

Laura Alessandroni, PhD

Curriculum vitae

Contatti

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**Rappresentante eletto della
Divisione di Chimica degli
Alimenti nel Consiglio
direttivo SCI giovani**

**Membro del consiglio
direttivo della Divisione di
Chimica degli Alimenti della
SCI (Società Chimica
Italiana)**

**Delegato italiano in
European Young Chemists'
Network (EYCN)**

Educazione professionale

Assegnista di ricerca Post-doc

02/2024 – oggi

03/CHEM-07B (già CHIM10)

Development of vitamin D extraction, purification and analysis methodologies in HPLC-DAD/MS from fishing industry waste

Scuola di Scienze del Farmaco e dei Prodotti della Salute, Università di Camerino

Borsa di studio per attività di ricerca

05/2023 – 02/2024

03/CHEM-07B (già CHIM10)

Development of extraction methodologies for the recovery of Vitamin D3 from fish product waste and formulation of functional foods

Scuola di Scienze del Farmaco e dei Prodotti della Salute, Università di Camerino

Dottorato di Ricerca

30/11/2019 - 24/05/2023

Pharmaceutical, Nutraceutical and Food Sciences

International School of Advanced studies, Università di Camerino

Titolo della tesi: *Quality, shelf-life, and proteomics characterization of organic chicken meat: towards a sustainable poultry supply chain*

Supervisors: Prof. Gianni Sagratini, Dr. Mohammed Gagaoua

4th European Summer School on Nutrigenomics

21-25/06/2021

Università di Camerino

#comunicamscienza - Summer school

13-20/07/2020

Università di Camerino

Mass Spectrometry Course

5-9/10/2020

Certosa di Pontignano, Pisa

Organizzato dalla Divisione di Spettrometria di Massa della Società Chimica Italiana (SCI)

Abilitazione alla professione di Farmacista

06/2019

Università di Camerino

Laurea Magistrale in Chimica e Tecnologia Farmaceutiche

12/04/2019

Titolo tesi: *Antimycotoxigenic activity of polyphenols in legumes*

Materia: Chimica degli alimenti

Relatore: Prof. Gianni Sagratini e Dr. Yelko Rodriguez Carrasco

Esperienze di ricerca all'estero

Research Internship

01/2022 – 06/2022

Teagasc - Agriculture and Food Development Authority
Dublin, Ireland

Proteomic analysis of chicken meat from different farmings and breeds

Supervisor: Dr. Mohammed Gagaoua

Erasmus per tesi sperimentale

Erasmus+ program scholarship

09/2018 – 03/2019

Food Chemistry and Toxicology laboratory – Faculty of Pharmacy
University of Valencia, Valencia (Spain)

Supervisors: Dr. Yelko Rodriguez Carrasco, Prof. Jorge Mañes Vinuesa

Esperienze didattiche

Professor

Food Chemistry and Processing course

Jilin Agricultural University, Jilin, China

09/2023 - present

Teaching assistant

Food Chemistry and Processing course

Jilin Agricultural University, Jilin, China

11/2022

Tutorato didattico tipologia B

Laboratorio di analisi dei farmaci II

Università di Camerino

a.a. 2022-23

Tutorato didattico tipologia A

Chimica generale e inorganica

Università di Camerino

a.a. 2021-22

Tutorato didattico tipologia B

Laboratorio di analisi dei medicinali

Università di Camerino

a.a. 2020-21

Competenze linguistiche

Lingua madre

ITALIANO

Altre lingue

	Comprensione		Parlato		Scrittura
	Ascolto	Lettura	Interazione	Produzione	
ENGLISH	C1	B2	B2	B2	B2
SPANISH	B1	B1	A2	A2	A2

English IELTS certification, B2 level

Esperienze editoriali

01/2025 – oggi

Guest Editor of Special Issue "Applications of Foodomics Strategies in Advancing Food Quality, Safety and Authenticity"

