



B-FoST

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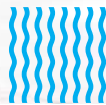
**BLACK SEA ASSOCIATION
OF FOOD SCIENCE AND
TECHNOLOGY CONGRESS**

13th - 14th December, 2023

Hotel Mona Plaza / Belgrade, Serbia

PROGRAM
and
ABSTRACT BOOK

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ISBN broj 978-86-904740-1-1



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DAY 1

WEDNESDAY 13TH DECEMBER 2023

08.00 - 09.00

REGISTRATION

09.00-09.30

OPENING and WELCOME CEREMONY

Deputy Minister of Science and Technology of Republic of Serbia - Prof. dr Marina Soković
 Representative of Faculty of Agriculture University of Belgrade - Prof. dr Viktor Nedović
 Dean of Faculty of Food Technology, Food Safety and Ecology UDG -
 Prof. dr Aleksandra Martinović / Montenegro
 Prof. dr Da-Wen Sun, Royal Irish Academy / Ireland
 BFoST President - Prof. dr Miomir Nikšić / Serbia

09.30 - 10.00



COFFEE BREAK

10.00-10.40

KEYNOTE 1

- Da-Wen Sun / Ireland

Advancements in Hyperspectral Imaging Technology for Enhancing the Detection and Control of Food Quality and Safety

10.40-11.20

KEYNOTE 2

- Marina Soković / Serbia

Food as medicine: Your health is influenced by what you eat

11.20-12.00

KEYNOTE 3

- Sotirios Kiokias - EU Research Executive Agency / Belgium

MSCA Program in Horizon Europe with focus on Staff Exchanges Action

12.00-12.40

KEYNOTE 4

- Vladimir Kakurinov / Macedonia

Human behavior and its impact on hygienic design and food safety

12.40 - 13.40



LUNCH BREAK / POSTER VIEWINGS / EXHIBITIONS

13.40
-
15.40

SESSION 01

- Latest progress in Fundamental & Applied Food Science

Chairs: Nadiya Boyko, Katarina Smiljanić

SESSION 02

- Biotechnology and Bioengineering

Chairs: Viktor Nedović, Mark Shamtshyan



13.40-14.10

PLENARY LECTURE 1

- **Nadiya Boyko / Ukraine**
Bioactive molecules, post-biotics, fermented foods in prevention of age-relevant diseases

14.10-14.40

PLENARY LECTURE 3

- **Katarina Smiljanić / Serbia**
Do post-translational and processing-born food protein modifications affect protein digestibility and their immune properties?

14.40-15.10

PLENARY LECTURE 5

- **Maja Kozarski / Serbia**
Chitosan Production from Mushrooms: Current State of Knowledge

15.10-15.25

- **Danijel Milinčić / Serbia**
Characterization and functional properties of goat milk based powder enriched with phenolic compounds from winemaking by-products

15.25-15.40

- **Milena Pantić / Serbia**
Antimicrobial and antioxidant properties of crude chitosan extracted from cultivated *Agaricus bisporus*

PLENARY LECTURE 2

- **Viktor Nedović / Serbia**
Encapsulation of bioactives in food industry

PLENARY LECTURE 4

- **Mark Shamtsyan / Russia**
Bioactive compounds from mushrooms that can help to prevent and cure diseases

PLENARY LECTURE 6

- **Nikos Tzortzakis / Cyprus**
Medicinal and aromatic plants essential oils, hydrosols and their main component for the preservation of fresh produce
- **Nevena Barać / Serbia**
In vitro antioxidant potential and mineral content of pectin-like polysaccharides isolated from soy hull

• Maja Bensa / Slovenia

- Litmaps – a useful tool for overcoming literature gaps: an example from food safety and chromatography

15.40 - 16.10



COFFEE BREAK

16.10

SESSION 03

17.40

- **Sustainability in Food Technology** - Chairs: Mona Elena Popa, Dragan Milićević

16.10-16.40

PLENARY LECTURE 7

- **Mona Elena Popa / Romania**
Sustainability in Food Technology
Opportunities and challenges of agri-food waste and byproducts valorization

16.40-16.55

- **Dragan Milićević / Serbia** ▶ One Health – a holistic approach to achieving new trends in food safety and a sustainable food system

16.55-17.10

- **Merve Yavuz-Düzgün / Turkey** ▶ Comparison of physico-chemical properties of acidic and alkali pea proteins and entrapment yield with citrus pectin



