MINISTERIO DE CIENCIA E INNOVACIÓN

CURRICULUM VITAE (maximum 4 pages)

AGENCIA ESTATAL DE INVESTIGACIÓN

CV date	10/02/2025

Part A. PERSONAL INFORMATION

First and Family name	Lucía Olmo García		
ID number		Age	
Researcher codes	WoS Researcher ID	H-2013-2015	
	Scopus Author ID	57035358500	
	ORCID Code	0000-0001-7285-9138	

A.1. Current position

Name of Institution	University of Granada		
Department	Analytical Chemistry		
Address and Country	Spain		
Phone number		E-mail	
Current position	Associate Proffessor	From	22/03/2024
Key words	Analytical chemistry, Metabolomics, Method development, Method validation, LC-MS, GC-MS		

A.2. Education

Grade	University	Year
PhD in Chemistry	University of Granada	2018
Master's degree in Food Quality and Technology	University of Granada	2014
Bachelor's degree in Chemistry	University of Granada	2013

A.3. Indicators of Quality in Scientific Production

- Coauthor of 38 papers, 2 conference proceeding, 8 book chapters; coinventor of 6 patents
- Total No. of citations: 755 (Scopus), 931 (Google Scholar)
- h Index (Scopus): 18
- >100 coauthors from >30 world-wide recognized institutions

Part B. CV SUMMARY

I carried out my PhD at the University of Granada (UGR) funded by a FPU grant. During the predoctoral stage, I mainly worked in the optimization of analytical methodologies (LC-DAD/FLD/MS and GC-MS) combined with powerful statistical tools and their application to the study of secondary metabolites in olive tree derived matrices (oils and plant tissues). My major achievement was the development of a multi-class method for the simultaneous determination of minor olive bioactive compounds (including phenolic compounds, pentacyclic triterpenes, tocopherols and sterols) in a single run. During that period, I carried out two 3-months research stays abroad: one in the prestigious Olive Center - UC Davis (CA, USA), where I used cutting-edge methodologies for olive oil sample treatment and analysis; and the other in the leading instrumentation company Bruker Daltonik (Bremen, Germany), where I joint the Applications Development team and tested their latest MS instruments and data treatment software.

During the postdoctoral stage, first, I stayed one year more at the UGR (funded by the Internal Research Plan) and I opened up my research interests to new matrices in the field of Plant and Food Metabolomics (other vegetable oils, processed foods, tropical fruits and algae, among others). I also initiated collaborations with other research groups focused on the study of the effects of food intake on health, what led me to draw my attention to Health and Nutrition Metabolomics. After that, I got a postdoctoral fellowship from Alfonso Martín Escudero Foundation to go to Imperial College London, where I joined the Department of Metabolism, Digestion and Reproduction and started working on the development and validation of targeted assays (LC-TQ-MS) for the determination of metabolites in blood, urine and cells, expanding in this way my expertise in sample preparation and quantification techniques (MS^n). I went

back to UGR in 2021, where I linked several postdoctoral contracts, including the prestigious *Ramón y Cajal* fellowship. In 2024, I became Associate Professor.

I am co-author of 38 papers published in prestigious international journals (28 Q1, 20 D1) and 8 book chapters. I have participated in 10 research projects, 4 transfer contracts and 3 teaching innovation projects (funded by regional, national and European sources). I have overseen 1 PhD thesis (plus another one in progress), 16 Degree's and Master's Final projects, and I have accumulated more than 800 hours of teaching experience. I actively participate in science outreach activities and my research work has been awarded several prizes (see section C5). I have also had the opportunity to work for two years in the R&D department of a private company as scientific advisor and coordinator of research projects funded in public calls. As a result from this activity, I am listed as co-inventor in 6 patents.

I could define myself as a Doctor in Chemistry with a strong background in Analytical Chemistry, including separative techniques, mass spectrometry and chemometrics. My scientific-technical interests and objectives in the medium/long term are the development and validation of high-throughput and accurate metabolomic strategies to determine compounds of interest in food/plant matrices and their related metabolites in biological fluids.

