CURRICULUM VITAE

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After graduating in Food Science and Technology and obtaining the PhD in Food Technology in 2003 at the University of Udine (Italy), Sonia Calligaris went on her post-doctoral research activity at the Department of Food Science of the University of Udine, where she become assistant professor in Food Technology in 2010.
From 2018 Sonia Calligaris is Associate Professor of Food Technology (SSD AGR/15) at the Department of Agriculture, Food, Environmental and Animal Sciences of the University of Udine (Italy). In 2021 she obtained the national habilitation for full professor.
Her research activity is mainly focused on chemical and physical factors affecting food functionality and stability. The main research topics are: a) food structure design; b); strategy for oil gelation c) development of delivery systems for bioactive compounds; d) development of shelf-life predictive models; e) study of the role of processing and storage conditions on food stability.
She is co-author of over 135 scientific papers published in peer reviewed International Journals (h index 39) and more than 10 chapters in scientific books dealing with Food Science. From 2021 she is Editor in Chief of the Food Structure Journal (Elsevier). She has lectured at a number of national and international symposia, conferences, workshops, and holds two patents.
She is currently involved in the following funded project.

Project title	Funding body	Duration	Involvement of S. Calligaris
Valorization of olive stone by-product as a green source of innovative and healthy value-added products in the context of the circular bioeconomy and sustainability (Valostones)	EU-Prima	2023-2026	Italian PI
Technological and economic potential of the active packaging obtained by supercritical techniques for the preservation of Mediterranean fresh food (Im-Pack)	EU-Prima	2023-2026	Participant
Innovative ingredients and new processes for a sustainable food system.	Italian government	2023-2025	Participant
Functionalization of Mediterranean foods able to answer to specific nutritional needs of defined consumers categories.	Italian government	2023-2025	Participant
Fighting the waste of foods undergoing oxidation through the development of a scientific-based approach for date marking (FoodLife)	Italian government	2023-2025	Participant

List of some recent publications (2020-2024)

2020
Calligaris S., Alongi M., Lucci P., Anese M. Effect of different oleogelators on lipolysis and curcuminoid bioaccessibility upon in vitro digestion of sunflower oil oleogels. Food Chemistry, 2020, 314, 126146
Plazzotta S., Calligaris S., Manzocco L. Structural characterization of oleogels from whey protein aerogel particles. Food Research International, 2020, 132, 109099
Conte L., Milani A., Calligaris S., Rovellini P., Lucci P., Nicoli M.C. Temperature Dependence of Oxidation Kinetics of Extra Virgin Olive Oil (EVOO) and Shelf-Life Prediction. Foods, 2020, 9, 295 *(open access)*
Melchior S., Marino M., Innocente N., Calligaris S., Nicoli M.C. Effect of different biopolymer-based structured systems on the survival of probiotic strains during storage and in vitro digestion. Journal of the Science of Food and Agriculture, 2020, 100(10), 3902-3909
Manzocco L., Romano G., Calligaris S. *, Nicoli M.C. Modelling the effect of the oxidation status of the ingredient oil on stability and shelf life of low moisture bakery products: the case study of crackers. Foods, 2020, 9, 749 *(open access)*
Fayaz, G., Polenghi O., Giardina A., Cerne V., Calligaris S*. Structural and rheological properties of medium-chain triacylglyceride oleogels. International Journal of Food Science and Technology, 2021, 56(2), 1040-1047
Melchior S., Calligaris S.*, Bisson G., Manzocco L. Understanding the impact of moderate intensity pulsed electric fields (MIPEF) on structural and functional characteristics of pea, rice and gluten concentrates. Food and Bioprocess Technology, 2020, 13, 2145–2155
2021
Peressini D., Melchior S., Berlese M., Calligaris S. Application of high-pressure homogenization to tailor the functionalities of native wheat starch. Journal of the Science of Food and Agriculture, 2021, 101(7), 2668-2675
Melchior S., Marino M., Innocente N., Nicoli M.C., Calligaris S. Effect of formulation and structure of monoglyceride-based gels on viability of *Lactobacillus rhamnosus* upon in vitro digestion. Food & Function, 2021, 12(1), 351-361 *(open access)*
Manzocco L., Plazzotta S., Calligaris S. Exploring the potentialities of photo-induced glycation to steer protein functionalities: the study case of freeze-dried egg-white proteins/carbohydrates mixtures. Foods 2021, 10(1), 26; *(open access)*
Calligaris S., Plazzotta S., Barba L., Manzocco L. Design of roll-in margarine analogous by partial drying of monoglyceride-structured emulsions. European Journal of Lipid Science and Technology. 2021, 123(3), 2000206
Calligaris S., Plazzotta S., Basso F., Manzocco L. Study on the possibility of developing food-grade hydrophobic bio-aerogels by using an oleogel template approach. Current Research in Food Science, 2021*, 4, 115-120 (open access)*
Plazzotta S., Moretton M., Calligaris S.*, Manzocco L. Physical, chemical, and techno-functional properties of soy okara powders obtained by high pressure homogenization and alkaline-acid recovery. 2021, Food and Bioproducts Processing, 128, 95-101
Voce S., Calligaris S., Comuzzo P. Effect of a yeast autolysate produced by high pressure homogenization on white wine evolution during ageing. Journal of Food Science and Technology, 2021, 58(10):4045–4054.
Manzocco L., Plazzotta S., De Vries A., Powel J., Rousseau D., Calligaris S. Structural characterization and sorption capability of whey protein aerogels obtained by freeze-drying or supercritical drying. Food Hydrocolloids, 2021, 122, 107117
Stella Plazzotta, Isabella Jung, Baldur Schroeter, Raman P Subrahmanyam, Irina Smirnova, Sonia Calligaris *, Pavel Gurikov, Lara Manzocco. Conversion of whey protein aerogel particles into oleogels: effect of oil type on structural features. Polymers, 13(23), 4063, 2021.
2022
Alongi M., Lucci P.; Clodoveo M., Schena P., Calligaris S. Oleogelation of extra virgin olive oil by different oleogelators affects the physical properties and the stability of bioactive. Food Chemistry, 2022, 368, 130779
Melchior S., Calligaris S.*, Moretton M., Manzocco L., Nicoli M.C. Shaping technological functionalities and digestibility of pea protein concentrate by high pressure homogenization. Food and Bioproducts Processing. 2022, 131, 77-85
Sofia Melchior, Sonia Calligaris*, Marilena Marino, Francesca D'Este, Giorgio Honsell, Maria Cristina Nicoli, Nadia Innocente. Digestive protection of a probiotic *Lacticaseibacillus rhamnosus* in Ricotta cheese by monoglyceride structured emulsions. International Journal of Food Science and Technology, 2022,57,

