

FOODBALT 2023
16th Baltic Conference on Food Science and Technology
“TRADITIONAL MEETS NON-TRADITIONAL IN FUTURE FOOD”

Programme

May 11, 2023

8³⁰-9³⁰ Registration Hall of Aula, LBTU main building

9³⁰-9⁴⁵ **OPENING** Rector of LBTU Irina Pilvere, Dean of the LBTU Faculty of Food Technology Mārtiņš Šabovics

Session I Room Aula, LBTU main building

Moderators: Sirli Rosenvald, Center of Food and Fermentation Technologies, Estonia
Mārtiņš Šabovics, Latvia University of Life Sciences and Technologies, Latvia

9⁴⁵-10²⁵ **KEY LECTURE Sirli Rosenvald, Center of Food and Fermentation Technologies, Estonia, The proteins of the future**

10²⁵-10⁴⁰ **O1 – Ū. Luhila, K. Laos, T. Paalme** *Ice binding proteins from psychrophilic bacteria - characterization and applications in food*

10⁴⁰-10⁵⁵ **O2 – M.-L. Tammik, K.-L. Vimm** *Gelling properties of proteins in meat analogs*

10⁵⁵-11¹⁰ **O3 – I. Rutka, R. Galoburda, J. Galiņš, A. Galiņš** *Bio-active compounds in bee drone larvae after freeze-drying*

11¹⁰-11²⁵ **O4 – E. Bartkiene, V. Bartkevičs, A. Santini, V. Lele, V. Starkute, E. Zokaityte, D. Klupsaite, P. Zavistanaviciute, E. Tolpeznikaite, E. Mockus, E. Mozuriene, R. Ruibys, D. Cernauskas, F. Özogul, R. P. F. Guiné, K. J. Domig, J. M. Rocha** *Sourdough lactic acid bacteria – from food industry by-products and alternative food stock valorization to neurotransmitters production*

11²⁵-12⁰⁰ **Pitch presentations**

P1 – A. Taivosalo, I. Stulova, M.-L. Kütt, T. Kriščiunaite, T. Gimaeva, M. Tamm *Determination of potential allergenicity of commercially available whey protein hydrolysates with LC-MS method*

P2 – H. Saar, K. Adra, T. Kriščiunaite, H. Vaikma *Rheological and sensory characterization of plant-based yoghurt analogues to describe the texture of products using instrumental parameters*

P3 – A. Łobacz, J. Kowalik, N. Wąsowska, J. Tarapata, J. Żulewska *Application of cricket flour in yoghurt production*

P4 – A. Grava, R. Galoburda, J. Zagorska *Potential of legumes in the development of plant-based yogurt*

P5 – A. Kaleda, K. Talvistu *Salt can improve fibrousness in extruded plant-based high-moisture meat analogs*

P6 – M. Darewicz, M. Pliszka, J. Borawska-Dziadkiewicz, A. Iwaniak, P. Minkiewicz *Oat kernel proteins as a source of antioxidant peptides*

P7 – A. Iwaniak, M. Darewicz, M. Hryniewicz, P. Minkiewicz *Food-derived proteins as the sources of sensory peptides based on computer prediction*

P8 – M. Alas, M. Kriisa *Fermentation of pea protein matrix for the development of plant-based cheese*

12⁰⁰-12⁴⁵ **LUNCH**

Parallel Session II Room 182, 1st floor, LBTU main building

Moderators: Laura Jūrienė, Kaunas University of Technology, Lithuania
Tatjana Ķince, Latvia University of Life Sciences and Technologies, Latvia

12⁴⁵-13⁰⁰ **O5 – I. Jurevičiūtė, D. Leskauskaitė, M. Keršienė, V. Eisinaitė** *Effect of κ-carrageenan on the physical and rheological properties of heat-induced pea protein gels*

13⁰⁰-13¹⁵ **O6 – I. Lignicka, A. Graci, R. Galoburda** *Physico-chemical and sensory properties of extruded breakfast cereals made of brown pea and oat*

