

CURRICULUM VITAE

Personal Information

Family name/First Name Spilimbergo/Sara
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Education

M.D. in Chemical Engineering (1998, University of Padova). Ph.D. in Chemical Engineering (2003, University of Padova). 2004-2014 Assistant professor of Chemical Engineering (University of Trento, Department of Industrial Engineering). 2014 to present Associate Professor of Chemical Engineering (University of Padova, Department of Industrial Engineering). Attainment of the National Scientific Qualification as Full Professor of Chemical Engineering, 09/D3 – (November 2014).

Teaching Activity

From 2003 to 2020 – Instructor for different courses on at University of Padova, University of Trento, University of Verona and University of Udine: Food and Bioprocess Technologies; Chemical Processes and Plants; Distillation and fermentation plants; Unit Operations in Chemical Engineering; Unit Operations in Biochemical Engineering; Unit Operations in Wine Industry; Unit Operations Principle of Unit Operations; Distillation Plants.

Research Activity

The research activity is mainly addresses to the investigation of supercritical CO₂ processes, as a low-temperature method of pasteurization for liquid and solid foodstuff, as an innovative drying technique for food and biological matrixes and as a novel method for biopolymers production.

Scientific Publications

130 publications international refereed journals (80), in book chapters (11) and conference proceedings (37), 2 patents pending H index 24.

Coordination of Research Projects

She has received funding and served as national leader for the following European and national projects and research projects:

- "Proof of Concept (PoC) activity to demonstrate the feasibility of the process patented by the University of Padua on some food products in order to increase their conservation" Research contract with the PTT investment fund, 10/2020- 03/2021
- "Improving the food safety and shelf life by high pressure" international grant, Inten-eg Italia-Adrion OISAIR 12/2019-05/2020
- "WHOLE FRESH - Development and optimization of low temperature pasteurization technologies to increase the shelf life of fresh food products" CoSID, national grant, 2019-2020
- "Increasing the preservation and safety of fresh products by innovative food processing technologies", Visiting Programme 2018, funded by Cassa di Risparmio di Padova e Rovigo, 2018.
- "Low temperature pasteurization for high nutritional juice", FSE (European social fund), regional grant, 2018-2019
- "Innovative drying processes for food matrixes", FSE (European social fund), regional grant, 2017-2018
- "Novel food drying technology for safe and healthy product", BIRD2016, national grant, 2016-2018
- "Future Food", Horizon 2020, Call H2020-SFS-2014-2.
- "Processing Raw Materials into Excellent and Sustainable End Products while Remaining Fresh (PRESERF) - Seventh Framework Programme Theme KBBE-2009-2-2-03-Sustainable food and feed processing, project number 245280

- "Supercritical decellularization of engineered tissues for clinical application" funded by Cassa di Risparmio di Trento e Rovereto (CaRiTro), biomedical science section, 2013
- "Coconut water: sport drink with high nutritional and vitamin content" funded by "Universiadi 2013", 2013.
- "Functional foods: vegetable flour for healthy food and active compounds with high bioavailability", Industria 2015 New technologies for Made in Italy, March 2010, notified as excellence project.

Her collaborations include consultant agreements with food and pharmaceutical companies such as Trentofrutta S.p.A., Sealed Air S.p.A., Messer S.p.A., Ferrarini S.p.A., Effegilab S.r.l., Nano s.r.l.

Invited Lecturer/Seminars

She has been invited at several seminars including High pressure Pasteurization by the School of Chemical Engineering and Industrial Chemistry, University of New South Wales, Sydney, Australia, by the Faculty of Engineering of the University of Sydney, Australia, by the Department of Chemical and Food Engineering, University of Salerno (IT), by the ETH, Zurich, Switzerland, by the Netherlands Institute for Systems Biology (NISB), University of Amsterdam, Netherlands, University of Sydney, Sydney, UPV, Valencia (Spain).

Awards

- 2012 National Award for the best innovative Research project on Food Application "Premio Lauro Ferrarini", 1st Edition.
- 2007 National Award for the best innovative Research project on Food Processes "Premio Montana alla Ricerca", 1st Edition.
- 2004 National Award in Innovations and Research activity "Veneto Innovazione" 4th Edition.
- 2003 International award I.S.A.S.F. 2003 for the best Ph.D. thesis on Supercritical Application during the "6th International Symposium on Supercritical Fluids ISSF" (Versailles, France).

