CV Date	21/11/2022

Part A. PERSONAL INFORMATION

First Name	Sergio		
Family Name	Granados Principal		
Sex	Male	Date of Birth	26/03/1981
ID number Social Security, Passport	74725603Y		
URL Web	https://www.researchgate.net/profile/Sergio_Granados-Principal		
Email Address	sergiogp@ugr.es		
Open Researcher and Contributor ID (ORCID)	0000-0001-8773-9489		

A.1. Current position

Job Title	Associate Professor (Profesor Contratado Doctor Indefinido)		
Starting date	2022		
Institution	University of Granada		
Department / Centre	Biochemistry and Molecular Biology 2 / Faculty of Pharmacy		
Country		Phone Number	
Keywords			

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

Period	Job Title / Name of Employer / Country
2020 - 2022	Assistant Professor (Profesor Ayudante Doctor) / University of Granada
2020 - 2020	Miguel Servet type II Researcher / FIBAO Foundation
2015 - 2020	Miguel Servet type I Researcher / FIBAO Foundation
2013 - 2014	Postdoc researcher (level III of National Health Institute, USA) / Houston Methodist Hospital-Weill Cornell Medical College / United States of America
2011 - 2012	Postdoc researcher (Alfonso Martin Escudero Foundation) / Houston Methodist Hospital-Weill Cornell Medical College
2009 - 2010	Interim Substitute Professor / University of Granada / Spain
2009 - 2009	Postdoc researcher (Program: "Ayudas Puente", UGR) / University of Granada / Spain
2006 - 2009	Predoctoral Fellow (FPU) / University of Granada
2005 - 2006	Predoctoral Fellow (FPI) / University of Granada
2005 - 2005	Predoctoral Fellow / University of Granada

A.3. Education

Degree/Master/PhD	University / Country	Year
Master in Human Nutrition	University of Granada	2009
Doctorate in Human Nutrition	University of Granada	2009
PhD in Pharmacy	University of Granada	2008
Doctorate in Nutrition and Metabolism	University of Granada	2008
Bachelor degree in Pharmacy	University of Granada	2004

Part B. CV SUMMARY

PREVIOUS: Predoctoral FPU, University of Granada (UGR) (2006-2009). Postdoc UGR (2009), Interim Substitute Professor (UGR, 2009-2011), Postdoc (Houston Methodist Research Institute, Cornell University, USA) (2011-2015). Miguel Servet I/II Researcher (15/01/2015-05/10/2020. University Hospital of Jaén), Assistant Professor (6/10/21-31/1/22). TEACHING at UGR (from 2007 to 2011, 2020-present). Professor in 3 Master Programs, and

PhD Program in Biomedicine, UGR. Director of 13 Final Master Theses (2017-2022), 4 Final Grade Theses (2017-2020, 2022), 4 Doctoral Theses and 3 ongoing (FPU and AECC fellows) and 2 postdoc researchers (Regional Government of Andalusia, since 2020). RESEARCH: Co-group Leader (IBS-Ae23) (ibs.GRANADA; since 18/06/2021), member of PAIDI group CTS627. R+D projects: PI of 9 and team member of 12. R+D contracts: PI of 2 and team member of 7. Author of 44 papers (7 as last/corresponding), 1 book, 11 book chapters, 31 international and 10 national communications. OTHER: 5 national and 1 international patents. Grant Reviewer (European COST Actions, 2015; Flemish Cancer Society, Brussels, 2019; Worldwide Cancer Research, 2019; Regional Government of Andalusia, 2016-today), journal reviewer (Advanced Science, Science Advances, Theranostics,...). Deputy Coordinator of Grant Reviewers (Regional Government of Andalusia, 2021-today). 6 awards, member of the "American Association for Cancer Research (AACR)" and "Spanish Group for Breast Cancer Research (GEICAM)".

