

Ana V. Marin, PhD

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ResearcherID: K-2446-2014

Education

- Sep 2016 - 2020** **PhD in Biochemistry, Molecular Biology and Biomedicine.** Complutense University of Madrid (UCM), Spain.
Supervisors: Prof. José R. Regueiro (UCM) and Prof. George C. Tsokos (BIDMC-Harvard)
- Sep 2011 – Jun 2012** **MSc in Research in Immunology.** UCM, Spain.
- Sep 2005 – Jun 2011** **BSc, Biochemistry.** UCM, Spain.

Research Experience

- Mar 2020 - Todate** **Associated Researcher at UCM,** Novel comprehensive immunotherapy to specifically target the malignant clone in Sézary syndrome, an ultra-rare cancer of mature T lymphocytes (PROYE20084REGU/4180112). Main researchers: José R. Regueiro.
- Aug 2020 – Mar 2020** **Associated Researcher at UCM,** Lymphocyte integration of TCR and complement cues (RTI2018-095673-B-I00). Main researchers: José R. Regueiro & Edgar Fernández-Malavé.
- May 2016 – Aug 2020** **Complutense University (UCM)-Harvard Fellow (CT46/15)**
- Jan 2013 – Dec 2015** **Associated Researcher at UCM,** Biology and physiopathology of the complement system (S2010/BMD-2316). Main researcher: Santiago Rodríguez de Córdoba.
- Sep 2011 – Jun 2012** **Master Thesis,** Master in Research in Immunology
“Impact of Ras protein deficiency on the development of functional lineages of T γ δ and iNKT lymphocytes”. Supervisor: Dr. Edgar Fernández-Malavé
UCM (Dep. Immunology), Madrid, Spain.
- Sep 2010 – Jun 2011** **Collaboration Grant.** Supervisor: Dr. Edgar Fernández-Malavé
UCM (Dep. Immunology), Madrid, Spain.
- Sep 2010 – Jun 2011** **Internships**
“Impact of Ras protein deficiency on the development of functional lineages of T lymphocytes”. Supervisor: Dr. Edgar Fernández-Malavé
UCM (Dep. Immunology), Madrid, Spain.

Teaching Experience

- Sep 2017 – Dec 2017** **Co-supervisor of Visiting Researchers** (Janmejay Hingu, The College of New Jersey, USA). UCM (Dep. Immunology), Madrid, Spain.
- Jun 2015 – Jul 2015** **Co-supervisor of Visiting Researchers** (Luke Pasick, The College of New Jersey, USA). UCM (Dep. Immunology), Madrid, Spain.
- Sep 2011 – todate** **University Teaching Assistant** (Immunology laboratory practices)
UCM (Dep. Immunology), Madrid, Spain.
- Apr 2021** **Certification for university PhD professor**

Scientific publications

Garcillán B, Fuentes P, **Marin AV**, Megino RF, Chacon-Arguedas D, Mazariegos MS, Jiménez-Reinoso A, Muñoz-Ruiz M, Laborda RG, Cárdenas PP, Fernández-Malavé E, Toribio ML and Regueiro JR. *CD3G or CD3D Knockdown in Mature, but Not Immature, T Lymphocytes Similarly Cripples the Human TCR $\alpha\beta$ Complex*. *Front Cell Dev Biol*, 2021. doi: 10.3389/fcell.2021.608490. IF 6.68, Q1. [Original article](#)

Katsuyama E, Suarez-Fueyo A, Bradley SJ, Mizui M, **Marin AV**, Mulki L, Krishfield S, Malavasi F, Yoon J, Sui SJH, Kyttaris VC, Tsokos GC. *The CD38/NAD/SIRTUIN1/EZH2 Axis Mitigates Cytotoxic CD8 T Cell Function and Identifies Patients with SLE Prone to Infections*. *Cell Rep.*, 2020. doi: 10.1016/j.celrep.2019.12.014. IF 7.85, Q1. [Original article](#)

Marin AV, Cárdenas PP, Jiménez-Reinoso A, Muñoz-Ruiz M, Regueiro JR. *Lymphocyte integration of complement cues*. *Semin Cell Dev Biol*, 2018. doi: 10.1016/j.semcd.2018.02.005. IF 6.61, Q1. [Review article](#)

