University Academic Curriculum Vitae

<table>
<tr><td>Personal information</td><td>Martina Moretton</td></tr>
<tr><td>Education since leaving school</td><td>
year and title of first degree; (and university)
October 2014 – October 2017
Bachelor’s Degree in Food Science and Technology (L-26)
University of Udine, Italy.
Final grade: 107/110
year and title of post-graduate degrees; (and university)
October 2017 – September 2019
Master’s Degree in Food Science and Technology (LM-70)
University of Udine, Italy.
Final grade: 110/110 cum laude
year, subject area and title of PhD (and university)
November 2019 – January 2023
Ph.D. in Food and Human Health (scholarship funded by the European Social Fund – FSE) at the University of Udine, Italy
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<tr><td>Present appointment</td><td>

Title of appointment: Fixed-term Researcher
start of appointment: 15th Dicember 2025
Level of appointment: RTDa AGR AGRI 07/A
Employer: Free University of Bozen-Bolzano
brief description of responsibilities:

The main responsibilities include

Conducted experimental research and data analysis within the framework of the project.
Developed and validated experimental protocols, models, and analytical tools.
Prepared scientific articles and contributed to publications in peer-reviewed international journals.
Participated in conferences and workshops to present research findings.
Collaborated with national and international research groups.
Supervised students and PhD candidates in laboratory and research activities.
Managed project documentation, scientific reporting, and administrative deliverables.

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<tr><td>Professional experience</td><td>
Chronological list of all previous employments (each with job title, starting and finishing dates, level, employer, responsibilities)
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<tr><th>From / to</th><th>Job title</th><th>Name of academic Institution</th><th>Academic level</th><th>Responsibilities</th></tr>
<tr><td>April 2022 – October 2022</td><td>Visiting PhD</td><td>Food Quality and Design Group, Department of Agrotechnology and Food Sciences, Wageningen University & Research, The Netherlands. Supervisors: Prof. Vincenzo Fogliano, Dr. Edoardo Capuano</td><td>PhD Student</td><td>Research</td></tr>
<tr><td>February 2023 –</td><td>Research Collaborator</td><td>Department of Agri-Food,</td><td>Post-Doc</td><td>Research</td></tr>
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March 2023		Environmental and Animal Sciences, University of Udine, Italy. Scientific supervisor: Prof. Monica Anese		
February 2023	Visiting researcher	Food Quality and Design Group, Department of Agrotechnology and Food Sciences, Wageningen University & Research, The Netherlands. Supervisors: Prof. Vincenzo Fogliano, Dr. Edoardo Capuano	Post-Doc	Research
April 2023 – July 2023	Post-Doc Researcher	Department of Agri-Food, Environmental and Animal Sciences, University of Udine, Italy. Scientific supervisor: Prof. Nicoletta Pellegrini	Post-Doc	Research
August 2023 – September 2025	Fixed-term Researcher	Fondazione Edmund Mach, Sensory Quality Unit, Research and Innovation Centre, San Michele All'Adige (TN), Italy. Scientific supervisor: Dr. Franco Biasioli	Researcher	Research
2025	Teaching Assistant	Centro Agricoltura Alimenti Ambiente C3A, University of Trento	Teaching Assistant	Teaching
September 2025 – Dicember 2025	Fixed-term Researcher	Laimburg Resarcher Centre, Gruppo di Aromi e Metaboliti, Vadena – BZ Scientific supervisor: Dr. Peter Robatscher	Researcher	Research

Participation in exhibitions (where applicable)

Participation in Research Projects

From / to	Project	Organization	Role	Contact Person
2023 – 2025	OnFoods – Spoke 3	PNRR	Researcher	Dr. Franco Biasioli
2023	CibiAMO-Progetto Interdipartimentale	UniUd	Post-doc researcher	Prof. Nicoletta Pellegrini
2020-2022	Personalized Health Management of Physical, Mental and Social Frailty in the Elderly (ALT FRAILY)	Friuli Foundation	PhD Student	Prof. Sonia Calligaris
2020 – present	Food Labelling of Italian Products (FLIP)	Italian Society of Human Nutrition	Collaborator	Prof. Nicoletta Pellegrini Prof. Daniela Martini

Membership in Associations

Active member of the Italian Society of Human Nutrition (SINU) and an active participant in the "Young SINU" working group (2020-present). Through SINU, M. Moretton is involved in the FLIP project and contributes to the production of scientific content for the society's institutional social media channels and newsletter. She has delivered oral presentations

within SINU activities and is currently the author of two scientific manuscripts in preparation. Details of these activities are provided below. (https://sinu.it/giovani/, 28/11/2025)

Experience in academic teaching

Teaching Support Activities

In 2025, M. Moretton was assigned a teaching support position for the Master's Degree program in Agrifood Innovation Management (LM-69R) at the University of Trento, as detailed below.

A.Y.	Teaching Course	Degree Program	Location	CFU
2025-2026	Agrigood Innovation Management	Sensory quality of agri food products and consumer preference	University of Trento	6

Since 2025, M. Moretton has been assigned a teaching support role for the Bachelor's degree program in Viticulture and Oenology (AGR/15) at the University of Trento, as detailed below.

