MINISTERIO DE CIENCIA E INNOVACIÓN

Cofinanciado por la Unión Europea

AGENCIA ESTATAL DE INVESTIGACIÓN

CV date	2023/07/27

Part A. PERSONAL INFORMATION

First name	Narcisa		
Family name	Martínez Quiles		
Gender (*)	Female	Birth date	
Social Security, Passport, ID number			
e-mail	Narcisa-quiles@med.ucm.es	URL Web	
Open Researcher and Contributor ID (ORCID) (*)		0000-0002-0366-6591	

(*) Mandatory

A.1. Current position

Position	Professor (PTU)		
Initial date	15/11/2016		
Institution	Universidad Complutense de Madrid		
Department/Center	**Immunology**, Ophthalmology-ENT		
Country	Spain	Teleph. number	913947431
Key words	Cytoskeleton, HS1, Wiskott-Aldrich syndrome, Adhesion, Leukocytes,		

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

Period	Position/Institution/Country/Interruption cause
2009 – 2016	Tenured Professor (Profesor Contratado Doctor)/ Complutense Univ./ Spain
2004 – 2009	"Ramón y Cajal" Researcher/ Complutense Univ. / Spain
2002- 2004	Instructor/ Research Associate/ Harvard University/ USA
1997-2002	Post-doctoral Fellow (MEC, and contracts)/ Harvard University / USA
1996	Predoctoral Fellow FIS/ "12 de Octubre" Hospital (Health Ministry)/ Spain
1992-1995	Resident BIR/ Hospital "12 de Octubre" (Health Ministry)/ Spain

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
PhD.	Complutense University/Spain	1997
Licenciatura (Grade + master)	Autónoma University (UAM) Spain	1989

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

Prof. Narcisa M. Quiles is a Board-Certified Immunologist (Spanish Health Ministry), with official **certifications: 5 Research periods (Sexenios,** 2021), **1 Transfer Sexenio** (2017) and **15 years of teaching experience** (3 quinquenios, 2021). She has successfully directed 3 Ph.D. students (2 with European doctorate). She has authored 3 chapters and 38 publications. Total cites: 1230. H index 16. Among them: J Immunology (first author, Predoctoral), Nature Cell Biol (first author, Postdoc.) Plos Pathogens (PI, *corresponding*); Cell Host and Microbe (Collaboration).

Residency and Predoctoral Period. After scoring 4/629 in a national exam (BIR) she joined the residency program and publishes 11 papers (7 in D1), such as a *J of Immunology* (1st author,) a very prestigious journal, and she obtained 2 postdoctoral national fellowships (FIS, MEC).

Postdoctoral Period (Raif S. Geha Lab., Immunol. Div., Children´s Hosp. Harvard Medical School). She studied the "Wiskott-Aldrich syndrome" and lead the setting-up of sophisticated techniques (microinjection, microscopy), introduced new lines (cortactin) and collaborations (WAVE, Verprolin). She obtained high quality results that were published as the lead author in ***Nature Cell Biology*** y ***Mol Cel Biol***. There WIP is described as a regulator of filopodia through N-WASP-Cdc-42, structure that subtends many immunological processes. The second study connects the two families of actin nucleators

(WASPs, Cortactin), and proposes a model of regulation of the later by Ser/Tyr phosphorylation, reviewed (PMID 5817388, 15670811, 21655441), and applied to other pathways (adhesion, invadopodia PMID: 18768925, 17343955, actin polymerization 17606906, 21079800). This study is the foundation of her independent lines of research as a P.I. In recognition she obtained several awards: ***New Investigators Award (CIS)***, ***Paul A. Dobuler Fundation Prize*** *and the* ***Children´s Hospital award.***

