

Part A. PERSONAL INFORMATION

CV date

26/04/2022

First and Family name	Cristina Garcia- Viguera		
Social Security, Passport, ID number			
Researcher numbers	Researcher ID	B-2153-2012	
	Orcid code	0000-0002-4751-3917	

A.1. Current position

Name of University/Institution	CSIC		
Department	CEBAS		
Address and Country	Campus Universitario de Espinardo 25		
Phone number	E-mail		
Current position	RESEARCH PROFESSOR	From	01/04/2009
Espec. cód. UNESCO	3009		
Palabras clave	(poli) Phenolic compounds, functional agro-food, processing, analysis/chromatography, health/bioavailability		

A.2. Education

Degree/PhD	University	Year
B.Sc.Pharmacy	Complutense Madrid	1986
PhD Chemistry	Murcia	1991

A.3. JCR articles, h Index, thesis supervised...

5 *sexenios*- 6 years work Research Incentive- (6/6/2017), plus 1 *Technological* (6 in total is the max)

15 Thesis supervised- 5 obtained Extraordinary Award. 3 were International

Cristina Garcia-Viguera presents in her CV over 180 original articles published in journals indexed in the Science Citation Index (SCI), **h= 62 Scopus**.

Part B. CV SUMMARY

Graduated in Pharmacy from the Spanish Faculty of Pharmacy of the University Complutense of Madrid (UCM) in the year 1986. Since 1988, she has been following a professional career at the Department of Food Science and Technology in the Centro de Edafología y Biología Aplicada del Segura (CEBAS), placed in Murcia (Spain), of the Spanish Research Council (CSIC), where she developed different HPLC techniques for juices, jams and honey analysis and characterization, during her PhD. In the year of 1991, she obtained her PhD in Chemistry in the University of Murcia (Spain).

After the PhD, she worked in different foreigners laboratories in order to learn analytical techniques that could be useful for the future research, in her Department. Mainly, in 1992 she joined the Plant Science Department at the University of Oxford, where she got familiar with GC-MS propolis analysis. Later on (1993) she worked at the Consumer Science Department of the Institute of Food Research (IFR), at Reading (UK), in wine polyphenolic analysis, more specifically anthocyanins and phenolic acids. In 1994 she returned to CEBAS-CSIC where developed a new and independent area of research in polyphenolic analysis in the field of food chemistry, under a contract of the Spanish Ministry of Research and Education. In 1999 she became permanent staff of the CSIC as a Tenured Scientist, followed by Scientific Researcher

(2004), and Research Professor (2009). Has been Vice-director of CEBAS-CSIC (2001- 2005), member of the CSIC Vice-President board for International Relationships and Industry Research Transference (2013-2015) and Head of Food Science & Technology Dept (2012-2017). Actually she leads a research group “Phytochemistry and Healthy Foods Lab” – LabFAS (within the Group of Food Quality, Safety and Nutrition, belonging to the Food Science and Technology Department at CEBAS-CSIC) that has been scoring position with international recognition, in the field of phytochemicals in food, and namely in:

- Separation, characterization and quantification of phytochemicals in foods, mainly fruits and broccoli, and derived products.
- Chemical transformations of phytochemicals (anthocyanins, and other flavonoids, glucosinolates, minerals and vitamin C) resulting from the food industry processes;
- Develop of new beverages and foods;
- Influence of breeding on broccoli inflorescences and sprouts chemical composition;
- Antioxidant and biological/health properties of certain plant phytochemical compounds (polyphenols/flavonoids and glucosinolates).

Part C. RELEVANT MERITS

C.1. Publications (SCI indexed) and Books

SCI articles (43 during last 6 years)

138. Girones-Vilaplana, A; Huertas, JP; Moreno, DA; Periago, PM; **García-Viguera, C*** “Quality and microbial safety evaluation of new isotonic beverages upon thermal treatments” *Food Chem*, **194**, 455-462 (2016)
139. Baenas N., Piegholdt S., Schloesser A., Moreno D.A., **García-Viguera C.**, Rimbach G., Wagner A.E. “Metabolic Activity of Radish Sprouts Derived Isothiocyanates in *Drosophila melanogaster*”. *Intl. J. Molec. Sci.* **17**, num 2, art 251 (2016). Open Access
140. Baenas, N., Villaño, D., **García-Viguera, C***, Moreno DA, “Optimizing elicitation and seed priming to enrich broccoli and radish sprouts in Glucosinolates” *Food Chem.* **204**, 314-319 (2016).
141. Gil-Ramírez, A., Pavo-Caballero, C., Baeza, E., Baenas, N., **García-Viguera, C.**, Marín RM, Soler-Rivas, C. “Mushrooms do not contain flavonoids”. *J. Func.Foods*, **25**, 1-13 (2016).
142. Francisco, M, Tortosa, M, Martínez-Ballesta, MC, Velasco, P, **García-Viguera, C**, Moreno, DA “Nutritional and phytochemical value of Brassica crops from the agri-food perspective” *Ann Appl Biol* , **170**, 273-285 (2017)
143. Baenas, N., Gómez-Jodar, I, Moreno, DA, **García-Viguera, C.**, Periago, P. “Broccoli and radish sprouts are safe and rich in bioactive Phytochemicals” *Postharvest Biology and Technology* **127**, 60–67 (2017)
144. Baenas N., González-Trujano E., Guadarrama O., Pellicer F., **García-Viguera C.**, Moreno D.A. “Broccoli sprouts in analgesia – preclinical in vivo studies”. *Food & Function* **8**: 167-176 (2017).
145. Baenas, N; Suarez-Martinez, C; **García-Viguera, C** ; Moreno, DA “Bioavailability and new biomarkers of cruciferous sprouts consumption” *Food Res. Int* **100**, 497-503 (2017)
146. Valdés-Sustaita, V; López-Rubalcava , C, González-Trujano , ME, **García-Viguera, C**; Estrada-Camarena, E. “Aqueous extract of pomegranate alone or in combination with citalopram produces antidepressant-like effects in an animal model of menopause: participation of estrogen receptors” *Int. J. Mol. Sci.* **18**, 2643; doi:10.3390/ijms18122643 (2017)
147. Domínguez-Perlés, R; Moreno, DA; **García-Viguera, C** “Waking up from 4 decades’ dream on valorizing agro-food byproducts: towards pragmatic applications of gained knowledge” *J. Agric. Food Chem.* **66**, 3069-73; doi 10.1021/acs.jafc.7b05848 (2018)

