

## CURRICULUM VITAE (BRIEF)

### Part A. PERSONAL INFORMATION

First name	Víctor		
Family name	Álvarez Tallada		
Open Researcher and Contributor ID (ORCID)			

#### A.1. Current position

Position	Profesor Titular de Universidad / University Senior Lecturer		
Initial date	15/12/2020		
Institution	University Pablo de Olavide / CABD		
Department/Center	Molecular Biology and Biochemical Engineering	Faculty of Experimental Sciences	
Key words	Fission yeast, SPB, Mitotic Spindle, Cell cycle, Genome stability		

#### A.2. Previous positions (research activity interruptions, indicate total months)

Period	Position/Institution/Country/Interruption cause
28/01/2010 – 14/12/2020	Lecturer in Biology (Profesor Contratado Doctor) / Univ. Pablo Olavide / Spain (acreditado a PTU en 2015 pero sin oferta pública de promoción de plazas en la UPO hasta 2020)
24/09/2007 – 27/01/2010	Lecturer in Biology (Profesor Ayudante Doctor) / UPO / Spain
01/10/2003 – 15/08/2007	Post Doctoral Researcher / Paterson Institute. Cancer Research UK / United Kingdom
03/10/2002 – 30/09/2003	(Post)Graduate Teaching Assistant (TA) (Profesor Ayudante No Doctor) / University Pablo Olavide / Spain

#### A.3. Education

PhD, Licensed, Graduate	University/Country	Year
PhD	University of Málaga /Spain	2003
III Master in Biotechnology	University Autónoma Madrid / CBM Severo Ochoa	1996-97
Licensed (Bch. Biology)	University of Málaga /Spain	1995

(Include all the necessary rows)

### Part B. CV SUMMARY

Throughout my scientific career, I have been fascinated by the control and coordination mechanisms of different key processes in the progress of the cell cycle, such as the experimentation proposed in this project. **Scientific contributions:** During my **Ph.D.**, I actively participated in the sequencing of 50 Mb of the fission yeast genome, coordinating the technicians work, preparing genomic libraries and setting up the first automatic capillary sequencer at the University of Malaga. This was the 5th eukaryotic genome published (co-authors team: Nature 2002). The main body of my thesis focused on the search and characterisation of new genes that control the cell cycle (Yeast 2002). We discovered two metabolic enzymes and two dozen other genes that have subsequently been linked to key and unexpected functions in the progress of cell cycle. **Master in Biotechnology** (UAM/CBMSO) (Rev. Neurol. 2001). During my **postdoc** (4.5 years Cancer Research UK. Manchester, UK) I worked on the function of the SPB (analogous structure to the centrosome and a key subject for the present application).

I characterised the essential function of cut12 gene for SPB regulation and discovered how early mitotic signals emanate from this structure and then propagate throughout the cell by a kinase activity feedback loop (Genetics 2007; J. Cell Biol. 2009; Nat Cell Biol. 2013). I generated new genetic tools in *S. pombe* (model organism of the current application) of great prominence in the scientific community (PloS One 2014). I joined as a **lecturer** at the U. Pablo de Olavide (UPO) in Seville where I actively participated in unveiling the mechanisms by which the chaperone Hsp90 and the kinases Plo1 and Cdc2 regulate



actomyosin ring contraction. In two laboratory **stays** of Dr Jürg Bähler (two funded by the José Castillejo competitive programme) I established a fruitful collaboration (Mol. Biol. Evol. 2019; Cell Rep 2020; PloS Genetics 2021). We described all essential proteins and/or domains by a novel approach using massive integration of a transposon into the genome. We discovered the involvement of the transcription factor Gaf1 in the regulation of chronological ageing processes and discovered non-random rearrangements as in the genomes of senescent neurons from aged human brains.