13¹⁵-13³⁰ **O7 – K. Ozoliņa, I. Sarenkova, S. Muižniece-Brasava** *Legume consumption patterns, preferences, and prospects among the population of Latvia*

13³⁰-13⁴⁵ **O8 – E. Andersone-Trēziņa, T. Ķince, L. Tomsone** *Germination impact on phenolic content and antioxidant activity of beans*

13⁴⁵-14¹⁵ **Pitch presentations**

P9 – J. Leveckytė, V. Kitrytė-Syrpa *Optimization of pressurized ethanol extraction of common dandelion (Taraxacum officinale L.) flowers*

P10 – O. Šataitė, M. Pukalskienė, P. R. Venskutonis *Phenolic profile and antioxidant activity of honeysuckle (Lonicera caerulea) berry pomace*

P11 – E. Juzėnaitė, M. Pukalskienė, R. Maždžierienė, P. R. Venskutonis *Pectin recovery from black currant pomace physio-chemical functional variations based on methyl-esterification*

P12 – I. Pocevičienė, P. R. Venskutonis, L. Jūrienė, R. Baranauskienė *Characterization of mechanically fractionated black currant pomace and its supercritical CO₂ extraction products*

P13 – L. Jūrienė, V. Morkūnienė, P. R. Venskutonis *Application of response surface methodology for the optimization of Pressurized liquid extraction of cherry pomace*

- P14** – R. Grabauskaitė, L. Jūrienė, R. Kazernavičiūtė, P. R. Venskutonis *Fractionation of berry seeds and pomace using green high-pressure extraction methods*
- P15** – J. Jovaišaitė, L. Jūrienė, A. Pukalskas, P. R. Venskutonis *Extraction of valuable lipophilic compounds from Vincetoxicum species*
- P16** – A. Petrikaitė, M. Pukalskienė, R. Kazernavičiūtė, P. R. Venskutonis *Optimizing the extraction of bioactive components from sea buckthorn (Hippophae rhamnoides L.) pomace and development of antioxidant-enriched mayonnaise*

Parallel Session III Room Silver Hall, LBTU main building

Moderators: Jonas Damašius, Kaunas University of Technology, Lithuania

Sandra Muižniece-Brasava, Latvia University of Life Sciences and Technologies, Latvia

- 12⁴⁵-13⁰⁰ **O9** – R. Ruska, S. Muižniece-Brasava, S. Sazonova, L. Berga, I. Laukalēja-Broka, J. Ķīvīte *Packaging analysis for a sustainable future*
- 13⁰⁰-13¹⁵ **O10** – A. Taha, F. Casanova, A. Stirkė *Effects of pulsed electric field on the structural and emulsifying properties of dairy proteins*
- 13¹⁵-13³⁰ **O11** – K. Eryasar-Orer, E. B. Olutas, S. Karasu-Yalcin *Investigation of biosurfactant production of yeasts from food origin*
- 13³⁰-13⁴⁵ **O12** – K. Kārklīņa, L. Ozola *Evaluation of pine cone syrups and changes of physical parameters during storage*
- 13⁴⁵-14¹⁵ **Pitch presentations**
- P17** – A. Jaruševičienė, J. Damašius *Morphology of different laminated biocomposites suitable for food packaging*
- P18** – R. Alksnis, I. Alsiņa, L. Dubova, T. Harbovska, M. Dūma *Non-destructive detection of tomato maturity*
- P19** – V. Kočetkovs, S. Sazonova, S. Muižniece-Brasava, J. Ķīvīte *Analysis of packaged egg product shelf life after opening*
- P20** – I. Bernāte, M. Šabovics *Effect of ozone on Enterobacteriaceae spp. in seeds of alfalfa, wheat grain and sprouts*
- P21** – D. Dagytė, R. Žvirdauskienė, M. Keršienė *Effect of ozonation on shelf life of French dessert cannellés liquid dough*
- P22** – K. Laos, K. Eha *Effect of thermal treatment on the rheological properties of carrageenan gels*
- P23** – H. Lang, K. Saarniit, R. Kuldjäär *The effect of transition to a more energy-effective processing regime on the shelf-life of lingonberry-blueberry-rye puree*
- P24** – N. Konkubaeva, A. Kulmyrzaev, A. Deydiev, R. Galoburda *Determination of the shelf life of puffed wheat "badyrak vanilla" and "badyrak with whey"*