Foods

https://www.mdpi.com/journal/foods/special_issues/B2LSI5BC6W

Publicazioni scientifiche

1. **Assessment of heavy metals and PAHs in fish waste valorization for nutraceutical purposes.** Fanelli, M., Frapiccini, E., Alessandroni, L., Leone, G. P., Larocca, V., Martino, M., ... & Sagratini, G. (2025). *Detritus*, (33), 10-15.
2. **Fishery by-products as valuable source of bioactive compounds: optimization of supercritical fluid extraction process and extracts characterization in terms of fatty acids and vitamin D3.** Alessandroni, L.*, Boldrini, L., Leone, G. P., Frapiccini, E., Panfili, M., Coisson, J. D., ... & Sagratini, G. (2026). *European Food Research and Technology*, 252(2).
3. **Rediscovering Olive Mill Wastewater: New Chemical Insights Through Untargeted UHPLC-QTOF-MS Data-Dependent Analysis Approach.** Alessandroni, L., Ricciutelli, M., Angeloni, S., Caprioli, G., & Sagratini, G. (2025). *Foods*, 14(23), 4128.
4. **Polyphenol extraction from Lacrima di Morro d'Alba grape pomace and Ascolana Tenera olive leaves as an effective recovery of agricultural side-streams.** Pompei, F., Alessandroni, L., Marconi, R., Caprioli, G., Sagratini, G., Vittori, S., & Mannozi, C. (2025). *Applied Food Research*, 101084.
5. **The added value of flavouring extracts from Calabrian chili peppers by-products: characterization of bioactive and volatile compounds comparing green extraction techniques.** Corsetti, S., Alessandroni, L., Coppin, J. C., Tonanni, V., & Sagratini, G. (2025). *European Food Research and Technology*, 251(11), 3821-3837.
6. **Chemical Characterization of Hot Trub and Residual Yeast: Exploring Beer By-Products for Future Sustainable Agricultural Applications** Alessandroni, L., Marconi, R., Zannotti, M., Ferraro, S., Dolezalova, T., Piatti, D., ... & Sagratini, G. (2025).. *Foods*, 14(12), 2081.
7. **Spray drying of an oil-in-water emulsion containing vitamin D3: A synergy between formulation and process conditions to obtain microparticles.** Diana, G., Milanese, A., Candiani, A., Sodano, A., Rassè, P., Bonda, A. F., Alessandroni, L., Giovannelli, L., Segale, L. & Coisson, J. D. *International Journal of Pharmaceutics*, 673, 125384
8. **Italian White Truffle (*Tuber magnatum* Pico): Discovery of new molecules through untargeted UHPLC-QTOF-MS analysis.** Angeloni S, Marconi R, Piatti D, Caprioli G, Tiecco M, Sagratini G, Alessandroni L*, Ricciutelli M. *Food Chemistry*, 477, 143562.
9. **Cafestol and kahweol content in different specialty coffee brews: Exploration by NMR analysis and evaluation of brewing parameters.** Santanatoglia, A., Schievano, E., Menegazzo, I., Fioretti, L., Caprioli, G., Vittori, S., ... & Alessandroni, L.* (2025). *Journal of Food Composition and Analysis*, 137, 106929.
10. **In-depth exploration of the high and normal pH beef proteome: first insights emphasizing the dynamic protein changes in Longissimus thoracis muscle from pas-ture-finished Nellore bulls over different postmortem times.** Patinho, I., Antonelo, D. S., Delgado, E. F., Alessandroni, L., Balieiro, J. C., Castillo, C. J. C., & Gagaoua, M. (2024). *Meat Science*, 216, 109557.
11. **Valorization of spent coffee ground and coffee silverskin as a source of nutrients and bioactive compounds.** Santanatoglia, A., Alessandroni, L., Mannozi, C., Marconi, R., Piatti, D., Sagratini, G., ... & Caprioli, G. (2024). *Future Postharvest and Food*, 1(1), 61-81.