Part C. RELEVANT MERITS

C.1. Publications (*)Corresponding author

1 Serrano-García I, Martakos IC, Olmo-García L*, León L, de la Rosa R, Gómez-Caravaca AM, Belaj A, Serrano A, Dasenaki ME, Thomaidis NS, Carrasco-Pancorbo A. *Application of Liquid Chromatography-Ion Mobility Spectrometry-Mass Spectrometry-Based Metabolomics to Investigate the Basal Chemical Profile of Olive Cultivars Differing in Verticillium dahliae Resistance.* **Journal of Agricultural and Food Chemistry**. 459 (2024) 140334. IF(2023): 5.7. Q1 (12/74) CHEMISTRY, APPLIED

2 Serrano-García I, Saavedra Morillas C, Beiro-Valenzuela MG, Monasterio R, Hurtado-Fernández E, Gonzalez-Fernández JJ, Hormaza JI, Pedreschi R, Olmo-García L*, Carrasco-Pancorbo A. *Uncovering phytochemicals quantitative evolution in avocado fruit mesocarp during ripening: A targeted LC-MS metabolic exploration of Hass, Fuerte and Bacon varieties.* **Food Chemistry**. 459 (2024) 140334. IF(2023): 8.5. Q1 (5/74) CHEMISTRY, APPLIED

3 Serrano-García I, Olmo-García L*, Monago-Maraña O, Muñoz Cabello de Alba I, León L, de la Rosa R, Serrano A, Gómez-Caravaca AM, Carrasco-Pancorbo A. Characterization of the Metabolic Profile of Olive Tissues (Roots, Stems and Leaves): Relationship with Cultivars' Resistance/Susceptibility to the Soil Fungus Verticillium dahliae. **Antioxidants.** 12:12 (2023) 2120. IF(2023): 6.0. Q1 (20/173) FOOD SCIENCE & TECHNOLOGY

4 Serrano-García I, Domínguez-García J, Hurtado-Fernández E, Gonzalez-Fernández JJ, Hormaza JI, Beiro-Valenzuela MG, Monasterio R, Pedreschi R, Olmo-García L*, Carrasco-Pancorbo A. *Assessing the RP-LC-MS-Based Metabolic Profile of Hass Avocados Marketed in Europe from Different Geographical Origins (Peru, Chile, and Spain) over the Whole Season*. **Plants.** 12:16 (2023) 3004. IF(2023): 4.0. Cuartil: Q1 (46/265) PLANT SCIENCES

5 Monasterio R, Caselles C, Trentacoste E, Olmo-García L, Carrasco-Pancorbo A, Galmarini C, Soto V. *Use of olive pomace extract as a pollinator attractant to increase onion (Allium cepa L.) seed crop production*. **European Journal of Agronomy.** 149 (2023) 126921. IF(2023): 4.5. Cuartil: Q1 (13/125) AGRONOMY

6 Beiro-Valenzuela MG, Serrano-García I, Monasterio R, Moreno-Tovar MV, Hurtado-Fernández E, Gonzalez-Fernández JJ, Hormaza JI, Pedreschi R, Olmo-García L*, Carrasco-Pancorbo A. *Characterization of the polar profile of Bacon and Fuerte avocado fruits by HILIC-MS: distribution of non-structural carbohydrates, quinic acid and chlorogenic acid between seed, mesocarp and exocarp at different ripening stages.* **Journal of Agricultural and Food Chemistry.** 71:14 (2023) 5674–5685. IF(2023): 5.7. Q1 (22/173) FOOD SCIENCE & TECHNOLOGY

7 Núñez-Lillo G, Ponce E, Arancibia-Guerra C, Carpentier S, Carrasco-Pancorbo A, Olmo-García L, Chirinos R, Campos D, Campos-Vargas R, Meneses C*, Pedreschi R*. *A multiomics integrative analysis of color de-synchronization with softening of 'Hass' avocado fruit: a first*

insight into a complex physiological disorder. **Food Chemistry**. 408 (2022) 135215. IF(2022): 8.8. Q1 (5/72) CHEMISTRY, APPLIED

8 Figueiredo-González M, Olmo-García L*, Reboredo-Rodríguez P*, Serrano-García I, Leuyacc-del Carpio G, Cancho-Grande B, Carrasco-Pancorbo A, González-Barreiro C. *Singular Olive Oils from A Recently Discovered Spanish North-Western Cultivar: An Exhaustive 3-Year Study of Their Chemical Composition and In-Vitro Antidiabetic Potential.* **Antioxidants**. 11 (2022) 1233. IF(2022): 7.0. Q1 (13/142) FOOD SCIENCE & TECHNOLOGY