A.Y.	Teaching Course	Degree Program	Location	CFU
2024-2025	Viticulture and Oenology	Sensory analysis	University of Trento	6

Since 2019, M. Moretton has conducted thematic seminars and practical exercises for students as part of various courses in the Bachelor's (L-26) and Master's (LM-70) programs in Food Science and Technology, the Master's (LM-86) program in Animal Breeding and Welfare, and the Bachelor's (L/GASTR) program in Food Science and Culture at the University of Udine, as well as the Bachelor's (L-25, L-26) program in Viticulture and Enology at the University of Trento.

Thematic seminars

A.Y.	Teaching Course	Degree Program	Seminars	Duration (h)
2023-2024	L-25, L-26	*Analisi sensoriale*	*La valutazione dei vini da parte del sommelier*	1
2019-2020; 2020-2021	LM-70	*Tecnologie Alimentari I*	*L'omogeneizzazione ad alta pressione (HPH)*	2
2021-2022; 2022-2023	L/GASTR	*Scenari ed evoluzioni nel mondo del cibo*	*Alimenti per specifiche categorie di consumatori: gli anziani*	2

Practical exercises

A.Y.	Teaching Course	Degree Program	Practical exercises	Duration (h)
2019-2020	L-26	*Proprietà chimiche e fisiche degli alimenti*	*L'attività dell'acqua e pH*	3
2019-2020	LM-86	*Tecnologie di trasformazione*	*Caratterizzazione dei prodotti di origine animale*	2

Activity as Co-supervisor of Bachelor and Master's Thesis Reports

List of Bachelor's theses aimed at obtaining a Bachelor's degree in Viticulture and Oenology (L-25) at the University of Trento.

N	Name	A.Y.	Title	Contact
1	Margherita Tadei	2024-2025	*Il profilo sensoriale del Bianchello del Metauro: uno strumento per la valorizzazione di un vitigno storico delle Marche*	Prof. Flavia Gasperi
2	Francesco Zizioli	2024-2025	*Appassimento in pianta mediante taglio del tralcio*	Prof. Silvia Carlin

List of Bachelor's theses aimed at obtaining a Bachelor's degree in Food Science and Technology (L-26) at the University of Udine.

N	Name	A.Y.	Title	Contact

1	Margherita Battistella	2023-2024	*Un'analisi critica della qualità nutrizionale e del contenuto di sodio dei primi piatti* ready-to-eat *venduti in Italia*	Prof. Nicoletta Pellegrini
2	Albright Kwaku Yeboah	2023-2024	*La qualità nutrizionale dei prodotti venduti in Italia: un'analisi critica sul contenuto di sodio delle salse*	Prof. Nicoletta Pellegrini
3	Giorgia Spricigo	2023-2024	*Quanto sodio contengono i prodotti sott'olio e sott'aceto rispetto ai limiti proposti dall'Organizzazione Mondiale della Sanità?*	Prof. Nicoletta Pellegrini
4	Alice Fardin	2023-2024	*I vegetali in scatola venduti in Italia: un'analisi critica della qualità nutrizionale e del contenuto di sodio*	Prof. Nicoletta Pellegrini
5	Luca Chiavon	2021-2022	*Proprietà chimiche, fisiche e sensoriali di pane arricchito di proteine destinato a consumatori anziani*	Prof. Monica Anese
6	Davide Rosario Altomonte	2021-2022	*Valutazione del rilascio di zuccheri della mela durante la masticazione: confronto tra varietà Fuji e Golden Delicious*	Prof. Nicoletta Pellegrini
7	Asia Miranda	2021-2022	*Contenuto di sodio nei condimenti venduti in Italia: quanto lontani siamo dai riferimenti fissati dall'Organizzazione Mondiale della Sanità?*	Prof. Nicoletta Pellegrini
8	Giada Piccini	2021-2022	*Quanto è lontano il contenuto di sodio di minestroni surgelati e zuppe pronte al consumo vendute in Italia rispetto ai riferimenti globali fissati dall'Organizzazione Mondiale della Sanità?*	Prof. Nicoletta Pellegrini
9	Davide Papandrea	2021-2022	*Messa a punto della formulazione e del processo di cottura di pane arricchito in proteine*	Prof. Monica Anese
10	Francesco Battiston	2020-2021	*Effetto del grado di tostatura sulle caratteristiche chimiche e fisiche del pane in cassetta*	Prof. Monica Anese
11	Giorgia Brescacin	2020-2021	*Contenuto di sodio nei trasformati del pomodoro venduti in Italia: quanto lontani siamo dai riferimenti globali fissati dall'Organizzazione Mondiale della Sanità?*	Prof. Nicoletta Pellegrini
12	Elisa Piccoli	2020-2021	*Contenuto di sodio nelle zuppe pronte vendute in Italia: quanto lontani siamo dai riferimenti globali fissati dall'Organizzazione Mondiale della Sanità?*	Prof. Nicoletta Pellegrini
13	Syria Dalla Schiava	2020-2021	*Strategie di educazione alimentare negli anziani*	Prof. Nicoletta Pellegrini
14	Mattia Zambon	2020-2021	*Metodi di rilevamento delle abitudini alimentari negli anziani: un'analisi della letteratura*	Prof. Nicoletta Pellegrini

List of Master's theses in Food Science and Technology (LM-70) at the University of Udine.

