MINISTERIO
DE CIENCIA, INNOVACIÓN
Y UNIVERSIDADES

Cofinanciado por la Unión Europea

AGENCIA ESTATAL DE INVESTIGACIÓN

CURRICULUM VITAE (CVA)

Part A. PERSONAL INFORMATION

CV date	November, 2025

First name	María		
Family name	Salazar Roa		
Gender	Female	Birth date	10/08/1982
ID number	02278715J		
e-mail	masala08@ucm.es	URL Laboratory Website: https://cancerstemlab.com/	
Open Researcher and Contributor ID (ORCID)		**0000-0001-6784-9541**	

A.1. Current position

Position	PRINCIPAL INVESTIGATOR, Profesora Titular de Universidad (PTU) I3/R3 (since 2021); *"Ramón y Cajal"* (since 2022); PTU (since 2025)		
Initial date (as PI)	1 August, 2022 (hired as *RyC* researcher)		
Institution	Complutense University, Madrid (Spain)		
Department/Center	Biochemistry and Molecular Biology	School of Biology UCM	
Country	Spain	Phone number	645504430
Key words	*Breast cancer; differentiation therapy; organoids; cancer ecology*		

A.2. Previous positions (research activity interuptions, art. 14.2.b))

Period	Position/Institution/Country/Interruption cause
01/09/2005 - 01/12/2005	**I3P** Graduated Student Fellowship/ *Autónoma* University (UAM) and Spanish National Research Council (CSIC)/ Spain
02/12/2005 - 01/01/2009	**FPU** PhD Fellowship /*Autónoma* University (UAM) and Complutense University (UCM)/ Spain
02/01/2009 - 03/09/2012	Community of Madrid, **CAM PhD** Contract / UCM/ Spain
***01/02/2010 - 01/04/2010**	**FEBS** Fellowship/ MRC Protein Phosphorylation Unit/ UK
14/07/2011	**PhD** in Biochemistry and Molecular Biology/ Complutense University (UCM)/ Spain
15/07/2011 - 03/09/2012	**Junior Postdoctoral** Fellow and accredited as "*Profesor Contratado Doctor*" /Complutense University (UCM)/ Spain
04/09/2012 - 01/01/2017	**Junior Postdoctoral** Fellow, awarded by AECC/Spanish National Cancer Research Center (CNIO)/ Spain
***26/09/2012 - 26/02/2013**	Career Break: Maternity leave + 7 months of part-time work (in total, 1 year interruption)
***29/03/2016 - 14/07/2016**	**Fulbright Postdoctoral** Fellow/Boston Children´s Hospital, Harvard Medical School in Boston/ United States (US)
***28/09/2016 - 28/02/2017**	Career Break: Maternity leave + 7 months of part-time work (in total, 1 year interruption)
02/01/2017 - 31/07/2018	**Senior Postdoctoral** Fellow, awarded as "***Juan de la Cierva Incorporación***"/ CNIO/ Spain
01/08/2018 - 31/07/2020	**Junior PI** Fellow, awarded by AECC (AECC *Investigador*) /CNIO/ Spain
***16/09/2019 - 06/12/2019**	**Junior PI** at MIT LinQ IDEA2 Global Innovation Program/MIT Institute for Medical Engineering and Science, Boston/ US

01/08/2020 – 31/07/2022	**Junior Group Lead** of Cancer STEM Lab, as AECC *Investigador*/ Complutense University (UCM)/ Spain
27/12/2021 - *today*	**Accredited as I3 Researcher** by the Ministry of Universities and Ministry of Science and Innovation, *Incentive Program for the Incorporation and Intensification of Research Activity*
01/08/2022 – 06/04/2025	**Principal Investigator** of Cancer STEM Lab, as "***Ramón y Cajal"*** researcher (2020 call)/ Complutense University (UCM)/ Spain
07/04/2025 - *today*	**Appointed as "*Profesora Titular de Universidad"*, UCM**

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Middle Degree Chemistry	Autonoma University/ Spain	2002
High Degree Biochemistry	Autonoma University/ Spain	2004
"Operador de Instalaciones Radiactivas"	*"Consejo de Seguridad Nuclear"/* Spain	2005
PhD on Biochemistry and Molecular Biology	Complutense University/ Spain	2011
Certification as "*Profesor Ayudante Doctor" by ANECA*	Complutense University /Spain	2011
Certification as "*Profesor Contratado Doctor" by ANECA*	Complutense University /Spain	2011
Certification as "***Profesor Titular**" by ANECA*	Complutense University /Spain	2022
Accredited as responsible of design and procedures in animal experimentation (C and D category)	Community of Madrid/ Spain	2014 2023

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

I obtained my Ph.D. in Biochemistry in 2011 and since then I have worked in several institutions, both in national centres (*Autónoma* and Complutense Universities, CNIO) and in foreign institutions, such as MRC Protein Phosphorylation Unit (Dundee, UK) and Harvard Medical School (Boston, US). I am ***Profesora Titular de Universidad*** since April 2025.

