CURRICULUM VITAE ABREVIADO (CVA)

Part A. PERSONAL INFORMATION

First name	Juan Antonio		
Family name	Giménez Bastida		
Gender (*)	Male	Birth date (dd/mm/yyyy)	21/08/81
Social Security, Passport, ID number	23022686P		
e-mail	jgbastida@cebas.csic.es	URL Web: https://www.researchgate.net/profile/Juan-Antonio-Bastida	
Open Researcher and Contributor ID (ORCID) (*)		0000-0002-1244-8764	

(*) Mandatory

A.1. Current position

Position	Ramón y Cajal Postdoctoral Researcher		
Initial date	01/01/2023		
Institution	Spanish National Research Council (CSIC)		
Department/Center	Centro de Edafología y Biología Aplicada del Segura (CEBAS)		
Country	Spain	Teleph. number	+34968396200
Key words	Polyphenols; Urolithins; Food Science; Eicosanoids; Pharmacology; Culture cells; Animal models; LC-MS/MS; Inflammation; Cardiovascular		

A.2. Previous positions (research activity interuptions, indicate total months)

Period	Position/Institution/Country/Interruption cause
05/11/2022 – 31/12/2022	CSIC-funded MSCA-ERC Extension - Hired on Contract
16/07/2022 – 04/11/2022	Marie Curie Fellowship/CEBAS-CSIC/Spain
01/06/2018 – 15/07/2020	Juan de la Cierva-Incorporación/CEBAS-CSIC/Spain
14/10/2014 – 22/05/2018	Postdoctoral Researcher/Vanderbilt University/EEUU
27/08/2013 – 30/09/2014	Assistant Professor/Polish Academy of Science/Poland
27/02/2013 – 31/07/2013	PhD Secondment//Polish Academy of Science/Poland
01/03/2012 – 30/06/2012	Hired on Contract/CEBAS-CSIC/Spain
01/01/2008 – 31/12/2011	JAEpredoc Fellowship//CEBAS-CSIC/Spain

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
PhD in Food Science and Technology	CEBAS-CSIC/University of Murcia	2008-2012
Master in Biomedical Investigation	University of Murcia	2008-2009
Bachelor in Food Science and Technology	University of Murcia	2003-2005

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

From 01/01/2008 to 30/09/2014 the research line I worked on was related to health-diet interaction. Specifically, on the identification of plant foods polyphenols (pomegranate, citrus fruits and buckwheat) that could have a beneficial effect in health, particularly against intestinal inflammation and cardiovascular diseases, to evaluate whether polyphenols are responsible for the benefits associated with diets rich in plant-derived foods (i.e., fruits, vegetables). This goal was approached in a multidisciplinary way covering from preclinical (cell culture and animal models) to human studies, and with the aim of establishing the physiological conditions at which polyphenols or their derived metabolites (phase II or microbial) exert their action in the potential target organs. Thus, considering the observed effects in vivo, I worked on in vitro mechanistic studies, at physiologically relevant conditions, identifying putative pathways involved in the observed processes. The good results obtained in this period allowed me to be awarded with the Extraordinary Doctorate Award (Faculty of Medicine, University of Murcia) and poster prices in international conferences (2011). Besides, I could start a new line of

