

Exploring Sweet Peptides and Oligosaccharides for Enhanced Food Reformulation

Summary

The Department of Food Science and Technology at Tallinn University of Technology is offering a fully-funded PhD position focused on investigating the utilization of sweet peptides and oligosaccharides in innovative food reformulation strategies. The primary goal of this interdisciplinary research project is to enhance the nutritional profile, sensory attributes, and consumer acceptance of food products through the incorporation of these bioactive compounds.

Research field:	Chemistry and biotechnology
Supervisors:	Kristel Vene Ivar Järving
Availability:	This position is available.
Offered by:	School of Science Department of Chemistry and Biotechnology
Application deadline:	Applications are accepted between January 01, 2024 00:00 and January 22, 2024 23:59 (Europe/Zurich)

Description

Project Overview: This project will delve into various aspects:

1. **Nutritional Enhancement:** Assessing the potential of sweet peptides and oligosaccharides to reduce added sugars and enhance nutritional quality in food formulations.
2. **Sensory Optimization:** Investigating their role in flavor release mechanisms and exploring strategies for masking, encapsulating, or blocking off-flavors to improve overall sensory experiences.
3. **Consumer Acceptance:** Evaluating consumer perceptions and acceptance of reformulated products containing sweet peptides and oligosaccharides through sensory panels and market studies.
4. **Biotechnological Methods:** Exploring extraction methods or biotechnological approaches to produce high-potential sweet-tasting peptides and oligosaccharides for application in food products.

Position Details:

- **Title:** PhD Researcher in Food Science and Technology
- **Location:** Tallinn University of Technology, Tallinn, Estonia
- **Duration:** 3-4 years (full-time)
- **Funding:** Full financial support, including stipend and research expenses
- **Starting Date:** May 2024

Requirements:

- A master's degree in Food Science, Biochemistry, Biotechnology, or related fields.
- Strong background in food chemistry, sensory evaluation, and analytical techniques.
- Experience or interest in biotechnological methods for compound extraction and production.
- Excellent communication skills and ability to work independently and collaboratively.

Application Procedure: Interested candidates are invited to submit a cover letter, curriculum vitae, academic transcripts, a summary of research interests, and contact information for two referees to Kristel Vene, kristel.vene@taltech.ee.



Benefits: The successful candidate will have access to state-of-the-art research facilities, professional development opportunities, and a vibrant academic environment.



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