MINISTERIO DE CIENCIA, INNOVACIÓN Y UNIVERSIDADES

CURRICULUM VITAE (maximum 4 pages)

CV date	Jul 27, 2023

Part A. PERSONAL INFORMATION

First and family name	José R. Regueiro		
ID number	50417137X	Age	64
Researcher numbers	Orcid code	0000-0001-8442-7762	
	SCOPUS Author ID	7005510950	
	WoS Researcher ID	B-5499-2014	

A.1. Current position

Name of University	Universidad Complutense de Madrid (UCM)		
Department	Immunology, Ophthalmology and ENT / School of Medicine		
Address and Country	c/ Dr. Severo Ochoa 9, 28040 Madrid, Spain		
Phone number	+34913941631	E-mail	regueiro@med.ucm.es
Current position	Research and PhD Vice Dean Full Professor of Immunology	From	June 13, 2018 Nov 2, 2009
UNESCO codes	2412, 3207.10, 2415		
Keywords	T lymphocyte, immunodeficiencies, TCR, cancer immunotherapy		

A.2. Education

PhD	University	Year
Biology	Complutense University	1985
Immunology*	Complutense University	2004

*Ministry of Health-certified immunologist trained at Hospital 12 de Octubre, Madrid

A.3. Scientific research/academic performance (Ene 2023)

Number of sexenios* / last granted on	7 / May 2023
Total number of citations Web of Science / Google Scholar	2.261 / 3.304
Average number of citations during the last full five years WoS	126
Total number of publications in Q1 / D1 (%)	53 / 38 (72%)
h-index Web of Science / Google Scholar / Scopus	26 / 30 / 26
Theses supervised (total / last 10 years)	21 / 5
Number of quinquenios** / last granted on	8 / June 2019

* Government-approved six-year research periods
** University-approved five-year academic periods

Part B. CV SUMMARY *(max. 3500 characters, including spaces)*

Scientific trajectory / technical achievements

More than 30 years of research on both sides of the immune synapse (HLA first, TCR later). More than 20 research projects funded by national and international agencies, most as PI. More than 100 scientific articles published in international journals, including N Eng J Med, Lancet and Nat Immunol. 21 PhD theses supervised, most with the highest rating, 7 with UCM and / or Doctor europeus awards. More than 25 trained students and postdocs who hold positions in the scientific, academic, health or technology fields. Recruited researchers: 13 Ramón y Cajal or Talento CAM and 3 Juan de la Cierva postdocs since 2006.

In 1986 we described the first selective primary immunodeficiency (PID) of T lymphocytes, which we later proved to be due to mutations in CD3 gamma, a chain of the T lymphocyte receptor for antigen (TCR). This allowed us to analyze its role in T selection and in TCR structure, dynamics and signaling, and to develop diagnostic algorithms (Garcillán 2015) and gene therapy (Pacheco-Castro 2003) for similar pathologies. We have demonstrated unexpected properties for CD3 chains, such as their differential role in humans versus mice (Recio 2007), including its differential stoichiometry in alpha/beta vs gamma/delta TCR isotypes (Siegers 2007). We have generated in vitro PID cell models (Martín-Fernández 2005) and characterized in them the first complete Bcl-10 (Torres 2014) or IRF4 PID (Bravo 2018), partial CD3 delta PID (Gil 2011, Garcillán 2014), as well as a new CD247 PID (Marín 2017) and cellular aspects of complement PID (Jiménez-Reinoso 2018). These T cell models have been extended to T cell lymphomas recently.

Interests and medium / long-term aims of research line

T lymphocyte and TCR physiopathology, especially of their congenital PID, a field we have pioneered. We study in vitro (human cell lines) and in vivo (mice) PID models using cellular biology

techniques (flow cytometry, cultures), molecular biology and biochemistry to understand the pathophysiology of alpha/beta vs gamma/delta T lymphocytes. We have observed that double haploinsufficiency of CD3 gamma and delta in mice selectively eliminates IFN-gamma-producing gamma/delta T lymphocytes (Muñoz-Ruiz 2016) by an undefined mechanism, which is relevant to malaria susceptibility.
We have also studied the role of accessory signals in lymphocyte biology, such as those relayed by GITR, which selectively amplifies Treg (Liao 2010) or SLAM / CD150, which besides being a bacterial sensor (Berger 2010), can enrich TCR signals and regulate T lymphocyte differentiation and function. We are currently studying how complement proteins (C3, CD46, CFI) impact T cell function using primary and immortalized patient-derived T- and B- cell lines, and using complement-receptor-deficient lymphoid cell lines as biosensors of serum complement dysfunctions.
Last, our exposure to cancer immunotherapy (Regueiro, board member of https://getica.org/, invited speaker to several cancer immunotherapy courses for clinicians and member of a national excellence network in cancer immunotherapy (REINCA) since 2014) has spurred our interest in designing in vitro models and specific immunotherapies for rare T cell lymphomas (Sézary syndrome), for which our long-term expertise in HLA and TCR biology may be useful.