investigation related to inflammation and plant-derived food (Olsztyn, Poland). From 14/10/2014 to 22/05/2018, I worked at Vanderbilt University (Nashville, TN, USA) where I branched out from my background in food science to pharmacology. The research line developed was intended to deepen in the understanding of the biological role of the 5-LOX and COX-2 enzymes through the study of a novel group of eicosanoids formed by the cross-over of both enzymes. This innovative project focused on the synthesis, quantification and biological study (i.e., platelet-aggregation and tubulogenesis) of the COX-2/5-LOX cross-over hemiketal eicosanoids. The quality of the studies published brought the candidate to be awarded with one of the prestigious grants funded by the American Heart Association (106.350$) as the principal investigator. Hence, I worked on receptor pharmacology to advance towards the functional characterization of the newly discovered 5-LOX/COX-2 hemiketal eicosanoids in order to stablish a firm foundation for novel anti-inflammatory therapy and rationalize some of the failures of current treatments. The considerable amount of data produced served as the basis of the project funded in 2018 by the NIH (R01, GM076592-07) that opened a new research line in the hosting group related to the study of 5-hydroxy-prostaglandins. Under the framework of the AHA-funded project, I also mentored two rotations students, who learned different techniques related to chemical and biochemical synthesis and cellular and molecular biology techniques. The results presented in different international conferences received several travel and poster awards (2015 and 2018). The postdoctoral periods in Poland and EEUU led me to establish permanent international collaborations and acquire a background in nutrition and food science as well as in pharmacology and clinical pharmacology. In June 2018, as a “Juan de la Cierva” fellowship, I came back to CEBAS to work on the identification of new mechanisms of action of polyphenols (i.e., oxidative activation of urolithins) and the study of their biological activities such as: i) anti-inflammatory (reducing the 5-LOX/COX-2 eicosanoids formation in leukocytes) and ii) anti-carcinogenic (against breast and colon cancer cells). This research line found continuity thanks to two different programs: (i) Marie Curie European program (PolyBiota, #838991; 172,932.84€) that provided new insights into the key role of the gut microbiota modulating the beneficial effects against CVD related to PPs-rich foods consumption; (ii) “MSCA-ERC Extension” program funded by CSIC designed to get additional data that will be the basis of a proposal to be submitted to the ERC program of the European Commission. Now, as a Ramón y Cajal researcher I want to consolidate a new line of investigation (led by me) in the Department of Food Science and Technology at CEBAS-CSIC. The “Knowledge Generation Projects 2022” and “Research Consolidation” funded by the Spanish Ministry of Science and Innovation are the cornerstone of this research line. I have participated in 36 research projects (PI in 5) and published 44 papers (H index=26; 1st author in 22, corresponding in 5 and last author in 2) in indexed journals (34 in Q1, 18 in D1). I have also published 11 book chapters, attended 20 conferences (17 international). I have supervised undergraduate/predoctoral students (including JAEintro felloswhips). I have been the director of two Master’s Thesis, participated in outrage activities (such as the week of science, IDIES project, oral presentations and social media) and invited as a committee member to evaluate Master Thesis. I also collaborate as a reviewer and editor for SCI journal such as Int. J. Mol. Sci.

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

C.1. Publications *(see instructions)*

1) **Giménez-Bastida JA (CA)**, Ávila-Gálvez MA, Carmena-Bargueño MA, Pérez-Sánchez H, Espín JC, González-Sarrías A (2022) Physiologically relevant curcuminoids inhibit angiogénesis via VEGFR2 in human aortic endotelial cells, Food Chem Toxicol, 166:113254. Citations: – (– citations/year) DOI: 10.1016/j.fct.2022.113254.

2) Zielinska D, Zielinski H, Laparra-Llopis JM, Szawara-Nowak D, Honke J, **Giménez-Bastida JA (CA)** (2021) Caffeic acid modulates processes associated with intestinal inflammation, *Nutrients*, 13, 554. Citations: 26 (13 citations/year); DOI: 10.3390/nu13020554

3) **Giménez-Bastida JA (CA)**, González-Sarrías A, Espín JC, Schneider C (2020) Inhibition of 5-lipoxygenase derived leukotrienes and hemiketals as a novel anti-inflammatory mechanism of urolithins, *Mol. Nutr. Food Res.*, 64, 11:e2000129; Citations: 9 (3 citations/year); DOI: 10.1002/mnfr.202000129

4) **Giménez-Bastida JA**, Ávila-Gálvez MÁ, Espín JC, González-Sarrías A (2019) Conjugated Physiological Resveratrol Metabolites Induce Senesncence in Breast Cancer

