



4TH EUROPEAN SYMPOSIUM ON PHYTOCHEMICALS IN MEDICINE AND FOOD

**June 30 – July 3, 2026
Aveiro, Portugal**

BOOK OF ABSTRACTS



The 4th European Symposium on Phytochemicals in Medicine and Food (June 30 – July 3, 2026), Aveiro (Portugal), is organized with the kind support of the following organizations and entities:

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4TH EUROPEAN SYMPOSIUM ON PHYTOCHEMICALS IN MEDICINE AND FOOD

June 30 – July 3, 2026 - Aveiro, Portugal

Dear 4th EuSPMF,

We are pleased to welcome you to the 4th European Symposium on Phytochemicals in Medicine and Food (4th EuSPMF). The exploitation of phytochemicals for the promotion of human health and well-being has been growing exponentially in recent years, driven by high-quality scientific research, strong networks between research institutions and industry, and effective knowledge transfer. The 4th EuSPMF aims to serve as a venue for fostering research collaborations, exchanging innovative ideas, and addressing current challenges in the field, bringing together researchers and professionals from around the world, contributing to new solutions for society.

We look forward to a fruitful and inspiring scientific event in Aveiro.

The organization has the local support of the University of Aveiro, the Department of Chemistry and CICECO -Aveiro Institute of Materials.

With our best regards,

Prof Sónia A.O. Santos

On behalf of the Organizing Committee

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Programme

Monday, June 29th

12am – 2pm: Registration

Workshops

2pm – 3pm: “Multidimensional chromatography and mass spectrometry: tools for future challenges”

4pm – 5:30pm: “Smart Science: Using Artificial Intelligence in Research”

From 6:30pm: *Sunset by the sea*

Tuesday, June 30th

From 8:00am: Registration

8:45am – 9:45am: Opening Session of 4th EuSPMF

SESSION 1 - Chairs: Prof. Luigi Milella and Prof. Jelena Popovic

9:45am - PL1: Prof. Milen I. Georgiev

10:30am – KL1: Prof. Hye-Kyung Na

11:00am – 11:30am: Coffee break and Poster session I (PP1 – PP21)

SESSION 2 - Chairs: Prof. Giuseppe Grosso and Prof. Beraat Özçelik

11:30am – KL2: Prof. Raimundo Gonçalves de Oliveira Junior

12:00pm – OP1: Dr. Izabela Nawrot-Hadzik

12:15pm – OP2: Prof. Dr. Ming-Quan Guo

12:30pm – OP3: Dr. Deghima Amirouche

12:00pm – 12:45pm: *Young Scientist parallel session*

YSP1: Rosana Tajra

YSP2: Mariana Kergoustin

YSP3: Xincheng Wu

YSP4: Daniela Resende

12:45pm – 2:30pm: Lunch

SESSION 3 - Chairs: Prof. Esra Capanoglu and Prof. Jianbo Xiao

2:30pm – PL2: Prof Maurizio Battino

3:15pm – KL3: Prof. Elwira Sieniawska

3:45pm – OP4: Dr. Giorgio Cappellucci

4:00pm – OP5: Prof. Jihang Chen

3:45pm – 4:15pm: Young Scientist parallel session

YSP5: Lu Wang

YSP6: Jingyimei Liang

4:15pm – 4:45pm: Coffee break and Poster session I (PP1 – PP21)

SESSION 4 - Chairs: Prof. Raimundo Gonçalves de Oliveira Júnior and Prof.
Francesca Giampieri

4:45pm – KL4: Prof. Ipek Süntar

5:15pm – OP6: Dr. Giuseppe T Patanè

5:30pm – OP7: Dr. Ludovica Lela

5:15pm – 5:45pm: Young Scientist parallel session

YSP7: Wenqi Huang

YSP8: Ouyang Boya

YSP9: Quanyong Wu

5:45pm – KL5: Prof. Lucindo Quintans

From 6:15pm: Welcome Cocktail Reception and 4th EUSPMF Group Photo

Wednesday, July 1st

From 8:00am: Registration

SESSION 5 - Chairs: Prof. Ana Sanches Silva and Prof. Milen I Georgiev

9:00am – PL3: Prof. Jianbo Xiao

9:45am – OP8: Dr. Carmina Sirignano

10:00am – OP9: Prof. Giuseppe Antonio Malfa

10:15am – OP10: Dr. Alessandro Maugeri

10:30am – OP11: Prof. Alberto Dias

9:45am – 10:45am: *Young Scientist parallel session*

YSP10: Helena Todorovic

YSP11: Sims K. Lawson

YSP12: Wanning Ma

YSP13: Fei Liu

YSP14: Inês S. L. Farias

YSP15: Shiye Lin

10:45am – 11:15am: Coffee break and Poster session II (PP22 – PP48)

SESSION 6 - Chairs: Prof. Ipek Süntar and Prof. Lucindo Quintans

11:15am – KL6: Prof Nazim Sekeroglu

11:45am – OP12: Dr. Tânia Moniz

12:00pm – OP13: Dr. Jolanta Sereikaitė

11:45am – 12:15pm: *Young Scientist parallel session*

YSP16: Mafalda Santiago

YSP17: Irene Pasero

YSP18: Yuxuan Zhao

12:15pm – KL7: Prof. Giuseppe Grosso

12:45pm – 2:30pm: Lunch

SESSION 7 - Chairs: Prof. Susana Cardoso and Prof. Maurizio Battino

2:30pm – KL8: Prof. Beraat Özçelik

3:00pm – OP14: Dr. Joanna Oracz

3:15pm – OP15: Dr. Vittorio Carlucci

3:30pm – OP16: Prof. Balasubramaniyan Vairappan

3:00pm – 3:45pm: Young Scientist parallel session

YSP19: Elizabeth Figueroa Valencia

YSP20: Eliana Fernandes

YSP21: Pengren Zou

3:45pm – KL9: Prof. Dr. Hui Cao

4:15pm – 4:45pm: Coffee break and Poster session II (PP22 – PP48)