12. **Valorization of *Cynara cardunculus* L. var. *scolymus* Processing By-Products of Typical Landrace “Carciofo Di Montelupone” from Marche Region (Italy).** Alessandroni, L.*, Bellabarba, L., Corsetti, S., & Sagratini, G. (2024). *Gastronomy*, 2(4), 129-140.
13. **Integrated Chemometrics and Data-Independent Acquisition Proteomics for the Discovery of Meat Authenticity Biomarkers: A Study on Early Post-Mortem Pectoralis major Muscle Proteomes of Ross 308 and Ranger Classic Chicken Produced by Organic versus Antibiotic-Free Farming Systems.** Alessandroni, L., Sagratini, G., & Gagaoua, M. (2024). *Journal of Agricultural and Food Chemistry*, 72 (36), 20153-20170.
14. **Comprehensive investigation of coffee acidity on eight different brewing methods through chemical analyses, sensory evaluation and statistical elaboration.** Santanatoglia, A., Angeloni, S., Caprioli, G., Fioretti, L., Ricciutelli, M., Vittori, S., & Alessandroni, L.* (2024). *Food Chemistry*, 139717.
15. **Data-independent acquisition-based SWATH-MS proteomics profiling to decipher the impact of farming system and chicken strain and discovery of biomarkers of authenticity in organic versus antibiotic-free chicken meat.** Alessandroni, L.*, Sagratini, G., Bravo, S. B., & Gagaoua, M. (2024). *Current Research in Food Science*, 100757.
16. **From 7-dehydrocholesterol to vitamin D3: Optimization of UV conversion procedures toward the valorization of fish waste matrices.** Sun, Y.¹, Alessandroni, L.*, Angeloni, S., Del Bianco, E., & Sagratini, G. (2024). *Food Chemistry: X*, 101373.
17. **Proteomics and bioinformatics analyses based on two-dimensional electrophoresis and LC-MS/MS for the primary characterization of protein changes in chicken breast meat from divergent farming systems: Organic versus antibiotic-free.** Alessandroni, L.*, Sagratini, G., & Gagaoua, M. (2024). *Food Chemistry: Molecular Sciences*, 8, 100194.
18. **Vitamin D and Its Role on the Fatigue Mitigation: A Narrative Review.** Di Molfetta, I.V., Bordoni, L., Gabbianelli, R., Sagratini, G., Alessandroni, L. (2024) *Nutrients*, 16(2), 221
19. **Poultry Meat Quality Preservation By Plant Extracts: An Overview.** Feknous I, Saada DA, Boulahlib CY, Alessandroni L, Souidi SW, Chabane OA, Gagaoua M. (2023) *Meat Technology*, 64 (3), 80–101.
20. **Assessing chemical, microbiological and sensorial shelf-life markers to study chicken meat quality within divergent production systems (organic vs. conventional).** Alessandroni, L., Scorticini, S., Caprioli, G. et al. (2023) *European Food Research and Technology*
21. **Role of *Panax ginseng* and ginsenosides in regulating cholesterol homeostasis.** Cecarini, V., Cuccioloni, M., Gong, C., Liu, Z., Bonfili, L., Angeletti, M., Angeloni, S., Alessandroni, L., Sagratini, G., Liu, H., & Eleuteri, A. M. (2023). *Food Bioscience*, 103256.
22. **Discrimination of filter coffee extraction methods of a medium roasted specialty coffee based on volatile profiles and sensorial traits.** Santanatoglia, A., Alessandroni, L., Fioretti, L., Sagratini, G., Vittori, S., Maggi, F., & Caprioli, G. (2023). *Foods*, 12(17), 3199.
23. **Volatile Profile of Strawberry Fruits and Influence of Different Drying Methods on Their Aroma and Flavor: A Review.** Abouelenein, D., Acquaticci, L., Alessandroni, L., Borsetta, G., Caprioli, G., Mannozi, C., ... & Mustafa, A. M. (2023). *Molecules*, 28(15), 5810.
24. **Intrinsic and extrinsic factors impacting fresh goat meat quality: An overview.** Gagaoua, M., Alessandroni, L., Das, A., Lamri, M., Bhattacharya, D., Nanda, P. K., & Das, A. K. (2023). *Meat Technology*, 64(1), 20-40.
25. **Phytochemicals as natural additives for quality preservation and improvement of muscle foods: A focus on fish and fish products.** Biswas, O., Kandasamy, P., Nanda, P.K., Biswas, S., Lorenzo, J.M., Das, A., Alessandroni, L., Lamri, M., Das, A.K. & Gagaoua, M. (2023). *Food Material Research*, 3:5.
26. **Six-Month Synbio® Administration Affects Nutritional and Inflammatory Parameters of Older Adults Included in the**