17.10-17.25

- **Konstantin Kakurinov / Macedonia**

The role of parental influence on children's brand preferences

17.25-17.40

- **Milica Pešić / Serbia**

The changes of antioxidants bioavailability during in vitro gastrointestinal digestion of okara-enriched gluten-free bread

17.25

SHORT ORAL PRESENTATION session

Chairs: Mona Elena Popa, Dragan Miličević

17.45

SHORT ORAL PRESENTATION session

Chairs: Milena Pantić, Maja Kozarski

17.45-17.50

- **Karina Grigoryan / Armenia**

Efficiency of green biosynthesis silver nanoparticles as antibacterial against *Aeromonas hydrophila* isolated from infected rainbow trout

17.50-17.55

- **Mihaela Draghici / Romania**

Development of a new protein-vegetable "snack" product, nutritionally balanced

17.55-18.00

- **Maša Ilinčić / Montenegro**

Study of the Temperature Effect on the Growth of *E. coli* in Cheese

18.00-18.05

- **Nada Raičević / Montenegro**

Microbiome Analysis of Selected Montenegrin White Brine Cheeses

18.05-18.10

- **Amil Orahovac / Montenegro**

Evaluating Dietary Salt Intake Patterns in the Montenegrin Adult Population

18.10-18.15

- **Andrea Milačić / Montenegro**

Assessing the Quality and Authenticity of Montenegrin Olive Oil

- **Ana Ćirić / Serbia**

Rosehip (*Rosa canina* L.): A Phytochemical and Bioactive Ingredient Analysis for Functional Food Applications

- **Anita Najdenkoska / Macedonia**

Matrix effect in determination of pesticide in cereal products with gas chromatography

- **Filipa S. Reis / Portugal**

Assessing the bioactivity of extracts obtained from 22 different by-products of the agri-food industry

- **Jovana Petrović / Serbia**

Edible and bioactive mushroom *Agrocybe aegerita* (V. Brig.) Vizzini: a valuable resource for the next generation of pharmaceutical products

- **Gjyliza Bregu / Albania**

Hmf level and diastase number of some albanian honey samples

- **Jovana Mišković / Serbia**

The impact of seed priming of pea (*Pisum sativum* L.) with extracts of *Schizophyllum commune* Fr. 1815 on the plant's antioxidant activity under drought stress conditions

18.30 - 19.30



GET TOGETHER COCKTAIL RECEPTION



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 Shamtshyan

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

- Aleksandra Đukić Vuković / *Serbia*

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

10.40-11.10

- Nikoleta Lugonja / *Serbia*

The influence of thermal treatments on the quality of infant food

11.10-11.50

KEYNOTE 6

- Lillian Barros / *Belgium*

Innovative technologies for natural food ingredients from nature to products

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



11.50
-
15.00

SESSION 06

• **Novel Food Engineering Technologies**

Chairs: Mirjana Pešić,
Saša Despotović

SESSION 07

• **New trends in Food Safety Laws and Regulations**

Chairs: Aleksandra Martinović,
Charalampos Proestos

11.50-12.20

PLENARY LECTURE 11

• **Steva Lević / Serbia**

Spray drying in food technology:
applications, innovations and quality
control

PLENARY LECTURE 12

• **Aleksandra Martinović / Montenegro**

Beyond the Plate: The Interplay between
Antimicrobial Resistance Emergence and
the Safety of Our Food

12.20-12.50

PLENARY LECTURE 13

• **Saša Despotović / Serbia**

Effect of hop particle size on haze
formation and sensory properties of the
New England IPA beer

PLENARY LECTURE 14

• **Charalampos Proestos / Serbia**

Edible insects: tendency or necessity
for the food industry

12.50-13.20

PLENARY LECTURE 15

• **Tanja Petrović / Serbia**

Active and intelligent packaging of food:
A new trend for the future

PLENARY LECTURE 16

• **Andreja Rajkovic / Belgium VIDEO**

Microplastics and nanoplastics in
food safety: from toxicity to microbial
interactions

13.20-13.50

PLENARY LECTURE 17

• **Mirjana Pešić / Serbia**

Goat milk: carrier of bioactive compounds

• **Aleksandar Petrović, Nikolina Živković / Serbia**

Resveratrol – health in a glass of wine

• **Nenad Vujović / Serbia**

Analysis, current situation and perspective
related to plant food safety in Serbia