Cells: Role of p53/p21 and p16/Rb Pathways, and ABC Transporters, *Mol Nutr Food Res*, 63, 1900629. Citations: 37 (9.25 citations/year); DOI: 10.1002/mnfr.201900629
5) Zielinska D, Laparra-Llopis JM, Zielinski H, Szawara-Nowak D, **Giménez-Bastida JA (CA)** (2019) Role of Apple phytochemicals, phloretin and phloridzin, in modulating processes related to intestinal inflammation, *Nutrients*, 11, E1173. Citations: 53 (13.25 citations/year); DOI: 10.3390/nu11051173
6) Giménez-Bastida JA, Shibata T, Uchida K, Schneider C, (2017) Roles of 5-lipoxygenase and cyclooxygenase-2 in the biosynthesis of hemiketals E2 and D2 by activated human leukocytes, *FASEB J*, 31, 1867-1878. Citations: 15 (3 citations/year); DOI:10.1096/FJ.201601136R
7) Giménez-Bastida JA (CA), Zielinski H, Piskula M, Zielinska D, Szawara-Nowak D, (2017) Buckwheat bioactive compounds, their derived phenolic metabolites and their health benefits, *Mol Nutr Food Res*, 61, 1600475 (1 – 10) Citations: 30 (5 citations/year); DOI: 10.1002/mnfr.201600475
8) Giménez-Bastida, J.A. (CA), Surma, M., Zielinski, H.; In vitro evaluation of the cytotoxicity and modulation of mechanisms associated with inflammation induced by perfluorooctanesulfonate and perfluorooctanoic acid in human colon myofibroblsts CCD-18Co, (2015) *Toxicol. In Vitro*, 29, 1683-91. Citations 17 (2.15 citations/year); DOI:10.1016/J.TIV.2015.07.001
9) Giménez-Bastida, J.A.; Larrosa, M.; González-Sarrías, A.; Tomás-Barberán, F.A.; Espín, J.C.; García-Conesa, M.T.* (2012). Intestinal ellagitannin metabolites urolithins and ellagic acid ameliorate cytokine induced inflammation and associated molecular markers in human colon fibroblasts. *J. Agric. Food Chem*. 60, 8866-76. Citations: 85 (7.7 citations/year); DOI:10.1021/jf300290f
10) Giménez-Bastida, J.A.; González-Sarrias, A.; Larrosa, M.; Tomás-Barberán, F.; Espín, J.C.; García-Conesa, M.T. (2012). Ellagitannin metabolites, urolithin A glucuronide and its aglycone urolithin A, ameliorate TNF-α-induced inflammation and associated molecular markers in human aortic endothelial cells. *Mol. Nutr. Food Res.* 56, 784–796. Citations: 138 (12.5 citations/year); DOI: 10.1002/mnfr.201100677

C.2. Congress, indicating the modality of their participation (invited conference, oral presentation, poster)
From a total of 20 communications: 17 international and 3 national conferences (6 oral and 14 poster).
- J. A. Giménez Bastida, H Zielinski, M Piskula, D Zielinska; "Buckwheat bioactive compounds, their derived metabolites and health effects", Philadelphia (Pennsylvania, USA); 2016; 252ND American Chemical Society National Meeting & Exposition (Oral presentation, ***Invited speaker***)

- J. A. Giménez Bastida, C Schneider; "Biosynthesis and quantification of hemiketal eicosanoids formed via cross-over of 5-LOX and COX-2 activities", La Jolla (California, USA); 2016; LIPID MAPS Annual Meeting 2016 (**Oral presentation**).

- J. A. Giménez Bastida, P. Truchado, M. Larrosa, J. C. Espín, F. Tomás-Barberán, M. T. García-Conesa and A. Allende; "Urolithins, Metabolites Produced by Human Colonia Microflora, Act as Quorum Sensing Inhibitors of Yersinia enterocolitica Affecting its Gene Expression"; Valladolid (Spain); 2010; 1st International Conference on Antimicrobial Research (**Oral presentation**)

C.3. Research projects, indicating your personal contribution. In the case of young researchers, indicate lines of research for which they have been responsible.

Title: Oxidative transformation of microbial (poly)phenols as a novel anti-inflammatory mechanism
Funding Entity: MCIN/AEI
Principal Investigator: **JA Giménez-Bastida**
Ref.: PID2022-136915NA-I00
Affiliation: CEBAS-CSIC
Total amount: 100.000€
Duration: 10/2023-09/2026

Title: Angiogenesis as a target of the tandem microbiota/microbial phenolic metabolites
Reference: CNS2022-135253
Affiliation: CEBAS-CSIC
Funding Entity: MCIN/AEI
Total amount: 142.112,50€
Principal Investigator: **JA Giménez-Bastida**
Duration: 07/2023-06/2025

Title: Effect of (poly)phenols/gut microbiota interaction in cardiovascular health
Funding Entity: CSIC
Reference: IFERC20010
Total amount: 103.600€
Duration: 05/11/2022-04/05/2024
Principal Investigator: **J.A. Giménez Bastida**
Affiliation: CEBAS-CSIC
Type of participation: **Principal Investigator**

Title: Polyphenols and Gut Microbiota Interaction in Cardiovascular Health
Call for proposal: H2020-MSCA-IF-2018;
Reference: 838991-PolyBiota
Funding entity: European Commission
Total amount: 172,932.48€
Principal Investigator: **J.A. Giménez Bastida**
Affiliation: CEBAS-CSIC
Type of Participation: **European project coordinator**
Duration: 16/07/2020–15/07/2022

Title: 5-hydroxy-prostaglandins as novel modulators of prostaglandin receptor signaling
Call for proposal: GSA Winter 2016 Postdoctoral Fellow
Reference: 16POST30690001
Funding Entity: American Heart Association
Total amount: 106,350$
Principal Investigator: **J.A. Giménez-Bastida**
Affiliation: Vanderbilt University
Type of Participation: **Principal Investigator**
Duration: 01/07/2016-22/05/2018

C.4. Contracts, technological or transfer merits.