- PROBIOSENIOR Project.** Salvesi C, Silvi S, Fiorini D, Alessandroni L, Sagratini G, [...] Verdenelli MC (2023). *Microorganisms*, 11(3):801.
27. **Post-mortem muscle proteome of crossbred bulls and steers: Relationships with carcass and meat quality.** Santiago, B., Baldassini, W., Neto, O. M., Chardulo, L. A., Torres, R., Pereira, G., Curi, R., Chiaratti, M., Padilha, P., Alessandroni, L., & Gagaoua, M. (2023). *Journal of Proteomics*, 104871.
 28. **Polyphenols, Saponins and Phytosterols in Lentils and Their Health Benefits: An Overview.** Mustafa, A. M., Abouelenein, D., Acquaticci, L., Alessandroni, L., Angeloni, S., Borsetta, G., ... & Vittori, S. (2022). *Pharmaceuticals*, 15(10), 1225.
 29. **Grapevine leaves (*Vitis vinifera*): Chemical characterization of bioactive compounds and antioxidant activity during leave development.** Nzekoue, F. K., Nguefang, M. L. K., Alessandroni, L., Mustafa, A. M., Vittori, S., & Caprioli, G. (2022). *Food Bioscience*, 50, 102120.
 30. **Emerging Role of Biosensors and Chemical Indicators to Monitor the Quality and Safety of Meat and Meat Products.** Nanda, P. K., Bhattacharya, D., Das, J. K., Bandyopadhyay, S., Ekhlās, D., Lorenzo, J. M., Dandapat, P., Alessandroni, L., Das, A.K., & Gagaoua, M. (2022). *Chemosensors*, 10(8), 322.
 31. **Electrospinning as a Promising Process to Preserve the Quality and Safety of Meat and Meat Products.** Gagaoua, M., Pinto, V. Z., Göksen, G., Alessandroni, L., Lamri, M., Dib, A. L., & Boukid, F. (2022). *Coatings*, 12(5), 644.
 32. **A shelf-life study for the evaluation of a new biopackaging to preserve the quality of organic chicken meat.** Alessandroni, L., Caprioli, G., Faiella, F., Fiorini, D., Galli, R., Huang, X., ... & Sagratini, G. (2022). *Food Chemistry*, 371, 131134.
 33. **Effect of Roasting, Boiling, and Frying Processing on 29 Polyphenolics and Antioxidant Activity in Seeds and Shells of Sweet Chestnut (*Castanea sativa* Mill.)** Mustafa, A. M., Abouelenein, D., Acquaticci, L., Alessandroni, L., Abd-Allah, R. H., Borsetta, G., ... & Caprioli, G. (2021). *Plants*, 10(10), 2192.
 34. **Analysis of Phytosterols Content in Italian-Standard Espresso Coffee.** Nzekoue, F.K.; Alessandroni, L.; Caprioli, G.; Khamitova, G.; Navarini, L.; Ricciutelli, M.; Sagratini, G.; Sempere, A.N.; Vittori, S. *Beverages* 2021, 7, 61.
 35. **Characterization of the Aroma Profile and Main Key Odorants of Espresso Coffee.** Angeloni, S.; Mustafa, A.M.; Abouelenein, D.; Alessandroni, L.; Acquaticci, L.; Nzekoue, F.K.; Petrelli, R.; Sagratini, G.; Vittori, S.; Torregiani, E.; Caprioli, G. *Molecules* 2021, 26, 3856

Conferenze

Keynote lectures

Sagratini G and Alessandroni L. Proteomics in food research. **SCI 2024 - XXVIII Elements of Future**, Milan 26-30 August 2024

Presentazioni orali

Alessandroni L, Sagratini G, Gagaoua M. Data-independent acquisition proteomics for the discovery of chicken meat authenticity biomarkers: a study on breasts from two chicken strains raised under organic and antibiotic-free farming systems. **Merck Young Chemists Symposium**, Rimini, 13-15 novembre 2024.

