

Personal information

Name

Linda Monaci

Main roles at national/international level:

- **Member of the ILSI** (International Life Science Institute) Expert Group on Harmonisation of Analytical Methods for Food Allergen Detection, Reference Materials and Quality Control Materials (2025-2026).
- **Member of the ILSI** (International Life Science Institute) Expert Group on Harmonization of precautionary allergen labelling within food allergy task force (2024-2026).
- **Member of the Advisory board** of the FOOD ALLERGY FORUM (2024-2025).
- **Member of Food Allergy Committee** of the World Allergy Organization (2023-2024).
- **Member of the ACT-UP project** organized within the WAO (2023-2024).
- **EFSA expert** and reference contact for CNR-ISPA on “human nutrition, dietetic products, allergens and/or novel foods” (since 2022)
- **Member of the technical committee CEN/TC 275**, "Food analysis - Horizontal methods" del working group 12 “food allergens” (since 2021)
- **President** of MonQA Association (2021-2022)
- **Vice-President** of MoniQA Association (2019-2021)
- **CNR expert of MISE and MIMIT projects** in the field of biotechnology (since 2018)
- Reviewer of international projects
- Primary Reviewer of the **Expert Panel of AOAC-US** for validation of MS methods for allergen detection in foods (2016-2018)
- **Member of the Supervisory board** of MoniQA (2016-ongoing)
- Reviewer of ILSI project in the food allergen research field
- Tutor of several PhD thesis in Food Sciences and human nutrition, Biotechnology and master thesis in Chemistry, Biotechnology and Biology
- Member of international committee for PhD at UniManchester, Australia, UniGent and UniPorto

Research and Professional experience

Current position: acting director at IBIOM

- **Research Director at IBIOM** since March 2025 leader of activities in Food Allergy Research.
- **Research Director**, Head of Mass Spectrometry team at CNR-ISPA, Bari. Since 03/2021.
- **Senior researcher** and leader of the proteomics/metabolomics group in the Food Safety and Quality Group, at CNR-ISPA - Bari-Italy. From September 2019 to February 2021.
- **Researcher** at ISPA Bari, leader of the food allergen team (2009-2019)
- **Contractual agent** at the Institute for Reference Materials and Measurement, JRC, Geel in Belgium, co-leader of the food allergen team within the Food Safety and Quality Unit. Period 2005-2008.
- **Post-doc** position in chemistry, in the food chemistry group at the Department of Chemistry, University of Bari, 2002-2004.
- **Grantholder** at IRCCS Gastroenterology Hospital “S. De Bellis” Castellana Grotte Bari (2002)

Periods abroad:

- **2005-2008 IRMM-Joint Research Center EC**, Geel (BE). Food safety and quality Unit, Contractual Agent.
- **2009 IFR (Norwich, UK)** Grant-holder (funded by MOniQA).

Main research activities:

- Development of advanced analytical methods based on Mass spectrometry for allergen quantification and characterization.
- Identification and characterization of chemical compounds in foods endowed with beneficial properties (antibacterial, antioxidant, anticarcinogenic properties etc)
- Identification and quantification of gluten through proteomic analysis and development of strategies for reduction of gluten content in wheat products.
- Development of proteomic strategies based on gel based and gel-free approaches for the identification and characterization of proteins in food matrices, with advanced bioinformatics tools, customized database and libraries.
- Implementation of in-vitro simulated human gastrointestinal digestion models coupled to LC-HR-MS/MS based identification to investigate protein digestibility.
- In-silico and in-vitro experiments for allergenicity risk assessment.
- Development and validation of analytical methods based on low and high-resolution mass spectrometry for the multiple determination of allergens in complex food matrices.
- Proteomic and metabolomic characterization of foods with high nutritional and technological value.
- Application of multivariate statistical analysis for complex data processing and pattern recognition.
- Development of extraction and purification methods for chemical contaminants detection in food matrices.
- Identification and characterization of mycotoxins by LC coupled to different detectors.
- Development of LC-MS methods for identification and quantification of secondary metabolites produced by different mould strains in complex matrices.

