



Thank you the International Symposium on Essential Oils (@ISEO) for hosting me this week, alongside other speakers.

I am very impressed how this association stimulates cooperation between scientists from all over the world.

There is a lot of research and development going on in the science of essential oils and their components, a very important dynamic for various sectors such as medicines, cosmetics, fragrances and flavours. Also, research on crop resilience to more difficult climatic conditions will ultimately benefit all stakeholders, from consumers to processors to farmers.

Our industry needs these relays, the sharing of knowledge and expertise, as illustrated by the growing cooperation between ISEO and other associations, such as IFEAT.

I am convinced that the associations in our sector will become stronger through further cooperation.

Our challenges are common and they are becoming more and more serious: excessive regulation - as regulatory bodies have still not accepted the complexity of nature, and nature itself with a gradual changing climate.

If there is one positive thing we can leave to future generations, it is the results of the research we are undertaking today, and that is planting the seed of knowledge. ISEO plays an essential role in this. The formidable academic diversity of your association is a precious asset, in terms of research of course, but also in terms of education, since your many university professors are in close contact with young science students, particularly in chemistry, pharmacy and biology.

There are interesting links here with new IFEAT projects concerning education "in the field", explaining industrial dynamics: these are complementary teachings to the academic curricula, and which can help to make life sciences more attractive and vibrant to young people.

Thank you, dear ISEO 2022 committee, for organising such an interesting symposium in the beautiful city of Wrocław, Poland.



Wrocław, Poland 4-7 September 2022

52nd International Symposium on Essential Oils



ISEO 52nd International Symposium on Essential Oils 2022 Wrocław, 4-7 September



Registration is Open

Wrocław, Poland 4-7 September 2022

52nd International Symposium on Essential Oils

[Register now](#)

Invitation

We cordially invite you to participate in the 52nd International Symposium on Essential Oils (ISEO 2022). This symposium series has been organized annually in Europe since 1969 (with an exception in pandemic year of 2020) in order to stimulate cooperation among scientists for the advancement of research and development into the science of essential oils and their constituents. The symposium will be held from September 4-7, 2022 in the Concordia Design in Wrocław, Poland.

This meeting will address all aspects of essential oils and related natural products ranging from breeding, cultivation, analysis, biogenesis and chemistry to biological activity and utilization.

The symposium and the supporting events, 1st Wrocław Sensory Exhibition (WroSense) and B2B industry meetings will be organized by Liquid Technologies, Wrocław University of Science and Technology, Wrocław Centre for Technology Transfer, and Eugeniusz Geppert Academy of Art and Design in Wrocław.

We look forward to meet you in Wrocław in September 2022.



Venue



We are pleased to announce that the venue of the 52nd International Symposium on Essential Oils will be Concordia Design Wrocław.

Concordia Design has a mixed-use purpose at the junction of business and culture. It is localized in a 19th-century building that has been restored keeping the façade of the existing building and adding a contemporary extension. The building is located on one of the islands on the Oder river – the Słodowa Island, about 1 km from the Wrocław market square. Słodowa Island has a complex history. In the years 1807-1810, the island was incorporated into the city. Island's infrastructure was comprised of residential buildings and two mills from the Middle Ages. During World War II, Nazi Germany installed field artillery there, which made it the object of frequent bombings. Only a few of the island's buildings survived the war. In 1975, the mills of St. Klara were blown up at the direction of the president of the city, which met with huge opposition from the community. The "old" part of the Concordia Design building is the only building that has remained on the island, and the remaining area has become a meeting place for academic youth and is also a space for various cultural activities – concerts, workshops, and performances.

Schedule

- **Sunday, Sep 04**
- **Monday, Sep 05**
- **Tuesday, Sep 06**
- **Wednesday, Sep 07**

15:00 – 17:00

Registration

16:00 – 18:00

Sensory exhibition opening Opening lecture

(Concordia Design yard)

(OL-1) Natural perfumery: an olfactive journey in time and space- public own smelling experience

Clio Vidal

WALA Heilmittel GmbH

19:00 – 21:00

Get- together party

(Concordia design, 5th floor Taras Widokowy)

8:30 – 9:30

Opening Ceremony

9:00 – 12:25

SESSION 1

Session dedicated to prof. Stanisław Lochyński to honor his 70th birthday and 45th anniversary of scientific activity

Chairs: **Czesław Wawrzeńczyk, Daniel Jan Strub**

9:30 – 10:10

Plenary lecture

(PL-1) Chemistry of fragrant woods: Agarwood and Sandalwood

Nicolas Baldovini

Côte d'Azur University, France

10:10 – 10:55

Oral presentations

(OP-1) Review of volatile marine polyhalogenated monoterpenes from Southern African red marine algae