PI Period. After scoring position 5th (national Biomedicine committee)**,** she joined the University Complutense with a 5-year **"Ramón y Cajal"** research contract (Sept. 2004, Microbiology Dpt.) with the aim of perfecting her skills in Host/ Pathogen interaction models (EPEC). As PI she attained a prestigious **Marie Curie Internacional Reintegración grant (**2006-8), and a **FIS grant (2007-9)**. She established novel lines of research focusing on Cortactin. She was evaluated as an **I3 remarkable researcher** (Science Ministry). She obtained a 2nd FIS small grant (2010-2; 54.000€) and **publishes 10 articles, 5 as corresponding author, including a prestigious *Plos Pathogens* (D1) and a *Cell Host and Microbe (D1*)**. The team made important discoveries about the mechanism of cell adhesion by the pathogenic bacteria EPEC, dissecting cortactin contribution and describing the first host inhibitory protein of the major pathway. Together the findings help to reinterpret the functions of Nck. In addition, a new cortactin-FAK-β1 integrin pathway is described in cell adhesion and Helicobacter infection, which is relevant for cancer treatment (PMID 22378044).

In recognition, she was invited to the WP7 Marie Curie actions closure meeting, and distinguished as a "successful career progression example" in From Face to Face (doi: 10.2777/87638). Despite the recognition and good productivity level of her publications, she endured a 5 years without funding (2013-7). The researcher persisted and in 2018 started a new grant period as PI (SAF2017-82967-R) and obtained a Fulbright-MEC 6 months scholarship visit to the NIH.

The researcher has acquired international recognition, as proven by the multidisciplinary international collaborations established (Walter Beron/ Coxiella, Ana Cárdenas/ exocitosis, Stefen Backert/ Helicobacter, Albert Selva/ Miastenia-Miositis (in progress)). She joined-in editorial committees, is a reviewer and collaborates with certification companies. She is a member of scientific forums (Cytoskeletal European Forum, LACER), participates actively in the promotion of science to society, with relevant international contributions (news, INMUNOMEDIA, RNE COVID-19, #STEMitas). She is the lead of transfer-of-knowledge for an antimicrobial herbal tea, (in progress). She has been the tutor of graduate students (12 Master Thesis), Ph.D. students and under-contract personnel, contributing to their career progression in industry (Nieto-Pelegrín/ PTC Therapeutics, Meiler/ GSK), and in academia. To end, the researcher has had an outstanding career path as *Harvard Fellow e Instructor*, Ramón y Cajal-I3 researcher, Marie Curie *grantee*, and Fulbright Scholar, and she has demonstrated that with the appropriate grant support she can be an excellent researcher.

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

C.1. Publications

1) Tur-Gracia S and **Martínez-Quiles N**. **2021**. Evolving functions of actin-binding proteins in immune diseases. J Cell Sci. Feb 8;134(3):jcs253534. doi: 10.1242/jcs.253534. IF (JCR 2020): 5,285. Ranking (Cell Biology 74/195): Q2. **AC (2/2), Cited (WOS): 8.**

2) Mohamed-Salem R, Rodríguez Fernández C, Nieto-Pelegrín E, Conde-Valentín B, Rumbero A, **Martinez-Quiles N**. **2019**. Aqueous extract of *Hibiscus sabdariffa* inhibits pedestal induction by enteropathogenic E. coli and promotes bacterial filamentation *in vitro*. PLoS One.;14(3):e0213580. doi: 10.1371/journal.pone.0213580. IF (JCR 2019): 2,740. Rank (Multidiscipl. Sciences 29/126): Q1. **AC 6/6, Cited (WOS): 4. On the News.**

3) Martinez-Quiles N and Goldbach-Mansky R. Updates on Autoinflammatory diseases. Current Opinions in Immunology. 2018;55:97-105. doi:10.1016/j.coi.2018.09.014. IF (JCR 2018): 7,667. Ranking (Immunology 16/158): D1. **Author 1/2, Cited (WOS): 21**.

