

Part A. PERSONAL INFORMATION		CV date	09/03/26
First and Family name	JESUS PLA ALONSO		
Researcher numbers	Researcher ID	ABG-9609-2020	
	Orcid code	orcid.org/0000-0003-0897-1963	

A.1. Current position

Name of University/Institution	UNIVERSIDAD COMPLUTENSE DE MADRID		
Department	DEPARTAMENTO DE MICROBIOLOGIA II, FACULTAD DE FARMACIA		
Address and Country	Plaza de Ramón y Cajal s/n		
Phone number	E-mail	jpla@ucm.es	
Current position	CATEDRATICO DE UNIVERSIDAD	From	01/06/2011
UNESCO Code	241406		
Keywords	Fungal infections, <i>Candida albicans</i> , cell wall, signal transduction, antifungals, immunology		

A.2. Education

PhD	University	Year
Degree in Chemistry	Universidad Complutense de Madrid	1982
Ph.D. in Sciences	Universidad Autónoma de Madrid	1988
Degree in Pharmacy	Universidad Complutense de Madrid	1991

A.3. JCR articles, h Index, thesis supervised...

Nº of thesis supervised in the last 10 years: **4**. Publications: **108**, Publications in Q1: **90**. • Recognition of 6 research stages by the ANECA ("Sexenios"). Last "sexenio": 2014-19.

Obtained from Google Scholar (Account https://scholar.google.es/citations?user=IPIDAvwAAAAJ)
Total quotes: 7145 (2336 if starting 2016), i10 Index: 89 (63 if starting 2016), h index: 47 (28 if starting 2016), Averages quotes/year: 347 (during 2013-17)
From Web of Science
Total publications: 104 , h-index: 37 , Average citation per item: 43.5 , Total times cited: 4529; Average citations per year: 119.2

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

My academic background is a degree in Chemical Sciences from the Universidad Complutense de Madrid (UCM). I did my doctoral thesis at the Severo Ochoa Molecular Biology Center (CSIC-UAM) under the supervision of Dr. D. Vázquez on the mechanism of action of β -lactam antibiotics (1984-1988). I obtained my Ph.D. (Doctor in Sciences) from the Universidad Autónoma de Madrid (UAM) in 1988. I then joined as postdoctoral fellow the laboratory of Dr. M. Vicente in the Center for Biological Research (CIB-CSIC) and worked under his supervision on the mechanism of bacterial division (1988-1990) and completed my studies in the degree of Pharmacy. I joined the Department of Microbiology II in the Faculty of Pharmacy of the UCM in 1990 working under the direction of Dr. C. Nombela where I developed the main part of my research career under different professional situations: hired Ph. D. (1990-91), Associate Professor (1991-93), Lecturer (1993-2011) and Full Professor (since 2011).

My research activity at the UCM has focused on different aspects of the biology of the pathogenic fungus *Candida albicans*. The projects and initial works focused on the development of genetic tools in this fungus. We developed very fruitful collaborations with the pharmaceutical industry (Glaxo, Pfizer and Janssen-Cilag) with the focus on the identification of novel antifungal targets. I then turned to the study of MAPK signal transduction pathways and identified some elements of these routes and analyzed their function and the stimuli activate them as well as their involvement in adhesion, cell wall biogenesis and virulence. We have more recently focused on the immune response developed against this fungus by mammals. I have participated as IP of different projects funded by the national organisms FIS, MINECO (mainly via the National Program for Biotechnology etc.); I have also been a member of the research teams and IP of different projects funded by ERANET calls. I have enjoyed short stays in different laboratories (Paris-Orsay University, EMBL and Cell Cycle Laboratory) and spent a sabbatical stay as professor at the Harvard Medical School. The short and medium future goals our group are: ¹⁾ To define the role of the MAPK signaling cascades in fungi ²⁾ to develop prevention strategies or therapeutic alternatives to fungal infections based on knowledge of the interaction *C. albicans*-host, with special emphasis in its role as commensal in the gut and ³⁾ to develop tools to analyze and visualize fungal infection *in vivo*.

I currently participate as a teacher in the Degree in Pharmacy and the Master in Microbiology and Parasitology of the UCM. I have coordinated the PhD Program in Microbiology and Parasitology of the UCM since 2014 until 2018. My editorial work is summarized in activities such as Editor of journals in the field of microbiology and evaluator of local, national and international projects and several scientific journals as indicated in C5-C7 sections.