Scientific Honours

Designed by Pfizer Inc as quality expert review of a project concerning the use of supercritical CO₂ for sterilization of an active pharmaceutical ingredient to be submitted at EMEA (European Medicines Evaluation Agency).

Nominated as a member of the International Committee of the 14th European Meeting on Supercritical Fluids, Marseille (France), 18-21 May 2014, 12th International Symposium on Supercritical Fluids, Antibes (France), 23-25 April 2018, 21st International Drying Symposium, Valencia (Spain), 11-14 September 2018.

Nominated as a reviewer and a member of the tribunal for the final dissertation of PhD students belonging to: PhD School of Chemical and Biomolecular Engineering, Faculty of Engineering of the University of Sydney, Australia; PhD School in Food Science, Technology and Management, University Polytechnic of Valencia, Spain; PhD School in Chemical Engineering of the University of Salerno, Italy, PhD School, Faculty of Engineering, Erlangen Graduate School in Advanced Optical Technologies (SAOT), Germany.

Entered in the register of Experts of Industrial Research (art. 7, comma 1, Decreto Legislativo del 27 luglio 1999, n. 297) by the Italian Ministry of Education, University and Research (MIUR), 2014.

Nominated as a member of the Jury of Falling Walls Lab, Edition 2014, Trento (www.falling-walls.com) in 2014 and 2015.

Organization of Scientific Meetings

- 2011 – Scientific meeting organized among the EU project PRESERF, manager, Trento, Italy
- 2013 – Scientific meeting organized among the EU project PRESERF, manager, Padova, Italy
- 2014 – PRESERF Workshop, speaker, VNK, The Netherland
- 2016 – Scientific meeting organized among the EU project FUTURE FOOD, manager, Padova, Italy
- 2016 – Workshop "Tessuti ingegnerizzati ad uso clinico: prospettive e attuali limitazioni.
- Caso studio: l'utilizzo di CO₂ supercritica come tecnica di preservazione per matrici acellulari", manager, Padova, Italy

2019 – Workshop “Nuovi processi di pastorizzazione per le imprese agroalimentari. Caso studio: Pastorizzazione a bassa temperatura di succo di melagrana”, manager, Padova, Italy

Interantional cooperations

- Prof. M. Matthews, Department of Chemical Engineering, University of South Carolina, U.S.A.
- Prof. N. Foster, University of New South Wales, School of Chemical Engineering & Industrial Chemistry, Sydney, Australia e Prof. F. Dehghani, School of Chemical and Biomolecular Engineering, Faculty of Engineering, the University of Sydney, Sydney, Australia.
- Dott. P. De Coppi, Clinical Senior Lecturer and Consultant, Surgery Unit, UCL Institute of Child Health and Great Ormond Street Hospital, London, U.K.
- Prof. J. J. Benedito Fort, Departamento Tecnología de Alimentos, Universidad Politecnica de Valencia UPV, Spain.
- Ing. L. Van Ginneken, Vito, Flemish Institute for Technological Research, Belgio.
- Prof. Andreas Braeuer, Erlangen Graduate School in Advanced Optical Technologies (SAOT), Germany.
- Prof. Andreja Rajkovic, Laboratory of Food Microbiology and Food Preservation, Ghent University, Belgium.
- Prof. Krystian Marszalek Institute of Agricultural and Food Biotechnology, University of Warsaw, Poland.
- Ing. Gerard Hofland, FeyeCon, CO₂ Technology, Weeps, Amsterdam, The Netherlands.
- Dott. F. Gomez, Food Technology, University of Lund, Sweden.
- Dott. D. Komes, Department of Food Engineering, University of Zagabria, Croazia.
- Prof. Frank Devlieghere Laboratory of Food Microbiology and Food Preservation, Gent University, Belgium.
- Prof. Nikola Tomic e Ilija Djekic, Institute of Food Technology and Biochemistry, Department of Food Safety and Quality Management, University of Belgrade, Faculty of Agriculture, Serbia.
- Klara Båth, Vice President Agriculture and Food at RISE Research Institutes of Sweden, Sweden.