148. González, I; Moreno, DA; García-Viguera, C, Ros, JM “The effect of industrial freezing on the physical and nutritional quality traits in broccoli” *Food Sci. Technol. Inter.* 25 (1), 56-65 (2019). DOI: 10.1177/1082013218795807
149. Baenas, N., Belović, M., Ilic N., Moreno, D.A., García-Viguera, C.* “Industrial use of pepper (*Capsicum annum* L.) derived products: technological benefits and biological advantages” *Food Chem* 274, 872-885 (2019). <https://doi.org/10.1016/j.foodchem.2018.09.047>
150. Abellán, A.; Domínguez-Perles, R., Moreno, D.A.; García-Viguera, C* “Review. Sorting out the Value of Cruciferous Sprouts as Sources of Bioactive Compounds for Nutrition and Health” *Nutrients* 11 (2), 429-451 (2019) DOI: 10.3390/nu11020429
151. Bresciani, L.; Angelino, D.; Vivas, E.; Kerby, RL.; Garcia-Viguera, C.; Del Rio, D.; Rey, F.; Mena, P. “Differential catabolism of an anthocyanin- rich elderberry extract by three gut microbiota bacteria” *J. Agric. Food Chem.* (2019). <https://doi.org/10.1021/acs.jafc.9b00247>
152. Baenas, N.; Salar, FJ; Domínguez-Perles, R; García-Viguera, C. “New UHPLC-QqQMS/MS Method for the Rapid and Sensitive Analysis of Ascorbic and Dehydroascorbic Acids in Plant Foods” *Molecules*, 24, 1632; (2019) <https://doi:10.3390/molecules24081632>
153. Baenas, N.; Marhuenda, J.; Garcia-Viguera, C.; Zafrilla, P.; Moreno DA “Influence of cooking methods on glucosinolates and isothiocyanates content in novel Cruciferous Foods” *Foods*, 8, 257-265 (2019) <https://doi:10.3390/foods8070257> Open Access J
154. Bribiesca-Cruz, I.; Moreno, DA; Garcia-Viguera, C.; Gallardo, JM; Segura-Uribe, JJ; Pinto-Almazan, R; Guerra-Araiza, C. “Maqui berry (*Aristotelia chilensis*) extract improves memory and decreases oxidative stress in male rat brain exposed to ozone” *Nutritional Neuroscience* 1-13, (2019) <https://doi.org/10.1080/1028415X.2019.1645438>
155. Bresciani, L.; Angelino, D.; Vivas, E.; Kerby, RL.; Garcia-Viguera, C.; Del Rio, D.; Rey, F.; Mena, P. “Differential catabolism of an anthocyanin- rich elderberry extract by three gut microbiota bacteria” *J. Agric. Food Chem.* 68(7), 1837-1843 (2020). <https://doi.org/10.1021/acs.jafc.9b00247>
156. Agulló, V., Domínguez-Perles, R., Moreno, DA, Zafrilla, P., Garcia- Viguera, C. “ Alternative Sweeteners modify the urinary excretion of flavanones metabolites ingested through a new maqui- berry beverage” *Foods*, 9, 41, Jan (2020) Open Access J <https://doi.org/10.3390/foods9010041>.
157. Agulló V, Villaño, D., García- Viguera, C*; Domínguez- Perles, R.”Anthocyanin Metabolites in human urine after the intake of new functional beverages” *Molecules*, 25, 371 Jan (2020) Open Access J <https://doi.org/10.3390/molecules25020371>
158. Salar, F.J.; Agulló, V.; Garcia-Viguera, C *, Domínguez- Perles, R. “Stevia vs Sucrose: Influence on the Phytochemical Content of a Citrus- Maqui Beverage. A Shelf Life Study” *Foods* 9, 219; Feb. (2020) Open Access J <https://doi.org/10.3390/foods9020219>.
159. Samaniego, I.; Espín, S.; Quiroz, J.; Ortiz, B.; Carrillo, W.; Garcia-Viguera, C*.; Mena, P. “Effect of the growing area on the methylxanthines and flavan 3-ols content in cocoa beans from Ecuador”. *J. Food Comp. Anal*, 88, 103448 (May 2020) <https://doi.org/10.1016/j.jfca.2020.103448>
160. Estrada-Camarena, E.; López-Rubalcava, C.; Bernabé Ramírez-Rodríguez, G.; Pulido; D.; Cervantes-Anaya, N.; Azpilcueta-Morales, G.; Granados-Juárez; A.; Vega-Rivera, N.; Islas-Preciado, D.; Treviño, S.; de Gortari, P.; González-Trujano, E.; García-Viguera, C. “Aqueous extract of pomegranate enriched in ellagitannins prevents anxiety-like behavior and metabolic changes induced by cafeteria diet in an animal model of menopause” *Neurochemistry International* 141, 104876 (Dic 2020) <https://doi.org/10.1016/j.neuint.2020.104876>
161. Noriega, F., Mardones, C., Fischer, S., García-Viguera, C., Moreno, DA., López, MD. “Seasonal Changes in White Strawberry: Effect on Aroma, Phenolic Compounds and its Biological Activity” *J. Berry Res.* (Pre- Press pp 1-16 Sep 2020)- DOI: 10.3233/JBR200585