Part C. RELEVANT MERITS (last 10 years)

C.1. Publications

Journal articles / reviews (10 most relevant, *last, **co-last, authors/position)

1. García-Solis B, et al 25/10. Inherited human ezrin deficiency impairs adaptive immunity. **J Allergy Clin Immunol**. 2023 Jun 8: S0091-6749(23)00749-2. IF14 D1
2. *Marin AV, et al 5/5. T-cell receptor signaling in Schimke immuno-osseous dysplasia is SMARCAL1-independent. **Front Immunol** 2022 Oct.;13:979722. IF9 Q1
3. *Garcillán B, et al 13/13. *The role of the different CD3γ domains in TCR expression and signaling.* **Front Immunol.** 2022 Sep 2;13:978658. IF9 Q1.
4. Gallardo F, et al 18/16. *Sézary syndrome patient-derived models allow drug selection for personalized therapy*. **Blood Adv**. 2022;6(11):3410-3421. IF6 Q1.
5. *Garcillán B, et al 13/13. *CD3G or CD3D knock-down in mature, but not immature, T lymphocytes similarly cripples the human TCRαβ complex.* **Front Cell Dev Biol.** 2021 Jun 25; 9:608490. IF6 Q1.
6. *Marin AV, Cárdenas PP, Jiménez-Reinoso A, Muñoz-Ruiz M, **Regueiro JR**. *Lymphocyte integration of complement cues*. **Semin Cell Dev Biol.** 85:132-142 (2019) IF6 D1.
7. **Rowe JH, et al 18/19. *Patients with* CD3G *mutations reveal a role for human CD3γ in Treg diversity and suppressive function*. **Blood**. 131(21):2335-2344 (2018). IF17 D1.
8. *Jiménez-Reinoso A, et al 16/16. *Human plasma C3 is essential for the development of memory B, but not T, lymphocytes*. **J Allergy Clin Immunol.** 141(3):1151-1154.e14 (2018). IF13 D1.
9. **Marin AV et al 24/23. *Primary T-cell immunodeficiency with functional revertant somatic mosaicism in CD247*. **J Allergy Clin Immunol.** 139:347-349 (2017). IF14 D1.
10. Muñoz-Ruiz M, Ribot JC, Grosso AR, Gonçalves-Sousa N, Pamplona A, Pennington DJ, **Regueiro JR**, Fdez.-Malavé E/Silva-Santos B. *TCR signal strength controls thymic differentiation of discrete proinflammatory γδ T cell subsets*. **Nat Immunol**. 17: 721–727 (2016). IF22 D1.

Selected books and chapters

1. **Regueiro** JR, Alsina L. *Inmunodeficiencias primarias y secundarias*. In: *Farreras Rozman, Medicina Interna*. 18ª Edition. Elsevier Spain. Barcelona pp2587-95 (2016). ISBN: 9788490229965.
2. **Regueiro** JR, Recio MJ. 11. T-Cell–Receptor Complex Deficiency. In: Primary immunodeficiency diseases, a molecular and genetic approach, 3rd edition. HD Ochs, CIE Smith, JM Puck eds. Oxford University Press pp 156-162 (2013). ISBN 9780195389838
3. **Regueiro** JR, Martínez-Naves E, López-Larrea C, González S. *Inmunología: biología y patología del sistema inmunitario. Editorial Médica Panamericana*, Madrid. 5th ed. (2022) ISBN 9788491104209. Translated into Italian (2011) and Portuguese (2014).

