MINISTERIO DE CIENCIA E INNOVACIÓN

Cofinanciado por la Unión Europea

AGENCIA ESTATAL DE INVESTIGACIÓN

CURRICULUM VITAE ABREVIADO (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	20/01/2022

First name	Consolación		
Family name	Melguizo Alonso		
Gender (*)	Female	Birth date (dd/mm/yyyy)	
Social Security, Passport, ID number	26209952A	23/07/1967	
e-mail	melguizo@ugr.es	URL Web	
Open Researcher and Contributor ID (ORCID) (*)		0000-0003-3990-806X	

(*) Mandatory

A.1. Current position

Position	Professor of Anatomy		
Initial date	17/11/2011		
Institution	University of Granada		
Department/Center	Human Anatomy and Embryology	Faculty of Medicine	
Country	Spain	Teleph. number	+34 958249322
Key words	Oncology, nanomedicine		

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

Period	Position/Institution/Country/Interruption cause
1991-1994	Predoctoral Fellow/ University of Granada / Spain
1996-2007	Senior Lecturer in Anatomy / University of Almeria / Spain
2007-2011	Senior Lecturer in Anatomy / University of Granada / Spain

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Bachelor of Science	University of Granada / Spain	1990
Doctorate in Sciences	University of Granada / Spain	1994

(Include all the necessary rows)

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

My research activity in the field of basic oncology began in 1991. A predoctoral fellowship (Ministry of Education and Science, Spain) allowed me to incorporate to the Research Group CTS-107 (Andalusia) and to the Department of Morphological Sciences of the School of Medicine (University of Granada). For 29 years, my research has been focused on cancer, and specifically in the development of new therapeutic strategies based on nanomedicine and gene therapy, and in cancer multidrug resistance. This research has been regular, intense and of international quality, leading to 131 scientific publications indexed in JCR (more than 80 in its first tertile). The Spanish Ministry of Education and Science evaluated such research production and granted me the equivalent to 4 six-year research periods. The quality indexes of these publications (52 publications in first quartile (Q1)) have allowed me to obtain a total of 2273 citations and an h-index of 26. My research activity includes 40 articles in journals with a relatively high index quality, and 19 books and book chapters that have been published, among others, by Nova Publisher (New York) or CRC Press publishing

house (‘Nanomaterials and Cancer Therapy’, 2016). I have received 6 research awards, including the I Research Award of the Department of Health of the Junta de Andalucía (2001). In addition, my research activity has been presented to 180 Congress communications (52 international) since 1991. This extensive scientific production has been possible thanks to my participation in more than 40 competitive research projects and in different research contracts with international companies such as Roche Farma Co. and Dr. Esteve Laboratories Co., the second most relevant Spanish pharmaceutical company in R&D. I have been principal investigator (PI) in 8 Research Projects and in 5 Research Contracts. Moreover, I have participated as co-inventor in 9 patents (7 international) related to new cancer treatment strategies or cancer diagnosis. Three of these patents are currently being exploited by a Biomedical Company. These contributions in the field of research transfer have allowed me to obtain a six-year transfer, in the recent call of the ANECA of the government of Spain. In addition, I have developed collaborative research frames with the International Center for Medical Diagnosis, the Public Health Emergency Company and other international companies such as Genomics and Proteomics LORGEN GP. The research carried out has involved international collaborations with other research groups, such as those directed by Dr. Almeida from the Faculty of Pharmacy, Lisbon (Portugal) and Dr. Bañobre from the International Iberian Nanotechnology Laboratory (IINL) (Portugal). My research background includes a training period in the Department of Cell Biology at the University of South Carolina (USA) with Professor Dr. R. Thompson, and in the Institute of Biomedical Sciences of the University of Sassari (Italy) with Professors Dr. N. Arena and Dr. R. Madeddu. Finally, I have directed 12 postgraduate student PhDs in the last 10 years (8 of them with International PhD), and more than 30 research papers to obtain a Master Degree. I have been a referee in regional (Junta de Andalucia) and national (Carlos III Health Institute) research projects. I am senior researcher of the research board of the Biosanitary Institute of Granada (ibs.Granada) and the Biomedical Research Center (CIBM) from the University of Granada. I have been Director of the Institute of Biopathology and Regenerative Medicine (IBIMER) of the University of Granada, and I am currently the Deputy Director of the Biomedical Research Center (CIBM).

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

C.1. Publications *(see instructions)*

-Mesas C, Garcés V, Martínez R, ***Melguizo C*** (CA), Prados J. (12/14) Colon cancer therapy with calcium phosphate nanoparticles loading bioactive compounds from Euphorbia lathyris: In vitro and in vivo assay. Biomed Pharmacother. 2022 Nov;155:113723.

-Mesas C, Martínez R, Doello K, Prados J (CA), ***Melguizo C***. (10/10) In vivo antitumor activity of Euphorbia lathyris ethanol extract in colon cancer modelsBiomed Pharmacother. 2022 May;149:112883

-Alvear-Jiménez A, Zabala Gutierrez I, Shen Y, Contreras-Cáceres R (CA). (10/15) Electrospraying as a Technique for the Controlled Synthesis of Biocompatible PLGA@Ag2S and PLGA@Ag2S@SPION Nanocarriers with Drug Release Capability. Pharmaceutics. 2022 Jan 17;14(1):214.

