MINISTERIO DE CIENCIA E INNOVACIÓN

AGENCIA ESTATAL DE INVESTIGACIÓN

CURRICULUM VITAE (CVA)

Part A. PERSONAL INFORMATION

CV date	11/28/2023

First name	González Rodríguez		
Family name	Segundo		
Gender (*)		Date of Birth (dd/mm/yyyy)	
ID number			
e-mail		https://www.unioviedo.es/IUOPA/investigacion/inmunologia-tumoral/	
ORCID			

A.1. Current position

Position	Full Professor of Immunology (catedratico)		
Initial date	2013		
Institution	University of Oviedo		
Department/Centre	Functional Biology		
Country	Spain	Phone number	
Keywords	Immunology, cancer, leukemia, T cell, NK cell, checkpoints, autoimmunity		

A.2. Previous positions (research activity interruptions)

Period	Position/Institution/Country/Cause of the interruption
1992-95	Residency in Immunology/ Hospital Central Asturias/Spain
1995-96 2004-05 1997- 2022-	Postdoc. Immunology/ Hospital Central Asturias/Spain Postdoc. Spies Lab. Fred Hutchinson Cancer Res Center, USA Professor of Immunology, University of Oviedo/Spain Key Opinion Leader / Beacon Targeted Therapies (UK)

A.3. Education

Ph.D., Graduate Degree	University/Country	Year
Medical Doctor	University of Oviedo, Spain	1990
PhD Specialist in Immunology	Biochemistry, University of Oviedo, Spain Hospital Central de Asturias, Spain	1997 1992-1995

Part B. CV SUMMARY *(max. 5,000 characters, including spaces)*

Full Professor of Immunology at the University of Oviedo (Spain) and PI of the Tumor Immunology Group at Oncology Institutes IUOPA and Biomedicine Research Institute ISPA (accredited in 2021 as Health Research Institute by ISCIII). He received his MD from the University of Oviedo in 1990 and he was trained in immunology (Residency) at Central University Hospital of Asturias (Spain) (1992-95). He holds a Ph.D. from the University of Oviedo (Biochemistry, 1996). He completed his clinical and postdoctoral studies at the Immunology Department of Central University Hospital of Asturias and in Dr. Thomas Spies´ lab at the Clinical Research Division, Fred Hutchinson Cancer Research Center, Seattle, USA. He has published more than 150 publications (115 JRC-indexed) related to immunology, the immune 2 response against cancer, and immunotherapy with he has an added Hirsch (h) index of 51 (G. scholar), more than 7600 citations, IF summation >790, and a Scopus Normalized Index of 4.83 (2021). He has been ranked 41 as the best national immunologist in the prestigious international ranking "2nd edition of Research.com ranking of the best scholars in the field of Immunology". He has been the editor of one of the best-selling books about Immunology in Spanish (5 editions) that has been translated into Italian. He has been awarded 29 research projects (18 as PI) and more than 2.5 million Euros. His main scientific interest is the study of the role of the immune system in the pathogenesis of cancer, especially in the response mediated by NK cells and T cells, and the development of new immunotherapeutic strategies. He has participated in the preclinical development and analysis of new antitumor compounds with immunotherapeutic properties in collaboration with various pharmaceutical companies, such as EntreChem, Celgene, Boehringer Ingelheim, and Bristol-Myers Squibb.

Formative capacity

Professor of Immunology since 1997 and professor of 3 university Master's (1 international). Member of the Academic Commission of Doctoral Program in Biomedicine and Molecular Oncology (with Quality

Mention). 11 Doctoral Thesis directed: 3 received Extraordinary Doctorate Award from the University of Oviedo. 1 awarded by the Royal Academy of Medicine of Asturias; 5 additional quality mention awards; 2 International Doctorate mentions. Supervised 32 Master's and Degree Final Research Projects and 25 research contracts and research scholarships.