4) González-Jamett AM, Guerra MJ, Olivares MJ, Haro V, Baéz X, Vásquez J, Momboisse F, **Martinez-Quiles N**, Cárdenas AM. **2017**. The f-actin binding protein cortactin regulates the dynamics of the exocytotic fusion pore through its SH3 domain". Front. Cell. Neurosci. IF (2017): 4,3. Rank (Neurosciences 62/161): Q1. doi: 10.3389/fncel.2017.00130. **Author 8/9 Cited (WOS): 14**

5) Martinez-Quiles N, Feuerbacher LA, Benito-León M, and Hardwidge PR. **2014**. Contribution of Crk Adaptor Proteins to Host Cell and Bacteria Interactions. Biomed Res Int. Article ID 372901, 13 pages doi: 10.1155/2014/372901. IF (JCR 2014): 1,579. Ranking: Q3. **Author 1/4 Cited (WOS): 3.**

6) Nieto-Pelegrín E, Kenny B and Martinez-Quiles N. **2014**. Nck adaptors, besides promoting N-WASP mediated actin-nucleation activity at pedestals, influence the cellular levels of enteropathogenic

Escherichia coli Tir effector. Cell Adh Migr.;8(4):404-17. IF (JCR 2014): 4.505. Ranking: (59/184 Cell Biology). Q2. doi: 10.4161/19336918.2014.969993. **AC 3/3 Cited (WOS): 11.**

7) Olivares MJ; Gonzalez-Jamett AM; Guerra MJ; Baez-Matus X; Haro-Acuña V; **Martínez-Quiles N**; Cárdenas AM. **2014.** Src kinases regulate de novo actin polymerization during exocytosis in neuroendocrine chromaffin cells. PLoS One. Jun 5;9(6):e99001. doi: 10.1371/journal.pone.0099001. IF (JCR 2014): 3.24. Ranking: Q1. **Author 6/7. Cited (WOS): 20.**

8) Nieto-Pelegrín E, Meiler E, Martín-Villa JM , Benito-León M and **Martinez-Quiles N**. **2014**. Crk adaptors negatively regulate actin polymerization in pedestals formed by enteropathogenic *Escherichia coli* (EPEC) by binding to Tir effector. PLoS Pathog. 10(3):e1004022. doi: 10.1371/journal.ppat.1004022. IF (JCR 2013): 8.057. Ranking: (10/116 Microbiology.). D1 and Q1. **AC 5/5 Citas (WOS): 9.** On the news: OTRI-UCM, boletín RedescubreUCM, Madrid i+d and SEI.

9) Rosales, Aguilera M, Salinas R, Carminati S, **Martinez-Quiles N** and Berón W. **2012**. Cortactin is involved in the entry of *Coxiella burnetii* into nonphagocytic cells. PLoS One.;7(6):e39348. doi: 10.1371/journal.pone.0039348. IF (JCR 2012): 3.730. Ranking: Q1. **Author 5/6 Cited (WOK): 15.**

10) Meiler E, Nieto-Pelegrín E and Martinez-Quiles N. **2012**. Cortactin tyrosine phosphorylation promotes its deacetylation and inhibits cell spreading. PloS One 2012;7(3): e33662. doi: 10.1371/journal.pone.0033662. IF (WOS): 3.730. Ranking: Q1. Posted on **Global Medical Discovery y Licor website (Alemania). AC 3/3 Cited (WOS): 11**

C.2. Congress

1) Invited Conference "Immunogenetics of Autoinflammatory Diseases". XVI Colombian Congress and X International Congress Human Genetics. Online, 2021-10-15.

2) **Poster.** 6th European Congress of Immunology (ECI). "Study of the Regulation of Haematopoietic Lineage Cell-Specific Protein 1 (HS1) by Tyrosine Phosphorylation". Silva I, Santos AM, Cano K, and Martinez-Quiles N. Online. 2021(1-4 Sept).

3) 2 Posters "42 Congreso de la Spanish Immunology Society (SEI)" (author responsible NMQ) Online. 2021 (25-27 March).

4) Poster. 4th European Congress of Immunology (ECI 2015). M. BenitoLeón, I. MongeLobo, A. SelvaO'Callaghan, I. Illa, M. A. Martínez, C. Juárez, J. M. MartinVilla, N. MartínezQuiles."Molecular characterisation of cortactin autoantigen in myasthenia gravis and autoimmune myositis patients". Viena (Austria). 2015 (6-9 Sept.)

