

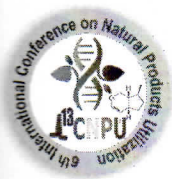
6th INTERNATIONAL CONFERENCE ON NATURAL PRODUCTS UTILIZATION **FROM PLANTS TO** 27-30 **PHARMACY SHELF** May 2025

Bansko BULGARIA



**BOOK OF
ABSTRACTS**





6th INTERNATIONAL CONFERENCE ON NATURAL PRODUCTS UTILIZATION: **FROM PLANTS TO PHARMACY SHELF**

ICNPU-2025, 27 - 30 May 2025

Dear ICNPU Participants:

On behalf of the Organizing Committee, it is an outstanding pleasure and honor to welcome you to the **6th International Conference on Natural Products Utilization: from Plants to Pharmacy Shelf (ICNPU-2025)**.

The **ICNPU** conference was established back in 2013 as a discussion platform for the most recent developments in the field of natural products. It aims to cover a wide spectrum of application of plants, with special emphasis on the sustainable use of natural products, omics platforms, and the recent trends in (ethno)pharmacology, toxicology, molecular biology, and biotechnology.

The **ICNPU-2025** takes place in Bansko, a popular winter resort in Bulgaria. Located at the foot of Pirin Mountains, with its incredible spirit and breathtaking landscapes, Bansko is definitely a place one should visit. Social activities include a welcome reception, conference dinner, excursion to Pirin Mountains, and a tour of historical monuments, besides the podium for informal discussions, networking opportunities and new insights.

We sincerely hope you will enjoy the scientific program and social activities.

Welcome to the ICNPU family!

Prof. Dr. Milen I. Georgiev
Chair of the Organizing Committee



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Selçuk University (TR)