Projects coordination:

- 2025. CNR coordinator of an international funded project led by Stichting Wageningen Research WR (University of Wageningen, NL) involving 18 European stakeholders entitled "LWV24059 Allergen quantitation in complex food matrices, building the missing methodological framework".
- 2025. Responsible of a funded project between Soremartec Italia S.r.l. (Ferrero) and IBIOM CNR on "Development of enzymatic strategies for hazelnut allergens degradation"
- 2025. Responsible of a collaborative project between IBIOM CNR and Bruker for development of innovative methods for determination of allergens by advanced mass spectrometry.
- 2025 CNR coordinator of PRIN project BIO.FUN.PRO Bio-based valorization of fungi for a sustainable food protein production (bando 2022 Prot 2022YXLFYH).
- 2024. CNR coordinator of the PNRR project ricerca finalizzata "TAHyTi" funded by Ministero della salute with Bambin Gesù Hospital as coordinator.
- 2022. Coordinator of a project NUTRIBOX App funded by EITFood.
- 2021-2022: coordinator of the EFSA funded grant ThRAII, consortium partners UNiMAnchester, ILVO, CER, INRA, CNR.
- 2021 coordinator of the project NUTRIBOX funded by EITFood; consortium partners: CNR, InnovationLab, Sfera, NX-Food. Developer of the NUTRIBOX platform.
- 2020 CNR coordinator of the ICONSS project funded by EITFood, consortium partners: INL, CNR, FOCOS, Milcoop, SGS.
- 2016. CNR responsible of the FoodIntegrity project (W18) coordinated by UNIUPO (EU, FP7)
- 2019. ISPA responsible of FNS-Cloud and MetroFood (EU funded)
- 2018. Coordinator of the Joint Bilateral Agreement CNR/CNRS-L (Lebanon) Biennial Programme 2018-2019. Project title: "Innovative Mass Spectrometry approaches to safeguard saffron authenticity and to combat food frauds".
- Coordinator of several projects/contract agreement with Ferrero, Barilla, Andriani, Thermo-Fisher, Perkin Elmer, Bruker (in the period 2016-2020).
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Task leader and member of national Projects in the field of food and nutrition:

- Reference of the research unit (RU) for OR 7. National Project “ARS01_00783 (Agrifood) ALIFUN “Sviluppo di alimenti funzionali per l’innovazione dei prodotti alimentari di tradizione italiana” finanziato nell’ambito del Programma PON «R&I» 2014-2020 - Azione II - D.D. Prot. n. 18116 del 06/12/2021. Decreto di concessione m_pi.AOOSG_MUR.REGISTRO DECRETI R.0002852. 30-11-2021. Period: 2021-ongoing
- Member of the RU and responsible of tasks for the project RU. National Project “Nutrizione, Alimentazione e Invecchiamento” (NUTR-AGE), FOE 2019 (D.M. MIUR n. 856 del 10-10-2019), Dipartimento di Scienze Bio-Agroalimentari (DSB.AD004.271). Period: Sept. 2020-Dec 2021.
- Task leader of the RU. National Project “ARS01_00783 (Agrifood) ALIFUN “Sviluppo di alimenti funzionali per l’innovazione dei prodotti alimentari di tradizione italiana” finanziato nell’ambito del Programma PON «R&I» 2014-2020 - Azione II - D.D. Prot. n. 18116 del 06/12/2021. Decreto di concessione m_pi.AOOSG_MUR.REGISTRO DECRETI R.0002852. 30-11-2021. Period: 2021-ongoing.
- Member of the RU. Regional Project “Innovazione per potenziare la produttività, sostenibilità e redditività della filiera dei legumi tipici pugliesi, PSR_LEG (B77H20001840009)” PSR Puglia 2014-2020. Misura 16 Cooperazione, Sottomisura 16.2–Avviso pubblico approvato con DAG n. 194 del 12/09/2018. Period: February 2020-ongoing.
- Task leader and member of the RU. National Project “L’Evoluzione delle Produzioni Lattiero-Casearie: le Biotecnologie valorizzano la Tradizione” – ELEVATO, n. F/200112/03/X45, Fondo per la Crescita Sostenibile - Sportello “Agrifood” PON I&C 2014-2020, di cui al D.M. 5 marzo 2018 Capo III Procedura Sportello, come da Decreto 0004032 del 10-12-2020”. Period March 2021-ongoing.
- Task leader of the national project SWheatPRO funded by MIUR (2015-2018) SAFE & SMART (2013-2015), CTN01_00230_248064
- WP leader of RU: National Project P.O.N. Ricerca e competitività 2007–2013 per le Regioni della Convergenza. Obiettivo Operativo: “Reti per il rafforzamento del potenziale scientifico-tecnologico delle Regioni della Convergenza”. S.I.Mi.S.A. - New Strategies for Improvement of Food Safety: Prevention, Control, Correction (PON02_00657_00186_3417512/1). Period 2014-2016.
- WP leader of RU: National Project CNR for the Southern Italy funded by MEF CISIA - Integrate knowledge for sustainability and innovation of the agro-food “Made in Italy”. Period 2012-2014.