Alessandroni L, Frapiccini E, Panfili M, Coisson JD, Segale L, Durazzo A, Lucarini M, Leone GP, Cicero AFG, Sagratini G. Scarti della pesca come fonte di Vitamina D3: dall'estrazione con metodi tradizionali alle green extractions. **SiNut**, Bologna 12-14 settembre 2024.

Alessandrini L, Angeloni S, Marconi R, Piatti D, Ricciutelli M, Caprioli G, Sagratini G. Untargeted UHPLC-QTOF analysis: new molecules discovery in Italian White truffle (*Tuber magnatum* Pico). **Food Chemistry and Technology conference**, Parigi, 27-29 November 2023.

Mannozi, C., Alessandrini L, Marconi C, Caprioli G, Vittori S, De Aguiar Saldanha Pinheiro AC, Tappi S, Rocculi P. Assessment of biogenic amines producing bacteria using non-thermal plasma on sardine fillets. **Food Chemistry and Technology conference**, Parigi, 27-29 November 2023.

De Aguiar Saldanha Pinheiro AC, Tappi S, Mannozi C, Alessandrini L, Marconi R, Caprioli G, Mozzon M, Vittori S, Rocculi P. Effect of cold plasma on sardine fillets shelf life. **ISEKI Conference 2023** on-line, 22-24 November 2023.

Marconi R, Piatti D, Alessandrini L, Angeloni S, Zannotti M, Marchetti L, Ricciutelli M, Tiecco M, Giovannetti R, Caprioli G, Sagratini G. Application of untargeted UHPLC-Q-TOF-MS, GC-MS and ICP-MS techniques for new metabolites discovery of white acqualagna truffle (*tuber magnatum* pico). **Merck Young Chemists Symposium**, 13-15 November 2023.

Alessandrini L. La scelta del PACKAGING: sostenibilità e innovazione per la qualità e la shelf-life dell'alimento. **Pastaria festival**, Parma, 29 September 2023.

Corsetti S, Alessandrini L, Floridi M, Casale A, Sagratini G. Calabrian chili pepper flavouring extracts: preliminary characterization and valorisation of this variety towards the PGI mark. **Autumn School in Food Chemistry**, Pavia, 20-22 September 2023.

Alessandrini L, Sagratini G, Gagaoua M. SWATH-MS based proteomics and chemometrics tools to assess chicken meat authenticity within divergent production systems: organic versus antibiotic free. **ChimAli**, Marsala, Italy, 29-31 May 2023.

Mannozi, C., Abouelenein, D., Piatti, D., Alessandrini L, Sagratini, G., Vittori, S. Characterization and valorization of phenolic rich extracts from *Malus domestica* cv Mela Abbondanza Rossa. **ChimAli**, Marsala, Italy, 29-31 May 2023.

Alessandrini L, Sagratini G, Galli R, Gagaoua M. SWATH-MS proteomics and chemometrics for the discovery of biomarkers of chicken meat authenticity. **International Meat Chemistry, Processing & Nutrition Symposium, online conference organized by** Massey University (NZ) and China Meat Research Centre (China), 5 December 2022

YOUNG SCIENTIST AWARD WINNER

Alessandrini L, Sagratini G, Galli R, Mullen AM, Gagaoua M. Deciphering the impact of organic farming system on pectoralis major muscle proteome of Ross 308 chicken: towards the identification of biomarkers of authenticity. **Autumn School in Food Chemistry**, Pavia, 17-18 October 2022.

Alessandrini L, Sagratini G, Galli R, Gagaoua M. Assessing chicken meat authenticity within divergent farming systems (organic versus antibiotic-free) using SWATH-MS-based proteomic analysis and chemometrics multivariate tools. **VII MS Food day**, Florence, Italy, 5-7 October 2022.