**Leadership and funding:** As **corresponding author** (Sci. Rep. 2017; G3 (Bethesda) 2020; Life Sci. Alliance 2023 and iScience 2023, MiMB 2024; Yeast 2025 and iScience 2025). These respectively report: Identification of the RNA metabolism as the primary target of formamide in vivo. Characterised an efficient novel mutagen and isolated new useful mutants. An unique method to follow cohesin's assembly/disassembly cycle for first time in living cells. The role of Aurora kinase in erasing microtubule-mediated centrosome-kinetochore interactions in the meiosis I to meiosis II transition. The role of Endoplasmic Reticulum Membrane Complex (EMC) in membrane homeostasis and mitochondrial function. As a **PI**, I have directed two projects from the Junta de Andalucía (PAIDI excellence project and FEDER Operational Programme) and three competitive projects granted by the University Pablo de Olavide, within its strategic research program. **Young Researches Training:** Co-Director of 4 completed doctoral thesis and 1 in progress by a PhD Fellowship grant from Maria de Maeztu Ministry Excellence mention program. Director for 4 students collaboration Ministry grants and 4 student UPO collaboration grants, 4 research initiation grants (UPO. 18 months each in the lab), 1 AECC introduction to research grant. All of these grants are competitive. Supervised: 36 final degree's project (TFG, six months lab work) and 28 Final Master's project (TFM, 9 months lab work). **Scientific and technical capacities:** Expert in Molecular Biology, Cellular Biology, Biochemistry, Genetic Engineering, Genetic Analysis, Advanced "omics" techniques, high content searches, transmission and scanning electron microscopy, High-speed confocal microscopy on live cells (and associated technologies, FRAP, FRET, BiFC, laser ablation etc), super-resolution microscopy. Organisation of 2 workshops (iGEM, Super-resolution microscopy). **International collaborations** with Dr. Iain Hagan (Cancer Research Institute, Manchester), Dr. Jürg Bähler (University College London). **Outreach activities** I have participated as a guest speaker at 2 round tables; European Researchers' Night workshop: Cell cycle, chromosomes and Cancer; Feria de la Ciencia; Contribution to scientific photography exhibition at Seville's science house (CSIC), Café con ciencia with college students, Aula Abierta de Mayores UPO external program (from 2008 to 2024: 256 hours). **Research and editorial appraisal:** 9 Theses Viva Evaluation. Reviewer 12 PloS One articles, 1 Trends in Cell Biology, 1 G3 Bethesda; 1 Briefings in Functional Genomics; 1 Functional and Integrative Genomics; **Collaboration with industry** as a research team on two contracts with companies. Contract for teaching a qPCR course for detection of biological contamination in food (Public Health Area Malaga, Junta de Andalucía).

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

### C.1. Publications (Most relevant)

- Berraquero M, Tallada VA\* (Co-corr. autor), Jimenez J\*. *Ltc1 localization by EMC regulates cell membrane fluidity to facilitate membrane protein biogenesis*. 2025. iScience. Feb 24;28(3):112096. doi: 10.1016/j.isci.2025.112096
- Berraquero M, Tallada VA\* (Co-corr. autor), Jimenez J\*. 2025. *A Key Role of the EMC Complex for Mitochondrial Respiration and Quiescence in Fission Yeasts*. Yeast. Apr;42(4):96-103. doi: 10.1002/yea.3998.
- Villa-Consuegra S, Tallada VA\* (Co-corr. autor), Jimenez J\*. 2023. *Aurora B kinase erases monopolar microtubule-kinetochore arrays at the meiosis I-II transition*. iScience. Oct 27;26(11):108339. doi: 10.1016/j.isci.2023.108339.
- González-Martín E, Jiménez J, Tallada VA\*(lead corr. autor). 2023. *BiFCo: visualizing cohesin assembly/disassembly cycle in living cells*. Life Sci Alliance. May 9;6(7): e202301945. doi: 10.26508/lsa.202301945.  
(This work has been highlighted in Editor handpicked special collection of 10 articles of the latest advances in cell biology published in LSA in the last 12 months) <https://www.life-science-alliance.org/content/cell-biology-2023>.
- Ellis DA, Reyes-Martín F, Rodríguez-López M, Cotobal C, Sun XM, Saintain Q, Jeffares DC, Marguerat S, Tallada VA, Bähler J. 2021. *R-loops and regulatory changes in chronologically ageing fission yeast cells drive non-random patterns of genome rearrangements*. PLoS Genet. Aug 31;17(8). doi: 10.1371/journal.pgen.1009784

