

CV Date	18/11/2022
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Part A. PERSONAL INFORMATION

First Name	Cristina		
Family Name	Sánchez García		
Sex	Female	Date of Birth	21/10/1971
ID number Social Security, Passport	52473506H		
URL Web			
Email Address	macsanch@ucm.es		
Open Researcher and Contributor ID (ORCID)	0000-0002-1428-3078		

A.1. Current position

Job Title	Associate Professor (Profesora Titular de Universidad)		
Starting date	2009		
Institution	Complutense University		
Department / Centre			
Country		Phone Number	
Keywords			

A.2. Previous positions (Research Career breaks included)

Period	Job Title / Name of Employer / Country
2008 - 2009	Assistant Professor (Profesora Contratada Doctora) / Complutense University
2003 - 2008	"Ramón y Cajal" researcher / Complutense University
2003 - 2003	Assistant researcher (Investigadora postdoctoral contratada) / University of California Irvine
2000 - 2003	Postdoctoral researcher / University of California Irvine

A.3. Education

Degree/Master/PhD	University / Country	Year
PhD in Biology	Complutense University	2000
Biochemistry and Molecular Biology	Complutense University / Spain	2000
BSc in Biology	Complutense University	1994

Part B. CV SUMMARY

I obtained my BSc degree in Biology (1996) and PhD in Biochemistry and Molecular Biology (with Honors, 2000) at Complutense University. During my thesis, I studied the effect of cannabinoids on energy metabolism first and on cancer cell proliferation later. After a 3-year postdoctoral stay at University of California Irvine (2000-2003), where I studied the involvement of another group of bioactive lipids (lysophosphatidic acid and related compounds) on pain initiation, I returned to Spain with a "Ramón y Cajal" contract. I then started coordinating my own research group (2004), with the goal of understanding the role of the endocannabinoid system in breast cancer and exploiting this knowledge to provide new therapeutic targets for the treatment of this pathology as well as new patient screening tools (with prognostic and predictive value).

Other achievements in my professional career include:

- Accredited as Full Professor by the National Agency for Quality Assessment and Accreditation of Spain (ANECA): July 12, 2022
- Four 6-y research periods and one 6-y knowledge transfer period awarded
- Vice-Dean of Research, School of Biology, Complutense University (June 2018-June 2022)

- Vice-President of the Spanish Cannabinoid Research Society (2019-current), Scientific Secretary (2011-2015), member of the Board of Directors (2015-2019)
- Founding member and Secretary of the Spanish Observatory on Medical Cannabis (2015-current)
- Member of the Medical Advisory Board of Zelda Therapeutics (2016-2020) and Andira Medicine (2019-2020)
- Member of the Scientific Advisory Board of Daya Foundation (Chile, 2016-current) and the Portuguese Observatory on Medical Cannabis (2019-2021)
- Reviewer for the scientific journals Int J Cancer, Oncogene, J Neurochem, TIPS, Mol Cell Biochem, Lett Drug Des & Dis, FEBS Lett, Brit J Pharmacol, Biomarkers Med, J Carcinog Mut, Oncotarget, BMC Cancer, etc.
- Reviewer for the Auckland Medical Research Foundation (New Zealand), the Scientific Research Sectorial Commission of the University of the Republic of Uruguay, and the Israel Science Foundation.

Part C. RELEVANT ACCOMPLISHMENTS

C.1. Most important publications in national or international peer-reviewed journals, books and conferences

AC: corresponding author. (n° x / n° y): position / total authors. If applicable, indicate the number of citations