Bravo García-Morato M, [...], **Marin AV**, [...], Rodríguez Pena R. *New human combined primary immunodeficiency caused by a homozygous mutation in IRF4 inherited by a maternal isodisomy of chromosome 6*. *J Allergy Clin Immunol*, 2018. doi: 10.1016/j.jaci.2017.12.995. IF 13.08, Q1. [Original article](#)

Jiménez-Reinoso A, **Marin AV**, López-Lera A, Subias M, Rodríguez de Córdoba S, Román-Ortiz E, Arbore G, Kolev M, Freeley SJ, Kemper C, López-Trascasa M, Regueiro JR. *Human plasma C3 is essential for the development of memory B, but not T, lymphocytes*. *J Allergy Clin Immunol*, 2017. doi: 10.1016/j.jaci.2017.09.037. IF 13.08, Q1. [Original article](#)

Querol-García J, Fernández FJ, **Marin AV**, Gómez S, Savko M, Melchor-Tafur C, Franco-Hidalgo V, Albertí S, Shepard W, Rodríguez de Córdoba S, Regueiro JR and Vega MC. *Crystal Structure of Glyceraldehyde-3-Phosphate Dehydrogenase from the Gram-Positive Bacterial Pathogen *A. vaginae*, an Immuno-evasive Factor that Interacts with the Human C5a Anaphylatoxin*. *Front Microbiol*, 2017; 8:541. doi: 10.3389/fmicb.2017.00541. IF 4.17, Q1. [Original article](#)

Jiménez-Reinoso A, **Marin AV** and Regueiro JR. *Complement in basic processes of the cell*. *Mol Immunol Special Issue*, 2017; 84:10-16. doi: 10.1016/j.molimm.2016.11.011. IF 3.38, Q2. [Review article](#)

Marin AV, Jiménez-Reinoso A, Briones AC, Muñoz-Ruiz M, Aydogmus C, Pasick L, Couso J, Mazariegos MS, Alvarez-Prado AF, Blázquez-Moreno A, Babayigit Hocaoglu A, Cipe FE, Moreno-Pelayo MA, García-Sánchez F, Gil J, Reyburn HT, Ramiro AR, Recio MJ, Ikinciogullari A, Regueiro JR and Garcillán B. *Primary T-cell immunodeficiency caused by a novel mutation in the CD247 subunit of the TCR*. *J Allergy Clin Immunol*, 2017; 139(1):347-349.e8. doi:10.1016/j.jaci.2016.06.020. IF 12.48, Q1. [Original article](#)

Valés-Gómez M, Esteso G, Aydogmus C, Blázquez-Moreno A, **Marin AV**, Briones AC, Garcillán B, García-Cuesta E, López S, Haskologlu S, Moraru M, Cipe F, Dobbs K, Dogu F, Parolini S, Notarangelo LD, Vilches C, Recio MJ, Regueiro JR, Ikinciogullari A and Hugh Reyburn. *NK cell hyporesponsiveness and impaired development in a CD247-deficient patient*. *J Allergy Clin Immunol*, 2015; 137(3):942-945. doi:10.1016/j.jaci.2015.07.051. IF 12.48, Q1. [Original article](#)

Garcillán B.*, **Marin A.V.M.***, Jiménez-Reinoso A, Briones A.C., Muñoz-Ruiz M., García-León M.J., Gil J., Allende L.M., Martínez-Naves E., Toribio M.L. and Regueiro J.R. (*Joint first authors). *$\gamma\delta$ T lymphocytes in the diagnosis of human T cell receptor immunodeficiencies*. *Front Immunol*. 2015; 6:20. doi: 10.3389/fimmu.2015.00020 (*most viewed of its Research Topic: Recent Advances in gamma/delta T-Cell Biology*) IF 5.70, Q1. [Review article](#)

Marin A.V.M.*, Garcillán B.*, Jiménez-Reinoso A.*, Muñoz-Ruiz M., Briones A.C., Recio M.J., Regueiro J.R. *Human congenital T Cell Receptor disorders*. *LymphoSign Journal*, 2015; 2:1. doi: 10.14785/lpsn-2014-0012. (*Joint first authors). [Review article](#)

Books chapters

Marin AV, Recio MJ, Briones AC, Regueiro JR. *Diagnóstico y monitorización inmunológica de las inmunodeficiencias primarias y secundarias*. Ed. Elsevier España, Barcelona, pp 1-11 (2018). ISBN: 978-84-9022-885-2. eISBN: 978-84-9113-341-4.