9 Serrano-García I, Hurtado-Fernández E, Gonzalez-Fernandez JJ, Hormaza JI, Pedreschi R, Reboredo-Rodríguez P, Figueiredo-González M, Olmo-García L*, Carrasco-Pancorbo A. *Prolonged on-tree maturation vs. cold storage of Hass avocado fruit: Changes in metabolites of bioactive interest at edible ripeness.* **Food Chemistry**. 394 (2022) 133447. IF(2022): 8.8. Q1 (5/72) CHEMISTRY, APPLIED

10 Alves de Carvalho AG, Olmo-García L*, Gaspar BRA, Carrasco-Pancorbo A, Castelo-Branco VN, Torres AG*. *Evolution of the metabolic profile of virgin olive oil during deep-frying: assessing the transfer of bioactive compounds to the fried food.* **Food Chemistry**. 380 (2022) 132205. IF(2022): 8.8. D1 (5/72) CHEMISTRY, APPLIED

C.2. Congresses

1 **Invited talk:** **Olmo-García L**, International Meeting on Fats and Oils, organized by SBOG (Brazilian Society of Oils and Fats), 15-16/10/2020 (online). International.

2 **Oral communication:** **Olmo-García L**, Carrasco-Pancorbo A, Kessler N, Neuweger H, Wendt K, Fernández-Gutiérrez A, Baessmann C, 17th Euro Fed Lipid Congress and Expo, 20-23/10/2019 (Seville, Spain). International.

3 **Oral communication:** **Olmo-García L**, Kessler N, Neuweger H, Wendt K, Fernández-Gutiérrez A, Baessmann C, Carrasco-Pancorbo A, XXII Reunión SEQA, 17-19/07/2019 (Valladolid, Spain). National. *Best communication award.*

4 **Invited talk:** **Olmo-García L**, Sánchez-Arévalo CM, Carrasco-Pancorbo A. VI Jornada Nacional del Grupo de Olivicultura de la SECH, 26/06/2019 (Madrid, Spain). National.

5 **Oral communication:** **Olmo-García L**, Wendt K, Bajoub A, Fernández-Gutiérrez A, Baessmann C, Carrasco-Pancorbo A. 8th International Symposium on Recent Advances in Food Analysis, 07-10/11/217 (Prague, Czech Republic). International.

C.3. Research projects

1 PID2021-128508OB-I00. *Nuevas herramientas metabolómicas para impulsar la industria del aguacate español.* Proyectos del Plan Nacional 2021 (114.950 €). PI: Alegría Carrasco Pancorbo / Co-PI: Jorge. F. Fernández Sánchez. 01/09/2022-31/08/2025. *Researcher.*

2 B-AGR-416-UGR18. *Herramientas Ómicas de Aplicación en El Ámbito Oleícola: Evaluación de la «Singularidad» de Aceites de Oliva Virgen Extra Andaluces e Identificación de Variedades Resistentes a Verticilosis (Olivomics).* Programa Operativo FEDER Andalucía 2014-2020, Andalusian Regional Goverment (18.650,00 €). PI: Alegría Carrasco Pancorbo (UGR). 01/01/2020-31/03/2022. *Researcher.*

3 P69964. *Development and application of quantitative MS Sterols/Steroids assays in urine and plasma for the prediction of preterm birth*. NIHR BRC at Imperial Healthcare NHS Trust (£61.000). PI: David MacIntyre (Imperial College London) 01/01/2020-31/12/2021. *Researcher*

4 CTQ2017-88079-P. *Avances en la utilización de materiales inteligentes para el análisis de compuestos de interés en áreas biosanitarias y alimentarias.* Spanish Ministry of Economy and Competitiveness (84.700 €). PI: Jorge F. Fernández Sánchez; Alberto Fernández Gutiérrez (UGR). 01/01/2018-31/12/2020. *Researcher.*

5 ITC-20151142. *Desarrollo de suplementos alimenticios a partir de los productos del olivar dirigidos a la protección cardiovascular humana (CARDIOLIVE).* Spanish Centre for the Development of Industrial Technology and European Regional Development Fund (ERDF) (1.544.461,90 €). PI: Juan Rafael Granados Moreno (S.C.A. San Francisco de Asís). 01/12/2015-28/02/2018. *Researcher.*

C.4. Technology/Knowledge transfer

Reseach contracts

1 *Quantitative measurement of cortisol in plasma samples from FINGER project*. Neuroepidemiology and Ageing Research Unit. PI: **L Olmo-García** (NPC), C Udeh-Momoh (ICL). 01/2021-08/2021 (£3.500).