162. Gonçalves, AC., Campos, G., Alves, G., Garcia-Viguera, C., Moreno, DA., Silva LR. "Physical and phytochemical composition of 23 Portuguese sweet cherries as conditioned by variety (or genotype)" *Food Chem* 335, 127637 (2021). <https://doi.org/10.1016/j.foodchem.2020.127637>
163. Perović, J, Tumbas Šaponjac, V.; Kojić, J., Krulj, J, Moreno, DA, García-Viguera, C., Bodroža-Solarov, M.; Ilić, N. "Chicory (*Cichorium intybus* L.) as food ingredient-nutritional composition, bioactivity, safety, and health claims. A review". *Food Chem* 336, 30, 127676 (2021) <https://doi.org/10.1016/j.foodchem.2020.127676>
164. Conesa, MR; Conejero, W., Vera, J., Agulló, V., Garcia- Viguera, C., Ruiz- Sanchez, MC "Irrigation management practices in nectarine Fruit quality at harvest and after cold storage" *Agric. Water Management* 243 (2021) 106519 <https://doi.org/10.1016/j.agwat.2020.106519>.
165. Romero-Román, ME; Schoebitz, M., Bastías, RM, García-Viguera*, C., Fernández, P., López-Belchi*. MD. "Native Species Facing Climate Changes: Response of Calafate Berries to Low Temperature and UV Radiation". *Foods*, 10, 196 (2021). <https://doi.org/10.3390/foods10010196>
166. Agulló, V., García-Viguera, C.* Domínguez-Perles, R. "Beverages based on second quality citrus fruits and maqui berry, a source of bioactive (poly)phenols: sorting out urine metabolites upon a longitudinal study". *Nutrients* 13, 312 (2021). <https://doi.org/10.3390/nu13020312>
167. Abellán, A., Domínguez-Perles, R., Giménez, MJ., Zapata P.J, Valero, D., García-Viguera, C. "The development of a broccoli supplemented beer allows obtaining a valuable dietary source of sulforaphane". *Food Bioscience* 39, 2021, 100814 (Feb 2021) <https://doi.org/10.1016/j.fbio.2020.100814>
168. Agulló, V., Domínguez-Perles, R., García-Viguera, C. "Sweetener influences plasma concentration of flavonoids in humans after an acute intake of a new (poly)phenol-rich beverage" *Nutrition, Metabolism and Cardiovascular Diseases*.(2021) . (In press) <https://doi.org/10.1016/j.numecd.2020.11.016>
169. Samaniego, I., Espín, S., Quiroz, J., Rosales, C., Carrillo, W., Mena, P., García-Viguera, C. "How does the growing area condition the fat content and the fatty acid composition of Ecuadorian cocoa beans?". *Int. J. Food Sci. Nut.* (2021). (In press) <http://dx.doi.org/10.1080/09637486.2021.1884204>
170. Agulló V, González-Trujano, MA, Hernandez-Leon, A., Estrada-Camarena, E., Pellicer, F., García-Viguera, C*. "Antinociceptive effects of maqui-berry (*Aristotelia chilensis* (Mol.) Stuntz)" *Int. J. Food Sci. Nut.* (2021). In press <https://doi.org/10.1080/09637486.2021.1895727>
171. Villaño, D., Masoodi, H., Marhuenda, J., García-Viguera, C., Zafrilla, P. "Stevia, sucralose and sucrose added to a maqui-Citrus beverage and their effects on glycemic response in overweight subjects: a randomized clinical trial". *LWT- Food Sci Technol.* 144, 111173 (2021) <https://doi.org/10.1016/j.lwt.2021.111173>
172. Acosta-Otálvaro, E., Domínguez-Perles, R. Mazo-Rivas, JC, García-Viguera, C. "Bioavailability and radical scavenging power of phenolic compounds of coffee and cocoa mixtures". *Food Sci. Technol. Int.* (2021) In Press
173. Nunes, A.R., Gonçalves, A.C.; Alves, G.; Falcão, A.; Garcia- Viguera, C.; Moreno DA, Silva, LR "Valorisation of *Prunus avium* L. By-products: Phenolic Composition and Effect on Caco-2 Cells Viability" *Foods*, 10(6), 1185 (2021) Open access <https://doi.org/10.3390/foods10061185>
174. Zafrilla, P., Masoodi, H, Cerdá, B., García-Viguera, C., Villaño, D "Biological effects of stevia, sucralose and sucrosa in a citrus-maqui juice in overweighth subjets" *Food & Function*, 12, 8535-8543 (2021) <https://doi.org/10.1039/D1FO01160J>
175. Agulló V, González-Trujano, MA, Hernandez-Leon, A., Estrada-Camarena, E., Pellicer, F., García-Viguera, C*. "Synergistic interaction in the antinociceptive effects of maquiberry (*Aristotelia chilensis* (Mol.) Stuntz) and citrus is antagonized by sweeteners" *Nutrients*, 13(7), 2466 (2021) Open access <https://doi.org/10.3390/nu13072466>

