



CURRICULUM VITAE (CVA)

IMPORTANT – The Curriculum Vitae cannot exceed 4 pages. Instructions to fill this document are available in the website.

Part A. PERSONAL INFORMATION

CV date 23/12/2021

First name	INMACULADA		
Family name	MATEOS-APARICIO CEDIEL		
Gender (*)	FEMALE	Birth date (dd/mm/yyyy)	17/05/1979
Social Security, Passport, ID number	46889720B		
e-mail	inmateos@ucm.es	URL Web	
Open Researcher and Contributor ID (ORCID) (*)	0000-0001-6050-5105		

(*) Mandatory

A.1. Current position

Position	ASSOCIATE PROFESSOR		
Initial date	26/07/2021		
Institution	UNIVERSIDAD COMPLUTENSE DE MADRID		
Department/Center	NUTRITION AND FOOD SCIENCE	FACULTAD FARMACIA	
Country	SPAIN	Teleph. number	913941807
Key words	BY-PRODUCTS; VEGETABLES; VALORISATION; DIETARY FIBER; PREBIOTIC; ANTIOXIDANTS		

A.2. Previous positions (research activity interruptions, art. 45.2.c)

Period	Position/Institution/Country/Interruption cause
01/06/2008-01/09/2011	Hired under Research Projects
01/10/2011-04/05/2014	Lecturer
12/01/2014-06/06/2014	Maternity leave (5 months)
07/06/2014-06/10/2016	Lecturer
01/07/2018-20/10/2018	Maternity leave (3 months)
07/10/2016-25/07/2021	Lecturer
26/07/2021- currently	Associate Professor

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
LICENSED IN PHARMACY	COMPLUTENSE (MADRID)	2003
MSc IN PHARMACY	COMPLUTENSE (MADRID)	2004
PhD IN PHARMACY	COMPLUTENSE (MADRID)	2008

Part B. CV SUMMARY (max. 5000 characters, including spaces)

My research experience began at the **Department of Nutrition and Food Science from Complutense University of Madrid (UCM)** in 2003 to carried out my PhD studies. This research was within the priority lines of the area of agri-food and health, mainly the **valorization of vegetables by-products and the functional and bioactive ingredients obtaining** with a positive human health impact. The research developed in my PhD thesis produced 9 articles (6 indexed: 4 in Q1). Later, I was hired as a researcher at the **Institute of**

Food Science, Technology and Nutrition (ICTAN. CSIC) for 6 months, in which 2 Q1 articles and a patent granted by the Spanish Patent Office related with the okara **by-product valorization** were produced. From 2008 to 2011, I worked at the **Institute for Biofunctional Studies** (IEB. UCM), being **responsible for the research line on food of the QUITO research group** “Research on the chitin / chitosan system”, participating in 4 projects and 5 contracts with companies to valorize shellfish shells and spent brewery’s yeasts generating 5 articles (4 Q1), 1 European Patent and 1 WIPO Patent, and several know-how reports for the companies we worked with. I stayed for three months at **University of Reading** learning about cell culture batch for testing the **prebiotic effect**. In 2011, I got a position on Universidad Complutense (UCM) as **Lecturer at Department of Nutrition and Food Science**, and on July 2021 I have taken possession of my position as **Associate Professor**. Since then, I combine **teaching** (240 hours / year) in the Degrees of Pharmacy; Food Science and Technology; and Human Nutrition and Dietetics with **coordination** of course 1 from Food Science and technology Degree and the internship practices of the Master's Degree Food Safety and research. In my facet as teacher, I have received two diploma of **teaching excellence** (2018 and 2021) and I am involved in **teaching innovation projects** (7) from 2014 (head of the project in 3 of them) with a production of 19 published articles. Regarding **research**, I am a member of **ALIVEF research group** “Plant-based foods: processing, quality and functional ingredients”, and mainly dedicated to the **valorization of vegetable by-products and the improvement of their bioactive character through the application of sustainable and green technologies**. My **scientific performance** could be specified in **43 published articles** (26 Q1), **17 book chapters** (with ISBN) and the coordination of a book about food additives. I have participated in **16 projects** and **10 contracts with companies**, being responsible for 3. I am authorship of **3 patents**. I have participated in **34 communications at international and national conferences** (1 plenary conference, 2 invited communications, 5 oral communications and 26 posters). I have co-supervised **3 cum laude PhD thesis** and currently supervising 1 that will be defended next year; and **13 Master's theses** and **17 undergraduate final projects**. I am member of the Spanish Society of Microbiota, Probiotics and Prebiotics (SEMiPyP) and one of the authors of the first scientific consensus on prebiotics. Regarding **disseminative activities** for general public, I have coordinated (4) and participated (3) at European Researchers' Night and Science Week, co-organized the Conference of Gastronomy, Health and Technology held at the Faculty of Pharmacy for 4 editions and I have written press and radio notes related to sustainability and agri-food by-products.