14¹⁵-14⁴⁵ COFFEE BREAK HALL OF AULA

Key Lecture Room Aula, LBTU main building

- 14⁴⁵-15²⁵ **KEY LECTURE.** Eystein Oveland, Institute of Marine Research, Norway, NMKL and validation of methods for food analysis – Examples from determination of vitamins using LC-MS/MS

Parallel Session IV Room 182, 1st floor, LBTU main building

Moderators: Eystein Oveland, Institute of Marine Research, Norway

Liene Ozola, Latvia University of Life Sciences and Technologies, Latvia

- 15³⁰-15⁴⁵ **O13** – E. Pasečnaja, D. Začs *Method development for the determination of per- and polyfluorinated compounds in food*
- 15⁴⁵-16⁰⁰ **O14** – D. Fedorenko, M. Jansons, R. Pavļenko, Z. Bērziņa, V. Bartkevičs *The quantitative analysis of pyrrolizidine alkaloids in food products using Nanoflow liquid chromatography mass spectrometry*
- 16⁰⁰-16¹⁵ **O15** – D. Lazdiņa, I. Ciproviča, D. Segliņa *Japanese quince seed protein extraction using different defatting methods*
- 16¹⁵-16⁵⁰ **Pitch presentations**
- P25** – K. Eryasar-Orer, E. B. Olutas, S. Karasu-Yalcin *Influence of carbon sources on biosurfactant production by Cyberlindnera fabianii*
- P26** – A. Arslan, E. Yalçın, D. Ermişer, A. Güneş *Protein and total starch contents of milling fractions of buckwheat grown in different locations of Türkiye*
- P27** – U. Krakauskaitė, M. Syrpas *Evaluation of colour stability of purified phycocyanin extracted from arthrospira platensis after complexation with food-grade polysaccharides*
- P28** – R. Olędzki, T. Lisowska, A. Tyupova, M. Villanueva, J. Harasym *The change in antioxidant activity characteristics of buckwheat flour after microwave supported heat-moisture treatment*
- P29** – A. Zhogoleva, H. Lang, S. Rosenvald *Key odour-active compounds in cooked salmon*
- P30** – G. Deveikaitė, R. Žvirdauskienė *Isolation and characterization of pigments from pigment-producing microorganisms extracted from environment and their antibacterial activity*

P31 – R. Al Akiki Dit Al Mazraani, M. Syrpas *Pressurized liquid extraction of bioactive compounds from *Parmotrema perlatum*: Optimization and analysis*

P32 – M. Dūma, I. Alsīņa, L. Dubova *Phytochemicals in tomatoes*

Parallel Session V Room Silver Hall, LBTU main building

Moderators: Catia Martins, University of Aveiro, Portugal

Zanda Krūma, Latvia University of Life Sciences and Technologies, Latvia

15³⁰-15⁴⁵ **O16 – K. Jakobson, A. Kaleda, T. Kriščiunaite** *Does surface morphology of plant-based protein powders influence sensory perception?*

15⁴⁵-16⁰⁰ **O17 – R. Olędzki, J. Harasym** *Effects of selected thermal treatments on the bioactive and textural properties in bell peppers*

16⁰⁰-16¹⁵ **O18 – A. Silva, C. Martins, S. M. Rocha** *Can hop terpenic volatiles have impact on beer volatile profile?*

16¹⁵-16⁵⁰ Pitch presentations

P33 – A. Pisponen, S. Taimalu, H. Andreson *The effect of the ratio of lactic acid bacteria and yeasts in kvass fermentation*