176. Salar, FJ; Periago, PM; Agulló, V; García-Viguera, C.*, Fernández, PS “High Hydrostatic Pressure vs. Thermal Pasteurization: The Effect on the Bioactive Compound Profile of a Citrus Maqui Beverage.” *Foods*, 10 (10), 2416 (2021). Open Access. <https://doi.org/10.3390/foods10102416>
177. Abellán, A.; Domínguez-Perles, R.; García-Viguera, C*.; Moreno DA. “Evidence on the bioaccessibility of glucosinolates and breakdown products of cruciferous sprouts by simulated in vitro gastrointestinal digestion” *Int. J. Molec. Sci.* 22, 11046 (2021) Open Access; <https://doi.org/10.3390/ijms222011046>
178. Gonçalves, A.C.; Lahlou, RA.; Alves, G.; Garcia-Viguera, C.; Moreno, DA; Silva, LR. “Potential activity of Abrantes pollen extract: biochemical and cellular model studies” *Foods* 10, 2804 (2021) Open Access <http://doi.org/10.3390/foods10112804>
179. Romero-Román, ME; Schoebitz, M., Fuentealba, J.; García-Viguera, C., López- Belchi, MD.; “Spray-drying encapsulation of bioactive compounds from calafate berries and assessment of neurological activity of the ingredient” *Antioxidants* (aceptado 2021). Open Access
180. Agulló, V., García-Viguera, C.* Domínguez-Perles, R “The use of alternative sweeteners (sucralose and stevia) in healthy soft-drink beverages, enhances the bioavailability of polyphenols relative to the classical caloric sucrose” *Food Chem*, 370, 131051 (2022) (Open Access 4 September 2021, 131051) <https://doi.org/10.1016/j.foodchem.2021.131051>
181. Villaño, D.; Zafrilla, P.; García-Viguera, C.; Domínguez Perles, R. “A UHPLC/MS/MS method for the analysis of active and inactive forms of GLP-1 and GIP incretins in human plasma” *Talanta* 236, 122806 (2022), <https://doi.org/10.1016/j.talanta.2021.122806>
- 183 López MD., Toro MT., Riveros G., Illanes M., Noriega F., Schoebitz M., García-Viguera C., Moreno, DA “Brassica sprouts exposed to microplastics: Effects on Phytochemical constituents” *Science of the Total Environment* 823, 153796 (2022)- Open access. <https://doi.org/10.1016/j.scitotenv.2022.153796>
184. Agulló, V; Moreno, DA; Dominguez- Perles, R.; García-Viguera, C. "Contribution of the diverse experimental models to unravelling the biological scope of dietary (poly)phenols" *J. Sci. Food Agric.* (2022) (Open access 14th March, 2022) <https://doi.org/10.1002/jsfa.11865>
185. Salar, F.; Domínguez-Perles, R.; Garcia Viguera, C.; Fernández, PS. "If and Buts of nonthermal processing technologies for plant-based drinks' bioactive compounds" *Food Sci.Technol. Inter.* (2022) (accepted)

Book Chapters (17 in total - last 6 years- 9):

- 9.- Villaño, D., **García-Viguera, C.***, Mena , P. “Food Colours- Health Effects” Cap. 190 en *Encyclopedia of Food and Health* Ed, Caballero, B, Finglas P & Toldrá F. Elsevier, Academic Press, Vol 2, 265-272 (2016). ISBN: 9780123849472 eBook ISBN:9780123849533. <http://dx.doi.org/10.1016/B978-0-12-384947-2.00190-2>
- 10.- Gironés-Vilaplana, A, **García-Viguera, C.***, Moreno DA, Domínguez-Perles, R. “Nutritional and Functional Properties of Edible Berries: Implications For Health Claims” Cap 6. en *Natural Bioactive Compounds from Fruits and Vegetables*, Luís Rodrigues da Silva and Branca Silva (Eds.) Bentham Science Publishers pp180-206 (2016), ISBN (eBook): 978-1-68108-239-4, ISBN (Print): 978-1-68108-240-0. DOI: 10.2174/9781681082394116010009. URL: <http://ebooks.benthamscience.com/book/9781681082394/chapter/141693/>
- 11.- Baenas, N., Francisco, M., Velasco, P., Cartea ME, **García-Viguera, C.**, Moreno DA, “Bioactive Compounds from Brassicaceae as Health Promoters” Cap 2, en *Natural Bioactive Compounds from Fruits and Vegetables*, part 2, Luís Rodrigues da Silva and Branca Silva (Eds.) Bentham Science Publishers pp27-47 (2016), ISBN (eBook): 978-168108-243-1, ISBN (Print): 978-1-68108-244-8. DOI:10.2174/9781681082431116010005. URL: <http://ebooks.benthamscience.com/book/9781681082431/chapter/141706/>