N	Name	A.Y.	Title	Contact
1	Federica Tombolan	2021-2022	*Effetto della tostatura e dell'aggiunta di burro sulla risposta glicemica di pane in cassetta stimata* in vitro *in anziani*	Prof. Monica Anese
2	Essoham Salifou	2021-2022	*Effetto del grado di tostatura e della combinazione con burro sulla stima dell'indice glicemico di pane in cassetta*	Prof. Monica Anese
3	Naomi Fossaluzza	2020-2021	*Confronto della digeribilità di diverse tipologie di pane con un metodo di digestione* in vitro *adattato per anziani*	Prof. Monica Anese

List of Master's theses in Food Technology at the Wageningen University & Research, The Netherlands

N	Name	A.Y.	Title	Contact
1	Rianne Oudejans	2021-2022	Protein-enriched bread for elderly consumer	Prof. Nicoletta Pellegrini, Dr. Edoardo Capuano

Provided research support to Erasmus students

N	Name	Period	University	Title	Contact
1	Alice Fenouillere	2022	Institute Agro Dijon, France	Impact of different technological interventions on glucose release after in vitro digestion of bread.	Prof. Monica Anese

Since April 1, 2020, M. Moretton has been awarded the title of "Subject Expert" (Cultore della materia) in the scientific-disciplinary sector of Food Science and Technology (SC 07/F1 - SSD AGR/15) by the Department of Agri-Food, Environmental, and Animal Sciences at the University of Udine for the academic years 2019/2020, 2020/2021, and 2021/2022.

Examination Committees

Since 2020, M. Moretton has been a member of the examination committees for the following courses within the Bachelor's (L-26) and Master's (LM-70) programs in Food Science and Technology and the Master's (LM-86) program in Animal Breeding and Welfare at the University of Udine, related to SC 07/F1 – SSD AGR/15.

Other academic responsibilities

M. Moretton was the coordinator of the "Early Career Scientists" (ECSs) group, which includes RTDa researchers, Post-Docs, and PhD students from Spoke 3 of OnFoods Project - PNRR. Her role involves organizing and coordinating activities planned by the Mentorship Program and ensuring effective communication of information within Spoke 3. **(2023 – 2025)**
Contact: Prof. Maria De Angelis.

M. Moretton has been involved in dissemination ECS activities through oral presentations as reported below:

Oral presentations
Moretton, M. Early Career Scientist (ECS) activities. Onfoods Annual Meeting, Bari, April 14-15, 2025.

Memberships

M. Moretton is an Active member of the Italian Society of Human Nutrition (SINU) and an active member of the "Giovani SINU" working group. (https://sinu.it/giovani/, 09/01/2023) **(2020 – on going)**

M. Moretton **has been a member of the organizing committee** for the following events:

DIFFA23 – 1st *International Symposium on Direct Injection Food Flavour Analytics*. San Michele all'Adige (TN), September 20-22, 2023.
Annual Meeting of the Early Career Scientists from Spoke 3 – OnFoods Project. Piacenza, January 16, 2025
Tradition and Innovation in Food: More Connected Than We Think? A two-day event at Fondazione Mach, organised by Spokes 3 and 4. San Michele all'Adige (TN), June 9-10, 2025.

Research and scholarships

Summary of current research

Since 2019, M. Moretton has been continuously engaged in research activities on various topics related to food science and technology, food chemistry, and nutrition. The main research topics:

1. The application of mass spectrometry techniques, such as direct injection mass spectrometry (**DIMS**), gas chromatography, and spectroscopic analysis (e.g., **PTR-ToF-MS, GC-MS**), combined with advanced data analysis, enables rapid and sensitive monitoring of volatile compounds in food-related systems and

	processes (e.g., fruits and vegetables, dairy and plant-based beverages, alcoholic drinks, algae, fermentation processes, and shelf-life assessment) as well as in health-related studies (e.g., in vitro colon fermentation for gut microbiota monitoring). The evidence gathered from this research demonstrated that PTR-ToF-MS was particularly effective in tracking VOC dynamics during fermentation, offering valuable insights into microbial activity and chemical transformations. The characterization of VOCs in milk- and cereal-based kefir revealed how variations in formulations, starter cultures, and additional inocula significantly influenced VOC profiles and, consequently, the sensory attributes of the final products. These findings contribute to improving consumer acceptance and optimizing fermentation strategies. The experience also includes the handling and interpretation of large datasets derived from these analyses. 2. Integration of DIMS with Nuclear Magnetic Resonance (**NMR**) for comprehensive characterization of fermented products. The integration of these techniques enabled a deeper understanding of the fermentation process and highlighted significant differences between food matrices. 3. **Sensory analysis** of food products (e.g., apples, baked goods) aimed at reformulating and optimizing the sensory quality of foods, including for vulnerable consumer groups and at-risk populations such as the elderly. 4. Application of a multidisciplinary approach for designing tailor-made foods for the elderly: sensory properties of an ideal bread for elderly consumers were identified, and based on the sensory preferences of the elderly, a functional bread was designed to meet the nutritional needs of older adults. Gastrointestinal digestibility and colonic fermentability of the new product in the elderly were assessed through *in vitro* tests. The metabolic responses during the colonic fermentability were monitored by **GC-FID, HPLC** and **LC-MS**. 5. Development and application of an ***in vitro* digestion method** to simulate the gastrointestinal conditions of the elderly, to study the digestibility of nutrients (e.g., proteins and carbohydrates). Since no standardised method currently exists, this research is particularly relevant for evaluating the effectiveness of technological interventions targeted at developing foods for the elderly population. Specifically, various plant-based protein concentrates (pea, rice, and wheat), along with whey proteins - the reference animal protein source - were subjected to in vitro digestion to simulate adult and elderly conditions. The results demonstrated that the developed method is capable of distinguishing between different physiological conditions, as all protein sources tested, with the exception of wheat, showed lower digestibility under simulated elderly conditions. This method was also applied to complex systems (e.g., baked products) as case studies. 6. Reuse of industrial production waste to develop new ingredients: soy okara, the byproduct from the industrial production of soy milk, tofu, soy protein isolates, and soy oil, has been used to prepare protein extracts from okara for new food products. 7. Application of technological interventions to modify the functional properties of foods. Specifically, the effects of high-pressure homogenization (**HPH**) treatments on the functional and nutritional