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

C.1. Publications *(more relevant and recent papers, impact factor: 2021)*

1. Kaiser, BK; Yim, D; Chow, IT;. Gonzalez S., et al; Spies, T. (9/4). 2007. Disulphide-isomerase-enabled shedding of tumour-associated NKG2D ligands. **NATURE. 447-7143, pp.482-U5; (D1, IF:49.962. (>440 citations).**

2. A Lopez-Soto; Segundo Gonzalez; MJ Smyth; L Galluzzi (4/2). 2017. Control of metastasis by NK cells. **(D1, FI: 31.743 (>560 citations).**

3. C Sordo-Bahamonde; S Lorenzo-Herrero; R Granda-Diaz; A Martinez-Perez; C Aguilar-Garcia; JP Rodrigo; JM Garcia-Pedrero; Gonzalez S. (8/8). 2023. Beyond the anti-PD-1/PD-L1 era: promising role of the BTLA/HVEM axis as a future target for cancer immunotherapy. **Mol Cancer. 22-1, pp.142-IF: 41.444.**

4. Lorenzo-Herrero S, Sordo-Bahamonde C, Martínez-Pérez A, Corte-Torres MD, Fernández-Vega I, Solís-Hernández MP, González S. (7/7). Immunoglobulin-like transcript 2 blockade restores antitumor immune responses in glioblastoma. 2023. Immunoglobulin-like transcript 2 blockade restores antitumor immune responses in glioblastoma. **Cancer Sci. 2023 Jan;114(1):48-62. Q1; IF: 6.63.**

5. Sordo-Bahamonde C, Lorenzo-Herrero S, Granda-Díaz R, Martínez-Pérez A, Aguilar-García C, Rodrigo JP, García-Pedrero JM, Gonzalez S. (8/8). 2023. BTLA dysregulation correlates with poor outcome and diminished T cell-mediated antitumor responses in chronic lymphocytic leukemia. **Cancer Immunol Immunother. April 11-Q1, IF:6,63.**

6. C Sordo-Bahamonde; S Lorenzo-Herrero; AP Gonzalez-Rodriguez; AR Payer; E Gonzalez-Garcia; A Lopez-Soto; Gonzalez S. (7/7). BTLA/HVEM axis induces NK cell immunosuppression and poor outcome in chronic lymphocytic leukemia**.** 2021. **Cancers (Basel). 13, pp. (Q1, FI:6.612).**

7. C Sordo-Bahamonde, S Lorenzo-Herrero, AP Gonzalez-Rodriguez, AR. Payer, E González-García, A López-Soto, S Gonzalez. (7/7). LAG-3 blockade with relatlimab (BMS-986016) restores anti-leukemic responses in chronic lymphocytic leukemia. **Cancers 2021 Apr 27;13(9):2112. (Q1, FI:6.612).**

8. AP Gonzalez-Rodriguez; et al. (18/16) 2020. Daratumumab is a safe and effective rescue therapy for multiple myeloma patients who relapse after allo-HSCT. **Bone Marrow Transplantation. 55-2, pp.461-463 (Q1; FI: 5.483).**

9. AP Gonzalez-Rodriguez; …; Gonzalez S. (10/10). 2020. Driver Mutations and Single Copy Number Abnormalities Identify Binet Stage A Patients with Chronic Lymphocytic Leukemia with Aggressive Progression. **J Clin Med. 9-11, pp. E3695**-(**Q1 IF: 4.242).**

10. Seila Lorenzo-Herrero et al. 2019. (12/11). The mithralog EC-7072 induces chronic lymphocytic leukemia cell 2 death by targeting the B-cell receptor signaling pathway. **Frontiers in Immunology. 10, pp.2455-(Q1. IF: 7.561)**

11. C Sordo-Bahamonde; S Lorenzo-Herrero; AR Payer; S Gonzalez; A Lopez-Soto. (5/4). 2020. Mechanisms of Apoptosis Resistance to NK Cell-Mediated Cytotoxicity in Cancer. **Int. J. Mol. Sci.21-10, pp.3726-(Q1. IF: 5.924)**

