

Curriculum Vitae - Manuel Martoccia

Email: manuel.martoccia@uniupo.it

LinkedIn: www.linkedin.com/in/manuelmartoccia

ORCID: <https://orcid.org/0009-0000-4896-8182>

SciProfiles: <https://sciprofiles.com/profile/2809626>



Education and Training

Nov 2022 – Nov 2025

Ph.D. in Drug Innovation (XXXVIII Cycle)

University of Eastern Piedmont – Department of Pharmaceutical Sciences, Novara (Italy)

Thesis title: “From seed proteins to bioactive ingredients: enzymatic approaches to valorize pulses and pseudocereals”

Supervisor: Prof. Jean Daniel Coïsson

PhD topic: “Enzymatic and biotechnological processes for the production of new ingredients with high added value from edible seeds” (ID:81)

2015 – 2021

Master’s Degree in Chemical and Pharmaceutical Technology

University of Eastern Piedmont – Department of Pharmaceutical Sciences, Novara (Italy)

Final grade: 101/110

Thesis: “Valorizzazione di alcune cultivar di *Vaccinium corymbosum* L. di interesse regionale”

2009 – 2014

High School Diploma in Chemistry and Biotechnological Sciences (82/100)

Istituto d'Istruzione Superiore "L. Cobianchi", Verbania (VB), Italy

Other Certifications

July 2025 – Scientific English Writing - Level C1 (American Business English School)

March 2023 – 27th Course of Mass Spectrometry, Italian Chemical Society (SCI)

July 2022 – Qualification to practice as a pharmacist

Professional and Research Experience

Nov 2025 – Present

Research Fellow

Project: “Valorizzazione di funghi nella produzione di alimenti sostenibili ricchi in proteine”

University of Eastern Piedmont, Department of Pharmaceutical Sciences (Novara, Italy)

Project leader: Prof. Marco Arlorio

May 2025 – Oct 2025

Part-time Laboratory Assistant

University of Eastern Piedmont, Laboratory of Analysis and Quality Control of Food Products (Novara, Italy)

Activities: Laboratory setup, instrumentation maintenance, and student assistance during practical courses

Nov 2024 – May 2025

Visiting PhD Student

Centre for Biotechnology and Fine Chemistry (CBQF), Catholic University of Porto, Portugal

Research topic: Biochemical characterization and gastrointestinal stability of quinoa, red lentil, and yellow pea protein hydrolysates

Oct 2023 – Mar 2024

Visiting PhD Student

A. Costantino & C. S.p.A., Favria (TO), Italy

Activity: Development and pilot-scale production of enzymatic hydrolysates from quinoa, red lentil, and yellow pea proteins

May 2022 – Oct 2022

Research Scholarship

Project: "Differenziamento varietale di mirtilli e lamponi tramite parametri chimico-nutrizionali"

University of Eastern Piedmont, Department of Pharmaceutical Sciences (Novara, Italy)

Jan 2021 – Jul 2021

Professional Internship

Pharmacy Dr. Nava, Verbania (VB), Italy

Activities: Preparation of galenic formulations and customer assistance

Third Mission Activities

- Speaker – ChemicAmica, Novara, 14 May 2025. Educational talk on the chemistry of colors presented to a first-grade school class
- Co-author of dissemination articles in L'Informatore Agrario (2024) and Terra e Vita (2024)
- Speaker – Ricercatori Alla Spina, University of Eastern Piedmont, 25 May 2023
- Winter School: A Spasso Fra Le Sostanze Naturali Percorso 2 Chimica Degli Alimenti – 4 February 2026

Awards

Attestato di merito per il contenuto scientifico presentato in forma orale nell'ambito del XIV Congresso Nazionale di Chimica degli Alimenti (Milano, 9-11 July 2026).

Membership and network

Società Chimica Italiana – Divisione Chimica degli Alimenti

List of Publications

Peer-Reviewed Journal Articles

1. **Martoccia, M.**, Oliveira, H., Mateus, N., Wieczorek, M.N., Jaouhari, Y., Disca, V., Aceto, M., Bordiga, M., Arlorio, M., Coïsson, J.D. (2025). *Evaluation of quality and chemical composition of selenium-enriched Vaccinium corymbosum L. and related phytochemical extracts*. Journal of Food Composition and Analysis, 147. DOI: 10.1016/j.jfca.2025.108084
2. **M. Martoccia**, M. Donna, P. Colombatto, J. D. Coïsson, F. Travaglia, M. Blandino (2025). *Nutritional Composition and Content of Bioactive Compounds in Field Pea and Chickpea Varieties as Functional Raw Material for the Food Supply Chain*. ACS Food Science & Technology Article ASAP. DOI: 10.1021/acsfoodscitech.5c00941
3. **Martoccia, M.**, Disca, V., Jaouhari, Y., Bordiga, M., Coïsson, J.D. (2025). *Recent Approaches for Bioactive Peptides Production from Pulses and Pseudocereals*. Molecules, 30(21). DOI: 10.3390/molecules30214304
4. Jaouhari, Y., Ferreira-Santos, P., Disca, V., Oliveira, H., **Martoccia, M.**, Travaglia, F., Gullón, B., Mateus, N., Coïsson, J.D., Bordiga, M. (2024). *Carbohydrases treatment on blueberry pomace: Influence on chemical composition and bioactive potential*. LWT - Food Science and Technology, 206. DOI: 10.1016/j.lwt.2024.116573
5. Disca, V., Jaouhari, Y., Carrà, F., **Martoccia, M.**, Travaglia, F., Locatelli, M., Bordiga, M., Arlorio, M. (2024). *Effect of Carbohydrase Treatment on the Dietary Fibers and Bioactive Compounds of Cocoa Bean Shells (CBSs)*. Foods, 13(16). DOI: 10.3390/foods13162545
6. Candiani, A., Diana, G., **Martoccia, M.**, Travaglia, F., Giovannelli, L., Coïsson, J.D., Segale, L. (2023). *Microencapsulation of a Pickering Oil/Water Emulsion Loaded with Vitamin D3*. Gels, 9(3), 255. DOI: 10.3390/gels9030255