C.2. Research projects and grants (last 7, *PI)

1. *Personalized preclinical models for rare human T cell malignancies: an unmet need for targeted therapy, Proyectos de Generación de Conocimiento 2021, MICINN, UCM, 2022-25, 325.000€ al grupo + 68.250€ a la UCM + 1 FPI student, Regueiro JR, 5, PID2021-125501OB-I00

2. Red de investigación: Complemento en Salud y Enfermedad (COMPLEMENTO), CAM, CIB CSIC coord, IDIBELL, UNAV, IdiPAZ, i+12, UCM, UIB, 2023-26, 828.000 €, Vega Fernández, M Cristina (Regueiro JR UCM 150.000 €), 12, Ref. P2022/BMD-7278
3. *Novel comprehensive immunotherapy to specifically target the malignant clone in Sézary syndrome, an ultra-rare cancer of mature T lymphocytes, Proy estratégicos AECC 2020, UCM, 2021-3, 300.000€, Regueiro, 20, Ref. PROYE20084REGU / 4180112
4. *Lymphocyte integration of TCR and complement cues, MICIU, Univ. Complutense, 01/2019-12/2021, 270.000€ al grupo + 56.700€ a la UCM + 1 FPI student, Regueiro JR & Fdez.-Malavé E, 6, Ref. RTI2018-095673-B-I00
5. The Complement system in health and disease (Complemento II-CM), CAM, CIB CSIC, FJD, UCM, HULP, HU12O, 2018-21, 828.092 €, Rodriguez de Córdoba S (Regueiro JR PI UCM), Ref. B2017/BMD3673.
6. *Surface and intracellular T lymphocyte activation physiopathology, MINECO 2014, Regueiro JR, Fdez-Malavé E, Univ. Complutense, 01/2015-12/2018, 275.000€, Ref. SAF2014-54708-R
7. *T lymphocyte activation physiopathology, MICINN 2011, Regueiro JR, Univ. Complutense, 2012-2015, 193.600 € + 1 FPI student, Ref. SAF2011-24235

C.3. Contracts, technology transfer (*PI)

1. *Desarrollo de una nueva terapia para el tratamiento de enfermedades del sistema inmune, Agencia de Certificación en Innovación Española, Regueiro JR, Univ. Complutense, 2018-9, 1.150 €, Artículo 83, certificación de tipo Contenido y 1ª Ejecución según el RD 1432/2003,
2. *Diseño y desarrollo de anticuerpos con capacidad inmunoadyuvante para el tratamiento del cáncer, DNV GL Business Assurance España, Regueiro JR, Univ. Complutense, 2018, 97 €, Artículo 83, revisión técnica como experto 4D (comité externo).

C.4. Patents

C.5. Positions, institutional responsibilities

2020. Dean Delegate for Una Europa One Health and UCM Self-Steering Committee member
2018. Research and PhD Vice Dean, School of Medicine, Universidad Complutense.
2012. Head, Dept. of Microbiology, School of Medicine, Universidad Complutense, Madrid.
2012. President, Spanish Society for Immunology.
1995. Head, Central Facility of Immunological Techniques. Universidad Complutense. Madrid.
1993. Associate Professor of Immunology, School of Medicine, Universidad Complutense
1989. Associate Professor of Immunology, School of Medicine, University of Valladolid. Board: Martínez-A C, López de Castro JA, Poljack R, Stutman O, Coutinho A, Rubinstein P, Palacios R, Parkhaus M.
1986. Head, Cellular and Humoral Immunology Laboratory. Dept. of Immunology, Hospital 12 de Octubre, Madrid.

C.6. Participation in committees and representations

International

1. IER (Invited External Review) of scientific proposals for the ERC (European Research Council), proposed by the LS6 (Life Sciences 6) panel of experts of the Consolidator Grant 2018 Call, chaired by Dr. Caetano Reis e Sousa.
2. Editorial Board. Primary Immunodeficiencies, a specialty of Frontiers in Immunology. ISSN 1664-3224, IF 2020 6,4, Jul 2015-, Review Editor
3. Editorial Board. J Clin Immunol ISSN 0271-9142, IF 2020 6,8, Springer (Clin Immunol Society), Jul 2015-
4. Associate Editor. LymphoSign Journal, The Journal of Inherited Immune Disorders. Canadian Science Publishing, https://lymphosign.com/about, Nov 2013-
5. Project evaluator for the Fondation pour la Recherche Médicale (www.frm.org/en), a French private foundation that supports excellence in biomedical research. 2020-2021
6. Scientific Expert Committee for topic 8 (health) for ERANET LAC joint calls, Network of the European Union and the Community of Latin American and Caribbean States on Joint Innovation and Research Activities funded by the European Commission (2013-2017), Translational research and innovation projects on infectious diseases, 2016
7. Scientific advisory board for the Centre of Chronic Immunodeficiency (Freiburg). Freiburg University. Second funding period 2013-18.
8. Project evaluator for the German Federal Ministry of Education and Research. DFG (Deutschen Forschungsgemeinschaft). From 2013.