Michael Knott

University of Namibia, Namibia

(OP-2) An essential oil component as a building block for pheromone synthesis

Anat Zada Byers

Agricultural Research Organization, Israel

(OP-3) Inducing volatile production by plant hormones in peppermint and marjoram

Eva Zamborine Nemeth

Hungarian University of Agriculture and Life Sciences, Hungary

10:55 – 11:25

Coffee Break

SESSION 1 - continued

Session dedicated to prof. Stanisław Lochyński to honor his 70th birthday and 45th anniversary of scientific activity -continued

Chairs: **Agnieszka Ludwiczuk, Györgyi Horváth**

11:25 – 12:25

Oral presentations

(OP-4) The essential oil composition in medicinally relevant Salvia species: A global review

Rattray Ryan

University of Johannesburg, Republic of South Africa

(OP-5) Evaluation on Chemical Composition and Bioactivity Potential of the *Thymus transcaucasicus* Ronniger Extracts and Essential Oil

Burcu Sen

Istanbul University, Türkiye

(OP-6) Antimicrobial and antibiofilm activities of thyme essential oil with emphasis on the development of oral hygiene compositions

Maryna Kryvtsova

Uzhhorod National University, Ukraine

(OP-7) Eugenol as a promising natural antifungal component

Anna Biernasiuk

University of Lublin, Poland

12:25 – 14:00

Lunch

SESSION 2

Chairs: **Stanisław Lochyński Nicolas Baldovini**

14:00 – 14:40

Plenary lecture

(PL-2) The concept of 'buchu' and the ancient origins of aromatherapy

Ben-Erik Van Wyk

University of Johannesburg, Republic of South Africa

14:40 – 15:25

Oral presentations

(OP-8) – Medicinal plants of Cyprus

K. Husnu Can Baser

Near East University, Cyprus

(OP-9) Investigations on the sex-specific effect of swiss stone pine essential oil in human well-being. A pilot study

Iris Stappen

University of Vienna, Austria

(OP-10) Essential oils from Côa Valley *Lamiaceae* species: cytotoxicity on glioblastoma cells

Celia Cabral

University of Coimbra, Portugal

15:25 – 16:05

Medal lecture

(ML) Essential oils: a great future behind them

Carlo Bicchi

University of Turin, Italy

16:05 – 16:30

Coffee Break

16:30 – 18:00

Poster Presentation - Session A

17:30 – 19:00

ISEO PSC Meeting

SESSION 3

Chairs: **Jonathan Bonello, Carlo Bicchi**

8:30 – 9:10

Plenary lecture

(PL-3) Why do liverworts produce so many structurally different volatile compounds?

Agnieszka Ludwiczuk

Medical University of Lublin

9:10 – 9:40

Keynote lecture

(KL-1) F&F Ingredients: World Overview on Feedstocks & Renewability

Alain Frix

Allchemix (Belgium) / IFEAT (UK)

9:40 – 10:45

Oral presentations

(OP-11) Chemical Composition of Industrially Produced Egyptian Jasmine (*Jasminum grandiflorum* L.) Essential Oil Obtained by Steam Distillation

Hussein Fakhry

A. Fakhry & Co., Egypt

(OP-12) Smart solutions for improving performance of analysis of volatile compounds by gas chromatography mass spectrometry

Maciej Kochanowski

Shimpol A.M. Borzymowski, Poland

(OP-13) Influence of organic nutrients on growth, yield and essential oil composition of Patchouli

Tara Mehra

Central Agricultural University, India

(OP-14) Traits specific breeding and varietal registration in *Cymbopogon* genus at CSIR-NEIST, Jorhat, India

Mohan Lal

CSIR- North East Institute of Science & Technology, India

10:45 – 11:10

Coffee Break**SESSION 4**

Chairs: **Niko Radulović, Hussein Fakhry**

11:10 – 12:25

Oral presentations

(OP-15) Organic vs Conventional Farming of Lavender: Effect on Yield, Phytochemicals and Essential Oil Composition

Mima Todorova

Trakia University, Bulgaria

(OP-16) Chamomile essential oils exert anti-inflammatory effects involving human and murine macrophages: evidence to support a therapeutic action

Carmen Formisano

University of Naples Federico II, Italy

(OP-17) Chemical and biological investigations of essential oils from *Juniperus* genus

Laura De Martino

University of Salerno, Italy

(OP-18) Relation between dillapiole content and insecticidal activity of *Piper aduncum* L. essential oil

Humberto Bizzo

Embrapa Agroindústria de Alimentos, Brazil

(OP-19) Essential oils from pineapple processing by-products through ohmic heating

Mohsen Gavahian

National Pingtung University of Science and Technology, Taiwan

12:25 – 14:00

Lunch**SESSION 5**

Chairs: **Humberto Bizzo, Patrizia Rubiolo**

14:00 – 14:40

Plenary lecture

(PL-4) Analytical strategies for the characterization of non-volatile fraction of *Citrus* essential oil: applications in food and cosmetic.