5) Poster. Nieto-Pelegrin E, Kenny B and Martinez-Quiles N. Nck adaptors, besides promoting N-WASP mediated actin-nucleation activity at pedestals, influence the cellular levels of EPEC coli Tir effector. BIT's 4th Annual World Congres of Microbes-2014. Dalian (China). 2014 (26-29 June).

6) Selected oral communication Martínez-Quiles N. Role of Crk adaptor proteins in actin pedestals formed by EPEC. BIOMICROWORLD, V International Conference on Environmental, Industrial and Applied Microbiology. Madrid, Spain. 2013 (2-4 Oct.)

7) Poster. Mohamed R, Conde Valentín B, Nieto-Pelegrin E, Ibáñez-Escribano A, Rumbero A, Martinez-Quiles N, Rodríguez Fernández C A new natural herbal extract with antimicrobial activity against EPEC. BIT's 4th Annual World Congres of Microbes-2014. Dalian (China). 2014 (26-29 Junio).

8) Poster. González A, Haro V, OlivaresM, Guerra M, Báez X, Momboisse F, Martínez-Quiles N, Cárdenas AM. Role of the actin-binding protein cortactin in the actin cytoskeleton dynamics and exocytosis in neuroendocrine chromaffin cells. 17th International Symposssium on Cromaffin Biology. Rouen-Normandy, France. 2013 (13-17 Jul.)

9) Poster. Mohamed R, Conde Valentín B, Nieto-Pelegrín E, Rumbero A, Martínez-Quiles N, Rodríguez Fernández C. A new natural herbal extract with antimicrobial activity against EPEC. XXIV Congreso de Microbiología. SEM 2013. L´Hospitalet de Llobregat (Spain). 2013 (10-13 Julio).

10) Selected oral communication. Meiler E, Nieto-Pelegrín E y Martínez-Quiles N. A New Phosphorylation/Acetylation Switch in the Regulation of Cortactin and its Role in Cell Spreading. **22nd IUBMB & 37th FEBS Congress** (SEBBM). Sevilla (España). 2012 (4-9 Sept).

C.3. Research projects

1) COVID-19 prevention in the Madrid Community (ANTICIPA-CM). UCM), 2020-2022, 6IP JM Bautista. Team member (coIP JR Regueiro (176.000€)). European Social Funds REACT-UE/ Programa Operativo de Madrid 2014-2020.

2) A new inhibitory mechanism of actin polymerization. Ref **SAF 2017-82967-R**. Duration: 3 years 01/01/2018 - 30/09/2021. MINECO-Retos. 108.900,00 €. **IP: NMQ**.

3) New inhibitory mechanisms of immune cell migration. Ref PR26/16-20256. Duration: 1 year 22/12/2016 - 21/12/2017. Santander Bank - UCM. 7.000 €. **IP: NMQ**.

4) UCM 970629 research group of Signal transduciton to the cytoskeleton. Proyect Banco Santander-UCM (Ref: GR3/14).1 year 21/11/ 2014 -20 /11/2015. 803,74 €. **IP: NMQ**.
5) Study of the regulation and signal transduction pathways of the oncogenic protein Cortactin during cell and bacterial motility. **FIS PI09/00080**. 3 years 01/01/2010 - 31/12/2012. 69.575 €. **IP: NMQ**.
6) Pre-doctoral Contrat "Young employment" in i+d+i. CAM/European Social Funds Ref. PEJD-2018-PRE/BMD-8403. Carlota Gil Martín. 01/03/2019, 1 year. ends: 28/02/2020. Prorrogated to V. Avila (12/02/2020 - 13/04/2020). **IP: NMQ**.
7) Post-doctoral Contract "Young employment" in i+d+i. CAM/European Social Funds. Ref. CT4/17/CT5/17/PEJD-2016/BMD-2475. 07/04/2017, 1 year . ended: 06/07/2017. **IP: NMQ**.