Part C. RELEVANT ACCOMPLISHMENTS

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

AC: corresponding author. (nº x / nº y): position / total authors. If applicable, indicate the number of citations

1 **Scientific paper**. Moleon Baca JA; Ontiveros Ortega A; Aránega Jiménez A; Granados-Principal S. (4/4). 2022. Cells electric charge analyses define specific properties for cancer cells activity.Bioelectrochemistry (5.760.Q1).144, pp.108028. https://doi.org/10.1016/j.bioelechem.2021.108028

2 **Scientific paper**. Gallardo A; Molina A; Asenjo HG; et al; Granados-Principal S; Landeira D. (14/16). 2022. EZH2 endorses cell plasticity to non-small cell lung cancer cells facilitating mesenchymal to epithelial transition and tumour colonization.Oncogene (8.756.D1).41-28, pp.3611-3624. ISSN 0950-9232. https://doi.org/10.1038/s41388-022-02375-x

3 **Scientific paper**. Navarro-Ocón A; Blaya-Cánovas JL; López-Tejada A; et al; Granados-Principal S (AC). (13/13). 2022. Nanomedicine as a Promising Tool to Overcome Immune Escape in Breast Cancer.Pharmaceutics (6.525.Q1).14, pp.505-540. https://doi.org/10.3390/pharmaceutics14030505

4 **Scientific paper**. López-Tejada A; Griñan-Lisón C; González-González A; et al; Granados-Principal S (AC). (14/14). 2022. TGFβ Governs the Pleiotropic Activity of NDRG1 in Triple-Negative Breast Cancer Progression.International Journal of Biological Sciences (10.750.D1). In press. ISSN 1449-2288. https://doi.org/10.7150/ijbs.78738

5 **Scientific paper**. Griñan-Lison C; Blaya-Cánovas JL; López-Tejada A; et al; Granados-Principal S (AC). (10/10). 2021. Antioxidants for the Treatment of Breast Cancer: Are We There Yet?.Antioxidants (7.675.D1). 10-2, pp.205. https://doi.org/10.3390/antiox10020205

6 **Scientific paper**. Ávalos-Moreno M; López-Tejada A; Blaya-Cánovas JL; Cara-Lupiañez FE; Gonzalez-Gonzalez A; Lorente JA; Sánchez-Rovira P; Granados-Principal S (AC). (8/8). 2020. Drug Repurposing for Triple Negative Breast Cancer.J Pers Med (4.945.Q1). 10-4, pp.200-234. https://doi.org/10.3390/jpm10040200

7 **Scientific paper**. Carrillo-Gálvez AB; Gálvez-Peisl S; González-Correa JE; et al; Granados-Principal S; Anderson P. (10/13). 2020. GARP is a key molecule for mesenchymal stromal cell responses to TGF-β and fundamental to control mitochondrial ROS levels.Stem Cell Transl Med (6.940. Q1). pp.Epub ahead of print. ISSN 2157-6564. https://doi.org/10.1002/sctm.19-0372

8 **Scientific paper**. Navarro-Hortal M; Ramírez-Tortosa CL; Varela-López A; et al; Granados-Principal S; Quiles JL. (8/10). 2019. Heart Histopathology and Mitochondrial Ultrastructure in Aged Rats Fed for 24 Months on Different Unsaturated Fats (Virgin Olive Oil, Sunflower Oil or Fish Oil) and Affected by Different Longevity.Nutrients (4.171. Q1). 11-10, pp.2390-2405. ISSN 2072-6643. https://doi.org/10.3390/nu11102390

9 **Scientific paper**. Cruz-Lozano M; González-González A; Marchal JA; et al; Granados-Principal S (AC). (13/13). 2019. Hydroxytyrosol inhibits cancer stem cells and the metastatic capacity of triple-negative breast cancer cell lines by the simultaneous targeting of epithelial-to-mesenchymal transition, Wnt/β-catenin and TGFβ signaling pathways.Eur J Nutr (4.449 Q1). 58-8, pp.3207-3219 (Corresponding Author). ISSN 1436-6207. WOS (2), Google Scholar (3) https://doi.org/10.1007/s00394-018-1864-1

10 **Scientific paper**. El-Azem N; Pulido-Moran M; Ramirez-Tortosa CL; Quiles JL; Cara FE; Sanchez-Rovira P; Granados-Principal S; Ramirez-Tortosa M. (7/8). 2019. Modulation by hydroxytyrosol of oxidative stress and antitumor activities of paclitaxel in breast cancer.Eur J Nutr (4.449. Q1). 58-3, pp.1203-1211. ISSN 1436-6207. WOS (4), Google Scholar (6) https://doi.org/10.1007/s00394-018-1638-9

