

University Academic Curriculum Vitae

Personal information

Name: Alessandro Stringari
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Education since leaving school

2019, Bachelor in Food Science and Technology (Università degli Studi di Parma)

2021, Master in Food Science and Technology (Università degli Studi di Parma)

2022-present (until 31/12/2024), PhD, subject area: Food Science, Title of PhD: Food Engineering and Biotechnology (Free University of Bolzano)

Present appointment

First-level Technologist
Beginning from January 15, 2025
International level
International Competence Center on Food Fermentations (UNIBZ)
Managing and organizing the research activities for the development of innovative food processes using fermentation biotechnology
Optimization of methodologies adopted for the analyses of raw and processed ingredients and developed food prototypes
Data analysis and elaboration of results through mid- and end-of-year project reports.

Professional experiences

From - to	Job title	Name of academic Institution	Academic level	responsibilities
01/01/2022 – 31/12/2024	PhD student	Free University of Bozen-Bolzano	PhD	Conducting PhD research on "Harnessing Microbial Fermentation for Sustainable Valorization of Food By-products: from Spent Grains to Pasta Regrind and Bread Waste."
July 2023 - December 2023	Internship	Puratos Italy S.r.l. – Ceparana (SP)	PhD	Up-scaling of the bread waste recycling project through sourdough fermentation using Levain fermenter, bread-making test and characterization of the final breads
March 2021 - July 2021	Internship	Puratos Italy S.r.l. – Pozzolengo (BS)	Master	Master thesis project on the "identification of specific control points and improvement

				points in the production process of semi-finished product based on fruit, with related parameters and monitoring systems
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Experience in academic teaching

2022-2023 and **2023-2024**: Teaching assistant – Fermentation as tools for making traditional and innovative foods and beverages - Master's program in Food Sciences for Innovation and Authenticity at the Free University of Bozen-Bolzano.

2023-2024 and **2024-2025**: Teaching assistant – Microbiologia degli alimenti e principi di igiene - Bachelor's program in Scienze Enogastronomiche di Montagna at the Free University of Bozen-Bolzano.

2021-2022: Master's thesis supervision. Candidate: Giorgia Pucciani. Thesis Title: Use of Sourdough Biotechnology for the recycling of bread wastes. Supervisor: Prof. Raffaella Di Cagno. Second Supervisor: Alessandro Stringari. Master degree in Food Sciences for Innovation and Authenticity

2023-2024: Master's thesis supervision. Candidate: Maria Chiara Sicuri. Thesis Title: Impact of various amylases on texture of Bauletto breads throughout the shelf life. Supervisor: Prof. Raffaella Di Cagno. Second Supervisor: Alessandro Stringari. Master degree in Food Sciences for Innovation and Authenticity

October – December 2024: PhD visiting student supervision. Candidate: Roberta Coronas. Project Title: Exploring the Impact of Sardinian Sourdough Fermentation on Bread Digestibility: Insights from an *In Vitro* Static Simulation. Supervisor: Prof. Raffaella Di Cagno.

Other academic responsibilities

Volunteered for the "VIII International Symposium on Sourdough" organized by Free University of Bolzano, Italy, June 14-17, 2022.

"Gastronomia ed Accoglienza: quali sinergie" congress organized by Free University of Bolzano, Italy, November 6, 2023.

Research and scholarships

Date granted	Award Holder(s)	Funding Body	Title	Amount received
January 2022 – December 2024	Alessandro Stringari	Free University of Bozen-Bolzano	PhD scholarship – XXXVII PON Cycle	17000 euro gross per year

Publications

*Pontonio E., Stringari A., Di Cagno R., Filannino P., Rizzello CG., Polo A., Nikoloudaki O., Gobbetti M. (2024). Plant-derived food waste management, valorization, and recycling through sourdough fermentation. *Trends in Food Science & Technology*, 2024:150. <https://doi.org/10.1016/j.tifs.2024.104589>

*Stringari A., Polo A., Rizzello CG., Arora K., Racinelli F., Ampollini M., Gobbetti M., Di Cagno R. (2024). Successful combination of lactic

acid bacteria and yeast fermentation and enzymatic treatment to recycle industrial bread by-products for bread making. *New Biotechnology*, 84, 140-150. <https://doi.org/10.1016/j.nbt.2024.11.003>

Patent

*Ampollini M., Di Cagno R., Gobbetti M., Polo A., Racinelli F., Rizzello C., & Stringari A. (2023). Bread waste sourdough. Patent application number 2023/6042 filed on 21/12/2023

Conference proceedings article

Stringari A., Arora K., Polo A., Di Cagno R., Rizzello CG, Ampollini M., Gobbetti M. (2023). Valorisation of industrial bread waste using enzymatic treatment and sourdough fermentation. 7th International Conference on Microbial Diversity Agrifood microbiota as a tool for a sustainable future (International conference, Parma, September 2023, 26-29)

Conferences

National Poster presentation: 26th Workshop on the Developments in the Italian PhD researcher on Food Science Technology and Biotechnology (Asti, September 2022, 19-21)

National Poster presentation: 27th Workshop on the Developments in the Italian PhD Research on Food Science, Technology and Biotechnology (Portici, September 2023, 13-15)

International Poster presentation: 7th International Conference on Microbial Diversity Agrifood microbiota as a tool for a sustainable future (Parma, September 2023, 26-29)

International Oral Presentation: Next Generation Protein Conference (Bremerhaven Germany, September 2023, 7-8)

National Oral Presentation: 28th Workshop on the Developments in the Italian PhD researcher on Food Science Technology and Biotechnology (Catania, September 2024, 18-20)

Further data

Summer school: "26° Corso di spettrometria di massa 2022" (Pontignano, Siena, March 2022, 14-18)

Seminario su Evoluzione dell'Orbitrap LC and GC" – ThermoFisher Scientific (Bolzano, November 2022, 03)

"From Waste to Value: nuove catene del valore per i sottoprodotti della produzione alimentare" (Bolzano, September 2024, 12)

Statement of interest

I am currently pursuing a PhD in Food Engineering and Biotechnology, more specifically in a food microbiology group with the main focus on food fermentation. I am excited to express my interest in the advertised position, which deals with the management of innovative fermentation processes, since my research background and professional experience align closely with the establishment of protocols for the recycling of food by-products and waste through sourdough fermentation and the development and optimization of novel food products. Over the course of these three years I had the opportunity to work with different companies, local and multinational, for the implementation of projects in the food sector. My research experience has allowed me to gain expertise in the microbiological,

biochemical, nutritional, sensory, and functional characterization of food prototypes, as well as the optimization of food fermentation protocols for the assessment of microbial potential and the selection of starter cultures. In addition, the process of identifying and quantifying chemical compounds gave me the opportunity to work with techniques such as high performance liquid chromatography and liquid chromatography equipped with mass spectrometry. My experience working with plant protein and isolates (e.g. chickpea, red lentil) aligns perfectly with the objectives and requirements of this position on developing sustainable food solutions. I am particularly enthusiastic about this possibility to address the challenges associated with food fermentation, and I believe my background in both laboratory and pilot scales qualifies me as a valuable resource to contribute effectively to this position.

**Language
competence**

Italian: Native speaker
English: Free University of Bozen-Bolzano (C1)

Date 15.01.2025

Signature 