Part C. RELEVANT MERITS (*sorted by typology*)

C.1. Publications (more relevant from the last 10 years)

De la Peña Armada, R., Villanueva-Suárez, M.J., Molina-García, A.D., Rupérez, P., **Mateos-Aparicio, I.** Novel rich-in-soluble dietary fiber apple ingredient obtained from the synergistic effect of high hydrostatic pressure aided by Celluclast®. LWT-Food Science and Technology, 146, 111421 (2021)

De la Peña Armada, R., Bronze, M.R., Matias, A., **Mateos-Aparicio, I.** Triterpene-Rich Supercritical CO2 Extracts from Apple By-product Protect Human Keratinocytes Against ROS. Food and Bioprocess Technology, 14, 909-919 (2021)

Mateos-Aparicio, I. Plant-based by-products. En: Charis Galanakis (ed.). Food Waste Recovery Processing Technologies, Industrial Techniques, and Applications. 2nd Edition. Elsevier Academic Press. ISBN: 978-0-12-820563-1 (2020)

De la Peña Armada, R., Villanueva-Suárez, M.J. & **Mateos-Aparicio, I.** High hydrostatic pressure processing enhances pectin solubilisation on apple by-product improving techno-functional properties. Eur Food Res Technol 246, 1691–1702 (2020)

Villanueva-Suárez, M.J., **Mateos-Aparicio, I.**, Pérez-Cózar, M.L., Yokoyama, W., Redondo-Cuenca, A. Hypolipidemic effects of dietary fibre from an artichoke by-product in Syrian hamsters. *Journal of Functional Foods*, 56, 156-162 (2019)

Mateos-Aparicio, I., Martera, G., Goñi, I., Villanueva-Suárez, M.J., Redondo-Cuenca, A. Chemical structure and molecular weight influence the in vitro fermentability of polysaccharide extracts from the edible seaweeds *Himathalia elongata* and *Gigartina pistillata*. *Food Hydrocolloids*, 83, 348-354 (2018)

Pérez-López, E., **Mateos-Aparicio, I.**, Rupérez, P. High hydrostatic pressure aided by food-grade enzymes as a novel approach for Okara valorization. *Innov. Food Sci. Emerg. Tech.* 42, 197-203 (2017)

Arshadi, M., et al. (last author: Yuste, F.) (14/28). Pretreatment and extraction techniques for recovery of added-value compounds from food waste. *Green Chem.*, 18, 6160-6204 (2016)

Mengibar, M., **Mateos-Aparicio, I.**, Miralles, B., Heras, A. Influence of the physico-chemical characteristics of chito-oligosaccharides (COS) on antioxidant activity. *Carbohydr. Pol.* 97, 776-782 (2013)

Harris, R., Lecumberri, E., **Mateos-Aparicio, I.**, Mengibar, M., Heras, A. Chitosan nanoparticles and microspheres for the encapsulation of natural antioxidants extracted from *Ilex paraguariensis*. *Carbohydr. Pol.* 84, 803-806 (2011)

C.2. Congress (more relevant from the last 10 years)

Supercritical CO₂ as an efficient solvent to extract natural bioactives from apple by-product. Tipo de participación: Comunicación oral. Congreso: 17th European Meeting on Supercritical Fluids – 7th European Meeting on High Pressure Technology. Ciudad Real (España). EMSF 2019

Application of green technologies for the sustainable valorisation of apple by-product. Tipo de participación: Póster. Congreso: Valorising field wastes – the next steps? Nottingham (Reino Unido). FOOD WASTE NET 2018

Increasing solubilisation of pectin polysaccharides from apple by-product with high hydrostatic pressure treatments. Tipo de participación: Comunicación oral. Congreso: 2nd International Conference on Food Bioactives & Health. Lisboa (Portugal). FBHC 2018

Novel approach for the valorisation of the soybean by-product okara. Tipo de participación: Comunicación invitada. Congreso: The future of food waste: challenges and opportunities for valorisation in Europe. Wageningen (Holanda). FUTURE FOOD WASTE 2016