13.50-14.05

• **Nevena Ivanović / Serbia**

Nutritional characteristics of whole grain
products ON SERBIAN MARKET

14.05 - 15.00



LUNCH BREAK / POSTER VIEWINGS / EXHIBITIONS



15.00
-
16.30

SESSION 08

- Food Testing, Quality Control and Food Safety

Chairs: Andrej Gregori, Maja Bensa

SESSION 09

- Food and Industrial Microbiology

Chairs: Mirjana Rajilić-Stojanović, Jovana Vunduk

15.00-15.30

PLENARY LECTURE 18

- Huub Lelieveld / *Netherlands*
Food safety and ingredients

15.30-16.00

PLENARY LECTURE 20

- Andrej Gregori / *Slovenia*
Medicinal fungi food supplements - novel foods, adulteration and quality control

16.00-16.30

PLENARY LECTURE 22

- Dajana Vučinić / *Serbia*
Digestibility, starch morphology, and nutritive value of rusks made from wheat flour with the addition of proso

16.30-16.45

- Maja Bensa / *Slovenia*

A matrix of critical points for consumer food safety

PLENARY LECTURE 19

- Mirjana Rajilić-Stojanović / *Serbia*
Medicinal herb extracts as a novel food for microbiota manipulation

PLENARY LECTURE 21

- Jovana Vunduk / *Serbia*
A new tool in mushroom toxicity screening: the use of a panel of bioluminescent whole cell bioreporter bacteria

- Antonios Chrysargyris / *Cyprus*

Antimicrobial, cytotoxic and anticancer activities from Cypriot aromatic plant extracts

- Bojana Vidović / *Serbia*

What are the benefits of fermented foods?

16.45 - 17.15

E-POSTER



**17.15
-
17.30**

CLOSING CEREMONY



03rd

BLACK SEA ASSOCIATION
OF FOOD SCIENCE AND
TECHNOLOGY CONGRESS

13th - 14th December
Hotel Mona Plaza
Belgrade, Serbia



E-POSTER

• **Marina Tomašević / Croatia**

Effect of ultrasound and cold pressing on the composition of Graševina grape seed oil lipophilic and hydrophilic antioxidants

• **Vesna Šolaja / Serbia**

The effect of biopriming of pea seeds (*Pisum sativum* L.) with extracts of *Schizophyllum commune* Fr. 1815 on the enzymatic antioxidant activity of seedling

• **Vesna Šolaja / Serbia**

Antimicrobial activity of *Pleurotus salmoneostramineus* fruiting body extracts co-cultivated with *Pleurotus* spp. and *Lentinus crinitus*

• **Natalija Uršulin-Trstenjak / Croatia**

Diet for patients with gastritis

• **Zorana Miloradović / Serbia**

The assessment of raw milk cheese production practices among Serbian small-scale dairy processors

• **Antonios Chrysargyris / Cyprus**

The use of Cypriot oregano for the preservation of fresh spearmint

• **Nikos Tzortzakis / Cyprus**

Cypriot oregano essential oil and hydrosol as promising agents for the preservation of fresh basil