- Rodríguez-López M, Gonzalez S, Hillson O, Tunnacliffe E, Codlin S, **Tallada VA**, Bähler J, Rallis C. 2020. *The GATA Transcription Factor Gaf1 Represses tRNAs, Inhibits Growth, and Extends Chronological Lifespan Downstream of Fission Yeast TORC1*. Cell Rep. Mar 10; 30(10):3240-3249.e4. doi: 10.1016/j.celrep.2020.02.058.
- Hoyos-Manchado R, Villa-Consuegra S, Berraquero M, Jiménez J, **Tallada VA**\*(lead Corr. autor). 2020. *Mutational Analysis of N-Ethyl-N-Nitrosourea (ENU) in the Fission Yeast Schizosaccharomyces pombe*. G3 Genes/Genomes/Genetics (Bethesda). Mar 5;10(3):917-923. doi: 10.1534/g3.119.400936.
- Grech L, Jeffares DC, Sadée CY, Rodríguez-López M, Bitton DA, Hoti M, Biagosch C, Aravani D, Speekenbrink M, Illingworth CJR, Schiffer PH, Pidoux AL, Tong P, **Tallada VA**, Allshire R, Levin HL, Bähler J. 2019. *Fitness Landscape of the Fission Yeast Genome*. Mol Biol Evol. Aug 1;36(8):1612-1623. doi: 10.1093/molbev/msz113.
- Hoyos-Manchado R, Reyes-Martín F, Rallis C, Gamero-Estévez E, Rodríguez-Gómez P, Quintero-Blanco J, Bähler J, Jiménez J, **Tallada VA**\*(lead Corr. autor).. 2017. *RNA metabolism is the primary target of formamide in vivo*. Sci Rep. Nov 21;7(1):15895. doi: 10.1038/s41598-017-16291-8.
- Lucena R, Dephoure N, Gygi SP, Kellogg DR, **Tallada VA**, Daga RR, Jimenez J. 2015. *Nucleocytoplasmic transport in the midzone membrane domain controls yeast mitotic spindle disassembly*. J Cell Biol. May 11;209(3):387-402. doi: 10.1083/jcb.201412144.
- Grallert A, Patel A, **Tallada VA**, Chan KY, Bagley S, Krapp A, Simanis V, Hagan IM. 2013. *Centrosomal MPF triggers the mitotic and morphogenetic switches of fission yeast*. Nat Cell Biol. Jan;15(1):88-95. doi: 10.1038/ncb2633
- **Tallada VA**, Tanaka K, Yanagida M, Hagan IM. 2009. *The S. pombe mitotic regulator Cut12 promotes spindle pole body activation and integration into the nuclear envelope*. J Cell Biol. Jun 1;185(5):875-88. doi: 10.1083/jcb.200812108.

**C.2. Congress**, indicating the modality of their participation (invited conference, oral presentation, poster) (10 most relevant)

- Poster. Emilio González-Martín, Juan Jimenez Martinez and **Víctor A. Tallada**. The 11th International fission yeast meeting. 2023. Hiroshima, Japan
- Selected oral presentation. **Víctor A. Tallada**. From Genomes to cells. British Yeast Group Meeting. 8-11 Sept 2022. London, UK.
- 3 Oral presentations. **Víctor A. Tallada**. 11<sup>a</sup>, 12<sup>a</sup> y 13<sup>a</sup> Spanish Yeast Network meeting. December 2022, 2019, 2017 respectively. San Lorenzo del Escorial, Madrid, Spain
- Selected oral presentation. **Víctor A. Tallada**. From cancer to developmental defects: the control of DNA segregation and human disease. Universidad Internacional de Andalucía (UNIA). Workshops "Current Trends in Biomedicine". 14-16 octubre 2019. Baeza, Spain.
- Poster. Felix Reyes, María Rodríguez-Lopez, Danny A. Bitton, Sandra Codlin, Jürg Bähler Juan Jimenez and **Víctor A. Tallada**. The 10th International Fission Yeast Meeting. 14-19 Julio 2019. Barcelona, Spain.
- Selected oral presentation. **Víctor A. Tallada**. The 9th International Fission Yeast Meeting. 14-19 Mayo 2017. Banff, Alberta, Canada
- Selected oral presentation. **Víctor A. Tallada**. The 5th International fission yeast meeting. 2009. Tokio, Japan.
- Invited Conference. **Víctor A. Tallada**. Symposium on quantitative Biology with a focus on advances in mitosis research. 18 junio 2009. Cambridge, England, UK.
- Selected oral presentation. **Víctor A. Tallada**. XXXVII Congreso de la SEG (Spanish Genetics Society) 29 Sept-2 Oct. 2009. Málaga, Spain.
- Selected oral presentation. **Víctor A Tallada**. Meeting on yeast and cell cycle regulation. 11-14 November 1998. Lérida, Spain

**C.3. Research projects**, indicating your personal contribution. In the case of young researchers, indicate lines of research for which they have been responsible.