P34 – R. Riekstiņa-Dolģe, Z. Krūma, L. Tomsone *Effect of honey origin and yeast type on the bioactive compounds in mead*

P35 – S. Ribeiro, T. Tavares, I. Furtado, R. Silva, A. Rudnitskaya, F. S. S. Rogerson, F. Alves, S. M. Rocha *Mapping of volatile compounds from Port wine fortification spirits: A step forward on the route of sustained innovation*

P36 – S. Puišele, I. Dabiņa-Bicka, Z. Krūma *Production of spirit from Jerusalem artichokes*

P37 – V. Minelgaitė, M. Syrpas *Evaluation of physicochemical, phenolic profile and antioxidant capacity changes of kombucha during fermentation*

P38 – J. Jagelavičiūtė, D. Čižeikienė, L. Bašinskienė *Effect of cranberry pomace on smoothie properties for the development of functional beverage*

P39 – V. Kreicbergs, M. Dūma, B. Ozola, V. Miķelsone *Biologically active compounds in wild and cultivated cranberries and blueberries*

P40 – L. Tomsone, R. Galoburda, M. L. Nguemazon *Texture evaluation of edible pearls filled with natural juice*

18³⁰ Departure for conference dinner

19⁰⁰-22⁰⁰ CONFERENCE DINNER (departure to Jelgava at 22¹⁵)

May 12, 2023

Parallel Session VI Room 182, 1st floor, LBTU main building

Moderators: Carmela Lamacchia, University of Foggia, Italy

Evita Straumīte, Latvia University of Life Sciences and Technologies, Latvia

8³⁰-8⁴⁵ **O19 – R. Mūrniece, E. Stalidzāns, I. Dabiņa-Bicka, R. Galoburda, I. Cinkmanis, D. Kļava** *Application of mathematical modelling as a tool in the use of rye malt to balance the quality of rye flour*

8⁴⁵-9⁰⁰ **O20 – S. Reidzāne, I. Grāmatiņa, R. Galoburda, V. Komašilovs, A. Zacepins, A. Bljahhina, T. Kince, A. Traksmāa, D. Kļava** *Hull-less barley sourdough bread: Composition of polysaccharides and technological characteristics*

9⁰⁰-9¹⁵ **O21 – X. Suo, L. Moriconi, L. Peverini, A. La Terza, E. Vittadini** *Application of acorn flour in leavened bread products*

9¹⁵-9³⁰ **O22 – M. Chiodetti, E. Carini** *The effect of sorghum flour (*Sorghum bicolor* [L.] Moench) on bread staling: From macroscopic to molecular properties*

9³⁰-9²⁵ **O23 – M. Chiodetti, S. Monica, E. Bancalari, B. Bottari, E. Carini** *Effect of selected lactic acid bacteria fermentation on sorghum techno-functional properties*

9⁴⁵-10⁰⁰ **O24 – C. Lamacchia, B. La Gatta, M. Rutigliano, F. Dilucia, M. T. Liberatore, R. Caporizzi** *Effect of grape pomace powder on the fresh tagliatelle gluten network and sensory properties*

10⁰⁰-10⁴⁵ Pitch presentations

P41 – A. Mariševa, I. Beitāne *The study of technological properties of amaranth, amaranth-buckwheat, and amaranth-oat pasta*

P42 – T. Lisovska, M. Villanueva, A. Orkusz, J. Harasym *High moisture microwave treatment modulates functional and pasting characteristics of buckwheat flour*

P43 – T. Lisovska, M. Villanueva, F. Ronda, A. Orkusz, J. Harasym *High moisture microwave treatment modulates functional and pasting characteristics of teff flour*

P44 – M. Riškus, J. Jagelavičiūtė, L. Bašinskienė *Protein enrichment of wheat bread using defatted hazelnut and walnut meal as by-products*

