

<b>CV Date</b>	20/01/2023
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## Part A. PERSONAL INFORMATION

First Name	María de las Nieves		
Family Name	Navarro Lobato		
Sex	Female	Date of Birth	07/02/1977
ID number Social Security, Passport	52871019E		
URL Web	http://www.cbm.uam.es/mnavarro		
Email Address	marian.navarro@cbm.csic.es		
Open Researcher and Contributor ID (ORCID)	0000-0003-3977-812X		

### A.1. Current position

Job Title	Científico Titular		
Starting date	2017		
Institution	Consejo Superior de Investigaciones Científicas		
Department / Centre	Interactions with the Environment Program; Immune System Development and Function / Centro de Biología Molecular Severo Ochoa		
Country		Phone Number	
Keywords			

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

Period	Job Title / Name of Employer / Country
2022 - 2022	Career break - maternity leave (6 months)
2015 - 2017	Dirección del grupo de investigación "Señalización Intracelular en Procesos Inflamatorios" / Instituto de Investigación Sanitaria-Hospital de la Princesa (IIS-IP). Madrid. España
2014 - 2017	"Ramon y Cajal" program position / Universidad Autónoma de Madrid
2011 - 2014	Senior Research Associate / University of Dundee
2008 - 2011	Postdoctoral Research Assistant / University of Dundee / United Kingdom
2007 - 2007	Postdoctoral fellowship / Centro de Biología Molecular "Severo Ochoa" / Spain
2000 - 2006	PhD student / Centro de Biología Molecular "Severo Ochoa" / Spain

### A.3. Education

Degree/Master/PhD	University / Country	Year
PhD, Molecular Biology	Universidad Autónoma de Madrid	2006
Biology degree. Biochemistry and Molecular Biology	Universidad Autónoma de Madrid	2000

## Part B. CV SUMMARY

My scientific track started with my PhD studies under the supervision of Dr. María L. Toribio at Centro de Biología Molecular "Severo Ochoa" (CBMSO, CSIC/UAM, Madrid, España), focussed in human T cell development. After obtaining my doctoral degree in December 2006, I joined Dr. Doreen Cantrell lab (University of Dundee, Scotland, United Kingdom) as a Postdoctoral Research Assistant in January 2008. My studies as a postdoctoral researcher focussed on signalling pathways that control cytotoxic T cell function. I have developed great expertise in T cell signalling and biology, including the application of novel experimental approaches such as global proteomics and phosphoproteomic analysis. In 2014 I joined the

Departamento de Medicina de la Universidad Autónoma de Madrid/Instituto de Investigación Sanitaria-Hospital de la Princesa (IIS-IP/UAM) as Ramón y Cajal Researcher. In this post, I started a novel research line based on the study of cytokine-mediated signalling cascades and their role in the development of inflammatory diseases. The underlying aim of this research is the identification of novel therapeutic targets for treatment of inflammatory diseases. I joined the CBMSO in August 2017, where I continue this novel research line as Científico Titular del Consejo Superior de Investigaciones Científicas (CSIC).

General quality indicators of scientific research:

Total publications: 21. Publications in Q1 (in the year of publication): 18. Publications in D1:9.

Publications as first author: 10. Publications as corresponding author: 5.

Primary research publications: 16. Reviews: 5.

Total citations: 761 (20/01/23, source Scopus)

h-index: 15 (20/01/23, source Scopus).

Doctoral thesis under supervision: 2

Master thesis supervised: 5

Undergraduate thesis supervised: 4

Lecturer:

Immunology. Biochemistry degree. Universidad Autónoma de Madrid. España. 2014-2017

Immunology. Biology degree. Universidad Autónoma de Madrid. España. 2014-2017

Evaluation and revision of R&D projects and articles

1. Grant reviewer and panel member. Proyectos de Investigación en Salud (FIS). Área de enfermedades crónicas. 2019-present. Adjunta desde 2022.

2. Grant reviewer. Ayudas para Infraestructuras y Adquisición de Equipamientos del Sistema Nacional de Salud. 2021-present

3. Grant reviewer. Infections & Immunity Board. Medical Research Council (MRC). United Kingdom. 2018-present

4. Grant reviewer. Programa Estatal Proyectos de I+D+i Retos Investigación. Subdivisión de Coordinación y Evaluación de la Agencia Estatal de Investigación (AEI). Spain. 2018-present

5. Grant reviewer. Worldwide Cancer Charity (United Kingdom). 2020-present.

6. Grant reviewer. French National Research Agency (ANR, Francia). 2021.

7. Manuscript reviewer for publication in Nature Communications (IF: 12,121), Theranostics (IF: 8,579), Clinical Science (IF: 5,223), Cells (IF: 4,366), Retrovirology (IF: 4,183).