12. Huergo Zapico, L.; Parodi, M.; Cantoni, C.; et al; Vitale, M. (19/18) 2018. NK-cellEditing Mediates Epithelial-to-Mesenchymal Transition via Phenotypic and Proteomic Changes in Melanoma Cell Lines. **Cancer Research. 78-14:3913-3925**, (**D1, FI: 12.701).**

13. Marco Hoffman et al. (24/19). 2020. Selective and potent CDK8/19inhibitors enhance NK cell activity and promote tumor surveillance. **Molecular Cancer Therapeutics. 19-4, pp.1018-1030 (Q1. IF: 6.261).**

14. AP Gonzalez-Rodriguez; Mónica Villa-Álvarez; Christian Sordo-Bahamonde; Seila Lorenzo-Herrero; Segundo Gonzalez. (5/5). 2019. NK Cells in the Treatment of Hematological Malignancies. **Journal of Clinical Medicine. 8, pp.1557 (Q1. IF: 4.242)**

15. Lorenzo Herrero, S.; López Soto, A.; Sordo Bahamonde, C.; Gonzalez Rodriguez, AP.; Vitale, M.; Gonzalez, Segundo. (6/6). 2018. NK Cell-Based Immunotherapy in Cancer Metastasis. **Cancers. 11-1, pp.Dec 28- (Q1, FI:6.612).**

16. Villa Álvarez, M.; Sordo Bahamonde, C.; Lorenzo Herrero, S.; et al; Gonzalez, Segundo. (9/9). 2018. Ig-Like Transcript 2 (ILT2) Blockade and Lenalidomide Restore NK Cell Function in Chronic Lymphocytic Leukemia. **Frontiers in immunology. 9, pp.2917-(D1. IF: 7.561)**

17. M Villa-Alvarez; AP Gonzalez Rodriguez; AR Payer; E Gonzalez-Garcia; L Huergo-Zapico; Segundo Gonzalez. (6/6). 2017. Ig-like transcript 2 (ILT2) suppresses T cell function in Chronic Lymphocytic Leukemia. **Oncoimmunology. 6-10, pp.e1353856 (D1, IF: 8.11).**

18. A Lopez Soto; J Bravo Sampedro; Guido Kroemer; Segundo Gonzalez. (4/4). 2017. Involvement of autophagy in NK cell development and function. **Authophagy. 13-3, pp.633-636 (D1 FI: 16.061).**

19. Lopez-Soto, A; Folgueras, AR; Seto, E; Gonzalez, Segundo. (4/4). 2009. HDAC3 represses the expression of NKG2D ligands ULBPs in epithelial tumour cells: potential implications for the immunosurveillance of cancer**. Oncogene. 28-25, pp.2370-2382, (D1, IF: 9.867).**

20. Segundo Gonzalez; Alejandro Lopez-Soto. (2/1). 2017. NKG2D signaling: the immune subversive side of HDAC3. **Trends in Immunology. TREIMM-1352, pp.1-3. (D1, FI:16.687).**

21 A Lopez-Soto; L Huergo-Zapico; A Acebes-Huerta; M Alvarez-Villa; S Gonzalez. (5/5). 2015. NKG2D signaling in cancer immunosurveillance. **Int Journal of Cancer. 136-8, pp.1741-1750 (Q1, IF:5,695).**

22. L Huergo-Zapico; A Acebes-Huerta; AP Gonzalez-Rodriguez; et al; Segundo Gonzalez. (10/10) 2014. Expansion of NK cells and reduction of NKG2D expression in chronic lymphocytic leukemia. Correlation with progressive disease. **PlosOne. 9-10, pp.e108326-(Q1),FI 2014; 4,411**.