P45 – E. Straumīte, I. Kņūtina *Evaluation of wheat bread quality with legumes blends*

P46 – F. Vurro, C. Summo, G. Squeo, F. Caponio, A. Pasqualone *The use of durum wheat oil in the preparation of focaccia: tradition, innovation, and sustainability*

- P47** – I. Skrabule, L. Rābante-Hāne, I. Dimante, **I. Taškova**, S. Sviatchenko *The impacts of nitrogen use efficiency of potato genotypes on environmentally friendly raw material production for starch processing*
- P48** – **V. Šterna**, E. Sokolova, I. Taškova, I. Skrabule, I. Dimante *Potato cultivars with elevated protein content – promising source of novel food*
- P49** – **S. Sudheer**, S. Hussain, T. Heinsalu, R. Bhat *Valorisation of agro-industrial biomass for the cultivation of edible mushrooms*

Parallel Session VII Room Silver Hall, LBTU main building

Moderators: Ivi Jõudu, Estonian University of Life Sciences, Tartu, Estonia

Inga Šarenkova, Latvia University of Life Sciences and Technologies, Latvia

- 8³⁰-9⁴⁵ **O25** – **S. Sabuņeviča**, J. Zagorska *Organic milk as medium for lactic acid bacteria growth: A review*
- 8⁴⁵-9⁰⁰ **O26** – **I. Jõudu**, A. Sats, T. Jairus *Composition, quality and valorisation possibilities of transition milk*
- 9⁰⁰-9¹⁵ **O27** – **M. P. Totaro**, G. Difonzo, F. Caponio, A. Pasqualone, C. Summo *Reformulation approaches to reduce the use of nitrates and nitrites in ripened sausages*
- 9¹⁵-9³⁰ **O28** – **S. Juchniewicz**, W. Kopeć *Influence of ultrasound assisted extraction on the molecular, rheological and technological characteristics of actomyosin*
- 9³⁰-9⁴⁵ **O29** – **L. Varnaitė-Kapočė**, V. Eisinaite, D. Leskauskaitė *Characterization of different structured food-grade double-emulsion formulations*
- 9⁴⁵-10⁰⁰ **O30** – **E. Aus**, R. Kuldjārv, A. Meikas, H. Vaikma, M. Junusova *Chemical, metagenomic and sensory differences in kimchi fermented in industrial and laboratory scale*
- 10⁰⁰-10⁴⁵ **Pitch presentations**
- P50** – **J. Kowalik**, A. Łobacz, J. Tarapata, J. Żulewska *Fermented dairy beverages with addition of selected milk ingredients*
- P51** – **I. Stulova**, K. Adra, M.-L. Kutti, L. Kiiker *Effect of aging time on the rheological properties of the plant-based ice cream mix*
- P52** – **V. Sarv**, K. Kerner, P. R. Venskutonis, G. Rocchetti, P. P. Becchi, L. Lucini, A. Tānavots, R. Bhat *Evaluation of rowan fruit pomace ingredients in meatballs by conventional quality characterization and UHPLC-QTOF-MS based untargeted metabolomics with multivariate data analysis*
- P53** – **K. Kerner**, R. Kazernavičiūtė, I. Jõudu, A. Tānavots, P. R. Venskutonis *Effect of different blackcurrant seed ingredients on the quality of pork meatballs*
- P54** – **K. M. Ruus**, R. Kuldjārv, H. Vaikma *A study to find a possibility to soften bones of Baltic herring and Baltic sprat with acetic acid and hydrochloric acid*
- P55** – **D. Nurvafayeva**, D. Berdiyeva, R. Tashmanov, S. Ishniyazova, N. Muminov, Z. Saidmuradova, A. Tursunov *Study of the use of apple pomace as food supplement*
- P56** – C. P. Costa, S. Patinha, A. Rudnitskaya, S. A. O. Santos, A. J. D. Silvestre, **S. M. Rocha** *Sustainable valorization of Sambucus nigra L. berries: From crop biodiversity to nutritional value*
- P57** – **D. Malenica**, L. S. Maciel, K. Herodes, M. Kass, R. Bhat *Sustainable utilization of apple pomace and oat bran pomace for development of livestock feed*
- P58** – **K. Safarov**, O. Achilov, U. Karshiev, S. Nasimov *Influence of probiotic preparation on meat productivity and meat quality of broiler chickens and rabbits*