Paola Dugo

University of Messina, Italy

14:40 – 15:40

Oral presentations

(OP-20) CNV and Gene Expression of Monoterpene Synthases Explain Chemotypes of Three Sage Species

Johannes Novak

University of Veterinary Medicine, Austria

(OP-21) Discrimination of the essential oils from three wild goldenrod species growing together in Quebec

Alexis St-Gelais

Laboratoire PhytoChemia, Canada

(OP-22) Essential oils analysis in light of sensory quality. A reliable tool or not?

Jacek Łyczko

Wrocław University of Environmental and Life Sciences, Poland

(OP-23) Lady Pinecone – back to nature

Krzysztof Czapski

Lady Pinecone / Pani Szyszka

15:40 – 16:00

Coffee Break

16:00 – 17:30

Poster Presentation - Session B

19:00 – 00:00

Symposium dinner

(Restaurant “Z Nurtem” on Wratislavia Ship, Bulwar Xawerego Dunikowskiego)

SESSION 6

Chairs: **Johannes Novak, Éva Zámboriné-Németh**

9:00 – 9:40

Plenary lecture

(PL-5) Biological activity of essential oils – not a single golden bullet loaded to that revolver?

Niko Radulović

University of Niš, Serbia

10:00 – 11:00

Young Scientist Session

(YSP-1) Microwave-Assisted Hydrodistillation of Hop (*Humulus lupulus* L.) Terpenes: A Pilot-Scale Study

Lorenzo Lamberti

University of Turin, Italy

(YSP-2) Involvement of serotonergic neurotransmission in the anxiolytic potential of *Melissa officinalis* essential oil and citronellal

Nikola M. Stojanović

University of Niš, Serbia

(YSP-3) Exploring the mechanisms of action of essential oils: how to undermine the pathogenic biofilm life cycle

Francesca Maggio

University of Teramo, Italy

(YSP-4) Chemical diversity and antifungal activity of *Zataria multiflora* essential oils and influence of abiotic stresses on the compositions

Ali Karimi

Julius Kühn Institute, Germany

11:00 – 11:30

Coffee Break

SESSION 7

Chairs: **Iris Stappen, Hüsnü Can Baser**

11:30 – 12:30

Young Scientist Session

(YSP-5) Essential Oils Diversity from the Malayan Flora: Recent Findings and Challenges

Wan Mohd Nuzul Hakimi Wan Salleh

Sultan Idris Education University, Malaysia

(YSP-6) Reuse of Food Waste: Chemical Compositions and Health Properties of Essential Oils from Several Cultivars of Sicilian *Citrus aurantium* L. and *Citrus maxima* (Burm.) Merr.

Natale Badalamenti

University of Palermo, Italy

(YSP-7) Anti-inflammatory effect and possible mechanism of action of bark essential oil of *Neocinnamomum caudatum* in lipopolysaccharide (LPS) stimulated murine macrophage RAW 264.7 cells

Sudipta Jena

Siksha O Anusandhan, India

(YSP-8) *Cymbopogon nardus* essential oil nanoemulsion against fungal infestation and aflatoxin B1 contamination of food system

Abhishek Kumar Dwivedy

Banaras Hindu University

12:30 – 12:45

Closing remarks

12:45 – 14:00

Lunch

14:30 – 18:00

City guided tour

(meeting point: the bear, Main Town Square)

Abbreviations

OL Opening Lecture

PL Plenary Lecture

KL Keynote Lecture

ML Medal Lecture

OP Oral Presentation

YSP Young Scientist Presentation

PP Poster Presentation

Plenary speakers



Prof. Nicolas Baldovini

Côte d'Azur University



Prof. Paola Dugo
University of Messina



Prof. Agnieszka Ludwiczuk
Medical University of Lublin, Poland



Prof. Niko Radulović
University of Niš



Prof. Ben-Erik Van Wyk
University of Johannesburg



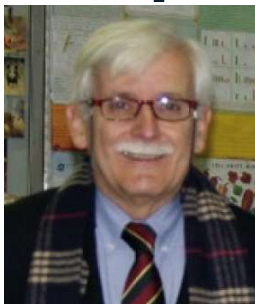
Ms. Clio Vidal
WALA Heilmittel GmbH

Keynote Speaker



Mr. Alain Frix
Allchemix / IFEAT

ISEO 2022 Medal of Honor Recipient



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