During my scientific career, I have published more than 40 papers, most of them in the first quartile of their category, with more than 20.500 citations so far and h-index of 32; I have participated in several International Conferences and importantly, during my entire career, I have been always funded by competitive grants, obtained from FEBS, US Fulbright, MINECO, CAM and AECC, among others.

My principal research lines have been focused on the molecular and cellular dissection of cancer, in several scenarios, and the searching for novel anti-tumour approaches. I have published as first author most of this work in high-impact journals, such as *Journal of Biological Chemistry* (2006), *Journal of Clinical Investigation* (2009), *Autophagy* (2009), *Cell Death and Differentiation* (2015), *Trends in Cell Biology* (2017), and as co-corresponding author, in *Nature Cell Biology* (2015), *Autophagy* (2015), *The Embo Journal* (2020), senior author in *The Embo Journal* (2022) and more recently, as main corresponding author in *Breast Cancer Research* (2023), my first publication as Principal Investigator of the *Cancer STEM Lab*.

I have always actively collaborated with my lab colleagues and also contributed to external collaborations. Some of those works, in which I am co-author, have been published in *Cell Death and Differentiation* (2017, 2011), *The Embo Journal* (2017, 2022), *Scientific Reports* (2016), *Blood* (2015), *Autophagy* (2016), *Nature Cell Biology* (2015), *Clinical Cancer Research* (2015), *Molecular Cancer Therapeutics* (2011, 2009), *Brain* (2011), *Oncogene* (2011), *Glia* (2009), *Cancer Research* (2008), *Neuropharmacology* (2008), *European Journal of Neuroscience* (2006) and *Free Radical Biology and Medicine* (2006).

Since 2014, I led at CNIO a new research line focused on stem cell biology and how to optimise the differentiation potential of stem cells. Part of this project was published in *The EMBO Journal* and led to a patent, registered at the European Patent Office on May 2017, aimed to

apply those approaches on regenerative medicine. In this line, I was awarded- as Project Leader- by **two prestigious Innovation Programs** in 2019, from Spain and US (Caixa Impulse and MIT IDEA2 Global) to develop our technology one step forward.
In August 2020, I started my own research group as Junior Group Lead (Cancer STEM Lab- https://cancerstemlab.com/), as part of the Biochemistry and Molecular Biology Department in the School of Biology, at Complutense University of Madrid. Recently, I was awarded as researcher of the "**Ramón y Cajal" Program (2020) and I3/R3 excellence program (2021)**, and therefore **recognized as Principal Investigator** of my independent research group.
I have supervised one Doctoral Thesis (Filipa Martins; CNIO-Madrid 2019; sobresaliente *cum laude*), currently supervising another Doctoral Thesis (Nuria García Martínez-Illescas; UCM-Madrid 2025) and 5 TFM, 9 TFG students to date. Besides, I enthusiastically participate in a number of science divulgation activities, nationally and internationally: as member of the MIT GCCL; as funder and coordinator of the initiative ELEVEN, devoted to STEAM women empower and guidance at university; as evaluator in scientific assessment committees, such as ANEP (Spain) since 2015 and Research Grants Council (China) since 2017 and I am referee for different journals since 2012 and member of the editorial board in *Frontiers in Oncology*. Just for the record, I have had a cumulative 2 years of career disruption since the completion of my PhD, being the first maternity leave from 26/09/2012 and the second maternity leave from 28/09/2016.
Our activity as research team is showed in our lab website: https://cancerstemlab.com/.

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

C.1. Main Publications as First and/or Corresponding Author

Martínez-Illescas, N., Leal, S., González P. … **Salazar-Roa M.*** "miR-203 drives breast cancer cell differentiation". **Breast Cancer Research**, no. 25:91 (2023); **Q1**. (*corresponding author)

Salazar-Roa, M.*, Trakala M., Alvarez-Fernandez M. …Malumbres M*. "Transient Exposure to Mir-203 Enhances the Differentiation Capacity of Established Pluripotent Stem Cells." **EMBO J** 39, no. 16 (2020): e104324; **Q1.** (*corresponding authors)

Salazar-Roa, M., and Malumbres M. "Fueling the Cell Division Cycle." **Trends Cell Biol** 27, no. 1 (2017): 69-81; **Q1**.

Domenech, E., Maestre C., Esteban-Martinez L …**Salazar-Roa M.*,** and Malumbres M.*. "Ampk and Pfkfb3 Mediate Glycolysis and Survival in Response to Mitophagy During Mitotic Arrest." **Nat Cell Biol** 17, no. 10 (2015): 1304-16; **Q1.** (*corresponding authors)

Salazar, M., Lorente, M., Orea-Soufi A. …Velasco G. "Oncosuppressive Functions of Tribbles Pseudokinase 3." **Biochem Soc Trans** 43, no. 5 (2015): 1122-6; **Q2**.