• **Uroš Čakar / Croatia**

The study of fruit wine properties in the protection against oxidative stress

• **Uroš Čakar / Serbia**

Fruit wine active compounds and its ability of hyperglycemia prevention

03 rd BLACK SEA ASSOCIATION
OF FOOD SCIENCE AND
TECHNOLOGY CONGRESS

13th - 14th December
Hotel Mona Plaza
Belgrade, Serbia



B-FoST



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



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TABLE OF CONTENTS

Introduction letter.....	6
KEYNOTE LECTURES.....	8
Advancements in Hyperspectral Imaging Technology for Enhancing the Detection and Control of Food Quality and Safety	9
<i>Da-Wen Sun</i>	
Food as Medicine: your health is influenced by what you eat.....	10
<i>Marina Soković^a</i>	
Eu Research Funding Opportunities (Horizon Europe)/ Marie-Sklodowska Curie Actions (MscA) With Focus On Staff Exchanges.....	11
<i>Sotirios Kiokias[*]</i>	
Human behavior and its impact on hygienic design and food safety	12
<i>Vladimir Kakurinov^{1*}</i>	
Robots in the food industry: challenges with respect to hygiene and cleaning/disinfection	13
<i>Frank Moerman</i>	
Innovative Technologies for Natural Food Ingredients: From Nature to Products.....	14
<i>Lillian Barros</i>	
PLENARY LECTURES	16
Bioactive Molecules, Post-Biotics, Fermented Foods In Prevention Of Age-Relevant Diseases	17
<i>Nadiya Boyko^{1,2,3,4}</i>	
Encapsulation of bioactives in food industry.....	18
<i>Viktor Nedović, Ana Salević-Jelić, Steva Lević</i>	
Do post-translational and processing-born food protein modifications affect protein digestibility and their immune properties?	19
<i>Katarina Smiljanić¹</i>	
Bioactive compounds from mushrooms can help to prevent and cure diseases.	20
<i>Mark Shamtshyan, Boris Kolesnikov, Sergey Sorokin, Andrey Shamtshyan</i>	
Chitosan Production from Mushrooms: Current State of Knowledge.....	21
<i>Maja Kozarski^{1*}, Vesna Lazić¹, Miomir Nikšić¹, Milena Pantić¹</i>	
Medicinal and aromatic plants essential oils, hydrosols and their main component for the preservation of fresh produce.....	22
<i>Panayiota Xylia, Christos Goumenos, Antonios Chrysargyris, Nikolaos Tzortzakis[*]</i>	
LECTURES	24
Characterization and functional properties of goat milk based powder enriched with phenolic compounds from winemaking by-products	25
<i>Danijel D. Milinčić^{1*}, Aleksandar Ž. Kostić¹, Slađana Stanojević¹, Uroš Gašić², Vladislav Rac¹, Vladimir B. Pavlović¹, Živoslav L.J. Tešić³, Mirjana Pešić¹</i>	



Antimicrobial and antioxidant properties of crude chitosan extracted from cultivated <i>Agaricus bisporus</i>	26
<i>Milena Pantić¹, Maja Kozarski¹, Vesna Lazić¹, Miomir Nikšić¹, Aleksandra Daković², Danina Krajišnik³</i>	
Litmaps - a useful tool for overcoming literature gaps: an example from food safety and chromatography.....	27
<i>Maja Bensa^{1*}, Irena Vovk²</i>	
In vitro antioxidant potential and mineral content of pectin-like polysaccharides isolated from soy hull.....	28
<i>Nevena Barać^{1*}, Ivana Sredović Ignjatović¹, Aleksandar Kostić¹, Biljana Rabrenović¹, Miroljub Barać¹</i>	
Opportunities and challenges of food waste and byproduct valorization.....	29
<i>Mona Elena Popa</i>	
One Health - a holistic approach to achieving new trends in food safety and a sustainable food system.....	30
<i>Dragan Milicevic</i>	
Comparison Of Physico-Chemical Properties Of Acid And Alkali Soluble-Pea Proteins And Entrapment Yield With Citrus Pectin.....	31
<i>Merve Yavuz-Düzgün^{1,2}</i>	
The Role Of Parental Influence On Children's Brand Preferences.....	32
<i>Konstantin Kakurinov^{1*}</i>	
The Changes Of Antioxidants Bioavailability During <i>In Vitro</i> Gastrointestinal Digestion Of Okara-Enriched Gluten-Free Bread.....	33
<i>Milica M. Pešić¹, Jelena Bezbradica¹, Danijel D. Milinčić¹, Mirjana Demin¹, Mirjana B. Pešić¹, Slađana P. Stanojević^{*1}</i>	
SHORT ORAL PRESENTATIONS	34
Efficiency of green biosynthesized silver nanoparticles as antibacterial agent against <i>Aeromonas hydrophila</i> isolated from infected rainbow trout.....	35
<i>V.I. Kulikouskaya, K.M. Grigoryan, V.V. Nikalaichuk, V. Hovsepyan, M. Sargsyan</i>	
Development Of A New Protein-Vegetable “Snack” Product, Nutritionally Balanced.....	36
<i>Drăghici Mihaela Cristina¹, Popa Elisabeta Elena¹, Geicu Cristea Mihaela¹, Popescu Paul Alexandru¹, Toader Alexandru¹, Dobrin Aurora², Ion Violeta², Bujor Oana², Dragomir (Caragea) Nela³, Constantin Carmen², Moț Andrei², Popa Mona Elena¹</i>	
Study of the Temperature Effect on the Growth of <i>E. coli</i> in Cheese.....	37
<i>Masa Ilincić^[1], Nadja Raicevic^[1], Amil Orahovac^[1], Andrea Milacic^[1] and Aleksandra Martinovic^[1]</i>	
Evaluating Dietary Salt Intake Patterns in the Montenegrin Adult Population	38
<i>Amil Orahovac^[1], Andrea Milacic^[1], Nadja Raicevic^[1], Masa Ilincić^[1] and Aleksandra Martinovic^[1]</i>	
Microbiome Analysis of Selected Montenegrin White Brine Cheeses	39
<i>Nadja Raicevic^[1], Amil Orahovac^[1], Andrea Milacic^[1], Masa Ilincić^[1] and Aleksandra Martinovic^[1]</i>	
Assessing the Quality and Authenticity of Montenegrin Olive Oil	40
<i>Andrea Milacic^[1], Amil Orahovac^[1], Nadja Raicevic^[1], Masa Ilincić^[1] and Aleksandra Martinovic^[1]</i>	
Rosehip (<i>Rosa canina</i> L.): A Phytochemical and Bioactive Ingredient Analysis for Functional Food Applications.....	41
<i>Ana Ćirić¹, Marija Ivanov¹, Jovana Petrović¹, Dejan Stojković¹, Uroš Gašić¹, Danijel Milinčić², Mirjana Pešić²</i>	
Matrix effect in determination of pesticide in cereal products with gas chromatography	42
<i>Anita Najdenkoska*, Margarita Timofeeva</i>	
Accessing the bioactivity of extracts obtained from 22 different by-products of the agri-food industry.....	43
<i>Rafael Mascoloti Spréa^{1,2,3}, Filipa S. Reis^{1,2}, Rui M.V. Abreu^{1,2}, Filipa Mandim^{1,2}, Tânia C.S.P. Pires^{1,2}, Manuel Román⁴, Joana S. Amaral^{1,2}, Miguel A. Prieto³, Lillian Barros^{1,2}</i>	
Edible And Bioactive Mushroom <i>Agrocybe Aegerita</i> (V. Brig.) Vizzini: A Valuable Resource For The Next Generation Of Pharmaceutical Products	44
<i>Jovana Petrović¹, Jasmina Glamočlija¹, Mirjana Pešić², Dejan Stojković¹</i>	