1. Identification of hesperetin dihydrochalcone in the metabolism of hesperetin by the human gut microbiota. Company Symrise. 04/07/2023 – 03/11/2023 (22.250€). PI: JC Espín

2. Synergistic effects of phenolic.rich blueberry and probiotics on bioactivity and phenolic metabolism. Company: DIANA SAS (Canadá). 01/12/2022 – 31/08/2023 (22.250€). PI: Anonio González-Sarrías; **Co-IP: Juan Antonio Giménez Bastida**

2. Asesoría Científico-Técnica y Desarrollo de Nuevos Nutracéuticos. Company: KERN PHARMA SL (Spain). 01/01/2022 – 01/01/2024 (60.500€). PI: JC Espín de Gea

3. Prebiotic effects of phenolic-rich chokeberry and cranberry extracts in healthy volunteers: a targeted and non-targeted metabolic analysis of urine and fecal samples. Company: DIANA SAS (Canadá). 09/12/2021 – 08/07/2022 (38.000€). PI: JC Espín de Gea; Co-IP: Vallejo-Mellado F.

4. Effect of a soluble prebiotic fiber in healthy volunteers: a non-targeted metabolic analyses of urine samples. Company: SA Roquette Freres (France). 01/10/2020 – 30/11/2021 (24.000€) PI: JC Espín de Gea

5. Effects of enzymatic digestion and probiotic co-administration on oleuropein bioavailability (Study No 1907NRC; Ref.: 20196716). Company: NESTEC Ltd. (Switzerland). 25/11/2019 – 30/06/2021. (158,262 €). PI: FA. Tomás-Barberán.

6. Pharmacokinetics and metabolism of bioactive phenolics from orange, lemon and milk thistle extracts. Company: EUROMED S.A. (Barcelona). 17/06/2019 – 30/06/2020. (72,000€). PI: Juan Carlos Espín (CEBAS-CSIC).

7. Análisis transcriptómico aplicado al estudio de la modulación por un extracto de naranja amargo rico en flavanonas de los perfiles moleculares en un modelo de tracto digestivo humano. Company: *Zoster S.A. (Beniel, Murcia).* 01/2007 – 12/2008 (60.000€). IP: María Teresa García Conesa

C.5. Research Students Supervision.

1. María Luisa López Muñoz; *undergraduate student* (Faculty of Biology, University of Murcia). ***Curricular Internship*** for 150 h in the Department of Food Science and Technology (CEBAS-CSIC), 2018/2019.

2. Alicia Albacete Sevilla; *undergraduate student* (Faculty of Sociosanitary Sciences, University of Murcia). ***Curricular Internship*** for 360 h in the Department of Food Science and Technology (CEBAS-CSIC), 2019/2020.

3. Marina Ibáñez Carrillo; *master student* (UCAM). ***Supervision of the Thesis Master*** entitled "Cuantificación de imatinib mediante biosensores (sensores electroquímicos)", 2020/2021.

4. Margarita López Echevarría; *master student* (Faculty of Veterinary, University of Murcia). ***Supervision of the Thesis Master*** entitled "Effect of a mixture of isoflavones on angiogenesis in an in vitro primary cell model of human aortic endothelial cells (HAECs)", 2021/2022.

5. Irene Conesa Valverde; ***JAEintro fellowship***. The fellow worked on a wide range of cellular and molecular techniques for a period of 5 months (01/10/2021 – 28/02/2022).

6. IDIES project. ***Supervision of high school students***: Eduardo López Martínez, Sergio Megía Vidal y Noelia Jolie Farfán Valdiviezo, who worked on the project entitled "*Actividad anticancerígena mediada por senescencia de los metabolitos fenólicos detectados en tejido tumoral de pacientes con cáncer de mama*". 2019/2020.

7. IDIES project. ***Supervision of high school students***: María Raquel López Estrada y María Muñoz Pérez, who worked on the project entitled "*Evaluación in vitro del efecto de polifenoles de la dieta frente a la angiogénesis en células endoteliales humanas*". 2021/2022.