properties of plant proteins and soy okara were studied.

8. Study of the **oral process *in vivo***: the oral behavior of bread with and without gluten, and with added butter and mayonnaise, was studied to understand the differences in perception and consumption of these foods.

M. Moretton has secured funding for her research activities, as summarized below.

November 2019	PhD scholarship funded by the European Social Fund (ESF) at the University of Udine.

Publications

M. Moretton is the author of **14 publications** in international peer-reviewed journals indexed in Scopus (Q1 and Q2), 1 publication currently under review, and 2 technical–scientific papers published in a national journal.
M. Moretton has a total of 237 citations and an H-index of 8 (Scopus, data retrieved on 11/12/2025). The full list of publications is reported below.

Journal articles in refereed academic journals

* selected reference

[-] Secchi, G., Tajmousavilangerudi, A., Viretto, C., Tlais, A. Z. A., Angeli, A., Vrhovsek, U., Brigante, F., **Moretton, M.**, Betta, E., Khomenko, I., Biasioli, F., Solovyev, P., Bontempo, L., Mancini, A., Franciosi, E. Fermented beverages enriched with quinoa or chestnut–persimmon: nutritional, functional, and anti-nutritional assessment. *Under review.*

* [1] **Moretton, M.**, Cattaneo, C., Anese, M., Pagliarini, E., Pellegrini, N. (2025). Tailor-made protein-rich bread for the elderly: integrating sensory preferences with nutritional and technological goals. International Journal of Food Sciences and Nutrition. *Journal of Food Sciences and Nutrition*, 1-12. *https://doi.org/10.1080/09637486.2025.2579728*

* [2] **Moretton, M.**, Khomenko, I., Cunedioglu, H., Spano, G., Capozzi, V., Biasioli, F., Fragasso, M. Volatilome evolution of milk kefir and oat, corn and barley kefir-like beverages during fermentation with milk and water kefir grains. *Food Bioscience*, 74, 107731. https://doi.org/10.1016/j.fbio.2025.107731

[3] Devecchi, A. Stacchini, L., Nucci, D., Ferrando, M. R., Proietti, E., Formisano, E., **Moretton, M.**, Leone, A., Gianfredi, V. Exploring regional inequities in food safety practices and food security in Italy: a cross-sectional study. *Nutrition*, 142, 112985. https://doi.org/10.1016/j.nut.2025.112985

[4] Piergiovanni, M., **Moretton, M.***, Masuero, D., Carlin, S. (2025). Deep analytical investigation of the aroma chemistry of Incrocio Bruni 54 and its differentiation from Italian white varieties. *Fermentation, 11,* 590. https://doi.org/10.3390/fermentation11100590

* [5] Lotti, S., **Moretton, M.**, Bulgari, M., Costantini, L., Dall'Asta, M., De Amicis, R., Esposito, S., Ferraris, C., Fiorini, S., Formisano, E., Giustozzi, D., Guglielmetti, M., Membrino, V., Moroni, A., Napoletano, A., Perone, N., Proietti, E., Tristan Asensi, M., Vici, G., Colombini, B., Martini, D., Sofi, F., Dinu, M. (2025). Association between shift work and eating behaviours, sleep quality, and mental health among Italian workers. *European Journal of Nutrition, 64:97.* https://doi.org/10.1007/s00394-025-03600-5

* [6] **Moretton, M.**, Casertano, M., Pellegrini, N., Anese, M., Fogliano, V., Capuano, E. (2024). Effect of high pressure homogenization on *in vitro* digestibility and colon fermentability of pea protein-rich bread designed for elderly consumers. *Food & Function, 15,* 10459–10471. https://doi.org/10.1039/d4fo02767a

* [7] **Moretton, M.**, Alongi, M., Renoldi, N., Anese, M. (2023). Steering protein and carbohydrate digestibility by food design to address elderly needs: the case of pea protein enriched bread. *LWT - Food Science and Technology, 190,* 115530. https://doi.org/10.1016/j.lwt.2023.115530

* [8] **Moretton, M.**, Alongi, M., Melchior, S., Anese, M. (2023). Adult and elderly *in vitro* digestibility patterns of proteins and carbohydrates as affected by different commercial bread types. *Food Research International, 167,* 112732. https://doi.org/10.1016/j.foodres.2023.112732

* [9] **Moretton, M.**, Cattaneo, C., Mosca, A.C., Proserpio, C., Anese, M., Pagliarini, E., Pellegrini, N. (2023). Identification of desirable mechanical and sensory properties of bread for the elderly. *Food Quality and Preference, 104,* 104716. https://doi.org/10.1016/j.foodqual.2022.104716

