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

First name	Francisco Manuel		
Family name	Vega Moreno		
Gender (*)	male	Birth date (dd/mm/yyyy)	
ID number			
e-mail			
Open Researcher and Contributor ID (ORCID) (*)		0000-0002-9015-864X	

(*) Mandatory

A.1. Current position

Position	Associate Professor			
Initial date	27/05/2021			
Institution	Universidad de Sevilla			
Department/Center	Cell Biology	Instituto de Biomedicina de Sevilla (IBiS)		
Country	Spain		Teleph. number	
Key words	Molecular and cellular biology; Molecular mechanism of disease; metastasis; Cell migration and adhesion; cancer stem cells			

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

Period	Position/Institution/Country/Interruption cause
2020 - 2021	Assistant Professor / Universidad de Sevilla/Spain
2017 - 2020	Senior Researcher. Assistant Professor / Universidad de Sevilla /Spain
2011 - 2017	Senior Researcher / Universidad de Sevilla / Spain
2015 - 2016	Visiting Scholar / University of California San Diego / United States of America
2007 - 2011	Postdoctoral Research Associate / King's College London / United Kingdom
2005 - 2007	Postdoctoral Researcher / Ludwig Institute for Cancer Research-UCL London Branch / United Kingdom
2000-2004	PhD students / Instituto de Biología Molecular y Celular del Cáncer de Salamanca / Spain

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Degree in Biology	Universidad de Sevilla / Spain	1998
PhD in Cellular and Molecular Biology	Universidad de Salamanca /Spain	2004

Part B. CV SUMMARY

I have developed my career as a research scientist in the fields of cellular signaling and cancer biology, working in Spain, United Kingdom and USA. I currently lead the "L*aboratory of Cancer Cell Biology"* at the Department of Cell Biology, Universidad de Sevilla, where I am Associate Professor (https://fmvega.wordpress.com). My laboratory is interested in how signaling pathways integrate to mediate cellular responses leading to tumor cell dissemination and cancer metastasis. We use a variety of cellular and molecular biology techniques, cell-based assays and high content functional microscopy, in cell and mouse models.

I completed my PhD work in **2004** at the **Center for Cancer Research** in Salamanca (CSIC-Univ. de Salamanca), under the supervision of Prof. Pedro A. Lazo. It was related to the characterization of the VRK1 protein kinase as a modulator of the p53 tumor suppressor. We were the first ones to describe the contribution of VRK kinases to cancer, producing several highly cited publications with myself as main author or coauthor. Moreover, this work contributed to the creation of new patents and commercial products for the use of VRK1 in oncology.
Between **2005 and 2011** I worked with Prof. Anne J. Ridley in London (**Ludwig Institute for Cancer Research (UCL)** and **King's College London)**. There I focused on the study of cell adhesion, motility and invasion controlled by the Rho family of GTPases and ROCK kinases, with the goal of gaining new insights into the cancer metastasis process in solid tumors. We developed several microscopy-based screenings and identified new mediators of cell adhesion and migration in cancer cells with a role in metastasis, publishing papers very cited and recognized in the field. During this period, I obtained international competitive fellowships and grants, including my first grant as principal investigator (MEC fellowship, Marie Curie fellowship, Breast Cancer Campaign grant), and participated in several collaborative European consortiums, acquiring expertise on image-based functional screenings (training at EMBL ALMF), live microscopy and 3D models of cell invasion. I also wrote influential reviews on the topic.
In **2011** I started my collaboration as senior research associate with Dr. Ricardo Pardal at the ***Instituto de Biomedicina de Sevilla, IBiS (Univ. de Sevilla-CSIC-Consejería de Salud)***. There, I explored the cellular signaling which connects cell migration and stemness in aggressive neuroblastoma and we formed a collaborative group, together with clinical researchers, for the search of new therapeutic tools in neuroblastoma. I acquired expertise on genomic patient data analysis and mouse cancer models. During this period, I also started my independent research, with publications as corresponding author.
In **2015** I obtained a grant to establish preclinical neuroblastoma models based on patient derived xenografts (PDX) and to study new molecular targets for pediatric cancers. This project was partially developed as visiting researcher at the ***University of California San Diego, USA***. During this work I was involved in PI3K-based drug discovery for the treatment of pediatric cancer.
Since **2017** I have worked on the contribution of cancer stem cells to cancer metastasis in solid tumors. I also collaborate with Dr Pardal at **IBiS** to study the contribution of neural crest-derived stem cells to neuroblastoma progression. I have been principal investigator and co-principal investigator in several research grants. I maintain several international collaborations with laboratories in UK, US and Germany.
During my career I have accumulated an h-index of 21 (1958 cites; 61 cites/article; WOS). I have 3 published articles with mentions or prizes and 3 book chapters. I have taken several management responsibilities both at IBiS and the University and have organized 2 symposiums.
I participate in several initiatives of **science advocacy and dissemination to society** and have 3 publications. I frequently impart seminars to students in secondary and primary school and participate in the activities organized by the University. I also frequently participate in initiatives with patients' associations (NEN, AECC).
I have been involved in **mentoring and supervising** junior members of the laboratory where I have worked since 2004. Both during my stay in UK and at the Universidad de Sevilla I have directed several Master thesis. I am currently heavily involved in graduate and postgraduate teaching in biochemistry, biology, medicine and biomedicine and have directed 2 PhD thesis (2 more in progress) and serve as academic tutor in 2 more.
I am frequently involved in reviewing publications in my area of expertise and evaluating grant applications for national and international bodies. I also frequently participate in tribunals for PhD or Research positions. I belong to 3 scientific societies (SEBC, ASEICA, SEBBM)