2 *Development of a targeted assay for two metabolites determination in the context of the Piva-Uptake Project*. CRUK-EPSRC-MRC-NIHR Comprehensive Cancer Imaging Centre. PI: **L Olmo-García** (NPC), EO Aboagye (ICL). 06/2020-05/2021 (£22.000).

3 OTRI-3667. *Asesoramiento Científico-Técnico e implementación de metodologías para determinación de compuestos minoritarios de matrices oleícolas.* CM Europa SL. PI: A Carrasco-Pancorbo (UGR). 12/2015-02/2018 (49.610 €).

4 OTRI-3637. *Certificación y distribución de nueve materiales de referencia para análisis organolépticos de aceite de oliva (165/2014 SEN)* Department of Agriculture, Fisheries and Environment, Regional Government of Andalusia. PI: L Cuadros-Rodríguez (UGR). 09/2015-01/2016 (29.040 €).

Patents

1 Olmo García L, Olmo Peinado JM. ES2495792. *Nuevo componente de la aceituna y procedimiento de obtención del mismo.* Spain, 02/11/2015. Holder: Acer Campestres SL.

2 Olmo García L, Olmo Peinado JM. ES2495795. *Procedimiento de obtención de aceite de oliva.* Spain, 10/11/2015. Holder: Acer Campestres SL.

3 Olmo Peinado JM, Ruiz Rueda T, **Olmo García L**. ES2389820. *Nuevo producto del fruto del olivo y procedimiento de obtención del mismo*. Spain, 21/11/2013. Holder: Elayotecnia SL.

4 Olmo Peinado JM, Ruiz Rueda T, **Olmo García L**. ES2389816. *Subproducto de la aceituna y procedimiento de obtención del mismo.* Spain, 21/11/2013. Holder: Elayotecnia SL.

C.5. Scientific awards

- Extraordinary prize of Doctorate 2018-2019 (University of Granada). December 2022 (Granada)
- XXXVII Thesis Award “San Alberto Magno”. Ilustre *Colegio Oficial de Químicos del Sur*. Best Doctoral Thesis (2017-2019). Prize: 1.000 €. November 2019, Seville (Spain).
- Best Oral Presentation (sponsored by Metabolites-MDPI) and Best Poster Presentation (sponsored by Phenomenex) at *XXII Reunión SEQA,* July 2019, Valladolid (Spain).
- Optimum Oliveto International Investigation Awards (1st edition) Grupo Oleícola Jaén. Best Doctoral Thesis in the field of the olive growing. Prize: 3.000 €. May 2019, Jaén (Spain).

C.6. Other merits

- Teaching experience: >800 hours (theoretical classes and laboratory teaching) in the degrees in Pharmacy, Chemistry, and Environmental Sciences (University of Granada).
- Participation in scientific conferences: 70 posters, 12 oral communications, 4 invited talks.
- Reviewer of scientific journals: Analytical Methods, Journal of Pharmaceutical and Biomedical Analysis, Food Chemistry, Food Control, European Journal of Lipid Science and Technology, Plant Physiology and Biochemistry, Foods and Molecules.
- Participation in science outreach activities: European Researchers’ Night, Science Week and Summer Scientific Campus (University of Granada); teacher at the Open Centre for Lifelong Learning (University of Granada); organizer of the online congress Divulga NextGen; active contributor in scientific dissemination journals: *Actualidad Analítica, Aldaba, Químicos del Sur, Olimerca.*
- Member of scientific societies: *Sociedad Española de Química Analítica (SEQA), Sociedad Española de Cromatografía y Técnicas Afines (SECyTA), Real Sociedad Española de Química (RSEQ),* and *Ilustre Colegio de Químicos del Sur.*