- 12- D. Villaño, A. Gironés-Vilapana, **C. García-Viguera**, D.A. Moreno, “Development of functional foods” Chapter 10 in *Innovation Strategies in Food Industry. Tools for Implementation*. Ed C.M Galanakis. Elsevier, pp191-210 (2016). ISBN: 978-0-12-803751-5. URL: <http://www.sciencedirect.com/science/book/9780128037515>
- 13.- **Garcia-Viguera, C.** & Soler-Rivas, C. “Effect of cooking on the bioactive compounds” Chap 15 in *Frontiers in Bioactive Compound*” vol 2. *At the croosboards between nutrition and pharmacology*. MV Aguilar and C. Otero (Eds), Bentham Science Publishers (Sharhah, UAE) pp, 383-411 (2017) ISBN: 978-1-68108-430-5; eISBN .978-1-68108-429-9.
- 14.- Gironés-Vilaplana A., Villaño D., Marhuenda J., Moreno D.A., **García-Viguera. C.** “Vitamins”. Chapter 6. En: *Nutraceutical and Functional Food Components: Effects of Innovative Processing Techniques*. Ed. Charis M. Galanakis. Elsevier Ltd. – Academic Press (Reino Unido y EEUU). Pg. 159-201 (2017) ISBN: 978-0-12-805257-0. URL: <http://www.sciencedirect.com/science/article/pii/B9780128052570000065>
- 15.- Baenas, N; Abellan, A.; Rivera, S.; Moreno, DA; **Garcia-Viguera, C.**; Dominguez-Perles, R. “Foods and Supplements”. Chapter 10. Part C: Application of Polyphenols in the Industry. En *Polyphenols: Properties, Recovery, and Applications*. Ed Charis Galanakis. Elsevier Ltd. – Academic Press (Reino Unido y EEUU). Pg 327- 362 (2018) ISBN: 9780128135723
16. Paulsen, E., Romero, ME, Lema, P., Lopez, MD., **Garcia- Viguera, C.**, Moreno, DA. “Foods and supplements” Chapter 24 en *Food Waste Recovery Processing Technologies, Industrial Techniques, and Applications* Ed Charis Galanakis. Elsevier Ltd. – Academic Press (Reino Unido y EEUU). Pg 483-502 (2020) ISBN: 978-0-12-820563-1
17. Salar F.J., Agulló, V., **García-Viguera, C.** & Domínguez-Perles, R. “Stevia vs. Sucrose: Influence on the Phytochemical Content of a Citrus-Maqui Beverage-A Shelf Life Study”. En *Advances in Food Science* Editor: Phan Phuoc Hien ISBN: 978-93-90014-25-5. On line. <https://videleaf.com/product/advances-in-food-science/>

Book/Journal Editor (-last 6 years):

Garcia-Viguera, C., Domínguez-Perles, R, Baenas , N “New Insights in (Poly)Phenolic Compounds: From Dietary Sources to Health Evidences” Special Issue in *Foods (MDPI, Academic Open Access)*, Section *Food Nutrition* ((ISSN 2304-8158)- On line (November 2019)

Domínguez-Perles, R, **Garcia-Viguera, C.**, Baenas, N “Taking Advantage of Nature Towards Health: Extraction and Application of Nutrients and Phytochemicals in Foods” Special Issue in *Foods (MDPI, Academic Open Access)*, Section *Food Nutrition* (ISSN 2304-8158)- On line (December 2019)

González-Mas, MC., Blazquez, MA., López-Gresa, MP., Mena, P. **Garcia- Viguera, C.** “Flavonoids: From Biosynthesis and Metabolism to Health Benefits” Special Issue in *Frontiers in Plant Science* – On line (2020)

Moreno, DA, Carvajal, M., **Garcia- Viguera, C.**, Fernandez- Escamez, P., Periago, P. “Climate Changes and Global Warming—the Future of Foods” Special Issue *Foods (MDPI, Academic Open Access)*. Section “Food Security and Sustainability”. (ISSN 2304-8158) On line (December 2020)

García-Viguera, C, Domínguez-Perles, R. and Baenas, N. (Eds.) “New Insights in (Poly)Phenolic Compounds. From Dietary Sources to Health Evidences”. MDPI Books. ISBN 978-3-03943-378-0 (Hbk); ISBN 978-3-03943-379-7 (PDF) <https://doi.org/10.3390/books978-3-03943-379-7> (registering DOI)

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C.2. Research projects and grants- (9 in the last 6 years)