Hmf Level And Diastase Number Of Some Albanian Honey Samples	45
<i>Gjyliza Bregu*</i> , <i>Xhulieta Hamiti</i> 1, <i>Elena Muçal</i> , <i>Eldorida Molla</i>	
The effect of bioprimering of pea seeds (<i>Pisum sativum</i> L.) with extracts of <i>Schizophyllum commune</i> Fr. 1815 on the antioxidant activity of the plant under stress conditions (drought)	46
<i>Jovana Mišković</i> 1, <i>Milena Rašeta</i> 2, <i>Gordana Tamindžić</i> 3, <i>Nenad Krsmanović</i> 1 <i>Maja Karaman</i> 1,	
PLENARY LECTURES	48
Hygienic Engineering And Design Appiled In Food Factories	49
<i>Vladimir Kakurinov</i> 1*	
Controversies In The Use Of Food Supplements.....	50
<i>Sladjana Sobajic</i>	
Challenges in Analyses of Phytonutrients in Food Samples.....	51
<i>Irena Vovk</i> 1*, <i>Vesna Glavnik</i> 1, <i>Maja Bensa</i> 2, <i>Breda Simonovska</i> 1, <i>Etil Guzelmeric</i> 3, <i>Nisa Beril Sen</i> 3	
Non-thermal technologies beyond food safety: role in fermented food and waste valorization	52
<i>Aleksandra Djukić Vuković</i>	
The influence of thermal treatments on the quality of baby food.....	53
<i>Nikoleta Lugonja</i>	
Spray Drying In Food Technology: Applications, Innovations And Quality Control	54
<i>Steva M. Lević</i> 1*	
Beyond the Plate: The Interplay between Antimicrobial Resistance Emergence and the Safety of Our Food	55
<i>Aleksandra Martinović</i> 1, <i>Andrea Milacic</i> 1, <i>Nadja Raicevic</i> 1, <i>Amil Orahovac</i> 1, <i>Beatriz Daza</i> 2, <i>Adriana Cabal</i> 2 and <i>Werner Ruppitsch</i> 2	
Effect of hop particle size on haze formation and sensory properties of the New England IPA beer.....	56
<i>Saša Despotović</i> , <i>Ana Jireček</i> , <i>Ana Bjeković</i> , <i>Viktor Nedović</i> , <i>Mile Veljović</i>	
Edible Insects: Tendency Or Necessity For The Food Industry?.....	57
<i>Konstantina Papastavropoulou</i> 1, <i>Charalampos Proestos</i> 1*	
Food safety in the age of microplastics and nanoplastics: toxicity and microbial interactions in hazard assessment	58
<i>Andreja Rajkovic</i> 1, <i>Elsa Gadoin</i> 1, <i>Elias Laissani</i> 2, <i>Irene Ortega Sanz</i> 1,3, <i>Charlotte Grootaert</i> 1, <i>Elien Alderweireldt</i> 1, <i>Mohamed F. Abdallah</i> 1, <i>Tanja Cirkovic-Velickovic</i> 4, <i>Mirjana Andjelicovic</i> 5, <i>Anja Klacnik</i> 2.	
Goat Milk: Carrier Of Bioactive Compounds.....	60
<i>Mirjana Pešić</i> 1*, <i>Sladana Stanojević</i> 1, <i>Aleksandar Kostić</i> 1, <i>Danijel Milinčić</i> 1	
Active and intelligent packaging of food – A new trend for the future	61
<i>Tanja Petrović</i>	
LECTURES	62
Nutritional characteristics of whole grain products on serbian market	63
<i>Nevena Ivanovic</i> 1 and <i>Margarita Dodevska</i> 2	
Analysis, current situation and perspective related to plant food safety in Serbia	64
<i>Nenad Vujović</i>	
Resveratrol - health in a wine glass	65
<i>Aleksandar V. Petrovic</i> 1* <i>Nikolina M. Zivkovic</i>	
PLENARY LECTURES	66
Food safety, food ingredients and food crimes	67
<i>Huub Lelieveld</i>	