## 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.** Borroto, Aldo; Alarcón, Balbino; Navarro, María N.\*corresponding author (AC). (3/3). 2022. Mutation of the polyproline sequence in CD3ε evidences TCR signaling requirements for differentiation and function of pro-inflammatory Tγδ17 cells Front Immunol. 2022 Mar 31;13:799919. doi: 10.3389/fimmu.2022.799919.

**2 Scientific paper.** Navarro, MN\* (AC); Gómez de las Heras, MM; Mittelbrunn, M\*; \*co-corresponding. (1/3). 2021. NAD+ metabolism in the immune response, autoimmunity and inflammaging. Review.British Journal of Pharmacology (IF: 7.73).Apr 5. doi: 10.1111/bph.15477.

- 3 **Scientific paper.** Gloria Pastor-Fernández; Isabel R. Mariblanca; María N. Navarro\* (AC); \*corresponding author. (3/3). 2020. Decoding IL-23 signalling cascade for new therapeutic opportunities *Cells*. (IF: 4.366) Sep 7;9(9):2044. doi: 10.3390/cells9092044.
- 4 **Scientific paper.** Raquel Castillo-González; Danay Cibrian; Nieves Fernández-Gallego; et al; María N. Navarro; Francisco Sánchez-Madrid. (6/9). 2020. Galectin-1 controls T cell mediated inflammation in contact hypersensitivity *J Invest Dermatol* (IF: 7.143) Nov 9;S0022-202X(20)32281-8. doi: 10.1016/j.jid.2020.10.020.
- 5 **Scientific paper.** Álvarez-Salamero, C; Castillo-González, R; Pastor-Fernández, G; Cibrian, D; Navarro, MN\*corresponding author (AC); \*corresponding author. (5/5). 2020. IL-23 signaling regulation of pro-inflammatory T cell migration uncovered by phosphoproteomics *PLoS Biology* (IF:7.07) Mar 23;18(3):e3000646. doi: 10.1371/journal.pbio.3000646.
- 6 **Scientific paper.** Desdín-Micó G; Soto-Heredero G; Aranda JF; et al; Navarro MN; Mittelbrunn M. (14/18). 2020. T Cells With Dysfunctional Mitochondria Induce Multimorbidity and Premature Senescence *Science* (IF: 41.846) May 21;eaax0860. doi: 10.1126/science.aax0860.
- 7 **Scientific paper.** Lawless S.; Kedia-Mehta N.; Walls J.; et al; Navarro M.; Finlay D. (7/9). 2017. "Glucose represses Dendritic Cell-induced T cell responses" *Nature Communications* (IF:12.121) May 30;8:15620.
- 8 **Scientific paper.** Álvarez-Salamero, C; Castillo-González, R; Navarro. MN\* (AC); \*corresponding author. (3/3). 2017. Lighting Up T Lymphocyte Signaling with Quantitative Phosphoproteomics *Frontiers in Immunology* (IF: 5.085) Aug 9;8:938. Review.
- 9 **Scientific paper.** Preston, GC; Sinclair, LV; Kaskar, A; et al; Navarro, MN; Cantrell, DA. (5/9). 2015. Single cell tuning of Myc expression by antigen receptor signal strength and interleukin-2 in T lymphocytes *EMBO Journal* (IF: 9.889). Aug 4;34(15):2008-24. Aug 4;34(15):2008-24.
- 10 **Scientific paper.** Navarro, MN; Feijoo-Carnero, C; González Arandilla, A; Trost, M; Cantrell, DA. (1/5). 2014. Protein kinase D2: a switch-like amplifier of T cell receptor diacylglycerol signalling in naïve CD8 T cells *Science Signaling* (IF: 6.46). Oct 21;7.
- 11 **Scientific paper.** Navarro, MN; Goebel, J; Hukelmann, JL; Cantrell, DA. (1/4). 2014. Quantitative phosphoproteomics of cytotoxic T cells to reveal Protein Kinase D 2 regulated networks *Molecular and Cellular Proteomics* (IF: 4.870) Dec;13(12):3544. Dec;13(12):3544.
- 12 **Scientific paper.** Navarro, MN; Cantrell, DA. (1/2). 2014. Serine-threonine kinases in TCR signaling *Nature Immunology* (IF: 20.479) Vol. 15 (9) pp. 808.
- 13 **Scientific paper.** Navarro MN; Sinclair LV; Feijoo-Carnero C; Clarke R; Matthews SA; Cantrell DA.(1/6). 2012. Protein kinase D2 has a restricted but critical role in T-cell antigen receptor signalling in mature T-cells *Biochemical Journal*. Portland Press. 442, pp.649-659.
- 14 **Scientific paper.** Navarro MN; Goebel J; Feijoo-Carnero C; Morrice N; Cantrell DA. (1/5). 2011. Phosphoproteomic analysis reveals an intrinsic pathway for the regulation of histone deacetylase 7 that controls the function of cytotoxic T lymphocytes *Nature Immunology*. Nature Publishing Group. 12-4, pp.352-361.
- 15 **Scientific paper.** Matthews SA\*, Navarro MN\* (\*equal contribution); Navarro MN\*; Sinclair LV; Emslie E.; Feijoo-Carnero C; Cantrell DA; (\*equal contribution). (2/6). 2010. Unique functions for protein kinase D1 and protein kinase D2 in mammalian cells.*Biochemical Journal*. Portland Press. 432-1, pp.153-163.
- 16 **Scientific paper.** Navarro MN\*; Nusspaumer G\*; Fuentes P; González-García S; Alcain J; Toribio ML; (\*equal contribution). (1/6). 2007. Identification of CMS as a cytosolic adaptor of the human pTalpha chain involved in pre-TCR function *Blood*. 110-13, pp.4331-4340.
- 17 **Scientific paper.** Carrasco YR\* Navarro MN\* (\*equal contribution); Navarro MN\*; Toribio ML; (\*equal contribution). (2/3). 2003. A role for the cytoplasmic tail of the pre-T cell receptor (TCR) alpha chain in promoting constitutive internalization and degradation of the pre-TCR *The Journal of Biological Chemistry*. 278-16, pp.14507-14513.