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

C.1. Publications

1. Gómez-Muñoz MA, Aguilar-Morante D, Colmenero-Repiso A, Pardal R (CA2), **Vega FM (CA1)** et al. **(9/9)** 2023. Analysis of Serial Neuroblastoma PDX Passages in Mice Allows

the Identification of New Mediators of Neuroblastoma Aggressiveness. Int J Mol Sci. Jan 13;24(2):1590.

2. Amador-Álvarez A, Gómez-Muñoz MA, Rodríguez-Prieto I, Pardal R, **Vega FM (CA)** 2022. *A protocol to enrich in undifferentiated cells from neuroblastoma tumor tissue samples and cell lines*. Star Protocols. Cell Press. 3-101260.
3. Colmenero-Repiso A, Gómez-Muñoz MA, Rodríguez-Prieto I, Pardal R (CA2) and **Vega FM (CA1)** et al. **(11/11)** 2020. *Identification of VRK1 as a New Neuroblastoma Tumor Progression Marker Regulating Cell Proliferation*. Cancers. 12, pp.3465.
4. Burgoyne AM, Vann KR, Joshi S, Durden DL. (CA) et al. **(5/10)**. 2020. *A triple action CDK4/6-PI3K-BET inhibitor with augmented cancer cell cytotoxicity*. Cell Discovery. 6-49.
5. **Vega FM (CA1)**, Colmenero-Repiso A, Gómez-Muñoz MA, Pardal R (CA2) et al. **(1/9)** 2019. *CD44-high neural crest stem-like cells are associated with tumour aggressiveness and poor survival in neuroblastoma tumours*. EBioMedicine. 49, pp.82-95.
6. Linares-Clemente P, Aguilar-Morante D, Rodriguez-Prieto I, Pardal R (CA) et al. **(8/13)**. 2017. *Neural crest derived progenitor cells contribute to tumor stroma and aggressiveness in high-risk neuroblastoma.* Oncotarget. 8-52, pp.89775-89792.
7. Vega FM, Gautier V, Fernandez-Ponce, CM, Durán, MC (CA) et al. **(1/14)**. 2017. *The atheroma plaque secretome stimulates the mobilization of endothelial progenitors cells ex vivo.* J. of Molecular & Cellular Cardiology. Apr;105, pp.12-23.
8. Erdreich-Epstein A, Singh AR, Joshi, S Durden, DL (CA) et al. **(4/16)**. 2016. *Association of high microvessel $\alpha\beta 3$ and low PTEN with poor outcome in Stage 3 neuroblastoma: rationale for using first in class dual PI3K/BRD4 inhibitor, SF1126*. Oncotarget. 8-32, pp.52193-52210.
9. **Vega FM (CA)**, Thomas M, Reymond N, Ridley AJ. 2015. *RhoB controls epithelial cell-cell adhesions by regulating E-Cadherin dynamics*. Cell Communication and Signaling. Vol.13: 1.
10. **Vega FM**, Fruhwirth G, Ng T, Ridley AJ (CA). 2011. *RhoA and RhoC have distinct roles in migration and invasion by acting through different targets*. Journal of Cell Biology. 193-4, pp.655-665.

C.2. Congress

1. 20-23/06/2022. European Association for Cancer Research (EACR) 2022 Congress. Seville, Spain. Poster presentation. *"Characterization of undifferentiated neuroblastoma tumor cells: contribution to metastasis". Aida Amador-Álvarez, María A. Gómez-Muñoz, Ricardo Pardal and Francisco M. Vega.*

2. 26-29/10/2021. XIX Meeting of the Spanish Society for Cell Biology. Madrid, Spain. Poster presentation. *"Role of Rho GTPasess ignalling in aggressive neuroblastoma". María A. Gómez-Muñoz, Aida Amador-Álvarez, Ricardo Pardal and Francisco M. Vega.*

3. 26/10/2021. VII Workshop on Mechanism of Cell Migration & Invasion. Spanish Society for Cell Biology (SEBC). Madrid, Spain. Scientific and organizing committee. Oral presentation. *"Cellular Plasticity leading to cell invasion in cancer stem cells" Francisco M. Vega.*

4. 25-27/01/2021. Advances in Neuroblastoma Research 2021. Association for Neuroblastoma Research. Online. Poster presentation. *"Contribution to metastasis of undifferentiated cells in neuroblastoma". Aida Amador-Álvarez, María A. Gómez-Muñoz, Ricardo Pardal and Francisco M. Vega*.