Medicinal herb extracts as a novel food for microbiota manipulation	68
<i>Mirjana Rajilić-Stojanović</i>	
Medicinal fungi food supplements - novel foods, adulteration and quality control	69
<i>Andrej Gregori</i>	
A new tool in mushroom toxicity screening: the use of a panel of bioluminescent whole-cell bioreporter bacteria	70
<i>Jovana Vunduk^{1,*}, Calin Trif² and Robert Marks²</i>	
Digestibility, starch morphology, and nutritive value of rusks made from wheat flour with the addition of proso	71
<i>Dr Dajana Vucinic</i>	
Antimicrobial, cytotoxic and anticancer activities from Cypriot aromatic plant extracts	72
<i>Antonios Chrysargyris^{L,*}, Kalia Kyriakou², Ekaterina-Michaela Tomou³, Jovana Petrovic⁴, Andria Kotsoni⁵, Vasiliki Gkreysi⁵, Panayiota Xylia¹, Panagiota Miltiadous², Helen Skaltsa³, Marina D. Soković⁴, Nikolaos Tzortzakis¹</i>	
What are the benefits of fermented foods?	73
<i>Bojana Vidović</i>	
A matrix of critical points for consumer food safety	74
<i>Maja BENS^{A1,*}, Mojca JEVŠNIK², Irena VOVK³</i>	
E-POSTERS	76
Effect of ultrasound and cold pressing on the composition of Graševina grape seed oil lipophilic and hydrophilic antioxidants	77
<i>Katarina Perić, Filip Dujmić, Natka Ćurko, Marina Tomašević*, Ivana Radojčić Redovniković, Mladen Brnčić, Karin Kovačević Ganić</i>	
Nutrition of patients suffering from gastritis	78
<i>Iva Lovrinović¹, Natalija Uršulin-Trstenjak^{1,2,*}, Valentina Novak¹, Ivana Dodlek Šarkanj²</i>	
The assessment of raw milk cheese production practices among Serbian small-scale dairy processors	79
<i>Zorana Miloradović^a, Jovana Kovacević^b, Jelena Miocionović^a, Ilija Djekić^c, Nemanja Kljajević^{de}, Nada Smigic^c</i>	
The use of Cypriot oregano for the preservation of fresh spearmint	80
<i>Panayiota Xylia, Antonios Chrysargyris, Nikolaos Tzortzakis</i>	
Cypriot oregano essential oil and hydrosol as promising agents for the preservation of fresh basil.....	81
<i>Panayiota Xylia, Antonios Chrysargyris, Nikolaos Tzortzakis</i>	
The study of fruit wine properties in the protection against oxidative stress	82
<i>Uroš Čakar¹, Mirjana Čolović², Aleksandar Petrović³, Danijela Krstić⁴, Ivan Stanković¹, Brižita Đorđević¹</i>	
Fruit wine active compounds and its ability of hyperglycemia prevention	83
<i>Uroš Čakar¹, Maria Čebela², Aleksandar Petrović³, Ivan Stanković¹, Brižita Đorđević¹</i>	
The effect of biopriming of pea seeds (<i>Pisum sativum</i> L.) with extracts of <i>Schizophyllum commune</i> Fr. 1815 on the enzymatic antioxidant activity of seedling	84
<i>Jovana Mišković¹, Milena Rašeta², Vesna Šolaja², Gordana Tamindžić³, Nenad Kršmanović¹, Maja Karaman¹</i>	
Antimicrobial activity of <i>Pleurotus salmoneostramineus</i> fruiting body extracts co-cultivated with <i>Pleurotus</i> spp. and <i>Lentinus crinitus</i>	85
<i>Vesna Šolaja¹, Biljana Nikolić², Stefana Cvetković², Jasmina Glamočlija³</i>	