SESSION 8 - Chairs: Prof. Nazim Sekeroglu and Dr. Adriana C. S. Pais

4:45pm – KL10: Prof. Jelena Popovic

5:15pm – OP17: Prof. Andrea Gomez-Zavaglia

5:30pm – OP18: Dr. Paula Garcia Oliveira

5:45pm – KL11: Prof. Jackson Almeida

Parallel Session

4:45pm – 6:15pm: Workshop “From Structure to Binding: Molecular Docking Workshop”

Thursday, July 2nd

From 8:00am: Registration

SESSION 9 - Chairs: Prof. Laurent Picot and Prof. Luisa Custódio

8:45am – PL4: Prof Jean-Luc Wolfender

9:30am – KL12: Prof. Francesca Giampieri

10:00am – OP19: Dr. Gabriela Kowalska

10:15am – OP20: Dr. Giulia Baini

10:00am – 10:30am: Young Scientist parallel session

YSP22: Emanuele Rosa

YSP23: Ana R. Circuncisão

YSP24: Ana Clara Jacinto

10:30am – 11:00am: Coffee break and Poster session III (PP49 – PP71)

SESSION 10 - Chairs: Prof. Armando Silvestre and Prof. Elwira Sieniawska

11:00am – KL13: Dr. Ana C. Q. Silva

11:30am – OP21: Prof. Susana Cardoso

11:45pm – OP22: Dr. Anna Stasiłowicz-Krzemień

11:30am – 12:00pm: Young Scientist parallel session – Chair:

YSP25: Lou Zusatz

YSP26: Ana Rita Ferreira

YSP27: Inês Amaro

12:00pm – PL5: Prof. Esra Capanoglu

12:45pm – 2:15pm: Lunch

2:15pm – 2:30pm: Poster session III (PP49 – PP71)

SESSION 11 - Chairs: Prof. Nikolay T. Tzvetkov and Prof. Hye-Kyung Na

2:30pm – KL14: Prof. Luísa Custódio

3:00pm – OP23: Dr. Adriana C. S. Pais

3:15pm – OP24: Prof. Mi Kyeong Lee

3:30pm – OP25: Dr. Maria João Rodrigues

3:45pm – PL6: Prof. Laurent Picot

4:30pm – 5:15pm: *Awards and Closing Ceremony*

From 6:30pm – Conference Dinner

Friday, July 3rd

9:00am – 15:30pm: Aveiro Tour

From 15:30pm – Porto Wine Cellars and dinner on the Douro River



PLENARY LECTURES





PP21

Microencapsulation of elderflower extract using inulin and polydextrose: A strategy for enhanced stability and bioactivity

Milica Radan¹, Anna Stasiłowicz-Krzemień², Zorana Mutavski¹, Jelena Mudrić¹, Ana Alimpić Aradski³, Katarina Šavikin¹, Tatjana Stević¹, Judyta Cielecka-Piontek², Nada Ćujić Nikolić¹

¹ Institute for Medicinal Plants Research “Dr. Josif Pančić”, Tadeuša Košćuška 1, 11000, Belgrade, Serbia

² Department of Pharmacognosy and Biomaterials, Faculty of Pharmacy, Poznan University of Medical Sciences, Rokietnicka 3, 60-806 Poznan, Poland

³ University of Belgrade-Faculty of Biology, Institute of Botany and Botanical Garden, “Jevremovac”, Studentski trg 16, 11000 Belgrade, Serbia

✉ mradan@mocbilja.rs

Elderflowers (*Sambuci flos* L.) has attracted considerable scientific and commercial interest due to its abundance of polyphenols and flavonoids, which confer anti-inflammatory, antimicrobial, and antioxidant properties supporting its traditional and potential therapeutic applications in respiratory health, atherosclerosis prevention, and diabetes management [1,2]. This study aimed to develop advanced delivery systems of elderflower extract for potential nutraceutical and pharmaceutical use through the establishment of a feasible encapsulation process employing the biocompatible polymers inulin and polydextrose. Microencapsulates obtained by spray-drying were evaluated in terms of stability, bioactivity, technological performance, and functional properties. Intermolecular hydrogen bonding enabled successful entrapment of bioactives within the polymer matrices, improving the thermal stability of the powders. The biological effects of elderflower extracts were primarily attributed to their high polyphenol content, with chlorogenic acid and rutin identified as major constituents. Stability studies demonstrated that inulin and polydextrose effectively preserved the phenolic profile of the powders during storage. Furthermore, the microencapsulated extracts exhibited strong antioxidant capacity, promising hypoglycemic potential, and notable antimicrobial activity. Overall, the findings highlight the efficiency of inulin and polydextrose as natural carriers for the stabilization and delivery of phenolic-rich elderflower extracts, supporting their application in functional food and pharmaceutical formulations.

References

[1] Nawirska-Olszańska, A. et al. *Foods*, 2024, 13(16), 2560.

[2] Studzińska-Sroka, E. et al. *Molecules*, 2024, 29(23), 5775.