9. Review board for Integrated research and treatment centres. German Federal Ministry of Education and Research.
10. Evaluator. European commision-funded proyects *for* 5th-7th Framework Programmes. Mid-term review (2003). FP7 Health Innovation (2012). Since 2000.
11. Evaluator of *Programa Nacional de Ciencias Básicas*. Colciencias (Colombia). Immunology proyects. 2004 and 2011.
12. Peer review activity (IF 2020, certified reviews): New Eng J Med (75, 1), J Clin Immunol (7, 5), Front immunol (6, 7), Rheumatology (6, 1), Oncotarget (5, 1), Eur J Immunol (4, 4), Mol immunol (4, 4), Biomedi Pharmacother (4, 1), Clin Dev Immunol (4, 1), J Pediatrics (4, 1), Int Immunopharmacol (4, 1), J Neuroimmunol (3, 1), World J Stem Cells (3, 1).

National

1. Colaborador del área BME para el seguimiento de recursos humanos (Programas: ayudas predoctorales FPI, doctorados industriales, JdlC, RyC, PEJ, Inncorpora, Emplea, Técnicos de apoyo, Torres Quevedo), División de coordinación, evaluación y seguimiento científico-técnico, Agencia Estatal de Investigación, MICIU (2019).
2. Comité de expertos de Biomedicina, Dirección Gen. de Universidades e Investigación de la CAM. Tema: evaluación de ayudas para la contratación de investigadores pre y postdoctorales (Programa Operativo de Empleo Juvenil, Orden 2484/2016), Resolución del 6/10/2016.
3. Comité de ciencias médicas y de la salud (vocal), Unibasq (agencia de calidad del sist. universitario vasco). Temas: acreditación de profesores permanente; ikertramos (sexenios de no permanentes), 1/2015- 12/2017
4. Programa ACADEMIA de la Aneca (Agencia Nacional de Evaluación de la Calidad y Acreditación). Panel de expertos externos para la acreditación de Profesor Titular (desde 2008) y Catedrático (desde 2009) en las áreas de Ciencias de la Salud y Ciencias.
5. Ministerio de Educación Cultura y Deporte (MECD): evaluación de solicitudes para estancias de movilidad Salvador de Madariaga para personal investigador (2014 y 2015) y estancias de movilidad en el extranjero “José Castillejo” para jóvenes doctores (2015).
6. Programa Serra Húnter: contratación de profesores investigadores para las Universidades catalanas (2013 suplente tribunal Cellular Immunology en UAB, 2016 Immunology en UB).
7. Programa ICREA (Catalan Institution for Research and Advanced Studies): evaluación de investigadores para su promoción (2005 y 2008).

C.7. Memberships of relevant scientific societies

2016- Spanish Group for Cancer Immuno-Biotherapy (GETICA). Board 2016-9
1994- European Society for Immunodeficiencies (ESID).
1986- Sociedad Española de Inmunología (SEI). President 2012-16

C.8. Three selected PhD thesis (out of 21 since 1999, 6 in the last 10 years, +3 in progress)

1. Ana V Marín. Human CD247 deficiency. Complutense Univ. School of Medicine, 2013-2020. J Allergy Clin Immunol. 2017 Jan;139(1):347-349.e8. **International mention** (stayed with George Tsokos, Boston) and **UCM PhD award**. She is currently Assoc. Professor in Madrid (2022-).
2. Miguel Muñoz-Ruiz. Role of the TCR in effector γδ T cell development and function, Complutense Univ. School of Medicine, 2009-2016. Nat Immunol 17:721-7 (2016). **European mention** (stayed with Bruno Silva-Santos, Lisboa and Adrian C Hayday, London) and **UCM PhD award.** Fundación LAIR best immunology thesis award (2017). After a postdoc in London (c/o Hayday, he is currently Ramón y Cajal grantee in Madrid (2022-).
3. Beatriz Garcillán. Role of CD3γ and CD3δ chains in human TCR expression and function, Complutense Univ. School of Medicine, 2008-2014. J Allergy Clin Immunol 133: 1205-8 (2014), Front Immunol. 2022 Sep 2;13:978658. **European mention** (stayed with Pieter C. Res, Amsterdam and W Schamel, Freiburg) and **UCM PhD award**. After a postdoc in Melbourne (The Peter Doherty Institute for Infection and Immunity, c/o Fabienne Mackay), she is currently Medical Scientific Liaison in Janssen Spain (2018-).