Contribution to the most international/national projects

- European projects: DREAM (2009-2013) “Design and development of realistic food models with well characterized micro- and macro- structure and composition”, Funded by FP7-KBBE - Specific Programme "Cooperation": Food, Agriculture and Biotechnology. FP7-KBBE-2007-2A, Project ID: 222654. Period 2009-2013.
- MoniQA Network of excellence (2008-2012) “Monitoring and quality assurance of food” EC funded

Awards and international recognitions

2024 Supervisor and tutor of Dr Anna Luparelli for the research doctoral thesis entitled: “Development of innovative methods for the multiple analysis of allergens in processed foods” that obtained the award as best doctoral thesis in food sciences from the Dipartimento di Scienze degli Alimenti e del Farmaco – Università degli Studi di Parma in memory of prof Stefano Sforza. (Bando: Prot. 0259363 Albo ufficiale di Ateneo N 2024/2024 del 30/09/2024; Nomina vincitore: Decreto del Direttore 1048/2024 del 25/11/2024)

2020 Letter of merit released by the President of the international association MoniQA Dr.Bert Popping for the fruitful work carried out by Dr Linda Monaci as member of the MOniQA supervisory board (protocollo ISPA n. 2155 del 31/8/2020)

2006 “Exploratory Research Project” won as a result of internal competition, assigned by European Commission, Joint Research Center – Institute for Reference Materials and Measurements, Retieseweg 111 – B 2440 Geel (Belgio) entitled Detection of allergenic peptides derived from milk hydrolysates by proteomic and immunochemical approaches. Coordinators: V. Tregot, L. Monaci, A. van Hengel

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SCOPUS AUTHOR ID: 6602456231

H-index scopus = 40

H-index Google scholar: 43

Citation SCOPUS: 4345

Citation Google scholar: 5433

Peer-reviewed papers: 123 (scopus); 151 (Google Scholar)

- **Book chapters: 10**

- **Abstracts presented at conferences: 210**

Selection of the 20 last peer-reviewed publications:

1. *Unraveling the Biological Properties of Whey Peptides and Their Role as Emerging Therapeutics in Immune Tolerance.* Quintieri L., Luparelli A., Caputo L., Schirinzi W., De Bellis F., Smiriglia L. and Monaci L. *Nutrients* 2025, 17, 938.
2. *Milk and Its Derivatives as Sources of Components and Microorganisms with Health-Promoting Properties: Probiotics and Bioactive Peptides,* Quintieri, L., Fanelli, F., Monaci, L., Fusco, V. *Foods*, 2024, 13(4), 601
3. *Standardization of a Mass Spectrometry-Based Workflow for Food Allergen Quantification* Pilolli, R., De Angelis, E., Lamonaca, A., Monaci, L. *Methods in Molecular Biology*, 2024, 2717, 251–267
4. *In-house validation of an LC–MS method for the multiplexed quantitative determination of total allergenic food in chocolate.* Pilolli, R., Lamonaca, A., Nitride, C., ...Mills, E.C.N., Monaci, L. *Analytical and Bioanalytical Chemistry*, 2024, 416(3), pp. 809–825
5. *Reactivity to allergenic food contaminants: A study on products on the market.* Fiocchi, A., Monaci, L., De Angelis, E., ...Marzano, V., Fierro, V. *Clinical and Translational Allergy*, 2023, 13(9), e12301
6. *Alternative Protein Sources and Novel Foods: Benefits, Food Applications and Safety Issues.* Quintieri, L., Nitride, C., De Angelis, E., ...Russo, F., Monaci, L. *Nutrients*, 2023, 15(6), 1509
7. *Multi-Target Detection of Nuts and Peanuts as Hidden Allergens in Bakery Products through Bottom-Up Proteomics and High-Resolution Mass Spectrometry,* Luparelli, A., Losito, I., De Angelis, E., Pilolli, R., Monaci, L. *Foods*, 2023, 12(4), 726
8. *(Bio)technological Approaches for Reducing Allergenicity of Food Ingredients.* Monaci, L., Lamonaca, A., Luparelli, A., Pilolli, R., De Angelis, E. *Sustainable Food Science - A Comprehensive Approach: Volumes 1-4*, 2023, 1-4, pp. V1-86–V1-102.
9. *Optimization of a sample preparation workflow based on UHPLC-MS/MS method for multi-allergen detection in chocolate: An outcome of the ThRAI project.* Henrottin, J., Pilolli, R., Huet, A.-C., ...Gillard, N., Monaci, L. *Food Control*, 2023, 143, 109256
10. *Microwave-Assisted Extraction of Bioactive Compounds from Lentil Wastes: Antioxidant Activity Evaluation and Metabolomic Characterization.* Cavalluzzi, M.M., Lamonaca, A., Rotondo, N.P., ...Monaci, L., Lentini, G. *Molecules*, 2022, 27(21), 7471
11. *Rational Discovery of Antiviral Whey Protein-Derived Small Peptides Targeting the SARS-CoV-2 Main Protease.* Gambacorta, N., Caputo, L., Quintieri, L., Monaci, L. ...Ciriaco, F., Nicolotti, O. *Biomedicines*, 2022, 10(5), 1067
12. *Tree Nuts and Peanuts as a Source of Beneficial Compounds and a Threat for Allergic Consumers: Overview on Methods for Their Detection in Complex Food Products.* Luparelli, A., Losito, I., De Angelis, E., ...Lambertini, F., Monaci, L. *Foods*, 2022, 11(5), 728
13. *Development of incurred chocolate bars and broth powder with six fully characterised food allergens as test materials for food allergen analysis.* Huet, A.-C., Paulus, M., Henrottin, J., ...Gillard, N., Van Poucke, C. *Analytical and Bioanalytical Chemistry*, 2022, 414(8), pp. 2553–2570
14. *In Vivo and In Vitro Assessment and Proteomic Analysis of the Effectiveness of Physical Treatments in Reducing Allergenicity of Hazelnut Proteins,* De Angelis, E., Di Bona, D., Pilolli, R., ...Macchia, L., Monaci, L. *Nutrients*, 2022, 14(4), 874

15. *Are Physicochemical Properties Shaping the Allergenic Potency of Animal Allergens?* Costa, J., Villa, C., Verhoeckx, K., ..Monaci L.,...Hoffmann-Sommergruber, K., Holzhauser, T. *Clinical Reviews in Allergy and Immunology*, 2022, 62(1)
16. *Are Physicochemical Properties Shaping the Allergenic Potency of Plant Allergens?* Costa, J., Bavaro, S.L., Benedé, S., ... Monaci L.,...Hoffmann-Sommergruber, K., Holzhauser, T. *Clinical Reviews in Allergy and Immunology*, 2022, 62(1), pp. 37–63
17. *Threshold of reactivity and tolerance to precautionary allergen-labelled biscuits of baked milk-and egg-allergic children* Fierro, V., Marzano, V., Monaci, L., ...Fiocchi, A., Putignani, L. *Nutrients*, 2021, 13(12), 4540
18. *Food labeling issues for severe food allergic patients* Fiocchi, A., Risso, D., DunnGalvin, A., ... Monaci, L., Fierro, V., Anotegui, I.J. *World Allergy Organization Journal*, 2021, 14(10), 100598
19. *Optimization of an untargeted dart-hrms method envisaging identification of potential markers for saffron authenticity assessment.* De Angelis, E., Pilolli, R., Bejjani, A., ...Arlorio, M., Monaci, L. *Foods*, 2021, 10(6), 1238
20. *Discovery based high resolution MS/MS analysis for selection of allergen markers in chocolate and broth powder matrices.* Pilolli, R., Van Poucke, C., De Angelis, E., ...Mills, E.N.C., Monaci, L. *Food Chemistry*, 2021, 343, 128533

Invited Lectures

- Keynote speaker with 40 international lectures (upon invitation) and chair at several international conferences in the field of food science, allergy and chemistry.

I authorized to the treatment of personal data.

Dr. Linda Monaci