* [10] Melchior, S., **Moretton, M.**, Alongi, M., Calligaris, S., Nicoli, M. C., Anese, M. (2023) Comparison of protein *in vitro* digestibility under adult and elderly conditions: The case study of gluten, pea, rice, and whey proteins. *Food Research International, 163,* 112147. https://doi.org/10.1016/j.foodres.2022.112147

* [11] Calligaris, S., **Moretton, M.**, Melchior, S., Mosca, A. C., Pellegrini, N., Anese, M. (2022). Designing food for the elderly: the critical impact of food structure. *Food & Function, 13,* 6467. https://doi.org/10.1039/d2fo00099g

* [12] Mosca, A. C., **Moretton, M.**, Angelino, D., Pellegrini, N. (2022). Effect of gluten and spreads on the oral processing behavior of breads. *Food Chemistry, 373,* 131615. https://doi.org/10.1016/j.foodchem.2021.131615

* [13] Melchior, S., **Moretton, M.**, Calligaris, S., Manzocco, L., Nicoli, M. C. (2022). High pressure homogenization shapes the techno-functionalities and digestibility of pea proteins. *Food and Bioproducts Processing, 131,* 77-85. https://doi.org/10.1016/j.fbp.2021.10.011

* [14] Plazzotta S., **Moretton M**., Calligaris S., Manzocco L. (2021). Physical, chemical, and techno-functional properties of soy okara powders obtained by high pressure homogenization and alkaline-acid recovery. *Food and Bioproducts Processing, 128,* 95-101. https://doi.org/10.1016/j.fbp.2021.04.017

*Corresponding author

Publications in national technical-scientific journals

[1] **Moretton, M.**, Khomenko, I., Corvino, A. Kefir innovativo a base di cereali: equilibrio tra qualità nutrizionale e profilo aromatico (IT version). *Innovative cereal-based kefir: balancing nutritional quality and aroma profile (ENG version). Annual Report Fondazione Edmund Mach*. ISSN 2282-1341
https://cri.fmach.it/content/download/3983/97978/file/Report_CRI_2023-24_IT_Web.pdf

[2] Betta, E., Dell'Olio, A., Khomenko, I., **Moretton, M.**, Pedrotti, M., Bianco, G., Caruso, D., Flamini, R., Magni, F., Biasioli, F. (2023). Metodi diretti per l'aroma degli alimenti (Direct injection food flavour analytics). *La Chimica e L'Industria, 10(6),* 26-28.
ISSN 2532-182X https://www.calameo.com/read/00504981112eeca4f9fb6

Reviewer Activities
Since 2022, M. Moretton has served as a peer reviewer for several international journals with an impact factor in the food technology sector (Food Structure; Food Research International; LWT – Food Science and Technology; Journal of Human Nutrition and Dietetics).