Part C. RELEVANT MERITS

C.1. Publications (including books)

My scientific production is summarized in 108 scientific publications, 7 book chapters, and approximately 140 communications to different workshops. Some recent publications are the following:

- Vico, S.H., et al., The Glyoxylate Cycle Is Involved in White-Opaque Switching in *Candida albicans*. *J Fungi* (Basel), 2021. **7**(7).
- Alonso-Monge, R., et al., Identification of Clinical Isolates of *Candida albicans* with Increased Fitness in Colonization of the Murine Gut. *Journal of Fungi*, 2021. **7**(9): p. 695.
- Alonso-Monge, R., et al., *Candida albicans* colonization of the gastrointestinal tract: A double-edged sword. *PLoS Pathog*, 2021. **17**(7): p. e1009710.
- Guirao-Abad, J.P., et al., The MAPK Hog1 mediates the response to amphotericin B in *Candida albicans*. *Fungal Genet Biol*, 2020. **136**: p. 103302.
- Correia, I., et al., Characterization of a *Candida albicans* Mutant Defective in All MAPKs Highlights the Major Role of Hog1 in the MAPK Signaling Network. *Journal of Fungi*, 2020. **6**(4): p. 230.
- Alonso-Monge, R., et al., The Fungicidal Action of Micafungin is Independent on Both Oxidative Stress Generation and HOG Pathway Signaling in *Candida albicans*. *Microorganisms*, 2020. **8**(12): p. 1867.
- Urrialde, V., et al., Deletion of the SKO1 Gene in a *hog1* Mutant Reverts Virulence in *Candida albicans*. *J Fungi* (Basel), 2019. **5**(4).
- Román, E., et al., The HOG MAPK pathway in *Candida albicans*: more than an osmosensing pathway. *Int Microbiol*, 2019.
- Román, E., et al., Implementation of a CRISPR-Based System for Gene Regulation in *Candida albicans*. *mSphere*, 2019. **4**(1).

- Rastogi, S.K., et al., Ifu5, a WW domain-containing protein interacts with Efg1 to achieve coordination of normoxic and hypoxic functions to influence pathogenicity traits in *Candida albicans*. *Cell Microbiol*, 2019: p. e13140.
- Morales-Menchen, A., et al., Non-canonical Activities of Hog1 Control Sensitivity of *Candida albicans* to Killer Toxins From *Debaryomyces hansenii*. *Front Cell Infect Microbiol*, 2018. **8**: p. 135.
- Leonardi, I., et al., CX3CR1(+) mononuclear phagocytes control immunity to intestinal fungi. *Science*, 2018. **359**(6372): p. 232-236.
- Urrialde, V., et al., The *Candida albicans* Pho4 Transcription Factor Mediates Susceptibility to Stress and Influences Fitness in a Mouse Commensalism Model. *Frontiers in Microbiology*, 2016. **7**: p. 1062.
- Román, E., et al., The Cek1-mediated MAP kinase pathway regulates exposure of α -(1,2) and β -(1,2)-mannosides in the cell wall of *Candida albicans* modulating immune recognition. *Virulence*, 2016. **7**(5): p. 558-77.

C.2. Research projects and grants

Title: *Papel de la adhesión durante la colonización del tracto gastrointestinal por *Candida albicans* y su relación con la señalización mediada por MAP quinazas*, **Funding Agency:** Ministerio de Economía y Competitividad, MINECO, **Reference:** PGC2018-095047-B-I00, **Period:** from 01/01/2019 to 31/12/2021, **IP:** Jesús Pla Alonso, **Funding:** 163350 €.

Title: *Desarrollo de las metodologías IVET y CRISPR en *Candida albicans* y su aplicación al estudio in vivo de la colonización fúngica*, **Funding Agency:** Ministerio de Economía y Competitividad, MINECO, **Reference:** BIO2015-64777-P, **Period:** from 01/01/2016 to 31/12/2018, **IP:** Jesús Pla Alonso, **Funding:** 122500 €.