C.4. Contracts, technological or transfer merits

Recognition of **1 Transfer Sexenio**, CNEAI 2012-2017. Some representative activities since 2018:
1) 13-12-2022 Participant Science Monologues "Science with Turrón". Complutense University.
2) 12-11-2021 Participant in the Campaign #STEMitas (American Consulate in Madrid)
3) 26-7-2021 "Everything about the vaccines against the COVID-19 pandemic" APPLE PodCast, DUPAO.news Programa Culturizando de un Punto a Otro, Episode 45 (Miami, USA).
4) 6 articles at "The conversation" (immunological subjects) with 140.307 reads (2022-12-09)
27/09/2022. Immunological risks of tattooing.
7/11/2022. CAR-T cell therapy for Lupus.
14-7- 2021 Will we remain protected when the antibody titers against coronavirus decrease?
17-01-2021 Will I continue to be protected if there are new coronavirus variants?
5) 11-02-2021. Participant as Immunologist in the Radio Especial program in Radio Nacional (RNE) "A hombros de Gigantes" "Science agaisnt the COVID-19".
6) 22-04-2020. Online Talk Immune response against SARS-CoV-2. Spanish Fulbright Association
7) 2015-18 Participation on educational innovation project, lead by Prof. Alfredo Corell. XI MEDES 2018 Award by the Lilly Foundation.
8) International and National Grant/ Fellowship evaluator: 2022 Agencia Valenciana D Avaluacio I Prospectiva; 2021; Romanian Research Program; 2020 The Welcome Trust/DBT India Alliance; 2020- Spanish Research agency (AEI).
9) Journal Reviewer: BMC Cell Biology, Cell Commun. and Signaling, PloS one, Nature Scientific Reports, Cell Adhesion and Migration, Front Immunology etc.
10) Editorial Board member. 2022- Front Imm, Plos One (2019 -); Case Reports Immunol (2011-7).

C.5. Awards and distinctions

2018 **Fulbright Scholarship**. Selected by the Fullbright commision under the Ministry of Education program for Senior Professors.

C.6. Shor term visit 2018 (6 months) at the NIH (NIAID, USA) Autoinflamatory disease Unit.

C7. Lenguages. C2 level in English. Oficial Cambridge certificate "**Proficiency in English** "(2016)

C8. Other. Publications not in JCR. For example:

Martinez-Quiles N. 2013. Emerging roles of hematopoietic lineage cell-specific protein 1 (HS1) in the immune system. OA Immunology Apr 01;1(1):2. https://www.oapublishinglondon.com/article/432/

Book Chapters (3):

1) N. Martínez-Quiles. SH proteins and cytoskeletal signaling. Book 'SH Domains: Structure, Mechanisms', and Applications', edited by Natalya Kurochkina. 2015. Editorial: Springer. Heidelberg, Germany. ISBN 978-3-319-20097-2. DOI: 10.1007/978-3-319-20098-9_9
2) Pérez-Nuñez, D. and Martinez Quiles, N (2011). Genetic factors that influence HIV infection: the role of the major histocompatibility complex system. Book title: "HIV-Host Interactions, ISBN 978-953-307-442-9, edited by Theresa L. Chang". Chapter 21242. InTech editorial. DOI: 10.5772/19682.
3) E. Nieto-Pelegrín, E. Meiler, and N. Martínez-Quiles. Chapter title: "Cortactin, an oncoprotein targeted by pathogens during infection". "Current Research, Technology and Education Topics in Applied Microbiology and Microbial Biotechnology"- Number 2. **2010**, Vol 1: pages 607-614. ISBN (13): 978-84-614-6194-3.

Teaching Activities

- First experience teaching was as a Tutor in the "Course in Immunology, Microbiology and Infection Diseases (IMID)". Department of Pediatrics, **Harvard Medical School (Harvard University).** Boston (USA). April-June 2004 (30 credits). Coordinator: Prof. Arlene Sharpe. Invitation to participate in the 2005-6 academic year.
- Currently I have fulfilled 3 Periods of 5 years of teaching officially recognized by Complutense University (Quinquenios, last 2021).

✓ Teaching Training Courses Received

- Course on teaching innovation. *Cum Laude School* (8 hours). Madrid. 26 Sept 2015.
- Official Cambridge Proficiency in English Certificate (C2 European level) (75 hours). CSIM-UCM. 2016.
- Communications Strategies for English-Medium Instructions in the International University. Intercom Course UCM (20 hours). CSIM-UCM. 20-24 June 2016.
- "Flipped learning in higher Education" (20 hours). UCM. September 2017.
- Microsoft Teams (3 h). UCM, online. March 21, 2021.
- Tools for improving the dynamics in the classroom (20 hours). UCM. June 2021.