56. CICYT (AGL2013-46247-P). RC: DA Moreno. "Efectos del consumo de brotes de brócoli en población obesa" November 2013-November 2016
57. i-COOP+ (Ref. COOPB20125). CSIC – Vicepresidencia de Transferencia e Internacionalización (VITRI). RC: DA. Moreno. "Formación y Capacitación en la Evaluación Fitoquímica de Frutos y Alimentos de Ecuador mediante Técnicas Analíticas Avanzadas de Cromatografía y Espectrometría de Masas". Research Transference entre Spain- Ecuador. January 2015 - December 2016.
58. Proyecto f-Seneca (+). Excellence Groups de la Región de Murcia. Ref 19900/GERM/15. "Polyphenols from Fruit and Vegetables: Role in Quality and Effects in Human Health". January 2016- December 2019
59. RETOS COLABORACIÓN (RTC-2016-5836-2) RC CEBAS-CSIC: **C. Garcia-Viguera**. "Desarrollo de nuevos productos destinados a los sectores de cosmética y alimentación, basados en la obtención de compuestos bioactivos, a partir de subproductos del pimiento" Scientific-Technological Consortium: Congelados Pedaneo, CTC, CEBAS-CSIC. October 2016- October 2018
60. RETOS SOCIEDAD (AGL2016- 75332-C2-1-R). RC. 1 from CEBAS-CSIC and Coordinator of full Project: **C. Garcia-Viguera** (RC 2- D.A. Moreno) "Nueva bebida, rica en compuestos bioactivos, para modular el metabolismo energético en adultos con sobrepeso". Coordinated Project with UCAM (Universidad Católica)- Murcia (RCs UCAM: D. Villaño y P. Zafrilla) 30-12-2016 to 29-12, 2019 (31- Dic 2020-due to Covid)
61. RETOS SOCIEDAD – RTI tipo B (PID201-104212RB-I00) IP 1- **C. Garcia-Viguera** (IP2- D.A. Moreno) "Modelización del procesado y efectos saludables de bebidas de cítricosmaqui. Influencia de endulzantes". 01-06-2020 a 31-05-2024
62. Desarrollo Tecnológico Industrial (CDTI) IDI-20200720 IPs CEBAS-CSIC- **C. García-Viguera** y R. Domínguez- Perles. "Método de procesado a partir de residuo de vinificación generando un producto intermedio con propiedades funcionales para sector nutracéutico y cosmeceútico." Bodega Viña Elena. 01-08-2020 a 31-07-2022

C.3. Contracts - 20 in total (5 in the last 6 years)

- 2016- ASMOBA Internacional** "Nuevos alimentos a partir de subproductos del brócoli" Joint Project Universidad Miguel Hernández de Elche (UMH)/ CEBAS-CSIC **RC CEBAS-CSIC - C. Garcia-Viguera**
- 2017 (Julio) – 2018 (Abril)- MOYCA.** CEBAS-CSIC "Caracterización de Uvas de Mesa Sin Semillas" **RC- C. Garcia-Viguera**
- 2018- 2021 INBAUTEK** CEBAS-CSIC "Crecimiento de brotes en cámaras de cultivo controlado. Influencia de luces LED . **RC- C. Garcia-Viguera**

C.4. Patents- and Know-how In total 5 in explotación (2 transferred during the last 6 years)

INVENTORES: Carvajal M, **Garcia-Viguera, C.**, Moreno, DA, Martínez-Ballesta MC
TITULO: "Procedimiento de obtención y usos de vesículas de membrana plasmática extraídas de plantas enriquecidas en proteínas transportadoras de membrana".
Nº DE SOLICITUD: ESP201130830 (23-5-2011); PCT: ES 2012/070366 (22-5-2012)
PAÍS DE PRIORIDAD: España, ENTIDAD TITULAR: C.S.I.C
FASE PAÍSES: Europa Nº Solicitud: 12789573.8, Nº Concesión 2716280 (6-1-2016); EEUU Ref: US2013/0333075 A1, US Patent Nº 9,138,487 (22-9-2015); Japón Ref: 504339734 (2016) Patente licenciada, en explotación - May 2014

INVENTORES: Carvajal M, **García-Viguera, C.**, Moreno, DA, Martínez-Ballesta MC

TÍTULO: "Procedimiento de obtención y usos de vesículas de membrana plasmática extraídas de un organismo marino para su utilización industrial"

Nº DE SOLICITUD: ESP201131299 (28-7-2011), PCT: ES 12/070579 (27-7-2012), PAÍS DE PRIORIDAD: España , ENTIDAD TITULAR: C.S.I.C., FASE PAÍSES: Europa Ref: EP12817100.6. Patente Licenciada, April 2014

1.- Secreto Industrial titulado: "FORMULACION", con número 640/2017, registrado ante notario con fecha 24/11/2017- Inventor: Cristina García- Viguera (100% CSIC)

2.- Secreto industrial titulado "Protocolo para la obtención de palitos de tronco de brócoli en cuarta gama" con número 2725/2021 y registrado ante el notario del Ilustre colegio de Valencia, Francisco José Tornel López, en Elche a 9 de junio de 2021- Inventores: P.J. Zapata, y otros (80% UMH) y C. García- Viguera (20% CSIC)

C.5 Invited conferences (6 in the last 6 years)

