

CV Date	05/03/2025
---------	------------

## Part A. PERSONAL INFORMATION

First Name	Bethania		
Family Name	Garcia Cassani		
Sex	Female	Date of Birth	05/08/1985
ID number Social Security, Passport	2919494M		
URL Web	<a href="https://orcid.org/0000-0002-1315-133X">https://orcid.org/0000-0002-1315-133X</a>		
Email Address	bethanig@ucm.es		
Open Researcher and Contributor ID (ORCID)			

### A.1. Current position

Job Title	Profesor Distinguido Beatriz Galindo		
Starting date	2024		
Institution	Universidad Complutense de Madrid		
Department / Centre	Inmunologia, Oftalmologia y ORL / Facultad de Medicina		
Country	Spain	Phone Number	
Keywords	240300 - Biochemistry; 241107 - Gastro-intestinal physiology; 241200 - Immunology		

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

Period	Job Title / Name of Employer / Country
2018 - 2024	Postdoctoral Researcher / The Francis Crick Institute
2012 - 2017	PhD Student / Instituto de Medicina Molecular-Lisboa

### A.3. Education

Degree/Master/PhD	University / Country	Year
PhD in Immunology	Universidade de Lisboa, Faculty of Medicine / Portugal	2017
Master's degree in Molecular Biology and Biomedicine	Universidad Complutense de Madrid / Spain	2012
Postgraduation "Scientific Research Training C"	Universidad Nova de Lisboa / Portugal	2011
Biology degree	Universitat de València / Spain	2011

## Part B. CV SUMMARY

Over the past 20 years, I have lived, studied, and worked in three different countries (Spain, Portugal, and the United Kingdom) with people from diverse backgrounds and nationalities. During this period, I gained experience in intestinal physiology and extensive knowledge of innate immunity and enteric neuroimmune interactions in the intestines. This research experience helped me develop skills in managing, leading, and designing experiments, as well as executing, analyzing, and interpreting experimental data.

I completed my PhD at the "Instituto de Medicina Molecular" (IMM) with Henrique Veiga-Fernandes on mucosal immunology and neuroimmune interactions in intestinal homeostasis. While there, I developed a strong expertise in bioimage analysis, monitoring immune responses through flow cytometry and cell sorting, as well as mouse models of intestinal inflammation and infection.

After that, I moved to Vassilis Pachnis Laboratory (Francis Crick Institute) to work on the cellular and molecular foundations of homeostasis and regeneration of the mammalian enteric nervous system. During this time, I also contributed to understanding the role of IFN $\gamma$  in tissue repair by glial cells. In the Vassilis Pachnis Laboratory, I acquired a new set of skills, including the

preparation of single-cell RNA sequencing experiments, preparation of external muscle tissue for ENS study, and colonic motility assays for the investigation of peristaltic movements. During my time at the Francis Crick Institute, I actively participated in organizing postdoctoral activities, seminars, workshops, and mentoring undergraduate, master's, and PhD students. I am particularly interested in studying the intestines as a multisystem organ, fascinated by its complexity, including the interaction of the immune system, microbiota, epithelial barrier, and enteric nervous system. For the past 10 years, I have been working on the intestines as my goal has always been to become an expert capable of analyzing this organ from a broader perspective, addressing specific biological questions with a comprehensive view. My training in mucosal immunology provided me with specific knowledge on how epithelial cells, microbiota, and the immune system can function, and my studies on the role of neurotrophic factors in immune defense functions led me to appreciate the critical role of the nervous system in tissue and organ homeostasis.

## Part C. RELEVANT ACCOMPLISHMENTS

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

AC: corresponding author. (n° x / n° y): position / total authors. If applicable, indicate the number of citations

- 1 Scientific paper.** M Muñoz-Ruiz; M Llorian; R D'Antuono; et al; AC Hayday. 2023. Interferon-g-dependent interactions between tissue-intrinsic  $\gamma\delta$  T cells and tissue-infiltrating CD8 T cells limit acute contact dermatitis. *Journal of Allergy and Clinical Immunology*. *Journal of Allergy and Clinical Immunology*.
- 2 Scientific paper.** F Prohazky; M Shapiro; S Hui Chng; et al; V Pachnis. 2021. Regulation of intestinal immunity and tissue repair by enteric glia. *Nature*. *Nature*.
- 3 Scientific paper.** J Emgård; H Kammoun; B García-Cassani; et al; T Willinger. 2018. Oxysterol sensing through GPR183 (EBI2) controls the lymphoid tissue-inducing function of innate lymphoid cells and colonic inflammation. *Immunity*. *Immunity*.
- 4 Scientific paper.** V Cardoso equal contribution; J Chesné equal contribution; H Ribeiro; et al; H Veiga-Fernandes. 2017. Neuronal regulation of type 2 innate lymphoid cells via neuromedin U. *Nature*. *Nature*.
- 5 Scientific paper.** S Ibiza; B García-Cassani; H Ribeiro; et al; H Veiga-Fernandes. 2016. Glial cell-derived neuroregulators control type 3 innate lymphoid cells and gut defense. *Nature*. *Nature*.

### C.3. Research projects and contracts

- 1 Project.** IDENSTEM, Proposal ID: 843166. Marie Skłodowska-Curie Actions, Individual Fellowship. Horizon 2020. (The Francis Crick Institute). 01/01/2020-31/12/2022. 212.933,76 €.
- 2 Project.** Identification and characterization enteric nervous system stem cells in zebrafish gut ALTF 536-2017. EMBO European Molecular Biology Organization. Pachnis IP. (The Francis Crick Institute). 01/01/2018-01/01/2020. 54.000 €.
- 3 Project.** Marie-Curie Action, Stroma ITN FP7. Project Number: 289720. Marie-Curie Action, ITN FP7. Veiga Fernandes IP. (Instituto de Medicina Molecular - Portugal). 01/09/2012-31/08/2015. 204.829,67 €.

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

Veiga Fernandes; Ibiza Martinez; Garcia Cassani. 16300338. WO2017195042 (A1) METHODS OF TREATING DISEASES ASSOCIATED WITH ILC3 CELLS United States of America. 16/05/2019. LiMM Therapeutics, <https://www.limmtx.com>.