Teaching activity		
	Course	**Academic Year**
1	**Immunology, Microbiology and Infection Diseases (IMID (Harvard University)**	2003-4
2	Prácticas de MICROBIOLOGÍA GENERAL (100053-219, 3er curso Licenciatura Farmacia)	2005-2006 to 2011-12
3	Prácticas de FUNDAMENTOS Y TÉCNICAS INMUNOLÓGICAS (FYTI) (100050, 2º curso de la Licenciatura de farmacia)	2007-8 to 2010-11
	Teoría de FUNDAMENTOS Y TÉCNICAS INMUNOLÓGICAS (100050, 2º curso de la Licenciatura de farmacia).	2009-10 and 2010-11
4	Prácticas de INMUNOLOGÍA (803513; 2º Curso del Grado en Farmacia).	2011-12
	Teoría de la asignatura INMUNOLOGÍA (803513, 2º curso del Grado de Farmacia).	2011-12
	Doctorado en Microbiología y Parasitología	
5	BASES MOLECULARES DE LA PATOGÉNESIS MICROBIANA	2006-7, 2007-8, 2008-9
6	FUNDAMENTOS DE INVESTIGACIÓN EN MICROBIOLOGÍA	2009-10
	Master de Microbiología y Parasitología: Investigación y Desarrollo	
7	DISEÑO EXPERIMENTAL Y METODOLOGÍA DE LA INVESTIGACIÓN (603660)	2010-11
8	SEMINARIOS EN INVESTIGACIÓN (603673)	2010-11
9	BASES MOLECULARES DE LA PATOGENIA Y TERAPIA ANTIMICROBIANA Y ANTIPARASITARIA (603666)	2010-11 to 2011-12
10	SEÑALIZACIÓN CELULAR (603670)	2010-11 to 2011-12
11	Tutorización de alumnos TFM	
	Doctorado en Inmunología Médica (mención de calidad por la ANECA (ref mcd-2003 00886)	
12	INMUNODEFICIENCIAS CONGÉNITAS	2006-7 to 2008-9
13	TEMAS DE INVESTIGACIÓN EN INMUNOLOGÍA (700561)	2006-7
	Máster Universitario en Virología. Facultad de Veterinaria	
14	MÉTODOS DE ESTUDIO DE LOS VIRUS (A3) (600003).	2010-11 and 2011-12
	Máster Interuniversitario de Investigación en Inmunología	
15	INMUNOLOGÍA MOLECULAR (603253)	2010-11 to 2012-13
16	INTERACCIÓN PATÓGENOS SISTEMA INMUNE (603256).	2011-12
17	Prácticas de INMUNOLOGÍA (100076, 5º Curso de la Licenciatura de Farmacia) ().	2011-12, 2012-13, 2013-14
18	Prácticas de INMUNOLOGÍA (1er curso del Grado de Medicina).	2011-12 to present
	SEMINARIOS DE INMUNOLOGÍA (1er curso del Grado de Medicina).	2011-12 to present
19	SESIONES BÁSICO-CLÍNICAS (Asignatura Práctica Clínica III)	2012-13, to present
20	Teoría INMUNOLOGÍA APLICADA (803482, Asignatura de 6 créditos ECTS). Grado de Bioquímica.	2012-13 to present
	Máster Universitario en Investigación en Inmunología UCM	
21	INTERACCIÓN PATÓGENO/INMUNIDAD (607653)	2013-14 and 2014-15
22	INMUNOLOGÍA MOLECULAR (607650)	2013-14
23	INMUNOLOGÍA HUMANA Y CLÍNICA (607654)	2014-15, 2015-16
24	PATHOGEN / IMMUNE SYSTEM INTERACTION (607653)	2020-
25	Trabajo Fin de Master. Tutoría de alumnos	2012-13 to present
	Doctorado Investigación Biomédica. R.D. 99/2011 Código 5600682	
26	Dirección de Tesis doctorales y Tutorías de alumnos	2014-15 to present
27	Inmunoterapia del cáncer e Inmunopatías (Grado Medicina). Cod 805028.	2016-17
28	**Máster Universitario en Investigación en Medicina Traslacional (065t)** Investigación Traslacional en Enfermedades Inflamatorias y Crónicas (Cod. 608770)	2017-18 to present
29	**Máster Universitario en Investigación en Medicina Traslacional (065t)** Bases Fisiopatológicas y Terapéuticas de enfermedades Inflamatorias y Crónicas (Cod. 608775)	2017-18 to present