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Sonia Calligaris*, Martina Moretton, Sofia Melchior, Ana Carolina Mosca, Nicoletta Pellegrini and Monica Anese. Designing food for the elderly: the critical impact of food structure. Food & Function, 2022, 13, 6467 - 6483
Stella Plazzotta, Marilisa Alongi, Lorenzo De Berardinis, Sofia Melchior, Sonia Calligaris * and Lara Manzocco. Steering protein and lipid digestibility by oleogelation with protein aerogels. Food & Function, 13, 10601–10609.
Calligaris S., Lucci P., Milani A., Rovellini P., Conte L., Nicoli M.C. Application of accelerated shelf-life test (ASLT) procedure for the estimation of the shelf-life of extra virgin olive oils: a validation study. Food Packaging and Shelf life, 34, 1009902022, 2022
Calligaris, S., Ciuffarin F., Nicoli M.C. Oleogel: definition, possible applications and further developments. Rivista Italiana delle Sostanze Grasse 2022, 99(1), pp. 75–77
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Melchior S., Moretton M., Alongi M., Calligaris S., Nicoli M.C., Anese M. Comparison of protein in vitro digestibility under adult and elderly conditions: the case study of wheat, pea, rice, and whey proteins. Food Research International, 2023, 163, 112147
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Innocente N., Di Filippo G., Melchior S., Calligaris S., Marino M., Nicoli M.C. Process design for the production of peptides from whey protein isolate with targeted antimicrobial functionality. International Journal of Food Science and Technology, 2023, 58(5), pp. 2505–2517.
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Melchior S., Codrich M., Gorassini G., Mehn D., Ponti J., Verardo G., Tell G., Calzolai L., Calligaris S. Design and advanced characterization of quercetin-loaded nano-liposomes prepared by high-pressure homogenization. Food Chemistry, 2023, 428, 136680
Alongi M., Lopriore M., Calligaris S.*, Manzocco L., Nicoli M.C. Identifying the acceptability limit for shelf-life assessment of potato chips: mismatching between quality and safety issues. Journal of Food Engineering, 2023, 357, 111654
Ciuffarin F., Alongi M., Plazzotta S., Lucci P., Schena P., Manzocco L., Calligaris S. Oleogelation of extra virgin olive oil by different gelators affects lipid digestion and polyphenol bioaccessibility. Food Research International, 173, 113239, 2023
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Manzocco L., Barozzi L., Plazzotta S., Sun Y., Miao S., Calligaris S. Feasibility of water-to-ethanol solvent exchange combined with supercritical CO2 drying to turn pea waste into food powders with target technological and sensory properties. LWT, 2024, 194, 115778
Basso, F., Ciuffarin, F., Chiodetti, M., Alinovi, M., Carini, E., Barba, L., Manzocco, L., Nicoli, M.C., Calligaris, S. Effect of moderate hydrostatic pressure on crystallization of palm kernel stearin-sunflower oil model systems, Current Research in Food Science (2024), 8, 100700.
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Bisson G., Comuzzi C., Melchior S., Calligaris S., Zanocco M, Rondinella A., Andreatta F., Marino M. Unrevealing the potentialities in food formulations of a low-branched dextran from Leuconostoc mesenteroides. Food Chemistry, 460, Part 2, 1407182024, 2024
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gelation pH and feasibility as an ingredient in low-saturated fat cocoa spreads. Food Research International, 196, 115029, 2024.
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