Conference Proceedings, Posters, and Oral Presentations

Posters

1. **Martoccia, M.**, Donna, M., Locatelli, M., Coïsson, J.D., Blandino, M., Travaglia, F. (2023). *Characterization of different cultivars of Fagopyrum esculentum: a high-value nutritional source*. XIII Congresso Nazionale di Chimica degli Alimenti, Marsala (TP, Italy), 29-31 May 2023, p. 119.

2. Disca, V., Jaouhari, Y., **Martoccia, M.**, Coïsson, J.D., Arlorio, M. (2023). *Optimization of enzymatic treatment to increase prebiotic potential of cocoa bean shells*. **XIII Congresso Nazionale di Chimica degli Alimenti**, Marsala (TP, Italy), 29-31 May 2023.
3. **Martoccia, M.**, Fochi, V., Travaglia, F., Locatelli, M., Bordiga, M., Coïsson, J.D., Arlorio, M. (2023). *Quality and authenticity of *Vaccinium corymbosum* L.: a combined chemical and molecular approach*. **XIII Congresso Nazionale di Chimica degli Alimenti**, Marsala (TP, Italy), 29-31 May 2023, p. 27.
4. Diana, G., Milanese, A., Rassè, P., Foglio Bonda, A., Stampini, M., **Martoccia, M.**, Giovannelli, L., Torre, M.L., Segale, L. (2023). *Emulsification and spray drying to obtain microcapsules as carriers for lipophilic compounds*. **IV Convegno della Divisione di Tecnologia Farmaceutica - Società Chimica Italiana (SCI)**, 11-13 September 2023.
5. **Martoccia, M.**, Jaouhari, Y., Disca, V., Carrà, F., Colli, A., Candiani, A., Arlorio, M., Coïsson, J.D. (2023). *Characterization of Se-enriched *Vaccinium corymbosum* L. as fortified food*. **Autumn School in Food Chemistry**, 2023.
6. Candiani, A., **Martoccia, M.**, Ragazzi, C., Travaglia, F., Arlorio, M., Segale, L., Coïsson, J.D. (2023). *Microencapsulation of *Thymus vulgaris* extract by spray drying to obtain a suitable food and pharmaceutical antioxidant ingredient*. **Autumn School in Food Chemistry**, 2023.
7. Disca, V., Vecchio, L., Jaouhari, Y., **Martoccia, M.**, Travaglia, F., Coïsson, J.D., Arlorio, M. (2023). *Impact of carbohydrases on dietary fiber and polyphenols of cocoa bean shells*. **Autumn School of Food Chemistry**, 2023.
8. **Martoccia, M.**, Scavarda, C., Donna, M., Diana, G., Rivardo, F., Blandino, M., Coïsson, J.D. (2024). *Development and characterization of yellow pea protein hydrolysate: a potentially new high-added-value ingredient*. **3rd NIZO Plant Protein Functionality Conference**, Apeldoorn (The Netherlands), 22-25 October 2024.
9. **Martoccia, M.**, Oliveira, H.J.C., Aceto, M., Disca, V., Bordiga, M., Coïsson, J.D. (2024). *Foliar application of sodium selenate: effects on bioactive compounds and quality of raspberry (*Rubus idaeus* L.)*. **11th International Symposium on Recent Advances in Food Analysis (RAFA 2024)**, Prague (Czech Republic), 5-8 November 2024, p. 429.
10. **Martoccia, M.**, Rivardo, F., Travaglia, F., Locatelli, M., Ceresa, C., Coïsson, J.D., Arlorio, M. (2024). *Bioactive peptides from legumes as sustainable ingredients for the development of functional foods*. **International Conference on Alternative Proteins for Food and Feed**, Berlin (Germany), 3-5 December 2024.
11. **Martoccia, M.**, Coscueta, E.E., Manfredi, M., Rivardo, F., Coïsson, J.D., Pintado, M.E. (2025). *Impact of simulated digestion on the bioactivity of red lentil and quinoa protein hydrolysates*. **X International Conference on Food Proteins and Colloids (CIPCA 2025)**, 16-18 June 2025.

Oral Presentations

1. **Martoccia, M.**, Fochi, V., Travaglia, F., Locatelli, M., Bordiga, M., Coïsson, J.D., Arlorio, M. (2023). *Quality and authenticity of Vaccinium corymbosum L.: a combined chemical and molecular approach*. **XIII Congresso Nazionale di Chimica degli Alimenti**, Marsala (TP, Italy), 29-31 May 2023.
2. **Martoccia, M.** (2024). *Quinoa (Chenopodium quinoa Willd.) flour as a source of potential bioactive peptides*. **3rd Autumn School in Food Chemistry**, Pavia (Italy), 2-4 October 2024.
3. **Martoccia, M.** (2025). *Health-promoting properties of quinoa, red lentil, and yellow pea protein hydrolysates*. **XIV Congresso Nazionale di Chimica degli Alimenti**, Milano (Italy), 9-11 July 2025.
4. **Martoccia, M.** (2025). *From enzymatic hydrolysis to gut stability: unlocking bioactive peptides in pulses and pseudocereals*. **4th Autumn School in Food Chemistry**, Pavia (Italy), 2-4 October 2025.