- **Other Teaching** 2019. Course "New concepts in advanced Immunology and Immunnotherapy" (Nuevos avances en inmunología e inmunoterapia") to community college teachers (profesores de secundaria de formación professional de la comunidad de Madrid), Organized by the "centro territorial de innovación y formación madrid-capital". February 5-26. (5 hours).
- 2018. Practical course on Immunodiagnostic training ("Técnicas de Inmunodiagnóstico"). Community College in Health system (Formación profesional en Sanidad). April 28-29. 15 Hours. Lanzarote (IES ZONZAMAS) 35000321.

✓ Participation in Teaching innovation projects

- **INMUNOMEDIA 7.0**. Immunomedia project: learning, lecturing and spreading Immunology Coordinator Prof. Alfredo Corell Almuzara. Universidad de Valladolid. Since 2015-16. Funding: FECYT FCT-16-11509. 8.000 € Participants: Universidad de Valladolid, Universidad Complutense de Madrid, Universidad Europea de Madrid, Universidad de Alicante, Universidad Politécnica de Valencia, Universidad de Coimbra y Université Paul Sabatier (Toulouse III-Francia). **Publication**: Immunomedia project: learning, lecturing and spreading Immunology. Autores: A Corell, C Martin Alonso, JC Zarzuela, LA Sanz, JC Aragon, JM Sempere, D Hudrisier, P Rodrigues Santos, S Alvarez Alvarez, V Arnaiz, MJ Verdu Perez, LM Regueras Santos, JP de Castro Fernandez, N Martinez-Quiles, Reche Gallardo, AS Pascual Garcia, P Martinez Peinado, JR Regueiro. 2016/8/1. EUROPEAN JOURNAL OF IMMUNOLOGY Volumen 46, Páginas 1167-1167.
  Recognized by the "Fundación Lilly" "XI MEDES Prize 2018" as the best Project promoting the use of Spanish language in supporting spreading of biomedical knowledge" https://www.fundacionlilly.com/es/actividades/medes-medicina-en-espaniol/resumen-convocatoria-premios-medes-2018.aspx

UCM Teaching Innovation Project

- **Participant i**n "Proyecto innovación docente" UCM 2017-18. Título**: "**Competición de pósters científico/divulgativos como experiencia de inmersión al aprendizaje activo e integral por parte del alumnado de Ciencias de la Salud". Ref: 252. Coordinator: María Paloma Sánchez-Mateos Rubio.

- **Director** in "Proyecto innovación docente" UCM 2021-22. Title:" Career advice for Biochemistry graduates" "Ref: 10. Chemistry Faculty.

✓ Positive teaching evaluations "Docentia Program " (UCM)

- **2011-12**. Inmunología (Grado de Farmacia, Facultad de Farmacia, UCM).
- **2013-14**. Inmunología Aplicada (Grado de Bioquímica, Facultad de Químicas, UCM).
- **2014-15**. Inmunología Aplicada (Grado de Bioquímica, Facultad de Químicas, UCM). Very positive.
- **2016-19** Inmunología Aplicada (Grado de Bioquímica, Facultad de Químicas, UCM). Inmunología Humana y Clínica (Master Inmunología). Final 3 years evaluation: Very Positive.
- **2019-21** Inmunología Aplicada (Grado de Bioquímica, Facultad de Químicas, UCM). Inmunología Humana y Clínica and Host – Immune system interaction (Master Inmunología). Final 3 years evaluation: Very Positive.