23. AP Gonzalez-Rodriguez; L Huergo-Zapico; A Acebes-Huerta; A Lopez-Soto; M Alvarez-Villa; Segundo Gonzalez. (6/6). 2014. Molecular bases for the regulation of NKG2D ligands in cancer. **Frontiers in Immunology. 5, pp.106-(D1. IF: 7.561).**

24. A Lopez-Soto; L Huergo-Zapico; JA Galvan; L Rodrigo; A García de Herreros; A Astudillo; Segundo Gonzalez. (7/7). 2013. Epithelial-to-mesenchymal transition stimulates anti-tumor response mediated by NKG2D receptor. **Journal of Immunology. 190, pp.4408-4419 (Q1, IF:5.287**).

25. Gonzalez, S; Lopez-Soto, A; Suarez-Alvarez, B; Lopez-Vazquez, A; Lopez-Larrea, C. (5/1). 2008. NKG2D ligands: key targets of the immune response. **Trends Immunol. 29-8;397-403, (D1, FI:16.687).**

26. Lopez-Larrea, C; Suarez-Alvarez, B; Lopez-Soto, A; Lopez-Vazquez, A; Gonzalez, S. (5/5). 2008. The NKG2D receptor: sensing stressed cells. **Trends Mol Med. 14-4, pp.179-189. (D1. IF: 11.951).**

27. Rodriguez-Rodero, S; Gonzalez S; Rodrigo, L; Fernandez-Morera, JL; Martinez-Borra, J; Lopez-Vazquez, A; Lopez-Larrea, C. (7/2). 2007. Transcriptional regulation of MICA and MICB: A novel polymorphism in MICB promoter alters transcriptional regulation by Sp1. **Eur J Immunology. 37-7, pp.1938-1953. (Q1. IF: 5.532)**

28. Lopez-Soto, A; Quinones-Lombrana, A; Lopez-Arbesu, R; Lopez-Larrea, C; Gonzalez Segundo. (5/5). 2006. Transcriptional regulation of ULBP1, a human ligand of the NKG2D receptor. **JOURNAL OF BIOLOGICAL CHEMISTRY. 281-41, pp.30419-30430. (Q1. IF: 5.157)**

29. Huergo-Zapico, L; Gonzalez-Rodriguez, AP; Contesti, J; et al; Gonzalez Segundo. (12/12) 2012. Expression of ERp5 and GRP78 on the membrane of chronic lymphocytic leukemia cells: association with soluble MICA shedding. **Cancer Imunol Immunother. 61-8, pp.1201-1210. (Q1, IF: 6.968).**

30. A Lopez-Soto; Segundo Gonzalez; C Lopez-Larrea; G Kroemer. (4/2). 2017. Immunosurveillance of malignant cells with complex karyotypes. **Trends in Cell Biology. 19 Sep, pp. (D1. FI: 20.808).**

31. A López-Vázquez, et al. (9/8). 2002. MHC class I chain-related gene A (MICA) modulates the development of Celiac disease in patients with a high-risk heterodimer DQA1*0501/DQB1*0201. **Gut, 50:336-340. (D1 IF: 23.059)**

32. Segundo González, J. Martínez, J.C. Torre Alonso S. González-Roces, J. Sanchez del Rio, A. Rodríguez Perez, C. Brautbar, C. López-Larrea. (8/1). The MICA-A9 triplet repeat polymorphism in the trasmembrane region confers additional susceptibility to develop Psoriatic Arthritis, and it is independent of the association of Cw*0602 in Psoriasis. **Arthritis & Rheumatism, 1999, 42: 1010-1016. (D1. FI: 10.995. >180 citations).**

C.2. Congresses

Invited speaker in 16 congresses, meetings, and symposia.

C.3. Research projects (recent)

1. Project. Exploration of new immunological checkpoints and new immunotherapeutic strategies in cancer. (Instituto Sanitario del Principado de Asturias, ISPA). 2024-2026. ISCIII PI23/01576 140000 €. PI: Segundo Gonzalez.

2 Project. Renal Research Network REDinRED. RD21/0005/0017. ISCIII. PI: Carlos López Larrea. (HUCA). 2022-2025. 105760 €.

