B-FoST 2023

3rd Black Sea Association of Food Science and Technology Congress

13th to 15th December, 2023, Belgrade, Serbia

B-FoST

Dear Dr Lugonja,

We hope this mail find you well.

On behalf of the **Congress Organizing and Scientific Committee,** we kindly send you the invitation letter for **invited lecturers** on the

3rd Black Sea Association of Food Science and Technology Congress

B-FoST 2023

13th-14th December 2023, Belgrade

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Congress is organized in cooperation with: **Institute of Food Technology, University of Belgrade, The Serbian Association of Food Technologists (SAFT), European Hygienic Engineering and Design Group (EHEDG), Global Harmonization Initiative (GHI), European Federation of Food Science and Technology (EFFoST) and ISEKI Food Association (IFA).**

Considerable number of **highly reputable international authorities** have been contacted by the **Organizing Committee** and are in process of confirming their presence on the Congress as **invited lecturers**, among others:

- **Da-Wen Sun,** Ireland
- **Mark Shamtsyan,** Russia
- **Frank Moermann,** Belgium
- **Samim Saner,** Turkey
- **Vural Gökmen ,** Türkiye
- **Mona Elena Popa,** Romania
- **Sanja Vidaček,** Croatia
- **Antonios Chrysargyris,** Cyprus
- **Panayiota Xylia,** Cyprus
- **Aleksandra Martinović,** Montenegro
- **Slađana Šobajić,** Serbia
- **Jovana Vunduk,** Serbia
- **Katarina Smiljanić,** Serbia
- **Viktor Nedović,** Serbia
- **Dragan Milićević,** Serbia
- **Nadiya Boyko,** Ukraine
- **Huub Lelieveld,** The Netherlands
- **Marija Zunabović,** Austria
- **Lillian Barros,** Portugal
- **Costas Biliaderis,** Greece
- **Nikos Tzortzakis,** Cyprus
- **Sotirios Kiokias,** Greece/Belgium
- **Karine Grigoryan,** Armenia
- **Vladimir Kakurinov,** Macedonia
- **Steva Lević,** Serbia
- **Marina Soković,** Serbia
- **Mirjana Pešić,** Serbia
- **Maja Kozarski,** Serbia
- **Suzana Dimitrijević,** Serbia

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B-FoST 2023 Congress represents a unique opportunity for food scientists, researchers, technologists, producers and nutritionists, young scientists and students for presentation of the findings and results of their own work and exchange information on the new processes. B-FoST 2023 congress will be focused on:

- Latest progress in Fundamental & Applied Food Science
- Innovative Food Production and Processing
- Biotechnology and Bioengineering
- Hygienic Engineering and Design
- Food Adulteration
- Novel Food Engineering Technologies
- New trends in Food Safety Laws and Regulations
- Food testing and Quality Control
- Food and Industrial Microbiology
- Microbiological and Chemical Aspects of Food Safety
- Nutrition, Health, and Food Technology
- Cleaning Washing and Disinfection Procedure at the Food Factory

We will regularly inform you on important details on **the 3rd B-FoST 2023 Congress** through our **Promotional campaigns** and **Congress website: www.bfost2023.com**

We look forward to meeting you in Belgrade. Welcome!

Prof. Dr. Miomir Nikšić
Congress President

Prof. Dr. Viktor Nedović
Congress President

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03rd BLACK SEA ASSOCIATION OF FOOD SCIENCE AND TECHNOLOGY CONGRESS

13th - 14th December, 2023

Hotel Mona Plaza / Belgrade, Serbia

PROGRAM

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ABSTRACT BOOK

www.bfost2023.com

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DAY 2 — THURSDAY 14TH DECEMBER 2023

08.00 - 09.00 — **REGISTRATION**

09.00-09.40 — **KEYNOTE 5**

- **Frank Moermann** / *Belgium*

Robots in the food industry: challenges with respect to hygiene and cleaning/disinfection

09.40 - 10.10 — **COFFEE BREAK**

10.10 - 12.10

SESSION 04

- **Hygienic Engineering and Design**

Chairs:
Huub Lelieveld, Mark Shamtsyan

SESSION 05

- **Food Adulteration**

Chairs:
Sladjana Šobajić, Irena Vovk

10.10-10.40 — **PLENARY LECTURE 8**

- **Vladimir Kakurinov** / *Macedonia*

Hygienic Engineering and Design applied in Food Factories buildings

10.40-11.10

- **Aleksandra Đukić Vuković** / *Serbia*

Non-thermal technologies beyond food safety: role in fermented food and food waste valorization

- **Nikoleta Lugonja** / *Serbia*

The influence of thermal treatments on the quality of infant food

PLENARY LECTURE 9

- **Sladjana Šobajić** / *Serbia*

Controversies in the use of food supplements?