PROGRAMME

Monday, May 26, 2025

15:30 – 18:30 Registration

17:00 – 18:30 **Workshop**

Tuesday, May 27, 2025

08:30 – 18:30 Registration

09:00 – 18:30 Exhibition opening

09:00 – 09:30 **Official opening ceremony of ICNPU-2025**

09:30 – 10:15 **KL 1: Robert Verpoorte (NL)**

10:15 – 10:45 *Coffee break*

Session H

Chairs: Alipieva & Popova

10:45 – 11:20 **PL 1: Jean-Luc Wolfender (CH)**

11:20 – 11:35 **SL 1: Gordana Krstić (RS)**

11:35 – 11:50 **SL 2: Reneta Gevrenova (BG)**

11:50 – 12:05 **SL 3: Cătălin Duduianu (RO)**

12:05 – 12:20 **SL 4: Maria de Fátima Agra (BR)**

12:20 – 12:35 **SL 5: Rumen Denev (BG)**

12:35 – 13:00 **ICNPU-2025 group photo**

13:00 – 14:30 *Lunch break*

Session He

Chairs: Bankova & Dajic Stevanovic

14:30 – 14:55 **IL 1: Fabrizio Dal Piaz (IT)**

14:55 – 15:10 **SL 6: Miroslav Novaković (RS)**

15:10 – 15:25 **SL 7: Chen-Han Hsieh (DE)**

15:25 – 15:40 **SL 8: Dimitrina Zheleva-Dimitrova (BG)**

15:40 – 15:55 **SL 9: Yancho Zarev (BG)**

15:55 – 16:10 **SL 10: Nina Stadler (DE)**

16:10 – 16:25 **SL 11: Suchismita Saha (DE)**

16:25 – 16:50 *Coffee break*

Session Li

Chairs: Skalicka-Woźniak & Stefkov

16:50 – 17:15 **IL 2: Ilkay Orhan Erdogan (TR)**

17:15 – 17:30 **SL 12: Cornelia A. Karg (AT)**

17:30 – 17:45 **SL 13: Hassan Annaz (MA)**

17:45 – 18:00 **SL 14: Lucian Hritcu (RO)**

18:00 – 18:15 **SL 15: Praphassorn Surawattanan (TH)**

18:15 – 18:30 **SL 16: Razvan Stefan Boiangiu (RO)**

18:30 – 20:30 **Poster session I**

20:30 – 22:30 **Get-together party**

Wednesday, May 28, 2025

08:00 – 18:30 Registration

08:30 – 18:30 Exhibition opening

Session Be **Chairs: Sieniawska & Wolfender**

09:00 – 09:25 **IL 3: Simone Moser (AT)**

09:25 – 09:50 **IL 4: Krystyna Skalicka-Woźniak (PL)**

09:50 – 10:05 **SL 17: Rositsa Mihaylova (BG)**

10:05 – 10:20 **SL 18: Davide Ciaramellano (IT)**

10:20 – 10:35 **SL 19: Quanyong Wu (ES)**

10:35 – 10:50 **SL 20: Angelica Pia Centulio (IT)**

10:50 – 11:20 *Coffee break*

Session B **Chairs: Orhan & Moser**

11:20 – 11:45 **IL 5: Francesca Giampieri (IT)**

11:45 – 12:10 **IL 6: Georgi Momekov (BG)**

12:10 – 12:25 **SL 21: Partha Roy (IN)**

12:25 – 12:40 **SL 22: Yuxuan Zhao (CN/ES)**

12:40 – 12:55 **SL 23: Balasubramaniyan Vairappan (IN)**

13:00 – 14:30 *Lunch break*

Session C **Chairs: Zheleva-Dimitrova & Ferrante**

14:30 – 14:55 **IL 7: José L. Quiles (ES)**

14:55 – 15:10 **SL 24: Ioannis P. Trougakos (GR)**

15:10 – 15:25 **SL 25: Gianluca Picariello (IT)**

15:25 – 15:40 **SL 26: Gianluca Genovesi (IT)**

15:40 – 15:55 **SL 27: Ivan Stambolov (BG)**

15:55 – 16:10 **SL 28: Syed Ghulam Musharraf (PK)**

16:10 – 16:25 **SL 29: Liliya V. Mihaylova (BG)**

16:25 – 16:55 *Coffee break*

Session N **Chairs: Trougakos & Czerwińska**

16:55 – 17:20 **IL 8: Eleni Skaltsa (GR)**

17:20 – 17:35 **SL 30: Stefan Kolašinac (RS)**

17:35 – 17:50	SL 31: Anna Szakiel (PL)
17:50 – 18:05	SL 32: Lora Simeonova (BG)
18:05 – 18:20	SL 33: Danijela Mišić (RS)
18:20 – 18:35	SL 34: Annalisa Chiavaroli (IT)
18:35 – 18:50	SL 35: Kaloyan Mihalev (BG)
18:50 – 19:05	SL 36: Jingyimei Liang (CN/ES)
19:15 – 21:15	Poster session II

Thursday, May 29, 2025

09:00 – 18:00	Registration
09:00 – 18:00	Exhibition opening

Session O Chairs: Capanoglu & Orlando

09:00 – 09:25	IL 9: Chin-Kun Wang (TW)
09:25 – 09:40	SL 37: Monika E. Czerwińska (PL)
09:40 – 09:55	SL 38: Elwira Sieniawska (PL)
09:55 – 10:10	SL 39: Iglia Lessigiarska (BG)
10:10 – 10:25	SL 40: Adriana C. S. Pais (PT)
10:25 – 10:40	SL 41: Pille-Riin Laanet (EE)
10:40 – 11:10	<i>Coffee break</i>

Session F Chairs: Santos & Atanassov

11:10 – 11:45	PL 2: Esra Çapanoğlu Güven (TR)
11:45 – 12:00	SL 42: Pan Liao (HK/CN)
12:00 – 12:15	SL 43: Adam Matkowski (PL)
12:15 – 12:30	SL 44: Fenita Hephzibah D (IN)
12:30 – 12:45	SL 45: Olga Gigopulu (MK)
12:45 – 13:00	SL 46: Amit Faran (IL)
13:00 – 14:30	<i>Lunch break</i>

Session Ne Chairs: Matkowski & Yordanova

14:30 – 14:55	IL 10: Zora Dajić Stevanović (RS)
14:55 – 15:10	SL 47: Ivan Atanassov (BG)
15:10 – 15:25	SL 48: Krasimir Rusanov (BG)
15:25 – 15:40	SL 49: Marco Biagi (IT)
15:40 – 15:55	SL 50: Vessela Balabanova (BG)

15:55 – 16:10 **SL 51: Ivica Dimkić (RS)**

16:10 – 16:30 *Coffee break*

Session Na

Chairs: Liao & Mah

16:30 – 16:55 **IL 11: Jianbo Xiao (ES)**

16:55 – 17:10 **SL 52: Gjoshe Stefkov (MK)**

17:10 – 17:25 **SL 53: Valtcho D. Zheljazkov (USA)**

17:25 – 17:40 **SL 54: Marcos Soto-Hernandez (MX)**

17:40 – 17:55 **SL 55: Mohanlal Ghosh (IN)**

17:55 – 18:10 **SL 56: Partha Palit (IN)**

18:10 – 18:25 **SL 57: Thomas Brendler (USA/AU/ZA)**

18:25 – 18:40 **SL 58: Hui Cao (ES)**

18:40 – 18:50 **Closing ICNPU-2025 & awards**

20:00 – 00:00 **ICNPU-2025 dinner**

Friday, May 30, 2025

09:00 – 14:00 *Conference excursion*

KL – key-note lecture

PL – plenary lecture

IL – invited lecture + 5 min Q&A to invited oral slots

SL – short lecture (+3 min Q&A)

FORMULATION OF HONEY-BASED SUPPLEMENT ENRICHED WITH MICROENCAPSULATED CHOKEBERRY POMACE EXTRACT

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Teodora Janković¹, Jelena Živković¹, Branko Bugarski²**

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The aim of the study was to obtain an added-value supplement based on honey and microencapsulated chokeberry pomace extract. The fruits were pressed to obtain juice pomace. The influence of different temperatures and length of drying of the pomace on the content of bioactive ingredients was examined and the following conditions were chosen as optimal: a temperature of 45 °C; drying time of 36 hours. After extraction optimization the following parameters were selected as optimal: extraction time of 90 minutes, 50% ethanol and a ratio of drug to solvent of 1:10. The quantification of individual anthocyanins (cyanidin galactoside, cyanidin glucoside, cyanidin arabinoside and cyanidin xyloside) was performed using HPLC where cyanidin galactoside was the most abundant (6.82 ± 0.06 mg/g). Carriers based on hydrogels or waxes with or without addition of inulin were tested using by electrostatic extrusion encapsulation technique. Also, various process parameters that influenced the microencapsulation process were analyzed. A medium-viscosity alginate with 5% inulin was selected as carrier. Encapsulation efficiency, cyanidin galactoside release from microparticles, particle size, FTIR and SEM analysis were done. Two types of particles were prepared, i.e. non-dried and dried particles. The lyophilization conditions were optimized for drying of microparticles. During formulation, three types of honey were tested: acacia, meadow and linden. Formulations were made with 3%, 5%, 7%, 10% and 20% of microparticles in honey, with and without heating at 2 temperatures (35 and 45 °C). Final formulation was prepared with acacia honey, 10% of undried microparticles with heating of honey on a temperature of 35 °C.

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