## C.2. Conferences and meetings

- 1 IL-23 signaling regulation of pro-inflammatory T cell migration uncovered by phosphoproteomics. 44 Congreso Nacional de la Sociedad Española de Bioquímica y Biología Molecular. 2022. Spain. Participatory - invited/keynote talk.
- 2 IL-23 signaling regulation of pro-inflammatory T cell migration uncovered by phosphoproteomics. VII Workshop on Mechanism of Cell Adhesion, Migration and Invasion-SEBC. 2021. Spain. Participatory - invited/keynote talk. Conference.
- 3 Navarro M.N.; Feijoo-Carnero C; González Arandilla A.; Trost M.; Cantrell D.A.. Protein kinase D2: a switch-like amplifier of T cell receptor diacylglycerol signalling in naïve CD8 T cells". EMBO Conference "Lymphocyte signalling".. EMBO. 2014. Italy.

### C.3. Research projects and contracts

- 1 **Project.** Intracellular Signalling Blockage for inflammatory diseases (iSigB). Ref. PID2019-110511RB-I00. Ministerio de Ciencia e Innovación. María N. Navarro. (Centro de Biología Molecular Severo Ochoa (CSIC)). 01/08/2020-31/07/2023.
- 2 **Project.** Study of interleukin 23-regulated molecular mechanisms involved in the development of inflammatory diseases. Ref. SAF2016-78180-R. Ministerio de Economía y Competitividad. María N. Navarro Lobato. (Centro de Biología Molecular Severo Ochoa (CSIC)). 30/12/2016-01/01/2019. 100.000 €.
- 3 **Project.** Study of the pro-inflammatory cytokine interleukin 23 signalling pathways involved in inflammatory and autoimmune diseases. Ref. SAF2013-43833-R.. Ministerio de Economía y Competitividad. María N. Navarro Lobato. (Universidad Autónoma de Madrid). 2014-2017. 120.000 €.
- 4 **Project.** Serine kinase pathways that determine T lymphocyte activation and cell fate choices. Ref. 097418/Z/11/Z. Wellcome Trust. Doreen Cantrell. (College of Life Sciences, University of Dundee). 2012-2017. 6.960.390 €.
- 5 **Project.** Analysis of serine kinase function and regulation in T lymphocytes. Ref. 065975/Z/01/Z. Wellcome Trust. Doreen Cantrell. (College of Life Sciences, University of Dundee). 2007-2012. 3.580.375 €.
- 6 **Contract.** Ayudas para la contratación de ayudantes de investigación y técnicos de laboratorio. PEJ-2020-AI/BMD-1801 Garantía Juvenil Comunidad de Madrid. 03/05/2021-03/05/2023. 45.000 €.
- 7 **Contract.** Ayudas para la contratación de investigadores predoctorales. Ref. PEJD-2019-PRE/BMD-16802 Garantía Juvenil Comunidad de Madrid. 03/06/2019-03/06/2020. 25.000 €.
- 8 **Contract.** "Respuesta inflamatoria en modelos de psoriasis" INVITROTECNIA SL. From 2018.
- 9 **Contract.** Division of Signal Transduction Therapy (DSTT) AstraZeneca, Boehringer Ingelheim, GlaxoSmithKline, Merck-Serono and Pfizer. Cantrell, D. 2012-01/01/2016. 17.780.857 €.