- Jiménez-López J, Bravo-Caparrós I, Cabeza L, ***Melguizo C*** (CA), Prados J. (10/11) Paclitaxel antitumor effect improvement in lung cancer and prevention of the painful neuropathy using large pegylated cationic liposomes. Biomed Pharmacother. 2021 Jan;133:111059. doi: 10.1016/j.biopha.2020.111059.

- Garcia-Pinel B, Ortega-Rodríguez A, Porras-Alcalá C, Prados J (CA), ***Melguizo C***. (12/12). Magnetically active pNIPAM nanosystems as temperature-sensitive biocompatible structures for controlled drug delivery. Artif Cells Nanomed Biotechnol. 2020;48(1):1022-1035.

- Garcia-Pinel B, Jabalera Y, Ortiz R, Cabeza L, Jimenez-Lopez C, ***Melguizo C*** (CA), Prados J. Biomimetic Magnetoliposomes as Oxaliplatin Nanocarriers: In Vitro Study for Potential Application in Colon Cancer. Pharmaceutics. 2020;24;12(6):589.

- García-Pinel B, Porras-Alcalá C, Cabeza L (CA), López-Romero JM (CA), Sarabia F. (6/9). Bengamide Analogues Show A Potent Antitumor Activity against Colon Cancer Cells: A Preliminary Study. Mar Drugs. 2020;2;18(5):240

- Jabalera Y, Garcia-Pinel B, Ortiz R, Iglesias G, Cabeza L, Prados J, Jimenez-Lopez C, ***Melguizo C***. Oxaliplatin-Biomimetic Magnetic Nanoparticle Assemblies for Colon Cancer-Targeted Chemotherapy: An In Vitro Study. Pharmaceutics. 2019, 11(8).

- Jiménez-López J, El-Hammadi MM, Ortiz R, Prados J (CA), ***Melguizo C.*** (10/10). A novel nanoformulation of PLGA with high non-ionic surfactant content improves in vitro and in vivo PTX activity against lung cancer. Pharmacol Res. 2019, 141:451-465.

- Contreras-Cáceres R, Leiva MC, Ortiz R, ***Melguizo C*** (CA), JM, Prados. (6/10). Paclitaxel-loaded hollow-poly(4-vinylpyridine) nanoparticles enhance drug chemotherapeutic efficacy in lung and breast cancer cell lines. Nano Res. 2017, 10(3):856-875.

C.3. Research projects

* 30B910F301. Terapia selectiva frente a cáncer colorrectal: destrucción de células madre tumorales mediante microgeles direccionados. Ministry of Science, Innovation and Universities, the State Research Agency (AEI) and the European Union through the European Regional Development Fund (FEDER). Melguizo-Alonso, Consolación / Ortiz Quesada, Raúl (Universidad de Granada). 2021-2023. 30.000 EUR

* RTC2019-006870-1. Valorización de residuos derivados de cultivos hortofrutícolas mediante la obtención de nutracéuticos activos en cáncer de colon y síndrome metabólico. Ministry of Science, Innovation and Universities, the State Research Agency (AEI) and (FEDER). Melguizo-Alonso, Consolación (Universidad de Granada). 2020-2023. 1.021.181,36 EUR

* RTC-2017-6540-1. Plant nano-nutraceuticals with antitumor activity against colon cancer. Ministry of Science, Innovation and Universities, the State Research Agency (AEI) and (FEDER). Prados-Salazar, Jose (Universidad de Granada). 2019-2021. 655.614 EUR

* P18-TP-1420. Development of new plant nutraceuticals: application in metabolic syndrome and colon cancer. Junta de Andalucia. Melguizo-Alonso, Consolación (Universidad de Granada). 2020-2022.132.825 EUR

* PSE/17/002. P4VP-PACLITAXEL: Un nuevo agente farmacológico para el tratamiento del cáncer de mama. Prados-Salazar, José Carlos (Universidad de Granada). 2017-2018. 36.000 EUR.

* PI-0476-2016. Terapia selectiva frente a cáncer de colon avanzado mediante nanoplataformas de poli(butilcianoacrilato)-5 fluorouracilo direccionadas con anti-EGFR y sistemas asesinos-suicidas. Junta de Andalucía. Consejería de Salud. Melguizo-Alonso, Consolación (Universidad de Granada). 2017-2019. 56.964 EUR.

* PI-0049-2012. Asociación de nuevas nanopartículas de paclitaxel y antagonistas de los receptores sigma 1 en el tratamiento de pacientes con cáncer de pulmón y mama. Consejería de Salud Junta de Andalucia. Melguizo-Alonso, Consolación (Universidad de Granada). 2013-2016. 42.024,52 EUR.