Dear Colleagues and Partners,

On behalf of the Organizing and Scientific Committee of the **3rd B-Fost 2023 Congress (Black Sea Association of Food science and Technology) and Congress of Food Technologists of Serbia**, it is our great pleasure to invite you to participate and contribute to this event. The 3rd B-Fost 2023 Congress will be held **from 13th to 14th December 2023 in MONA PLAZA Hotel, Belgrade, Serbia.**

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), ISEKI Food Association (IFA) and [FoodHub Center of Excellence, University of Donja Gorica](#)**



B-FoST 2023 Congress gives an unique opportunity for food scientists, researchers, technologists, producers and nutritionists, young scientists and students for presentation of results and findings of their own work and exchange information on the new processes. We are looking forward to seeing you at the B-FoST Congress and welcoming you in Belgrade.

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BF11B

Plenary Lecture 3

Do post-translational and processing-born food protein modifications affect protein digestibility and their immune properties?

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Protein post-translational modifications and those induced by food processing (PTMs) occur in many forms and can widely influence protein structure and behaviour. Yet, their structural and functional aspects in protein architecture are mainly overlooked. Until recently, this was mostly a consequence of insurmountable obstacles related to their global proteome identification and quantification via mass spectrometry-based proteomics. However, recent advancement in high-resolution tandem mass spectrometry, coupled with dedicated software, such as PEAKS Studio for an unspecified identification of PTMs, enabled their confident mapping. In our recent works we have established a method for global, open and relative quantitative profiling of PTMs without enrichment step, demonstrating its usefulness in environmental (1), biomedical (2) and food technology (3) sciences.

PTMs could influence enzyme hydrolytic efficiency. This was a starting point to grow the idea of porcine trypsin being used in proteomics to serve as a probe to decipher differences in scissile bond hydrolysis caused by PTMs, based on steric and charge changes introduced as a possible hindrance or facilitation to its active site. We further hypothesized that the effects observed would be even more pronounced with human trypsin, since it is less efficient compared to the porcine counterpart. Therefore, we have reassessed our porcine-derived trypsin-generated proteomic data of the major peanut allergen Ara h 1 from the raw and roasted peanut, to look for possible facilitating/hindrance effects on trypsin digestion efficacy caused by PTMs positioned on K/R residues, by developing a manual method to analyse the extent of trypsin hydrolytic efficiency on modified and unmodified sequences. The algorithm based on machine learning of the big proteomic data in public repositories could be made to determine enzyme cleavage efficiency in relation to PTMs presence based on our developed manual method and it could be applied in other life science fields. This topic is important for understanding of peanut (food) allergy and human gastrointestinal digestion of proteins and PTMs introduced by food processing.

Funding: This work was supported by The Ministry of Science, Technological Development and Innovation of the Republic of Serbia grant no. 451-03-47/2023-01/200168.

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