- 1 **Scientific paper**. C Pinto-Díez; R Ferreras-Martín; R Carrión-Marchante; et al; ;. (14/17). 2022. An optimized MNK1b aptamer, apMNKQ2, and its potential use as a therapeutic agent in breast cancer Molecular Therapy-Nucleic Acids. Cell Press. In press. <https://doi.org/10.1016/j.omtn.2022.11.009>
- 2 **Scientific paper**. Juan Antonio Méndez-Líter; Ana Pozo-Rodríguez; Enrique Madruga; et al; ;. (7/10). 2022. Glycosylation of epigallocatechin gallate by engineered glycosylase hydrolases from Talaromyces amestolkiae: antiproliferative and neuroprotective properties of the novel glycosides Antioxidants. MDPI. 7, pp.1325-1340. <https://doi.org/10.3390/antiox11071325>
- 3 **Scientific paper**. Juan Antonio Méndez-Líter; Isabel Tundidor; Manuel Nieto-Domínguez; et al; ;. (10/11). 2019. Transglycosylation products generated by Talaromyces amestolkiae GH3 β -glucosidases: Effect of hydroxytyrosol, vanillin and its glucosides on breast cancer cells Microbial Cell Factories. Springer Nature. 18-97, pp.1-12. <https://doi.org/10.1186/s12934-019-1147-4>
- 4 **Scientific paper**. Sandra Blasco-Benito; Estefanía Moreno; Marta Seijo-Vila; et al; Complutense University (AC). (23/23). 2019. Therapeutic targeting of HER2-CB2R heteromers in HER2-positive breast cancer Proc Natl Acad Sci USA. 116-9, pp.3863-3872.
- 5 **Scientific paper**. Sandra Blasco-Benito; Marta Seijo-Vila; Miriam Caro-Villalobos; et al; (AC). (12/12). 2018. Appraising the "entourage effect": Antitumor action of a pure cannabinoid versus a botanical drug preparation in preclinical models of breast cancer Biochemical Pharmacology. 157, pp.285-293.
- 6 **Scientific paper**. Javier Díaz-Alonso; Adán de Salas-Quiroga; Juan Paraíso-Luna; et al; ;. (8/11). 2017. Loss of cannabinoid CB1 receptors induces cortical migration malformations and increases seizure susceptibility Cerebral Cortex. 27, pp.5303-5317.
- 7 **Scientific paper**. Ibrahim Alkatout; F Hubner; Antonia Wenners; et al; ;. (6/10). 2017. In situ localization of tumor cells associated with the epithelial-mesenchymal transition marker Snail and the prognostic impact of lymphocytes in the tumor microenvironment in invasive ductal breast cancer Experimental and Molecular Pathology. 102, pp.268-275.
- 8 **Book chapter**. Guillermo Velasco Díez; Cristina Sánchez García; Manuel Guzmán Pastor. (2/3). 2017. Potencial antitumoral de los cannabinoides Efectos terapéuticos de los cannabinoides. Instituto de Neuroquímica Universidad Complutense. ISBN 978-84-697-2394-4.

- 9 **Book chapter.** (AC). (1/1). 2017. Preparaciones de cannabis utilizadas con fines terapéuticos Efectos terapéuticos de los cannabinoides. Instituto de Neuroquímica Universidad Complutense. ISBN 978-84-697-2394-4.