Conference Participation	M. Moretton **was invited** to give a presentation at the following conference: *XLIV National Congress of SINU 2024.* Piacenza, June 4-6, 2024. **M. Moretton.** New Foods for the Elderly: Between Nutritional Needs and Physiological Changes. M. Moretton **has participated** in national and international conferences, delivering oral contributions and presenting posters. The full list is provided below. **Oral presentation** **Moretton, M.**, Khomenko, I., Betta, E., Brigante, F.I., Solovyev, P., Bontempo, L., Capozzi, V., Biasioli, F. Monitoring the effect of raw milk refrigeration on milk kefir fermentation: implications for quality and food safety. *1st International Conference on Fermented Foods.* Bozen (Italy), October 27-30, 2025. * Khomenko, I., **Moretton, M.**, Betta, E., Langellotti, A. L., Capozzi, V., Fogliano, V., Biasioli, F. Real-Time VOC profiling of microalgae fermented with kefir starters using PTR-ToF-MS. *IMEKOFOODS 2025.* Ljubljana, September 22 – 24, 2025. Khomenko, I., **Moretton, M.**, Betta, E., Langellotti, A. L., Capozzi, V., Fogliano, V., Biasioli, F. DI-MS for precision fermentation: case study of microalgae fermentation with kefir starters by PTR-ToF-MS. *MASSA 25.* Taranto, June 16-18 2025. **Moretton, M.**, Pellegrini, N., Angelino, D., Martini, D. The nutritional quality of sauces, dips and dressings sold in Italy: a critical analysis of the sodium content. *45° Congresso Nazionale SINU 2025.* Salerno, May 28-30 2025. * Dell'Olio, A., Rubert, J., Capozzi, V., Khomenko, I., **Moretton, M.**, Fogliano, V., Biasioli, F. Unraveling the gut volatilome dynamics and inter-individual variability during in-vitro digestion and fermentation of black beans. *8th MS Food Day*, Torre Canne (Brindisi), October 16-18, 2024. **Moretton, M.**, Khomenko, I., Cunedioglu, H., Capozzi, V., Biasioli, F. Characterization of kefir-like cereal-based beverages volatilomeduring fermentation by using green analytical approaches. *IUFoST 2024 - 22nd World Congress of Food Science and Technology*, Rimini, September 8-12, 2024. * Bonfili, L., Suo, X., Tagliasco, M., Bonfini, M., Araiza, O. M., **Moretton, M.**, Pellegrini, N., Eleuteri, A. M., Fiorini, D., Vittadini, E. Symbiotic functional snack for gut-brain axis health. *IUFoST 2024 - 22nd World Congress of Food Science and Technology*, Rimini, September 8-12, 2024. Khomenko, I., Pedrotti, M., **Moretton, M.**, Betta, E., Farenti, B., Romano A., Capozzi, V., Biasioli, F. High-throughput targeted and untargeted headspase analysis of spirits by PTR-ToF-MS. *5th MS Wine Day*. Asti, May 22-24, 2024. Khomenko, I., Pedrotti, M., **Moretton, M.**, Betta, E., Farenti, B., Romano A., Capozzi, V., Biasioli, F. How not to get your PTR-TOF drunk: solutions for the automated targeted and untargeted head-space analysis of spirits. *9th International PTR-MS Conference*. Seefeld in Tirol (Austria), January 26-29, 2024. Fragasso, M., Corvino, A., Dell'Olio, A., **Moretton, M.**, Mazzucotelli, M., Spano, G., Khomenko, I., Capozzi, V. Green analytical approaches and sustainable transition of food systems: the potential of PTR-MS to speed up innovation in fermentation. *9th International PTR-MS Conference*. Seefeld in Tirol (Austria), January 26-29, 2024. Fragasso, M., Corvino, A., **Moretton, M.**, Khomenko, I., Capozzi, V. DIMS techniques and the study on microbial VOCs in food: flavour attributes, fermentation monitoring and emerging trends. *DIFFA23* – 1st *International Symposium on Direct Injection Food Flavour Analytics*. San Michele all'Adige (TN), September 20-22, 2023. **Moretton, M.**, Martini, D., Angelino, D., Pellegrini, N. Sodium content in soups sold in Italy: how far are we from the global benchmarks? *XLIII Congresso Nazionale SINU 2023.* Arezzo, June 7-9, 2023. * **Moretton, M.** Formulation and processing strategies for obtaining bakery products tailored to the elderly's needs. *XXVI Workshop on the Developments in the Italian PhD Research on Food Science, Technology and Biotechnology*. Asti, September 19-21, 2022. * **Moretton, M.**, Alongi, M., Calligaris, S., Anese, M. Comparison between adult and elderly *in vitro* digestibility patterns of proteins and carbohydrates as affected by different bread types. *Food Structures, Digestion & Health 6th International Conference*. Online, November 16-19, 2021. * Melchior, S., **Moretton, M.**, Manzocco, L., Calligaris, S. *In vitro* digestibility of plant proteins under adult and elderly conditions. *Virtual International Conferences on Food Digestion.* Online, May 6-7, 2021. *Delivered personally. **Poster** **Moretton, M.**, Khomenko, I., Betta, E., Brigante, F.I., Solovyev, P., Bontempo, L., Capozzi, V., Biasioli, F. Monitoring the effect of refrigeration on milk kefir fermentation: implications for nutritional quality and food safety. *45° Congresso Nazionale SINU 2025.* Salerno, May 28-30, 2025. * **Moretton, M.**, Khomenko, I., Capozzi, V., Biasioli, F. Direct Injection Mass Spectrometry for Food Volatilomics: Emerging green approaches for the rapid and online acreening of microbial resources (DIMS4FOODμ). *Onfoods Annual Meeting,* Bari, April, 14-15, 2025. * **Moretton, M.**, Khomenko, I., Cunedioglu, H., Capozzi, V., Biasioli, F. Monitoring the volatilome of kefir and kefir-like cereal-based beverages during fermentation by PTR-Tof-MS. *8th MS Food Day*, Torre Canne (Brindisi), October 16-18, 2024. * Khomenko, I., **Moretton, M.**, Corvino, A., Dell'Olio, A., Pedrotti, M., Capozzi, V., Biasioli, F.