10⁴⁵-11¹⁵ COFFEE BREAK HALL OF AULA

Session VIII Room 182, 1st floor, LBTU main building

Moderators: Tetiana Lisovska, Wroclaw University of Economics and Business, Poland

Ilze Laukalēja-Broka, Latvia University of Life Sciences and Technologies, Latvia

- 11¹⁵-11⁵⁵ **KEY LECTURE Andrejs Ērglis**, *Institute of Cardiology and Regenerative Medicine, University of Latvia, Latvia, Food, health, technology transfer and science*
- 11⁵⁵-12¹⁰ **O31** – **A. Beluško**, L. Aumeistare, K. Majore, I. Ciproviča *Bioactive compounds in human milk of mothers living in Latvia*
- 12¹⁰-12²⁵ **O32** – **S. Aleksejeva**, A. Krasikova, I. Ciproviča, L. Meija *Effect of buttermilk polar lipids on plasma lipid profile: A pilot study*
- 12²⁵-12⁴⁰ **O33** – **R. Kuldjārv**, A. Jagomāe, L. Kiiker, A. Jõeleht, S. Pihelgas *Dietary intervention study conducted with fiber rich functional and sustainable smoothie made using leftover apple pomace from apple cider industry*
- 12⁴⁰-12⁵⁵ **O34** – **L. Zemļicka**, E. Straumīte *A review – Quantitative and qualitative indicators of factors affecting the sensory perception of coffee*
- 12⁵⁵-13⁴⁵ **Pitch presentations**
- P59** – R. P. F. Guiné, **D. Kļava**, Z. Krūma, E. Straumīte, S. G. Florença, O. Anjos, I. Djekic, C. Chuck-Hernández, M. Matek Sarić, E. Bartkiene, N. M. Boustani, M. Papageorgiou, J. M. F. Baro, M. Korzeniowska, M. Černelič-Bizjak, M. Tarcea, E. Damarli, V. Ferreira *Consumer perception about edible insects' relation with environment and sustainability*

- P60** – **M. N. G. Ibrahim**, A. Aav, I. Jõudu *The prospective effect of pure α -amylase utilization in the production of functional high quality oat drinks*
- P61** – **J. Grinberga**, I. Beitāne *Alternatives to fructose for the development of products for patients with diabetes*
- P62** – **L. Plociņa**, I. Beitāne *The importance of fatty acids in mental health*
- P63** – **L. Jansone**, Z. Krūma, E. Straumīte, S. Kampuse *Dehydrated sauerkraut juice as a salt alternative in food*
- P64** – **S. Īriste**, B. Batare, G. Krūmiņa-Zemture, I. Beitāne, S. Sazonova *Hygienic assessment of sanitary facilities in catering establishments*
- P65** – **K. Jusys**, I. Jurevičiūtė, V. Eisinaite, D. Leskauskaitė, A. Šipailienė *Influence of sea buckthorn pomace (*Hippophae rhamnoides* L.) on the functional properties of surimi*
- P66** – **R. Riekstiņa-Dolģe**, M. Eglīte, G. Krūmiņa-Zemture *The issues faced by school meal providers*
- P67** – **V. Yevlash**, N. Murlykina, O. Aksonova, S. Gubsky *Capabilities of wild plant *Salicornia europaea* application in food technologies*
- P68** – **L. Huseynli**, C. Hald, C. Dawid, K.Vene *Identification of bitter off-taste compounds in sunflower press cake using sensomics approach*

13⁴⁵-14⁰⁰ CLOSING OF CONFERENCE