, respectively.

Examining Ancient and Modern Uses of *melissa officinalis*

M. Christodoulou

The Greek Herbalist, Athens, Greece

Mediterranean flora are a key component of Western herbal medicine. *Melissa officinalis* (lemon balm), a medicinal and culinary herb native to the Mediterranean region, is an important example of continuity of therapeutic applications from antiquity to modern day. The plant is described in Greek mythology and was written about by ancient physicians, including Dioscorides (40-90 CE) in his influential medical text, *De Materia Medica*. In antiquity, *Melissa officinalis* was relied upon for supporting the respiratory, digestive, and muscular systems, as well as for external uses, many of which are no longer considered. In modern herbal practices, the herb continues to be recommended to support the recovery and healing of these systems in addition to ailments not mentioned or known in antiquity, including as a nervine, antiviral, and febrifuge. Known as "the gladdening herb," the herb's nervine properties are applied today for anxiety, insomnia, and mild depression. As an antiviral, it is considered in the botanical treatment of Lyme disease, common throughout the United States. During sickness, lemon balm can also be used to safely lower fevers. There is little or no mention of these modern uses in ancient texts. From the perspective of a clinical herbalist, these ancient and modern herbal applications will be cross-referenced to determine to what extent early medicines compare to modern Western uses and what additional lessons are there to be gained from the plants that continue to be relied upon for healing. The examination of ancient uses of *Melissa officinalis* can demonstrate how the needs of human health have evolved, support greater understanding of its therapeutic benefits, and promote additional research for modern therapies.

Hair and sculp problems treatment in 19th and 20th century. Plant-based remedies from Serbian folk medicine

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Medicinal plants have been used in Serbia for treatment of numerous health problems since the medieval times and the oldest documents concerning this topic date back from the 14th century (The Hodocho Codex) and the 16th century (The Chilandar Medicinal Codex). The aim of this paper was to present the plant-based treatments used in Serbian folk medicine

for treatment of hair and scalp problems in the 19th and early to mid-20th centuries. The main problems in Serbia associated with hair were balding and hair loss, dandruff, head lice and nits as well as scalp crusts. We have identified 27 plant species belonging to 21 plant families that were utilized in the management of these problems. The most representative families were Asteraceae, Ranunculaceae, Caprifoliaceae, Rosaceae and Brassicaceae. Recorded plant species were mainly applied topically, directly or in form of various herbal preparations that were rubbed on the scalp skin. These preparations mainly included water in which plant was soaked or boiled, as well as juice obtained by squeezing the fresh plant parts (for *Vitis vinifera* stem and *Solanum americanum* fruit). Plants were mainly applied individually but plant combinations were also recorded.

Inorganic substances and their uses in Nikolaos Myrepsos' Dynameron. Recent applications in modern therapy

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The use of inorganic for medical purposes has been known since antiquity. The present study aims to document the information concerning the inorganic ingredients quoted in Nikolaos Myrepsos' Dynameron. This treatise was written in Greek on the late Byzantine period (13th century) and includes 2667 recipes of which 822 include inorganic substances. In total, at least 54 different inorganic ingredients such as chemical elements, mineral salts, some semi-precious and precious stones, and earths are present in the formulations, alongside with their uses. In comparison with herbal and animal products their number is considerably lower. The influence of previous medical Greek, Roman and Byzantine treatises is obvious. Moreover, remedies with inorganic substances introduced in medicine by the Arab physicians can be traced down. The most cited elements were arsenic, sulfur, and copper, followed by gold, while silver was mentioned a few times. Most encountered disorders were mainly ophthalmic and ear diseases and skin lesions. It is also important that the concentration of these inorganic substances was at sub-toxic levels for a short period avoiding both chronic and acute intoxication.

Meristemotherapy: Ethnobotany, Schola Salerni Tetrath Medicine and applied scientific research

G. Canora

UNESCO Chair Salerno, University of Salerno, Italy

We find the curative use of meristems as early as 3000 BC: in Ayurvedic Medicine, Book VII of the Atharvaveda, and in Traditional Chinese Medicine, Great Herbarium circa 2800 BC, Claudius Galen also prepared Acopton with poplar shoots. Meristemotherapy, a method for health medicine, is based on physiological rebalancing of an etiological type and is ecological. The "bud", better defined, "meristem", is the outline of a bud that represents the primordium from which leaves, branches, flowers and fruits, etc., can originate. The meristem is made up of an ancestral phytocomplex capable of regenerating and recreating the plant in a periodic and perennial way; the phytocomplex itself is composed of meristematic cells that are precursors of animal stem cells. These meristematic cells are totipotent and pluripotent, i.e. they can regenerate all parts of the plant indefinitely, allowing the plant to grow throughout its life; they are also autopoietic because the complete development of a new plant can originate from them; In botany, this biological characteristic, exclusive only to plant beings, is called infinite embryogenicity. In the 1950s, Pol Henry, a Belgian physician, Faculty of Medicine in Brussels, through studies of botany, phytosociology and phytotherapy, carried out complex research on the therapeutic use of plant embryonic tissues called "buds"; he experimented with the use of bud and bud extracts first on animals and then on humans, developing a biological and clinical method for the clinical "healing" of the patient. Our research has 2 objectives: to combine the clinical therapeutic knowledge of the meristematic phytocomplex with the knowledge of the Salerno School through the physiological rebalancing of physical parameters, hot, cold, dry and wet; we have also updated Pol Henry's method, glycerolalcoholic macerate, by adding hydrolytic and acetolytic maceration. We have reduced alcohol content from 38° to 20° also using honedew honey.

Solanaceae in Antiquity: Bioactive Coherence Assessed by Computational Methods

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Many prominent bioactive plants with similar pharmacological effects have been identified to belong to the Solanaceae