	The application of direct-injection mass spectrometry techniques in studying microbial vocs in food: flavour attributes, fermentation monitoring and emerging trends. *IUFoST 2024 - 22nd World Congress of Food Science and Technology*, Rimini, September 8-12, 2024. *
	Khomenko, I., Pedrotti, M., **Moretton, M.**, Betta, E., Farenti, B., Romano A., Capozzi, V., Biasioli, F. High-throughput targeted and untargeted headspase analysis of spirits by PTR-ToF-MS. *IUFoST 2024 - 22nd World Congress of Food Science and Technology*, Rimini, September 8-12, 2024. Poster.
	Moretton, M., Khomenko, I., Cunedioglu, H., Corvino, A., Capozzi, V., Biasioli, F. Exploring probiotic activity and vitamin B_2 synthesis in kefir-like cereal-based beverage. *XLIV Congresso Nazionale SINU 2024.* Piacenza, June 4-6, 2024. Poster.
	Alongi, M., **Moretton, M.**, Renoldi, N., Anese, M. Steering protein and carbohydrate digestibility in bread by pea protein enrichment. *8th International Conference on Food Digestion*. Porto, Portugal, April 9-11, 2024.
	Moretton, M., Khomenko, I., Cunedioglu, H., Corvino, A., Capozzi, V., Biasioli, F. Characterization of kefir-like cereal-based beverages volatilome during fermentation by using PTR-Tof-MS. *9th International PTR-MS Conference*. Seefeld in Tirol (Austria), January 26-29, 2024.
	Moretton, M., Anese, M., Capuano, E., Pellegrini, N. Preliminary screening of elderly gut microbiota metabolites of pea protein enrich-bread. *DIFFA23* – 1st *International Symposium on Direct Injection Food Flavour Analytics.* San Michele all'Adige (TN), September 20-22, 2023. *
	Dell'Olio, A., Rubert, J., Fogliano, V., Capozzi, V., Khomenko, I., **Moretton, M.**, Biasioli, F. Tailored dietary intervention based on PTR-ToF-MS rapid pre-clinical screening. *DIFFA23* – 1st *International Symposium on Direct Injection Food Flavour Analytics*. San Michele all'Adige (TN), September 20-22, 2023.
	Moretton, M., Cattaneo, C., Proserpio, C., Anese, M., Pagliarini, E., Pellegrini, N. Formulation strategy to improve the nutritional and sensory properties of foods for elderly consumers: a case study on bread. *15th Pangborn Sensory Science Symposium.* Nantes, France, August 20-24, 2023.
	Moretton, M., Capuano, E., Fogliano, V., Pellegrini, N., Anese, M. Formulation and nutritional functionality assessment of pea protein-rich bread intended for the elderly. *XLIII Congresso Nazionale SINU 2023.* Arezzo, June 7-9, 2023. *
	Baggio, M., Dal Mas, C., Tagliasco, M., **Moretton, M.**, Pellegrini, N. Oral processing of apple cultivars at different storage times. *XLIII Congresso Nazionale SINU 2023.* Arezzo, June 7-9, 2023. Poster.
	Moretton, M., Cattaneo, C., Mosca, A. C., Proserpio, C., Anese, M., Pagliarini, E., Pellegrini, N. Exploring directions for the development of a bread targeting elderly consumers. *XLII Congresso Nazionale SINU 2022.* Napoli, April 4-6, 2022. *
	Moretton, M., Alongi, M., Calligaris, S., Anese, M. Comparison between adult and elderly *in vitro* digestibility patterns of proteins and carbohydrates as affected by different bread types. *XLII Congresso Nazionale SINU 2022.* Napoli, April 4-6, 2022. *.
	Moretton, M. *In vitro* digestibility of proteins under adult and elderly condition. *1st telematic Workshop on the Developments in the Italian PhD Research on Food Science, Technology & Biotechnology*. Online, September 14-15, 2021. *
	Mosca, A. C., **Moretton, M.**, Angelino, D., Pellegrini, N. Oral processing behaviour of gluten-free and gluten-containing bread with and without spreads. *XLI Congresso Nazionale SINU 2021. Virtual edition.* Online, April 9-10 / 16-17, 2021. *
	*Delivered personally.
Entrepreneurship	M. Moretton has been involved in technology transfer activities and has participated as a member of research teams in the following projects funded by companies:

Period	Project
2023/2024	*Valutazione tramite metodi di scienza del consumatore della qualità sensoriale post-conservazione di nuove varietà di melo a confronto con varietà club*
2021	Events occurring during soil food preparation
2019	*Valutazione dell'effetto di variabili di formulazione e di processo sulla digeribilità di prodotti da forno*
2019	*Studio delle caratteristiche e delle performance di nuovi derivati di proteine vegetali*

Statement of interest	I believe that my background and research topics make me a strong candidate for the advertised position at the UniBZ, especially in the context of the research project focusing on food antioxidants, lipid oxidation, and reaction kinetics. My scientific path has consistently aligned with multidisciplinary research at the intersection of food science, technology, and human health, with a particular attention to the characterization of functional components and the optimization of food quality and stability. During my doctoral and postdoctoral research, I developed advanced expertise in simulating gastrointestinal digestion and colonic fermentation processes, applying *in vitro* models to study the bioaccessibility of nutrients and the behavior of bioactive compounds under physiological and technological conditions.

	More recently, my recent work at the Fondazione Edmund Mach and Laimburg Research Centre, my work has focused on the use of high-throughput mass spectrometry techniques (PTR-ToF-MS, GC-MS) to monitor chemical and microbial changes during fermentation of dairy and cereal-based fermented beverages, and to monitor volatile compounds in food (e.g., fruits and vegetables, alcoholic drinks, algae). These skills are highly relevant to the proposed study on lipid oxidation pathways, antioxidant activity, and the development of predictive models for food shelf life and oxidative stability. My experience includes the integration of experimental approaches (chromatographic and mass spectrometric techniques) with data analysis, which would support the kinetic and mathematical modeling of oxidation processes in food. In addition, I bring a solid background in metabolomics and volatilomics, which would complement the study of oxidative mechanisms and antioxidant effectiveness. My international collaborations, including a research stay at Wageningen University & Research, reflect my commitment to interdisciplinary and applied food science. In addition, I have a solid background in metabolomics and volatilomics, which complements the study of oxidative mechanisms and antioxidant effectiveness. My international collaborations - including a research stay at Wageningen University & Research - further demonstrate my commitment to interdisciplinary and applied food science. Alongside my research experience, I have also supported teaching activities, particularly in sensory analysis, contributing to practical laboratory sessions and student supervision. This has strengthened my ability to communicate scientific concepts effectively and engage with students in applied food science education. Joining UniBZ represents an excellent opportunity to imporove my research on food quality and sustainability and actively contribute to the university's focus on innovative and predictive strategies for food preservation. I am excited about the possibility of joining your team and contributing to the development of scientifically grounded solutions to improve food stability and safety.
Language competence	M. Moretton, during her training and research activity, has developed a good knowledge of the English language (B2 level, EFSET Level/Council of Europe Level, both written and spoken) and holds a B1 level in German. M. Moretton is a native Italian speaker.
Awards	In April 2022, M. Moretton received the following award for her research activity: Best poster - XLII Congresso Nazionale SINU 2022. Napoli, April 4-6, 2022. **Moretton, M.*,** Cattaneo, C., Mosca, A.C., Proserpio, C., Anese, M., Pagliarini, E., Pellegrini, N. Exploring directions for the development of a bread targeting elderly consumers.
Professional training and development	M. Moretton has participated in various training and professional development activities and is an active member of an Italian society for scientific dissemination, as outlined below. **Qualifications** 2021 • Auditor/Lead auditor for quality management systems UNI EN ISO 9001 (qualified KHC). • ISO 22000 internal food safety auditor (certified NSF Italy). • IFS and BRC internal auditor (certified NSF Italy). **Certification** 2019 Certification for the "24 CFU Training Path – 3rd cycle (2019)" required by D.M. 616/2017 to access teaching competitions in secondary schools. The educational training requires the acquisition of 24 credits in subjects such as anthropology, psychology, pedagogy, and teaching methods. **Courses and seminars**