PLENARY LECTURE 10

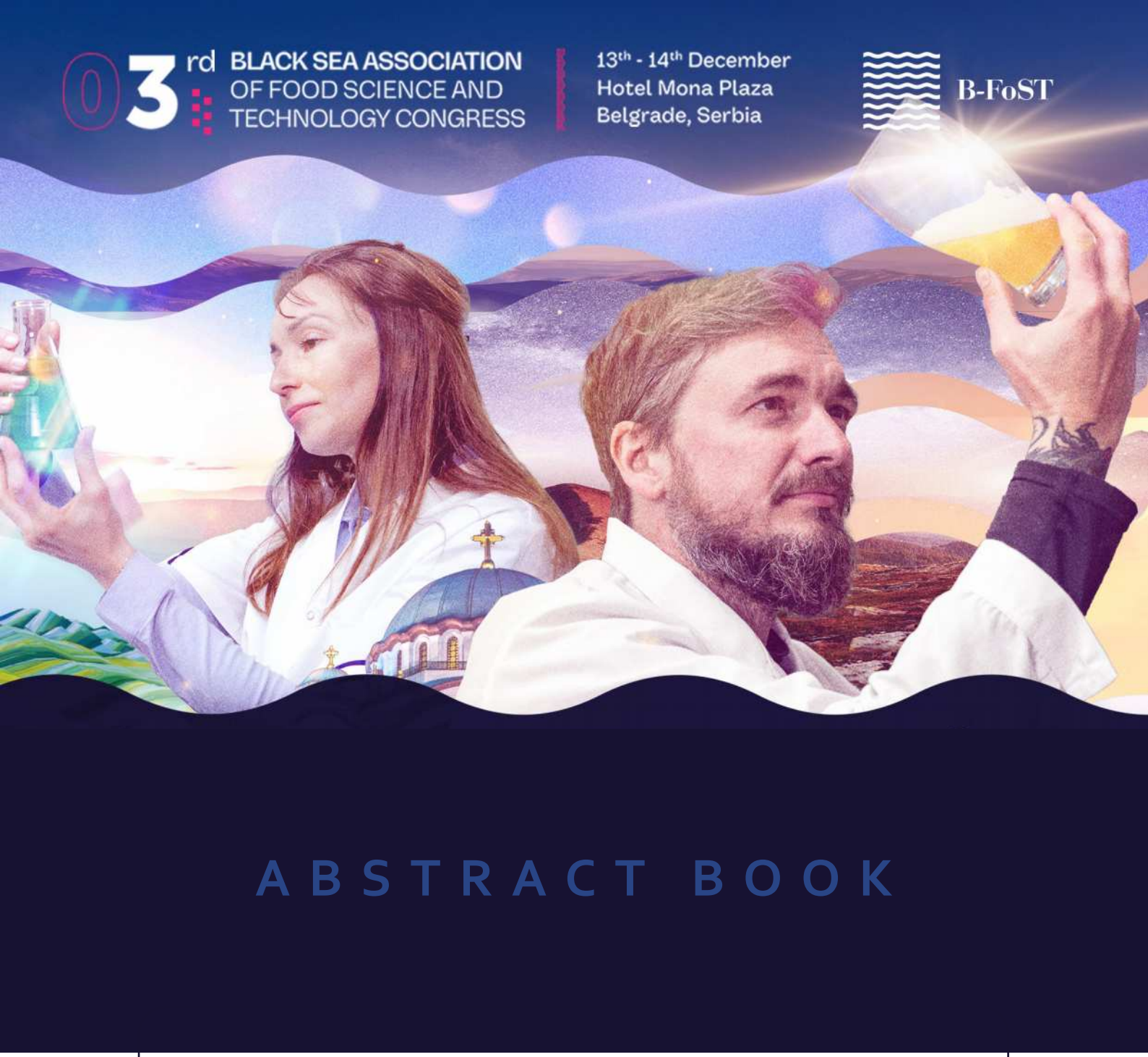
- **Irena Vovk** / *Slovenia*

Challenges in Analyses of Phytonutrients in Food Samples

11.10-11.50 — **KEYNOTE 6**

- **Lillian Barros** / *Belgium*

Innovative technologies for natural food ingredients from nature to products



ABSTRACT BOOK

3RD BLACK SEA ASSOCIATION OF FOOD SCIENCE AND TECHNOLOGY CONGRESS

(B-FOST 2023)