Brown seaweeds as a source of functional ingredients. Tipo de participación: Comunicación oral. Congreso: 10th International Conference, Functional Foods and Bioactive Compounds In Health And Disease: Science and Practice. FUNCTIONAL FOOD CONFERENCE 2012

Potential prebiotic effect of apple pomace fibre. In vivo assay. Tipo de participación: Comunicación oral. Congreso: III Workshop Probioticos, Prebioticos y Salud: Evidencia Científica. SEPYP 2011

Chitin and chitosan: looking back, around and forward. Tipo de participación: Conferencia plenaria. Congreso: 10 International Conference of The European Chitin Society. EUCHIS 2011

C.3. Research projects (more relevant from the last 10 years)

AGL2017-82428-R: Revalorización de subproductos del cultivo del espárrago para la obtención de ingredientes alimentarios. Programa Estatal de I+D+i Orientada a los Retos de la Sociedad. Convocatoria 2017. IP: Dra. Rocío Rodríguez Arcos (Instituto de la Grasa-CSIC). Enero 2018-Diciembre 2021. Cuantía: 139.150 euros Participación: Equipo investigador

AGL2016-77056-R: Mejora de la funcionalidad prebiótica de subproductos agroalimentarios por tratamiento simultáneo con enzimas hidrolíticas y alta presión hidrostática. Programa Estatal de I+D+i Orientada a los Retos de la Sociedad. Convocatoria 2016. IP: Dra. Pilar Rupérez Antón (ICTAN-CSIC). Enero 2017-Diciembre 2020. Cuantía: 80.000 euros Participación: Equipo investigador

TD1203 (European Cost Action): Food waste valorization for sustainable chemicals, materials and fuels (EUBIS). Marzo 2013-Marzo 2017. IP: Dr. James Clark. Participación: Equipo de trabajo (WP 1,2 y 3)

MAT2010-21621-C02-01: Chitosan and co-passengers: Functional applications. Proyectos de Investigación Fundamental no orientada. Convocatoria 2010. Enero 2011-Diciembre 2013. IP: Dra. Angeles Heras Caballero (UCM). Cuantía: 145.200 euros. Participación: Equipo investigador

S2009/ENE-1660: Energy conversion of cynara biomass and valorization of by-products. Comunidad de Madrid. Convocatoria 2009. Enero 2010-Diciembre 2013. IP: Dr. Jesús Fernández González (UPM). Cuantía: 788.015, 10 euros. Participación: Equipo investigador

C.4. Contracts, technological or transfer merits

C.4.1. Contracts

Revalorización de pieles de patata. Consulting Fresh Business, S.L. IP: Inmaculada Mateos-Aparicio. Diciembre 2020-Diciembre 2023.

Determinación polisacáridos no-almidón de muestras de leguminosas. Instituto Tecnológico Agrario de Castilla y León. IP: Inmaculada Mateos-Aparicio. Mayo 2021-Julio 2021.

Análisis de carotenoides en variedades de zanahoria. Universidad Politécnica de Madrid. IP: M^a Dolores Tenorio Sanz. Noviembre 2014-Noviembre 2015.

Valorización de subproductos de industria cervecera para extracción de compuestos funcionales. Grupo Mahou-San Miguel, S.A. IP: Ángeles Heras. Enero 2011-Diciembre 2012.

Análisis y caracterización química-física de paredes celulares de levaduras de sus factorías. Grupo Mahou-San Miguel, S.A. IP: Ángeles Heras. Abril 2010- Febrero 2012.

Fat-binding y revalorización de biomasa de *Saccharomyces cerevisiae*. AB-Biotics, S.L. IP: Ángeles Heras. Septiembre 2010-Noviembre 2011.

C.4.2. Patents

Castañé F., Cuñe J., Heras A., Mancebo R., Mateos-Aparicio I., Miralles B., Rafecas M., Santos J. WO 2014/001589 A1 World Intellectual Property Organization. Fat binder obtained from biomass resulting from beer production. 03/01/2014. Sociedad Anónima Damm. En explotación.

Castañé F., Cuñe J., Heras A., Mancebo R., Mateos-Aparicio I., Miralles B., Rafecas M., Santos J. 12382250.4-1358. European Office Patent. Selective fat binder obtained from brewery process biomass. 27/02/2013. Sociedad Anónima Damm. En explotación.