- 2016.-** García- Viguera C. "Changes in phytochemicals during Fruit and vegetable processing". Topic 2.- Quality at the heart of sustainable markets for F&V products. In 2nd EuroMediterranean Symposium on Fruit and Vegetable Processing, Avignon (France) April. **2018.-** García- Viguera C Polifenoles de Alimentos y Nuevas bebidas Funcionales". Functional Food Seminar, University of Concepción and Centro de Vida Saludable (Chile). January
- 2018-** García-Viguera, C. & Domínguez-Perlés, R. "Enriched Nutritional Beverages, much more than an Ingredient Mix Addition". II International Symposium on Beverage Crops. Inter. Soc Host Sci (ISHS) 22-25 Octubre, Xi' An, Shaanxi (China)
- 2019.-** **García-Viguera, C.** & Domínguez- Perlés, R. "Needs of contribution of Digital modelling to Functional Foods Design" en Digital Agro-food & Forestry (R)evolution. December 12 & 13 2019 – UTAD, Vila Real, Portugal
- 2021.-** **García- Viguera, C** "Generación de Empresas de Base Tecnológica. ¿Cómo salir del laboratorio?" en I Feria Internacional Innovación Agropecuaria (El campo integra). Sección Bioeconomía: oportunidades para un país megabiodiverso. 22-25 Septiembre. Medellín (Colombia)
- 2022-** Medina S. y **García- Viguera C.** Stand de presentación del grupo LabFAS (CEBASCSIC), en la II Feria Internacional de Innovación Agropecuaria (El Campo Integra). Sección Bioeconomía: oportunidades para un País Megadiverso. 6-8 Abril (Colombia)

C.6. Thesis Supervisor (5 in the last 6 years, plus 4 ongoing)

- 11.-** Nieves Baenas. Ingeniero Agrónomo. "Nuevos brotes vegetales como alimentos saludables" (22-July , 2016). Co-director: D.A. Moreno. Calificación: Sobresaliente *Cum laude* por unanimidad
PhD Extraordinary Award (U. Miguel Hernández, Elche, Alicante)
- 12.-** Ivan Rodrigo Samaniego Maigua. Licenciatura: Doctor Químico (Ecuador) "Estudio de los principales componentes químicos no volátiles, asociados a la calidad del cacao de Ecuador, como herramienta en la certificación de origen". (26- November, 2020). UPCT. Co-director. P. Mena (Univ. Parma). Calificación: Sobresaliente *Cum laude* por unanimidad
SENESCYT, Ecuador (3- June, 2021)
- 13.-** Vicente Agulló García. Ldo en Biotecnología "Efecto de una nueva bebida rica en compuestos bioactivos para modular el metabolismo energético en adultos con sobrepeso" En curso UPCT (21- June, 2021). Co-director- R. Domínguez-Perles

- 14- Maria Eugenia Romero Román. Lda en Agronomía (Ecuador). “Micro/nanoencapsulación de Compuestos Bioactivos de Calafate (*Berberis microphylla*) y Evaluación in Vitro de su Potencial Anti-Neurodegenerativo”. (Junio 2021). Acuerdo con Univ. de Concepción, (Chile). UPCT.
Co-directora: María Dolores López Belchi (Univ. Concepción, Chile)
23- June, 2021, Universidad de Concepción. 6.9/7
21- September, 2021. UPCT. Sobresaliente Cum Laude por unanimidad
- 15- Elly Vannesa Acosta Otálvaro. Lda Ingeniería Química (Colombia) “Obtención de un extracto funcional de cacao y café, rico en compuestos bioactivos”. **Doctorado Industrial**- Acuerdo con Compañía Nacional de Chocolates SAS, Colombia. En curso UPCT (28 September) .
Co-director J. Camilo Mazo Rivas (Compañía Nacional de Chocolates SAS, Colombia).
- 16- Angel Abellán Victorio. Ldo Ciencia y Tecnología de Alimentos. ”Inducción de metabolitos bioactivos en brotes, mediante empleo de luces LED” (July 2022) UPCT. Co-director: DA Moreno
- 17- Francisco Salar Giménez. Ldo Ciencia y Tecnología de Alimentos “Nueva bebida funcional, con bajo contenido en azúcar y alto contenido en fitoquímicos bioactivos, optimizando su calidad, procesado y seguridad alimentaria mediante análisis multicriterio”. (October 2023) UPCT.
Co-director: P. Fernández-Escamez (UPCT) and R. Dominguez- Perles
- 18- Diego Hernández Prieto. Ldo Biología “Modelización del procesado y efectos saludables de bebidas de cítricos-maqui. Influencia de endulzantes”. Ongoing UPCT. Co-directores: P. Fernández Escamez (UPCT) y J. A. Egea (CSIC)
- 19- Antonio Costa Pérez. Ldo en “Subproductos de brócoli como fuente dietética de compuestos bioactivos para la prevención de la enfermedad inflamatoria intestinal”. Ongoing UPCT. Co-director: R. Domínguez- Perles

CURRENT PROFESSIONAL POSITION OF GRADUATES:

- 1.- Pilar Zafrilla Rentero: Vice-Dean Fac Pharmacy of the UCAM (Murcia).
- 2.- Fernando Vallejo: Senior Technician CSIC, in CEBAS-CSIC
- 3.- Antonio Pérez Vicente: Baccalaureate Teacher (Murcia)
- 4.- Carmen López Berenguer: Contracted Researcher at EBT- CSIC, Murcia
- 5.- Elena González Molina: Director R&D Food Dyes, EPSA (Valencia)
- 6.- Santiago Pérez Balibrea: Senior Technician at the Murcia Ministry of Agriculture.
- 7.- Raul Domínguez Perles: Senior Scientist CSIC, CEBAS-CSIC
- 8.- Sonia Medina Escudero: Ramón y Cajal Contract, CEBAS-CSIC
- 9.- Pedro Mena Parreño: Full Professor, University of Parma (Italy)
- 10.- José Amadeo Gironés Vilaplana: Head of R&D Dept. El Pozo (Murcia)
- 11.- Nieves Baenas Navarro: Contract Juan de la Cierva, postdoc. Univ Murcia
- 12.- Ivan R. Samaniego Maigua. Auxiliary Researcher 2. INIAP Quito, (Ecuador)
- 13- Vicente Agulló García. Postdoctoral Researcher at CEBAS-CSIC.
- 14.- M. Eugenia Romero Román. Hired Researcher at Chillán Univ. (Chile)
- 15.- Elly Vanesa Acosta Otalvaro. R+D Dep. at Com. Nac. Chocolates (Colombia)

C.7.Others

- Worked as **Invited Scientist** (Predoc, Postdoc and Senior) at non Spanish Institutions (other than the previously mentioned Oxford University and IFR, in part B): Jodrell Lab, Royal

Botanic Gardens Kew, UK; ATO-DLO, Wageningen, Netherlands; University of Porto, Portugal;
Reading University, UK (over 24 months in total)

- **Meeting organisation board**- 10 International Meetings (2 as President). Plus one ongoing **2022- Co- Chair** "III International Symposium on Beverage Crops", ISHS (CSIC- Univ. Murcia, IMIDA). Murcia (España), 21-23 Abril (postpuesto CoVid 2021)

- Member of over 20 Spanish **PhD tribunals** and 6 from other Countries (Norway (2), Portugal, Czech Republic, UK and Colombia)

- Member of 15 **examination boards** for CSIC and/or Universities permanent staff

- National Research Projects and Grants **Evaluator** (ANEP/AEI Food Technol and Agricultural Sci., La Caixa and others), and from other Countries (Poland, New Zealand, Czech Republic, Argentina, Cyprus, France, Portugal...)

- **Referee** of over 30 journals (Food Sci & Technol., Agricultural Sci, Analytical Sci., Health).

- Member of **editorial board**- 6 journals J.Agric. Food Chem., J. Food, Agriculture and Environment Sección: Food & Health (WLF Publisher). Phytochemistry Reviews. Fundamentals and Perspectives of Natural Products Research (Springer), Phytochemistry Letters (Elsevier), Natural Product Communications, Scientific World Journal- ORCID; Int. J. Food Sci. Nut (Taylor & Francis)

- Over 100 **International Congress Communications**

- **Teaching experience**: Master and PhD Professor at several Universities (Murcia Public University (UMU), Private Catholic University (UCAM), National University Miguel Hernandez de Elche (UMH) and Politecnico University of Cartagena (UPCT)) and courses in Universities from Chile, Colombia, Uruguay, Mexico, etc

- **Honorary Meeting Secretary of the PSE** (Phytochemical Society of Europe) 2002-2007.

- **Awards**:

- 1991.- "Accesit" for "Determinación de los frutos que componen un zumo o mermelada, mediante el estudio de sus flavonoides por HPLC", Vocalía de Industria del Consejo General de Farmacéuticos from Spain.
- 2012.- Award "Innovación Tecnológica". Instituto de Fomento de la Región de Murcia, for knowledge transference from Science to Industry. Special Spin-off award. (Aquaporins & Ingredients S.L.). - **Other mentions**:
- Selected for the **UNESCO programme "for women in science"** publication *Nosotras. Bioncientíficas Españolas* (Ed L'Oréal, coordinated by Margarita Salas) ISBN.84-607-5579-7, 2003
- **Yeoman Reviewer** J. Agric. Food Chem, year 2005
- **Certificate of Appreciation (ACS Publication)** J. Agric. Food Chem, year 2011
- **1st prize of "IJMS Best Paper Award 2014"** in the Review papers group. Article: Sonia De Pascual-Teresa, Diego A. Moreno and Cristina GarcíaViguera "Flavanols and Anthocyanins in Cardiovascular Health: A Review of Current Evidence" *International Journal of Molecular Science*. 2010, 11(4), 1679–1703

- **Founding Partner** of CSIC Spin-offs

- Spin-off Aquaporins and Ingredients S.L (CIF: B73640971). 2009 to date.
 - Aquaporins Dermoactivity S.L. (CIF: B73994931) 2018 to date
- **CSIC Researcher- In- Charge, for the Associated Unit** “Calidad y Evaluación de Riesgos en Alimentación” (Univ. Politécnica de Cartagena- CSIC) 2016 (July)- 2023 (July)
- Member of the **Advisory board of VIDARIUM** Research Enterprise (Nutresa Group, Colombia)