Alessandrini L, Caprioli G, Faiella F, Fiorini D, Galli R, Huang X, Marinelli G, Nzekoue F, Ricciutelli M, Scortichini S, Silvi S, Tao J, Tramontano A, Turati D, Sagratini G. Organic chicken meat in a compostable biopackaging solution: a comparative shelf-life study. **XXI EuroFoodChem**, online conference, 22-24 November 2021

Alessandroni L, Vincenzetti S, Ricciutelli M, Sagratini G. Organic and antibiotic-free chicken meat: a proteomic approach. **Alimenti e Nutraceutici: salute e prevenzione attraverso il cibo**, Camerino, 13 July 2021

Alessandroni L. Organic vs Conventional: the quality of chicken meat. Oral communication. **Un dottorando in 40 minuti**, Camerino, 13 May 2020

Alessandroni L, Sagratini G, Manes J, Rodriguez-Carrasco Y. Antimycotoxigenic activity of polyphenols in legumes. Oral communication, **VI International Student Congress of Food Science and Technology**, Valencia, Spain, 21-22 February 2019

Presentazioni Poster

Alessandroni L, Frapiccini E, Sun Y, Panfili M, Coisson JD, Segale L, Durazzo A, Lucarini M, Leone GP, Cicero AFG, Sagratini G. Vitamin D3 enrichment from fish waste: green extraction optimization and nutraceutical development. **SCI 2024 - XXVIII Elements of Future**, Milan 26-30 August 2024 **SCHOLARSHIP WINNER**

Marconi R, Piatti D, Alessandroni L, Angeloni S, Ricciutelli M, Giovannetti R, Zannotti M, Caprioli G, Sagratini G. Valorisation of a new local food community: the case study of Acqualagna White Truffle by using a UHPLC-Q-ToF untargeted approach. **Food Chemistry and Technology conference**, Parigi, 27-29 November 2023.

Alessandroni L, Sagratini G, Mannozi C, Gagaoua M. Proteomics as a powerful tool to investigate biomarkers in food: authentication of organic chicken meat. **Merck Young Chemists Symposium**, 13-15 November 2023.

Alessandroni L, Sun Y, Caprioli G, Sagratini G. Fish waste as source of vitamin D3: optimization of extraction and quantification methods for the valorisation of an important resource. **ChimAli**, Marsala (TP), 29-31 May 2023.

Santanatoglia A, Caprioli G, Alessandroni L, Fioretti L, Sagratini G, Vittori S. Medium roasting specialty coffee fingerprint: discrimination among different brewing methods. **ChimAli**, Marsala (TP), 29-31 May 2023.

Corsetti S, Alessandroni L, Floridi M, Casale A, Sagratini G. Calabrian chili pepper flavouring extracts: characterization and valorisation of this variety towards the PGI mark. **ChimAli**, Marsala (TP), 29-31 May 2023

Patinho, I, Antonelo, D, Delgado, E, Balieiro, J, Alessandroni L, Contreras-Castillo, C, Gagaoua, M. Shotgun proteomics and chemometrics to discriminate normal and dark-cutting beef muscles. **69th ICoMST - International Congress of Meat Science and Technology**, Padova, Italy, 20-25 August 2023.

Patinho, I, Antonelo, D, Delgado, E, Balieiro, J, Alessandroni L, Contreras-Castillo, C, Gagaoua, M. Serial time analysis of post-mortem muscle unveils a disparity in the biomarkers and biochemical pathways underpinning dark-cutting beef development. **69th ICoMST - International Congress of Meat Science and Technology**, Padova, Italy, 20-25 August 2023.

Alessandroni L, Sagratini G, Galli R, Muller AM, Gagaoua M. Deciphering the impact of organic farming system on Pectoralis major muscle proteome of Ross 308 chicken: towards the identification of biomarkers of authenticity. **68th ICoMST - International Congress of Meat Science and Technology**, Kobe, Japan, 22-25 August 2022.

Alessandroni L, Sagratini G, Gagaoua M. Assessing chicken meat authenticity within divergent farming systems (organic versus antibiotic-free) using SWATH-MS-based proteomic analysis and chemometrics. **68th ICoMST - International**

Congress of Meat Science and Technology, Kobe, Japan, 22-25 August 2022.

Alessandroni L, Ricciutelli M, Cortese M, Vincenzetti S, Galli R, Sagratini G. Organic meat in compostable packaging solutions: a preliminary study. **4th European Summer School on Nutrigenomics, Camerino, Italy** 21-25 June 2021

07/01/2026