Title: *Rutas de transducción de señal implicadas en la resistencia a estrés oxidativo y nitrosativo en el hongo patógeno *Candida albicans*: aplicaciones en el desarrollo de una vacuna frente a las candidiasis*, **Funding agency:** Programa Nacional de Biotecnología, **Reference:** BIO2006-03637, **Period:** from 2007 to 2009., **IP:** Dr. Jesús Pla Alonso, **Funding:** 130.000 €.

Title: *Glycoshield: surface modulation of the fungal and host response using a genomic approach*. **Funding agency:** Acción Estratégica de Genómica y Proteómica, dentro de la ERA-NET Pathogenomics, **Reference:** GEN2006-27775-C2-1-EPAT), **Period:** from 2007 to 2009. **IP:** Dr. Jesús Pla Alonso, **Funding:** 232.000 €.

Title: *Implicación de rutas de transducción de señal mediadas por MAP quinasa en la construcción de la pared celular de *Candida albicans*: relevancia en modelos de comensalismo en ratón*, **Reference:** BIO2009-07788, **Funding agency:** Programa Nacional de Biotecnología, **Period:** from 2010 to 2013, **IP:** Dr. Jesús Pla Alonso, **Funding:** 246.840 €.

Title: *Patógenos fúngicos humanos bajo estrés oxidativo: mecanismos adaptativos frente a hipoxia y ROS*, **Funding agency:** ERANET Pathogenomics, **Reference:** PIM2010EPA-00658, **Period:** from 2011 to 2014., **IP:** Dr. Jesús Pla Alonso, **Funding:** 165.000 €.

Title: *De la Colonización a la Infección: Disección del paso comensal a patógeno de *Candida albicans**, Entidades participantes: Proyecto Translacional coordinado con 2 grupos alemanes, 1 sueco y 1 francés., **Funding agency:** Ministerio de Economía y Competitividad (INFECT-ERANET), **Reference:** PCIN-2014-052, **Period:** from 2015 to 2016., **IP:** Dr. Jesús Pla Alonso, **Funding:** 143.000 €.

C.3. Contracts

Four contracts with companies and foundations INBIOMED (2014/1047/PIV/02 y 2014/1047/PIV/02), Hospital Gregorio Marañón (2014/1117/PIV/01) y INFARMADE, S.L. (2015/0568/PIDI/03).

C.5, C.6, C.7... (e. g., Institutional responsibilities, memberships of scientific societies...)

- Co-Organizer of the 1st (Pamplona, 1996) and 3rd (Madrid, 2000) meeting of the specialized Molecular Microbiology Group of the Spanish Society of Microbiology (SEM).
- Co-Organizer (together with Dr. C. Gancedo (2001-2015) and Dr. Ariño (since 2017) of the Spanish Yeast Network (biannual meeting, El Escorial, December 2001 to 2017).
- Member of the Spanish Society of Microbiology (SEM) since 1991, Member of the American Association of Microbiology (ASM) since 1999.
- Secretary of the specialized group of Molecular Microbiology of the SEM from July 2000 to December 2004.
- Evaluator of scientific articles for J. Bacteriology, Microbiology, EMBO, Yeast, Iberoamerican Journal of Microbiology, Fungal Genetics and Biology, Eukaryotic Cell, Molecular Microbiology and Molecular and Cellular Biology.
- Evaluator of projects for the National Agency for Evaluation and Prospective (ANEP), Fund for Health Research of Social Security (FIS), Pasteur Institute, British Council and FONCYT.
- Participation in several projects of a non-investigative nature -of a technical nature- with the pharmaceutical industry.
- Supervisor of the Radioactive Installation IR-1416 of the Department of Microbiology of the Faculty of Pharmacy of the Complutense University of Madrid from 1997 to 2001.
- Recognition of 6 teaching stages by the UCM.
- Editor of FEMS Yeast Research since 2001-2004, Microbiology from 2004 to 2011, Eukaryotic Cell from 2006 to 2011.
- Supervised 12 Ph.D. thesis, 15 pre Ph.D. experimental works, 22 student scientific stays (ERASMUS, SOCRATES or FINNOVA) and 12 Pre Degree Collaboration Fellowships in our Department. Actually, supervising one Ph.D. and three undergraduate experimental works.
- Member of the ANECA (Biomedicina Committee) for evaluation of the spanish research periods ("sexenios") starting march 2018.