Research stays

Jun-Sep 2019. Beth Israel Deaconess Medical Center (BIDMC) - Division of Rheumatology; Harvard Medical School Teaching Hospital. Supervisor: George C. Tsokos, MD.

Sep-Nov 2018. Beth Israel Deaconess Medical Center (BIDMC) - Division of Rheumatology; Harvard Medical School Teaching Hospital. Supervisor: George C. Tsokos, MD.

Conference Contributions

Attendance to several national and international meetings with frequent posters and some selected oral communications*:

May 21 *Annual meeting of the American Association of Immunology 2021. *Online*

Apr 21 *FITCancer-7 virtual. *Online*

Mar 21 *Spanish Congress of Immunology. *Online*

Jan 2019 *9th Annual Meeting of the Immunology Society of the Community of Madrid. Madrid, Spain.

Oct 2018 18th Biennial Meeting of the ESID. Lisbon, Portugal.

Sep 2018 27th International Complement Workshop. Santa Fe, New Mexico, USA.

Jun 2018 PhDay. Madrid, Spain.

Oct 2017 *2nd Meeting of the B cell Network (Net-B). Madrid, Spain.

Jun 2017 PhDay. Madrid, Spain.

May 2017 Spanish Congress of Immunology. Zaragoza, Spain.

May 2017 *Jeffrey Modell Foundation Junior Camp 2017. Prague, Czech Republic.

Nov 2016 *VII Jornada científica de la sociedad de inmunología de la Comunidad de Madrid*. Madrid, Spain.

Sep 2016 17th Biennial Meeting of the European Society for Immunodeficiencies (ESID). Barcelona, Spain.

Sep 2016 EMBO Conference: Lymphocyte antigen receptor signalling. Siena, Italy.

May 2016 Spanish Congress of Immunology. Alicante, Spain.

Sep 2015 4th European Congress of Immunology. Vienna, Austria.

Jun 2015 15th European Meeting on Complement in Human Disease. Uppsala, Sweden.

Oct 2014 *16th Biennial Meeting of the European Society of Immunodeficiencies (ESID). Prague, Czech Republic.

May 2014 *Spanish Congress of Immunology (SEI). Badajoz, Spain.

Dec 2013 *4th Annual Meeting of the Immunology Society of the Community of Madrid. Madrid, Spain.

May 2013 *Spanish Congress of Immunology (SEI). Salamanca, Spain.

Nov 2012 *7th European Workshop on Immune-Mediated Inflammatory Diseases. Noordwijk, Netherlands.

Oct 2010 9th joint meeting of the International Cytokine for Interferon and Cytokine Research. Florence, Italy.

Activities related to cancer immunotherapy

- Postdoctoral research scientist hired under a *Asociación Española Contra el Cáncer* (AECC) grant (Ref. PROYE20084REGU), entitled “Novel comprehensive immunotherapy to specifically target the malignant clone in Sézary syndrome, an ultra-rare cancer of mature T lymphocytes”, 2021-2023.
- Currently enrolled on *V Título Experto en Inmunología e Inmunoterapia en cáncer*, Fundació Hospital Reial i General Universitari Valencia & Universidad Francisco de Vitoria. Enero 2021 – Junio 2021.
- Accepted poster communications entitled “Toward Sezary immunotherapy” in the Spanish Congress of Immunology 2021 and in the Virtual Immunology Meeting 2021 (organized by the *Sociedad Española de Inmunología* and The American Association of Immunologists, respectively). March and May 2021.

Skills & Activities

SKILLS Biochemistry: Western Blotting.

Molecular biology: Directed mutagenesis.

Cell Biology: Flow cytometry, cell and tissue immunofluorescence, cell culture, magnetic-activated or similar cell sorting, confocal microscopy, T and B cell immortalization, transwell migration assays, *in vitro* T cell activation.

Animal handling: mouse, category B.

Software: FlowJo, CellQuest Pro, ImageJ, Image Studio, Endnote, GraphPad, Office, Illustrator, Photoshop.

LANGUAGES Spanish

English (C1.2 level)

SCIENTIFIC Spanish Society of Immunology (SEI)

MEMBERSHIPS Grupo Español de Terapias Inmuno-Biológicas en Cáncer (GÉTICA)