5. 15/10/2019: VI Workshop on Mechanism of Cell Migration & Invasion. Spanish Society for Cell Biology (SEBC). Badajoz, Spain. Scientific and organizing committee. Oral presentation. *"CD44 positive neural crest stem-like cells are associated with tumour aggressiveness in neuroblastoma tumors" Francisco M. Vega.*

6. 15-17/10/2018. Workshop: The cell biology behind the oncogenic PIP3. Universidad Internacional de Andalucía. Baeza, Spain. Poster presentation. *"Role of Rho GTPases signalling proteins in Neuroblastoma" María Ángeles Gómez-Muñoz, Ricardo Pardal and Francisco M. Vega.*

7. 24/09/2017. V Workshop on Mechanism of Cell Migration & Invasion. Spanish Society for Cell Biology (SEBC). Gijón, Spain. Oral presentation. *"Rho GTPase signalling in aggressive neuroblastoma" Francisco M. Vega.*
8. 07/03/2017: ICREA-FIJC Conference: Across Tumor Heterogeneity and Evolution in Cancer. From In silico studies to clinical impact. Barcelona, Spain.
9. 02/02/2017: I Encuentro SEHOP de Investigación Traslacional en Tumores Sólidos Pediátricos. Sociedad Española de Hematologíay Oncología Pediátrica (SEHOP). Madrid, Spain. Invited conference. *"Biología celular del Neuroblastoma". Francisco M. Vega.*
10. 9-12/10/2014. Stem Cells in Cancer and Regenerative Medicine (EMBO Conference). Heidelberg, Germany. Poster presentation. *"CD44 positive neural crest precursors in neuroblastoma tumors". Francisco M. Vega, Pedro Linares and Ricardo Pardal.*

C.3. Research projects.

1. *Combined pharmacological therapy as a new strategy in cancer treatment: initial or secondary therapeutic option in mechanisms of acquired resistance*. Fundación Eugenio Rodríguez Pascual . Fernando Calvo Baltanas (PI) (Instituto de Biomedicina de Sevilla). 01/2023-01/2024. 10000€. Team member.
2. *Proof of concept project: A co-culture in vitro platform with glio-organoids for the search of new therapeutic drugs* (PDC2022-133826-I00). Ministerio de Ciencia e Innovación. Ana Sevilla. (Universitat de Barcelona). 01/2023-12/2024. 115000 €. Team member.
3. *Cellular Heterogeneity derived from the neural crest: Implications for neuroblastoma progression and treatment* (PID2019-110817RB-I00). Ministerio de Ciencia e Innovación. Francisco M. Vega y Ricardo Pardal. (Universidad de Sevilla). 01/06/2020-31/05/2023. 189.970 €. Co-Principal investigator.
4. *Pathophysiology of aggressive neuroblastoma*. Junta de Andalucía-Retos Sociedad Andaluza-Universidad de Sevilla-EU. Francisco M. Vega y Ricardo Pardal (Universidad de Sevilla). 2019-2022. 140.000€+89.000€. Co-principal investigator.
5. *Patient derived xenografts for the study of cellular signalling in neuroblastoma tumor propagating cells*. EU-Junta de Andalucía. Francisco M Vega. (Universidad de Sevilla/Unversity of California San Diego). 01/05/2015-30/04/2017. 135.000 €. Principal investigator.
6. *Physiopathology of Cancer Stem Cells in paediatric neuroblastoma*. Fundacion Cientifica Asociacion Española Contra el Cáncer. Ricardo Pardal Redondo. (Instituto de Biomedicina de Sevilla). 2012-2015. 150.000 €. Team member.
7. 2008MayPR13, *Identification of Regulators of breast cancer cell invasion and migration*. Breast Cancer Campaign, UK. Francisco M Vega. (King's College London). 01/08/2008-31/08/2011. 250.000 €. Principal investigator.

C.4. Contracts, technological or transfer merits,

Contract. *High-throughput screening for novel rejuvenation factors (US-4368/1142)*. YouthBio Therapeutics Inc. Aida Platero (PI) and Francisco M Vega. 11/01/2022-01/06/2023. 90.000 €.