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**Latvia University of Life Sciences and Technologies
Faculty of Food Technology**

**FOODBALT 2023 16th Baltic Conference on
Food Science and Technology**

**“TRADITIONAL MEETS
NON-TRADITIONAL IN FUTURE FOOD”**

Abstract Book

**Jelgava
May 11–12, 2023**

FOODBALT 2023

Abstract Book of FOODBALT 2023 16th Baltic Conference on Food Science and Technology
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FOODBALT 2023

Dear participants,

Welcome to the sixteenth FOODBALT conference established by professor Petras Rimantas Venskutonis in 2006. Since then, it has been organized in Kaunas, Tallinn and Jelgava attracting researchers from many countries outside Baltics. We are glad that numerous PhD students take the chance to present their work along with established researchers.

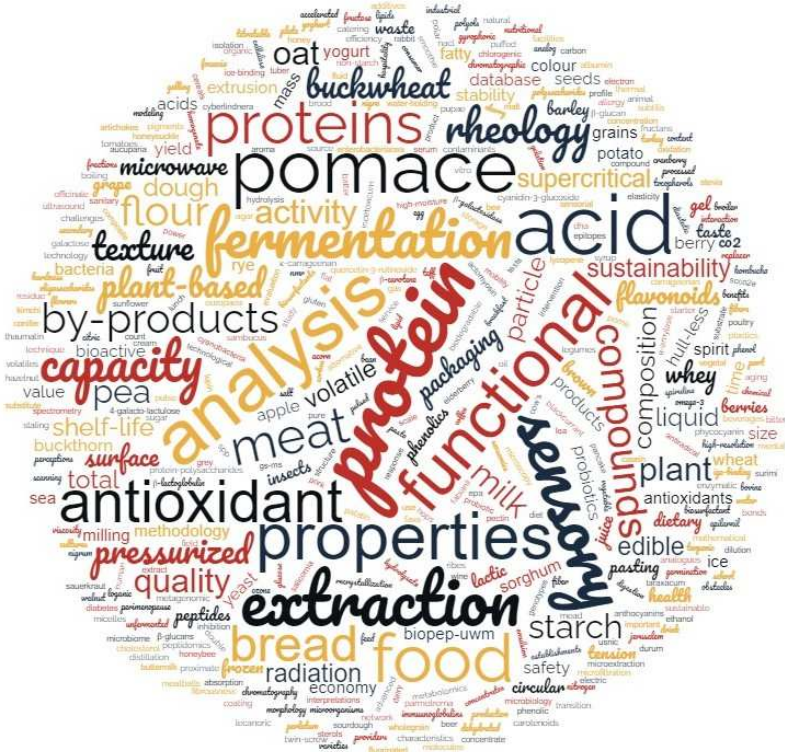
In FOODBALT 2023, researchers from 11 countries will present their latest scientific achievements in 8 sessions, comprising three key lectures, 34 oral presentations and 68 pitch presentations. The main topics include: Trends and Innovations in Food Science and Technology; Valorisation of Co-products, Non-traditional Ingredients, and Food Waste; Consumer's Preferences and Food Choices; Challenges in Nutrition Science; and Other Topics of Food Science and Technology.

The abstracts submitted indicated that quality research in food science often requires a multidisciplinary team. Thus, many studies were completed by partners from various departments of the same institution, by partners from different research institutions of the same country, by multinational researcher teams and also in partnership with industry.

We believe that you will enjoy and have benefit from attending the 16th Baltic Conference on Food Science and Technology "TRADITIONAL MEETS NON-TRADITIONAL IN FUTURE FOOD" held in Jelgava on May 11th and 12th, 2023.

Dr.sc.ing. Martins Sabovics, Dean of the Faculty of Food Technology

FOODBALT 2023



Keyword cloud from FOODBALT 2023 Abstracts

SOURDOUGH LACTIC ACID BACTERIA – FROM FOOD INDUSTRY BY-PRODUCTS AND ALTERNATIVE FOOD STOCK VALORIZATION TO NEUROTRANSMITTERS PRODUCTION

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Sourdough is a complex ecosystem, where lactic acid bacteria (LAB) and yeasts are dominant organisms. LAB isolated from sourdough can be employed as a biotechnological starters to improve the safety and functionality of food and feed, to provide added value and to increase safety of food industry by-products, to design synthesis of functional molecules in fermentable substrates, and to moderate the technologies for safer alternative stock (*e.g.*, insect flour) incorporation to the main food (*e.g.*, bread) formulas. Sourdough contains a wide range of LAB, which metabolic activity strongly affects the characteristics of the fermentable substrates. The addition of starter cultures under controlled conditions is a highly prospective technology for sustainable feed preparation. Metabolites of the LAB as well as viable LAB cells in fermented feed material leads to desirable changes in animal microbiota, better health and production quality. Additionally, the high-functionality fermented feed can be produced by applying sourdough LAB for the food industry by-product valorization. Also, fermentation with sourdough LAB greatly contribute not only to the flavour, aroma, and texture of the final product but also to functional molecules synthesis, *e.g.*, galactooligosaccharides can be synthesized from the dairy industry by-products containing lactose; gamma-aminobutyric acid can be produced from the substrates containing L-glutamic acid (*e.g.*, Spirulina). This type of bioconversion is a very promising technology for food and nutraceutical production. Finally, our works showed, that sourdough LAB application in industry is extremely broad: from food industry by-products and alternative food stock valorization to neurotransmitter production.

Keywords: lactic acid bacteria, by-products, fermentation, functional molecules, safety

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