	2024 Effective presentations and written communication for researchers and technologists course- Fondazione Edmund Mach 2024 Course Public Speaking – Advance Level - Fondazione Edmund Mach 2024 Course Public Speaking – Basic Level - Fondazione Edmund Mach 2024 Course Functional communication - Fondazione Edmund Mach 2023 *La scienza raccontata ai media* Yakult Italia SRL 2023 Healthy Food Design - Wageningen University & Research, The Netherlands 2019 *Storia, Scienza e Cultura dell'Alimentazione* – University of Udine 2019 Nutrient Delivery and Impact on Human Health - University of Udine
Dissemination	M. Moretton has been involved in dissemination activities through oral presentations and online contributions. **Oral presentations** **Moretton, M.** *Tecnologie alimentari, nutrizione ed analisi sensoriale: un percorso di innovazione tra cucina e ricerca*. *Master Project Work* - I.P.S.S.E.O.A. "A. Beltrame" Vittorio Veneto, February 17, 2025. **Moretton, M.** *Un approccio integrato tecnologico nutrizionale per lo sviluppo di alimenti destinati agli anziani. Per un domani sostenibile, un patto per lo sviluppo del territorio. Le giovani ricercatrici e i giovani ricercatori UNIUD raccontano l'invecchiamento - Progetto Alt Frailty*. Udine, October 29, 2021. **Online contributions** Creation and publication of periodic posts of technological-nutritional interest on the social media pages of the Italian Society of Human Nutrition (SINU). **Moretton, M.**, *Devecchi, A. Sicurezza e sicurezza alimentare in Italia: un divario Nord-Sud ancora evidente*. Newsletter SINU, November 2025 (https://sinu.it/wp-content/uploads/2025/11/NL_sinu_novembre25_ita.pdf) **Moretton, M.** – OnFoods Foundation. Dal recupero dello scarto alla dieta su misura: l'economia circolare del cibo spiegata da OnFoods. (https://www.youtube.com/watch?v=Gh5k-uf4qeU, May 2025) **Moretton, M.** *Un approccio tecnologico-nutrizionale per lo sviluppo di alimenti per anziani.* (https://www.youtube.com/watch?v=8YuuKEB5Hyk&t=99s, April 2022) **Moretton, M.** *Approccio tecnologico-nutrizionale per lo sviluppo di pane destinato agli anziani*. Newsletter SINU, April 24, 2022 (https://nl.biomedia.net/nlweb/2022/119.html) **Participation in scientific events** **Moretton, M.,** Khomenko, I., Biasioli, F. *Direct injection mass spectrometry for food volatilomics: emerging green approaches for the rapid and online screening of microbial resources*. CIBUSTEC. Parma, October 27-30, 2025.
Student Services	**Activity as Co-supervisor of Internship and Master's Thesis Reports** Since 2020, M. Moretton has been the co-supervisor of 14 internship reports and 3 master's theses in the field of Food Science and Technology degree programs at the University of Udine, 1 bachelor's theses in the field of Viticulture and Enology degree programs at the University of Trento, 1 master's thesis in the Food Technology degree program at Wageningen University & Research, The Netherlands, and 1 Erasmus internship in collaboration with the Agro Dijon Institute, France. **Tutoring Activities for Students** In the academic years 2020-2021 and 2021-2022, M. Moretton was a cross-disciplinary academic tutor for all bachelor's and master's degree programs in the Department of Agro-Food, Environmental, and Animal Sciences. The role involved supporting students and faculty during teaching and laboratory activities, as well as managing the social media profiles of the Department of Agro-Food, Environmental, and Animal Sciences (Instagram: Di4a_uniud and stal__uniud). Contacts: Prof. Giannina Vizzotto and Maurizia Sigura. In the academic year 2019-2020, M. Moretton was an academic tutor for the *Ispezione delle carni* course in the bachelor's degree program (L-26) in Food Science and Technology at the University of Udine. Contact: Prof. Mara Lucia Stecchini.

Date 11.12.2025