Esteban-Martinez, L., Domenech E., Boya, P.*, **Salazar-Roa, M.*,** and Malumbres M. "Mitophagy in Mitosis: More Than a Myth." **Autophagy** 11, no. 12 (2015): 2379-80; **Q1.** (*corresponding authors)

Salazar, M., Lorente M., Garcia-Taboada, E. …Velasco G. "Loss of Tribbles Pseudokinase-3 Promotes Akt-Driven Tumorigenesis Via Foxo Inactivation." **Cell Death Differ** 22, no. 1 (2015): 131-44; **Q1.**

Salazar, M., Hernandez-Tiedra S., Torres S., Lorente L., Guzman M., and Velasco G. "Detecting Autophagy in Response to Er Stress Signals in Cancer." **Methods Enzymol** 489 (2011): 297-317; **Q2.**

Salazar, M., Carracedo A., Salanueva IJ. …Velasco G. "Cannabinoid Action Induces Autophagy-Mediated Cell Death through Stimulation of Er Stress in Human Glioma Cells." **J Clin Invest** 119, no. 5 (2009): 1359-72; **Q1.**

C.2. Main Congresses as speaker and first/corresponding author

-Oral presentation; Salazar Roa, M.; 19th ASEICA Congress; 2024, Zaragoza (Spain).

-Invited speaker; Salazar Roa, M., Malumbres, M.; Mitotic maintenance, mitotic exit and therapeutic implications, 4th edition, Cell Cycle and Cancer; 2015, Marseille (France).

-Oral presentation; Salazar Roa, M., Malumbres, M.; The Biology of Regenerative Medicines; 2015, Cambridge (UK).

-Oral presentation; Salazar Roa, M., Velasco, G.; Signal Rewiring and addiction in cancer; 2012, Madrid (Spain).

C.3. Main Research Projects as Principal Investigator (only projects with one PI)

- *Caixa Impulse* Innovation Program, CI19-00001; "miRNA-based strategy to expand cell therapy potential for treating diabetes"; 2019; La Caixa Foundation; **PI: María Salazar Roa**; CNIO (Spain); 1/12/19-1/12/20; 75.000 €.

-IDEA^2 Global Innovation Program; "miR-based therapy"; 2019; Massachusetts Institute of Technology-MIT; **PI: María Salazar Roa**; MIT (US); 1/12/19-1/12/20.

-Crowdfunding PRECIPITA, PR242; "Match point against breast cancer"; 2018; Precipita FECYT (Spain); **PI: María Salazar Roa**; CNIO and Complutense University (Spain); 1/09/2018-31/12/2021; 33.292 €.

-*Ramón y Cajal* contract and project funding, RYC2020-028929-I; 2020; AEI, Spanish Ministry of Science; **PI: María Salazar Roa**; Complutense University (Spain); 1/08/2022-1/08/2027; 42.000 €.

-*Consolidación Investigadora*, CNS2022-135364; "Cannabinoids as breast cancer differentiation drivers: novel strategies for tumor differentiation therapy"; 2022; Spanish Ministry of Science; **PI: María Salazar Roa**; Complutense University (Spain); 1/07/2023-1/07/2025; 199.515 €.

-*Generación de Conocimiento*, PID2022-136508OA-I00; "Exploring the therapeutic advantages of cannabinoids as tumor differentiation drivers in breast cancer"; 2022; Spanish Ministry of Science; **PI: María Salazar Roa**; Complutense University (Spain); 1/09/2023-1/09/2026; 218.750 €.

-*Financiación de Proyectos de Investigación, plan propio UCM 2022* PR3/23-30841; "Disección molecular de la diferenciación celular por cannabinoides: modelos de terapia dirigida a las células madre del tumor"; **PI: María Salazar Roa**; Complutense University (Spain); 23/11/2023-14/05/2025; 12.000 €.

C.4. Contracts, technological or transfer merits as Principal Researcher/ Main Author

-**Patent**: **Salazar Roa, M**; Malumbres, M; Trakala, M; Alvarez, M. EP3406712A1; WO2018215662A1; Method for expanding stemness and differentiation potential of pluripotent cells; 28-11-2018; Assignee: CNIO (Spain).

-**Patent**: Zapatero, E; Sánchez, J; Alvarez, M; **Salazar Roa, M**; Malumbres, M. EP21767406.8A; WO/2021/183994; Pyrido[2,3-d]pyrimidin-7(8h)-ones as CDK inhibitors; 16-09-2021; Asignee: CNIO (Spain) and Prosenestar LLC (US).