

University Academic Curriculum Vitae

Personal information

Name Hana Ameer

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Education since leaving school

- 2012: Admitted to engineering school entrance examinations (Biology-Geology), Preparatory Institute for Engineering Studies, Sfax, Tunisia.
- 2016: Second-Level Academic Diploma in Plant Production Engineering, National Institute of Agronomy, Tunis, Tunisia.
- 2017: Joint Master's in Mediterranean Organic Agriculture, CIHEAM Bari & LUM Jean Monnet University, Italy.
- 2018: Master of Science in Mediterranean Organic Agriculture, CIHEAM Bari, Italy.
- November 2018 – January 2022: PhD in Food Engineering and Biotechnology, Free University of Bolzano. PhD research topic: Multi-omic analysis of sourdough fermentation to elucidate the carbohydrate and amino acid metabolic networks of dominant and subdominant microbial communities.

Major Roles & Responsibilities

- Conduct interdisciplinary R&D projects to enhance the functional properties of food products for industry partners.
- Design, plan, and execute research studies and experimental workflows.
- Supervise Master's and Bachelor's students in Food Technology, providing hands-on training in experimental design and laboratory best practices.

Professional Experience

March 2024 – August 2025: First-Level Technologist (A), Pasta and Bakery Products: Integrity, Wholesomeness & Sustainability (INTEGRI), Micro4Food Lab, Free University of Bolzano, Italy

- Developed and optimized fermentation protocols for cereals, pseudocereals, and milling by-products using selected starter cultures.
- Monitored fermentations in real time with sensor-based systems and assessed nutritional, textural, and sensory attributes.
- Prepared technical and financial reports, managed project monitoring, budget reporting, and ensured compliance with funding requirements.

August 2022 – February 2024: First-Level Technologist (A), Fixed-Term Contract, International context – Free University of Bolzano, Italy

- Managed laboratory operations: cultivation, isolation, identification, and typing of lactic acid bacteria and yeasts.
- Coordinated pilot-scale production of bakery and dairy microbial biomass.
- Procured and evaluated materials and reagents for food microbiology laboratories.
- Supported research and commissioned projects with comprehensive laboratory services.
- Developed and optimized pilot-scale prototypes.
- Oversaw culture-independent analyses (DNA extraction, amplification, sequencing, data processing) in collaboration with sequencing platforms.
- Prepared analytical reports and final project documentation for funding agencies.

May 2022 – June 2022: Commissioned Researcher, SMARTJUICE – Development of an eco-sustainable bioprocess for low-sugar fruit juice production, Free University of Bolzano, Italy

Publications

- Polo, A., Arora, K., **Ameur, H.**, Di Cagno, R., De Angelis, M., & Gobbetti, M. (2020). Gluten-free diet and gut microbiome. *Journal of Cereal Science*, 103058. <https://doi.org/10.1016/j.jcs.2020.103058>
- Arora, K., **Ameur, H.**, Polo, A., Di Cagno, R., Rizzello, C. G., & Gobbetti, M. (2021). Thirty years of knowledge on sourdough fermentation: A systematic review. *Trends in Food Science & Technology*, 108, 71–83. <https://doi.org/10.1016/j.tifs.2020.12.008>
- **Ameur, H.**, Cantatore, V., Filannino, P., Cavoski, I., Nikoloudaki, O., Gobbetti, M., & Di Cagno, R. (2022). Date-seed flour as a value-added ingredient for wheat sourdough bread: An example of sustainable bio-recycling. *Frontiers in Microbiology*, 13, 873432. <https://doi.org/10.3389/fmicb.2022.873432>
- **Ameur, H.**, Arora, K., Polo, A., & Gobbetti, M. (2022). The sourdough microbiota and its sensory and nutritional performances. In *Good Microbes in Medicine, Food Production, Biotechnology, Bioremediation, and Agriculture* (pp. 169–184).
- Calabrese, F. M., **Ameur, H.**, Nikoloudaki, O., Lemos Jr, W. J. F., Celano, G., Di Cagno, R., De Angelis, M., & Gobbetti, M. (2022). Metabolic framework of spontaneous and synthetic sourdough metacommunities to reveal microbial players responsible for resilience and performance. *Microbiome*, 10, 148. <https://doi.org/10.1186/s40168-022-01301-3>
- **Ameur, H.**, Tlais, A. Z. A., Paganoni, C., Cozzi, S., Suman, M., Di Cagno, R., Gobbetti, M., & Polo, A. (2024). Tailor-made fermentation of sourdough reduces the acrylamide content in rye crispbread and improves its sensory and nutritional

characteristics. *International Journal of Food Microbiology*, 410, 110513. <https://doi.org/10.1016/j.ijfoodmicro.2023.110513>

- **Ameur, H.**, & Gobbetti, M. (2024). Chapter 12: Basic methods and protocols. In *Basic Methods and Protocols on Sourdough*. https://doi.org/10.1007/978-1-0716-3706-7_12
- Perri, G., Difonzo, G., Ciraldo, L., Rametta, F., Gadaleta-Caldarola, G., **Ameur, H.**, Nikoloudaki, O., De Angelis, M., Caponio, F., & Pontonio, E. (2025). Tailor-made fermentation of sprouted wheat and barley flours and their application in bread making: A comprehensive comparison with conventional approaches in the baking industry. *Current Research in Food Science*, 10(1), 101053. <https://doi.org/10.1016/j.crfs.2025.101053>
- Stringari, A., Tlais, A. Z. A., Polo, A., **Ameur, H.**, De Micheli, T., Aquaro, N., Zannini, E., Gobbetti, M., & Di Cagno, R. (2025). Sourdough fermentation and red lentil protein enrichment as sustainable valorization of pasta by-products to make new pasta. *Current Research in Food Science*, 10, 101094. <https://doi.org/10.1016/j.crfs.2025.101094>
- Viretto, C., Tlais, A. Z. A., Arora, K., **Ameur, H.**, Tuccillo, F., Polo, A., Ardèvol, V. N., Verté, F., Katina, K., Di Cagno, R., & Gobbetti, M. (2025). Unraveling the functional potential of microbial resources and pulse-based matrices for sourdough breadmaking. *Future Foods*, 11, 100643. <https://doi.org/10.1016/j.fufo.2025.100643>

Conference Presentations

- Poster: 2nd Annual Smart Protein Project Meeting, March 8–9, 2021.
- Oral: 4th International Conference on Food & Nutrition, September 23–24, 2021.
- Poster: 2nd International UNIFood Conference (UNIFood2021), September 24–25, 2021.
- Oral: 7th International Conference on Food Chemistry & Technology (FCT-2021), November 8–10, 2021

Language Competence

Mother tongue: Arabic

Foreign Language	Writing	Speaking	Certificate
English	C1	C1	
Italian	C1	C1	
French	C2	C1	–
German	A2	A2	–

Bolzano

15.10.2025