3 Project. Intramural Mentoring Project for Health Personnel in Training. (ISPA-HUCA). 27/12/2022-27/12/2023. 6000 €. PI: Segundo González.

4 Project. BCR signaling and anti-tumor immune response in B cell-derived malignancies. Instituto de Salud Carlos III (PI19/01353). (Univ. Oviedo). 2020-2022. 129470 €. PI: Segundo González.

5 Project. Renal Research Network REDinRED. ISCIII. PI: Carlos López Larrea. (HUCA). 2017-2021. 105430 €.

6 Project. Development of new immunotherapeutic strategies in childhood acute lymphoblastic leukemia. ISPA. 05/11/2021-04/11/2021. 10000 €. PI: Segundo González.

7 Project. Induction of direct or immune checkpoint-mediated anti-tumor immune response in EntreChem's drug portfolio. IDEPA-EntreChem. (Univ. Oviedo). 2019. 25000 €. PI: Segundo González.

8 Project. Impact of gene signature on immune system activity and immunotherapy in chronic lymphocytic leukemia. PI16/01485. (Univ. Oviedo). 01/01/2017-31/12/2019. 98615 € IP: Segundo González.

9 Project. Development of new cancer immunotherapies. Fundación Xti,Xtod@s. PI: Christian Sordo Bahamonde. Segundo González (Fundacion Xti, Xtod@s). 19/10/2023-19/10/2024. 10000 €.

10 Project. Study of new immunological checkpoints in cáncer. Fundación Xti,Xtod@s. PI: Christian Sordo Bahamonde. Segundo González (Fundacion Xti, Xtod@s). 11/10/2022-11/10/2023.

C.4. Technology/Knowledge transfer

Editor of one of the best-selling books of immunology in Spain and South America (5 editions). This book has been translated into Italian and is the author of 26 book chapters in national and international books.

One 6-year scientific transfer positive evaluation (sexenio) by ANECA.

Participation in the clinical trial: Activity & Safety Study of Lenalidomide & Rituximab as Non-chemotherapy Based Therapy on Chronic Lymphocytic Leukemia (LLC-LENAR-08). MD Anderson International Spain. Sponsor.

Patent: Seila Herrero Lorenzo; Alejandro López Soto; Segundo González Rodríguez; Christian Sordo Bahamonde; Francisco Morís Varas; Luz Elena Núñez González; Judith Pérez Escuredo. 1938232.4-1109. Use of EC-7072 and synergic compositions thereof in the treatment of chronic lymphocytic leukemia. Spain. 26/09/2019. ENTRECHEM, S.L. (the patent was withdrawn by EntreChem bankruptcy).

Transfer to the pharmaceutical industry (contracts and projects)

2010. Effect of lenalidomide on the NKG2D-mediated immune response in CLL. (FUO-EM-234-10). Sponsor: Celgene. PI: Segundo González. 36000 €.

2010-11. Antitumourals derived from sureolic acid and indolocarbazoles by combinatorial biosynthesis. Sponsor: CDTI. PI of the immunological part of the Project: Segundo González. 685000 €.

2010-12. Role of ERp5 in the pathogenesis of Rheumatoid Arthritis. (FUO-EM-271-10). Sponsor: Roche Pharma. PI: Segundo González. 30000 €.

2010-12. Elucidation of the mechanism of action of new mithramycin analogs and synergism with other chemotherapy drugs. PC10-31. Sponsors: Entrechem-FiCYT. PI: Segundo González. 72179 €.

2016-19. Cooperative effect of lenalidomide, PD1 and ILT2 blockade in Multiple Myeloma. Sponsor: Celgene Europe/Spain. PI: Segundo González. 78000 €.

2016-17. Assessment of the effect of CDK8 inhibition on NK cells in chronic lymphocytic leukemia. Sponsor: Boehringer Inhelheim, Austria. PI: Segundo González. 50000 €.