C.3. Research projects and contracts

- 1 **Project.** Potencial del sistema endocannabinoide como diana terapéutica y herramienta de cribado en cáncer de mama. Instituto de Salud Carlos III. (Universidad Complutense de Madrid). 01/01/2021-31/12/2023. 220.220 €.
- 2 **Project.** Los heterómeros HER2-CB2 como diana terapéutica y herramienta pronóstico/predictiva en cáncer de mama HER2 positivo. Cristina Sánchez García. (Universidad Complutense de Madrid). 01/01/2018-31/12/2020. 129.470 €.
- 3 **Project.** Comparación de la eficacia antitumoral de cannabinoides aislados frente a preparados completos de la planta. FUNDACION CIENTIFICA ASOCIACION ESPAÑOLA CONTRA EL CANCER. Cristina Sánchez García. (Universidad Complutense de Madrid). 01/10/2017-30/09/2018. 20.000 €.
- 4 **Project.** El sistema endocannabinoide en cáncer de mama HER2+: papel en la generación y progresión tumorales, y potencial como diana terapéutica y marcador pronóstico. Ministerio de Economía y Competitividad (ISCIII). MARIA CRISTINA SANCHEZ GARCIA. (Universidad Complutense de Madrid). 01/01/2015-31/12/2017. 140.965 €. Principal investigador.
- 5 **Project.** Análisis del efecto antitumoral de la combinación de terapias anti-Her2 y cannabinoides en cáncer de mama HER2 positivo. Fundación Sandra Ibarra. MARIA CRISTINA SANCHEZ GARCIA. (Universidad Complutense de Madrid). 01/10/2014-30/09/2015. 20.000 €. Principal investigador.
- 6 **Project.** Papel del receptor huérfano GPR55 en la patogénesis del cáncer: potencial como nuevobiomarcador y diana terapéutica en oncología. Ministerio de Ciencia e Innovación (ISCIII). MARIA CRISTINA SANCHEZ GARCIA. (Universidad Complutense de Madrid). 01/01/2012-31/12/2014. 134.530,22 €. Principal investigador.
- 7 **Project.** Involvement of the orphan receptor GPR55 in cannabinoid antitumoral action. Ministerio de Economía y Competitividad (Acciones Integradas). MARIA CRISTINA SANCHEZ GARCIA. (Universidad Complutense de Madrid). 01/01/2010-31/12/2011. Principal investigador.
- 8 **Project.** Cannabinoides no psicoactivos como posibles agentes antitumorales en cancer de mama.. MINISTERIO DE SANIDAD Y CONSUMO. MARIA CRISTINA SANCHEZ GARCIA. (Universidad Complutense de Madrid). 01/01/2009-31/12/2011. 93.000 €.
- 9 **Project.** Cannabinoides naturales frente a sintéticos: efecto sobre la evolución de tumores de mama. MARIA CRISTINA SANCHEZ GARCIA. (Universidad Complutense de Madrid). 16/04/2007-15/04/2010.
- 10 **Project.** CONTROL DEL CICLO CELULAR POR CANNABINOIDES: POSIBLES IMPLICACIONES TERAPÉUTICAS EN EL CÁNCER DE MAMA.. MINISTERIO DE SANIDAD Y CONSUMO. MARIA CRISTINA SANCHEZ GARCIA. (Universidad Complutense de Madrid). 28/12/2004-30/12/2007. 44.000 €.
- 11 **Project.** CONTROL DEL CICLO CELULAR OR CANNABINOIDES. POSIBLES IMPLICACIONES TERAPÉUTICAS EN EL CÁNCER DE MAMA. Universidad Complutense de Madrid. MARIA CRISTINA SANCHEZ GARCIA. (Universidad Complutense de Madrid). 01/01/2005-31/12/2005. 5.100 €.
- 12 **Contract.** Anti-tumor effect of cannabinoids in HER2+ and triple-negative breast cancer Zelda Therapeutics Ltd. MARIA CRISTINA SANCHEZ GARCIA. (Universidad Complutense). 01/04/2016-01/08/2020. 290.000 €.
- 13 **Contract.** Efecto antitumoral de los cannabinoides en cáncer de mama y otros cánceres GW Pharma Ltd. MARIA CRISTINA SANCHEZ GARCIA. 01/10/2009-31/12/2015. 350.000 €.

C.4. Activities of technology / knowledge transfer and results exploitation

- 1 **Patent of invention.** Eduardo Pérez Gómez; Sandra Blasco Benito; Cristina Sánchez García. WO 2018/071986 A1. Prognostic method and kits useful in said method Australia. 21/10/2016. Zelda Therapeutics Operations Pty Ltd.

- 2 **Patent of invention.** Nadine Jagerovic; Paula Morales Lázaro; Pilar Goya Laza; Sandra Blasco Benito; Cristina Sánchez García; María Gómez Cañas; J Javier Fernández Ruiz. PCT/ES2015/070184. Nuevas cromenopirazoldionas moduladoras de receptores cannabinoides CB2 con actividad antitumoral Spain. 01/08/2016. Consejo Superior de Investigaciones Científicas y Universidad Complutense de Madrid.
- 3 Cristina Sánchez García; Manuel Guzmán Pastor; Stephen Wright; Colin Stott; María Muñoz Caffarel; Clara Andradas Arias; Eduardo Pérez Gómez. UK/18/10/2011. Phytocannabinoids for use in the treatment of breast cancer United Kingdom. 18/10/2011. GW Pharmaceuticals.
- 4 **Patent of invention.** Ismael Galve Roperh; Manuel Guzmán Pastor; Cristina Sánchez García. P200000323. Terapia con cannabinoides para el tratamiento de tumores cerebrales Spain. 11/02/2000. GW Pharmaceuticals.