13TH TO 14TH DECEMBER 2023 IN MONA PLAZA HOTEL,

BELGRADE, SERBIA

B-FoST

PLENARY LECTURES

BF50

The influence of thermal treatments on the quality of baby food

Nikoleta Lugonja

University of Belgrade, Institute of Chemistry, Technology and Metallurgy, National Institute of the Republic of Serbia, Belgrade, Serbia

nikoleta.lugonja@ihtm.bg.ac.rs

Human milk is the best source of nutrition for infants and babies. Apart from essential nutrients, it contains bioactive components which are crucial for growth and effective in developing the gut microbiota and immune system. The World Health Organization recommends the use of human milk in the nutrition of preterm and low birth weight infants. Preterm infants require specific nutrition to overcome growth deficits and prevent postnatal growth failure. To ensure that preterm babies receive adequate amounts of nutrients and healthy doses of bioactive components, human milk banks collect mothers' own or donor human milk when their mothers are unable to provide enough breast milk. Milk stored in banks should be thermally treated to ensure that it is safe for consumption. Common thermal treatments include freeze storage and pasteurization, which may alter the nutritional value of milk. This study aimed to compare the effects of thermal treatments on the nutrient and antioxidant potential of different infant foods. Storage and pasteurization processes alter the basic nutritional composition and antioxidant capacity of human milk. Lipid and protein properties of human milk are affected by storage and pasteurization. Lipid content is further reduced when milk is pasteurized after freezing. Although freezing followed by pasteurization is common in milk banks, it negatively impacts the quality of milk. However, deficiencies in preterm milk after storage and pasteurization can be compensated by a fortifier. To provide adequate nutrition for infants, individual milk supplementation with quality fortifiers should be used in milk banks, ensuring higher protein, lipid and antioxidant components that are required for normal infant development.

Keywords: *human milk, infant food, pasteurization, freezing*

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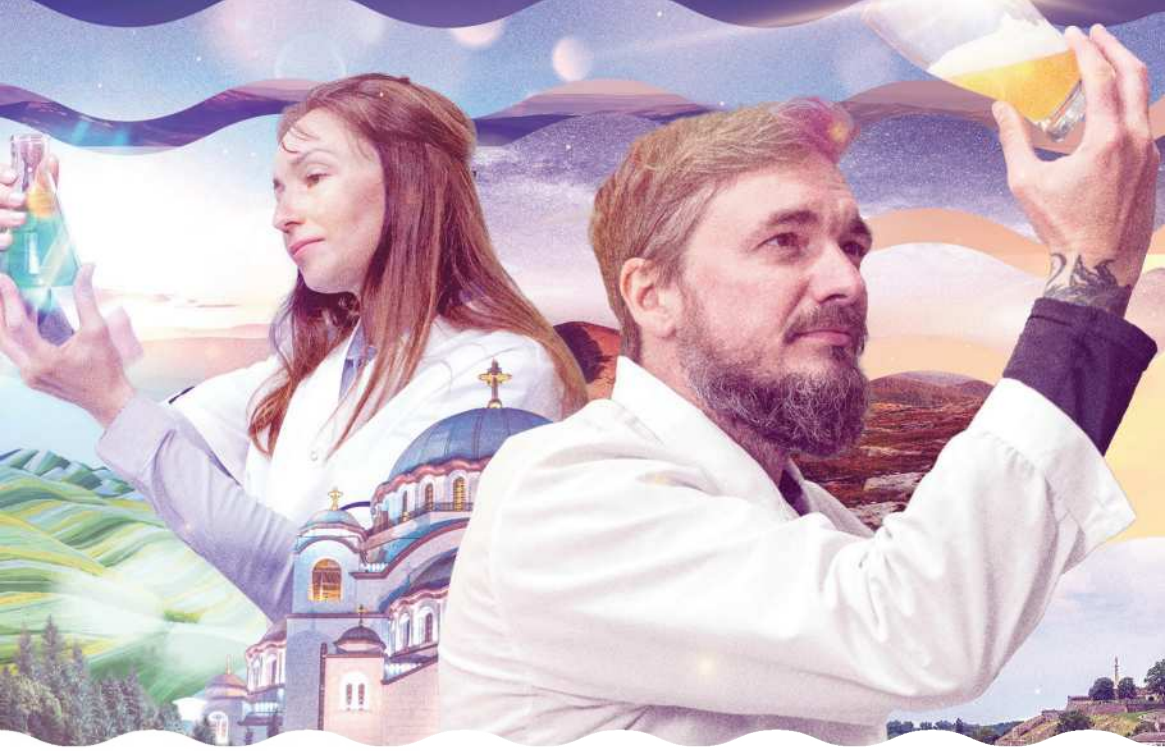

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