* P11-CTS-7649. Nanopartículas de paclitaxel: eficacia antitumoral, toxicidad e influencia del bloqueo de receptores sigma-1. Junta de Andalucía. Baeyens-Cabrera, Jose Manuel (Universidad de Granada). 2013-2017. 233.242 EUR.

* 111431. Alteraciones de la metilación del ADN a nivel genómico durante la diferenciación neuronal. Fundación La Marató. Nombre del investigador principal y entidad de afiliación: Melguizo-Alonso, Consolación (Universidad de Granada) 2012- 2015. 92.812 EUR.

* PI11/01862. Desarrollo de una terapia innovadora para cáncer de colon avanzado mediante el uso de nanoplataformas funcionalizadas asociadas al gen E y 5-fluorouracilo.

Fondo de Investigaciones Sanitarias (Instituto Carlos III). Prados-Salazar, Jose (Universidad de Granada). 2012- 2015. 110.934 EUR.

C.4. Contracts, technological or transfer merits

- Delgado JR, Aránega A, Prados JC, Caba O, Melguizo C, Rodríguez F, Ortiz R, Vélez C, Rojas I, Prieto A, Pérez J. Reference: WO2014076342-A1 (PCT/ES2013/070786). Método de obtención de datos útiles para el diagnóstico, pronóstico y predicción de respuesta al tratamiento de adenocarcinoma de páncreas. Priority countries: Spain. Publication date: 05/22/2014. Entity holder: University of Jaén, University of Granada and Andalusian Health Service. Companies that are exploiting: VIDIA HEALTH S.A.

-J. Prados, C. Melguizo, R. Ortiz, A. Aranega, J.L. Arias, A.Ruíz, V. Gallardo, J.R. Delgado, R. Luque. Reference: WO2012/104461-A1 (PCT/ES2012/070053). Development and use of polymer nanoparticles comprising poly(epsilon-caprolactone) and doxorubicin. Priority countries: Spain. Publication date: 09/08/2012. Entity holder: University of Jaén, University of Granada and Andalusian Health Service. Companies that are exploiting: None

-Prados J, Aránega A, Melguizo C, Rodriguez F, Ortiz R, Rama AR, Velez C, Luque R, Gonzalez E, Arias JL. Referencia: WO2015092110-A1 (PCT/ES2014/070941). Use of genes of interest related to pancreatic adenocarcinoma for diagnosis, prognosis or prediction of response to treatment of pancreatic adenocarcinoma. Priority countries: Spain. Publication date: 25/06/2015. Entity holder: University of Jaén, University of Granada and Andalusian Health Service. Companies that are exploiting: VIDIA HEALTH S.A.

- Aránega A, Alvarez E, Chahboun R, Rodríguez Serrano F, Messouri I, Boulaiz H, Marchal JA, Melguizo C, Perán M, Prados J. Reference: WO2010076358-A1 (PCT/ES2009/000606). Synthetic analogues of merosesquiterpenes and related compounds having antitumoural activity. Priority countries: Spain. Publication date: 24/10/2013. Priority countries: Spain. Publication date: 25/06/2015. Entity holder: University of Jaén, University of Granada and Andalusian Health Service. Companies that are exploiting: None

-Prados J, Aránega A, Melguizo C, Rodriguez-Serrano F, Velez C, Arias JL, Gonzalez E, Luque R, Ortiz, Rama A. Reference: WO2015092110A1 (PCTES2014070941). Nanopartículas polimericas que comprenden poli (butilcianoacrilato) o poli(ε-caprolactona) para su uso en terapia. Priority countries: Spain. Publication date: 25/06/2015. Entity holder: University of Jaén, University of Granada and Andalusian Health Service. Companies that are exploiting: VIDIA HEALTH S.A

-Aránega A, Boulaiz H, Prados J, Carrillo E, Melguizo C, Ortiz R, Rodríguez-Serrano F, Delgado JR. Reference WO/2015/011332 (PCT/ES2014/070606). Terapia génica antitumoral: combinación de genes suicidas para aumentar la bioeficiencia terapéutica. Priority countries: Spain. Publication date: 26/07/2013. Entity holder: University of Jaén, University of Granada and Andalusian Health Service. Companies that are exploiting: VIDIA HEALTH S.A

-Prados J, Melguizo C, Porres J, Mesas C, Ortiz R, Galisteo M, López-Jurado M, Cabeza L, Bermudez F, Martinez R. Reference P202030454. Extracto etanólico de semillas de Euphorbia lathyris, método para obtenerlo, composición farmacéutica que lo contiene y su uso como agente antitumoral. Priority date: 18/05/2020. Entity holder: University of Granada. Companies that are exploiting: None

-Prados J, Melguizo C, Porres J, Mesas C, Ortiz R, Galisteo M, López-Jurado M, Cabeza L, Bermudez F, Martinez R, Delgado JM. Reference PCT/EP2021/061828. Drug delivery system based on calcium phosphate nanoparticles functionalized with bioactive compounds from euphorbia extract and the uses thereof. Priority date: 05/05/2021. Entity holder: University of Granada. Companies that are exploiting: None