11 **Scientific paper**. González-González A; Muñoz-Muela E; Marchal JA; et al; Granados-Principal S (AC). (29/29). 2018. Activating Transcription Factor 4 Modulates TGFβ-Induced Aggressiveness in Triple-Negative Breast Cancer via SMAD2/3/4 and mTORC2 Signaling.Clin Cancer Res (8.911. D1). 24-22, pp.5697-5709 (Corresponding Author). ISSN 1078-0432. WOS (6), Google Scholar (10) https://doi.org/10.1158/1078-0432.CCR-17-3125

12 **Scientific paper**. Varela-Lopez A; Pérez-López MP; Ramirez-Tortosa CL; et al; Granados-Principal S; Quiles JL. (5/10). 2018. Gene pathways associated with mitochondrial function, oxidative stress, and telomere length are differentially expressed in the liver of rats fed lifelong on virgin olive, sunflower or fish oils.J Nutr Biochem (4.490. Q1). 52, pp.36-44. ISSN 0955-2863. WOS (7), Google Scholar (10) https://doi.org/10.1016/j.jnutbio.2017.09.007

13 **Scientific paper**. Liu Y; Choi DS; Sheng J; et al; Granados-Principal S; Chang JC. (15/23). 2018. HN1L Promotes Triple-Negative Breast Cancer Stem Cells through LEPR-STAT3 Pathway.Stem Cell Rep (5.499. Q1). Elsevier. 10-1, pp.212-227. ISSN 2213-6711. WOS (10), Google Scholar (13) https://doi.org/10.1016/j.stemcr.2017.11.010

14 **Scientific paper**. Dávila-González D; Choi DS; Rosato RR; et al; Granados-Principal SM; Chang JC. (4/12). 2018. Pharmacological Inhibition of NOS Activates ASK1/JNK Pathway Augmenting Docetaxel-Mediated Apoptosis in Triple-Negative Breast Cancer.Clin Cancer Res (8.911. D1). 24-5, pp.1152-1162. ISSN 1078-0432. WOS (8), Google Scholar (9) https://doi.org/10.1158/1078-0432.CCR-17-1437

C.3. Research projects and contracts

1 **Project**. FPU19/04450, Study for drug repositioning for the inhibition of NDRG1 in three-dimensional models derived from triple negative breast cancer patients. Spanish Ministry of Science and Innovation. Universities. Sergio Granados Principal. (University of Granada). 01/11/2020-30/11/2024. 71.134,14 €. Principal investigator.

2 **Project**. PI19/01533, Adoptive nanotherapy against ATF4 in triple negative breast cancer patients-derived models. Health Institute Carlos III (ISCIII). Sergio Granados Principal. (University Hospital of Jaén). 01/01/2020-30/06/2024. 171.820 €. Principal investigator.

3 **Project**. RH-0139-2020, Targeted adoptive nanotherapy against ATF4 in models derived from triple negative breast cancer patients. Ministry of Health of the Regional Government of Andalusia. Sergio Granados Principal. (University Hospital of Jaén). 01/01/2021-31/12/2023. 114.372,96 €. Principal investigator.

4 **Project**. PRDJA19001BLAY, Adoptive immuno-nanotherapy for the treatment of triple negative breast cancer in patient-derived 3D models. Spanish Association Against Cancer (AECC). Sergio Granados Principal. (University Hospital of Jaén). 01/01/2020-31/12/2023. 84.000 €. Principal investigator.

5 **Project**. INTRAIBS-2021-09, NanoGhosts of exhausted T lymphocytes and cancer stem cells for high precission therapy in triple negative breast cancer. Institute of Biosanitary Resarch of Granada (Instituto de Investigación Biosanitaria de Granada, ibs.GRANADA). Griñán Lisón, Carmen. (GENYO Center). 01/02/2021-31/01/2023. 5.000 €. Team member.

6 **Project**. PECART- 0027-2020, Preclinical development of universal EXO-CART and their potential application in protocols of cancer immunotherapy. Ministry of Health of the Regional Government of Andalusia. (FUNDACION PUBLICA ANDALUZA PROGRESO Y SALUD). 2021-2023. 112.413,72 €. Team member.

7 **Project**. PIE16/00045, Implementation of a novel integrated platform to monitor tumour heterogeneity as a crucial determinant for individualized diagnostic and therapeutic outcome. Health Institute Carlos III (ISCIII); Spanish Ministry of Economy, Industry and Competitiveness. Juan Antonio Marchal Corrales. (University of Granada). 01/01/2017-31/12/2019. 493.625 €. Team member.

8 **Project**. RTC-2016-5674-1, Determination of metabolic profiles for the early diagnosis of breast cancer. Prognostic and predictive-to-treatment consequences. Spanish Ministry of Science, Innovation and Universities. Pedro Sanchez Rovira. (University Hospital of Jaén). 08/03/2016-31/12/2019. 872.110,72 €. Team member.

9 **Project**. PI15/00336, Role of adaptive-stress response in the maintenance of tumor-initiating cells in triple negative breast cancer. Health Institute Carlos III. Sergio Granados Principal. (University Hospital of Jaén). 01/01/2016-01/01/2019. 92.565 €. Principal investigator.

10 **Project**. CP14/00197, Unveiling the role of activating transcription factor 4 (ATF4) on tumorigenesis, metastasis and recurrence in triple negative breast cancer. Health Institute Carlos III. Sergio Granados Principal. (University Hospital of Jaén). 15/01/2015-14/01/2018. 121.500 €. Principal investigator.

11 **Project**. MV16/00005, Validation of targeted therapies through the generation of xenograft models derived from triple negative breast cancer patients. Health Institute Carlos III. Sergio Granados Principal. (Houston Methodist Research Institute). 15/11/2016-14/03/2017. 8.000 €. Principal investigator.

12 **Project**. P29/22/02, Biomimetic nanoparticles derived from exhausted immune cells for the targeted therapy of cancer. Research and Transference Program of the University of Granada. Grant program for the application for titles of industrial property (FEDER Funds). Granados Principal, Sergio. (University of Granada). From 27/10/2022. 5.000 €.

13 **Contract**. C19/016. Role of NDRG1 as biomarker of aggressiveness and therapeutic target in triple negative breast cancer Roche Farma, S.A.. Sergio Granados Principal (Principal Investigator). (GENYO Center). 2019-01/01/2020. 40.000 €.

14 **Contract**. C16/037. Cell-microenvironment interactions: functional assays for the development of new biological therapies against chemoresistant breast cancer Roche Farma, S.A.. Sergio Granados Principal (Principal Investigator). (GENYO Center). 2016-01/01/2017. 27.600 €.

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

1 **Patent of invention**. Sergio Granados (PI); Jose Lucas Blaya; Rosario Sánchez; Isabel Blancas; Juan Antonio Marchal. IPR-975 (under patent process). Biomimetic nanoparticles derived from exhausted immune cells for the targeted therapy of cancer 2022. University of Granada.

2 **Patent of invention**. Granados-Principal S (PI); Sanchez-Rovira P; Ramirez-Tortosa CL; García MA; Marchal JA. PCT/ES2019/070470. Method for the obtention of useful data for the prediction or prognostic of overall survival and relapse free survival of cancer and composition to modulating the activity of ATF4 for the treatment of cancer Spain. 03/07/2019. Andalusian Health System.

3 **Patent of invention**. Granados-Principal S (PI); Sanchez-Rovira P; Ramirez-Tortosa CL; García MA; Marchal JA. P201830665. Composition to modulating the activity of ATF4 for the treatment of cancer Spain. 03/07/2018. Andalusian Health System.

4 **Patent of invention**. Granados-Principal S (PI); Sanchez-Rovira P; Ramirez-Tortosa CL; García MA; Marchal JA. P201830666. Method for the obtention of useful data for the prediction or prognostic of overall survival and relapse free survival of breast cancer Spain. 03/07/2018. Andalusian Health System.