**As Principal Investigator:**

- **CEX2020-001088-M-20-3**. Experimental and computational studies of genome organization and function during development, aging, disease and evolution. Programa de la Unidad de Excelencia



María de Maeztu (CABD). **Principal Investigator: Álvarez Tallada, Victor and James Hombria Castelli-Gair.** 1/12/23-1/12/27.

- **P18-FR-1285.** Mechanisms of microtubule spindle assembly without centrosomes in gametogenesis. Proyectos Excelencia Frontera I+D+i. Dirección General de Investigación y Transferencia del Conocimiento. Junta de Andalucía. PAIDI 2018. **Principal Investigator: Álvarez Tallada, Victor.** 01/01/2019-31/12/2022.
- **UPO-1381219.** An essential Role of the Splicing Factor Cwf15 in Maintaining Genomic Stability. Fondo Europeo de Desarrollo Regional (FEDER) y por la Consejería de Economía, Conocimiento, Empresas y Universidad, de la Junta de Andalucía, en marco del programa operativo FEDER Andalucía 2014-2020. Objetivo específico 1.2.3. «Fomento y generación de conocimiento frontera y de conocimiento orientado a los retos de la sociedad, desarrollo de tecnologías emergentes». **Principal Investigator: Álvarez Tallada, Victor (UPO).** 1/7/2021-30/6/2023.
- **PPI1904-BIO2017-92099-EXP.** In vivo chromatin mapping by bi-molecular fluorescent complementation associated with the CRISPR nucleases Cas9 and Cpf1. Universidad Pablo de Olavide (Ayudas puente para la concurrencia al Plan Estatal de I+D). **Principal Investigator: Álvarez Tallada, Victor (UPO).** 03/12/2019-30/06/2021.
- **APP2D10111.** Regulation and coordination of mitotic checkpoint and spindle assembly Universidad Pablo de Olavide (Ayudas a Grupos emergentes). **Principal Investigator: Álvarez Tallada, Victor (UPO).** 05/10/2010-31/12/2013.

#### **As member of main Research Team:**

- **PID2019-111124GB-I00.** New mechanisms that sense spindle errors in mitosis and meiosis. Ministerio de Ciencia e Innovación. Agencia Estatal de Investigación (AEI). 01/06/2020-31/05/2023. 121.000 €
- **P20\_00825.** Mechanisms regulating mitochondrial homeostasis. Dirección General de Investigación y Transferencia del Conocimiento. Junta de Andalucía. PAIDI 2020. Proyectos Excelencia Frontera I+D+i. 01/01/2021-31/12/2022.
- **BFU2106-77297-P.** Control of the assembly/disassembly of the mitotic and meiotic spindle in the fission yeast. Ministry of economy and competitiveness (MINECO). 01/01/2017 to: 31/12/2019.
- **BFU2013-46923-P.** Mitosis exit in the fission yeast *S. pombe*: control of last steps of eukaryotic cell cycle. Ministry of economy and competitiveness (MINECO). 01/01/2014-31/12/2016.
- **BFU2009-13565.** Cell division control in yeasts: mechanisms of coordination and new targets for cancer treatment. Ministry of Science and Innovation (MICINN). 01/01/2010-31/12/2012.
- **CTS-4697.** Cellular polarity control: implications in differentiation and cancer. Junta de Andalucía (Projects of Excellence). 01/12/2009-1/12/2013.

#### **C.4. Contracts, technological or transfer merits,**

- Identification and validation of molecular targets related to obesity and detection of the biological activity on them, using the nematode *C. elegans* as a model.

Funding company: BIOTEC BIOORGANIC RESEARCH SERVICES, S.L

Participating entities: Pablo de Olavide University /BBRS. 1/4/2009-31/12/2011

Principal Investigator: Manuel Jesús Muñoz Ruíz.

- Identification and validation of molecular targets related to obesity and detection of the biological activity on them, using the nematode *C. elegans* as a model.

Funding company: BIOTEC BIOORGANIC RESEARCH SERVICES, S.L

Participating entities: Pablo de Olavide University /BBRS. 1/4/2009-31/12/2011

Principal Investigator: Manuel Jesús Muñoz Ruíz.

- Validación de moléculas con potencial efecto antidiabético en mutantes afectados en la ruta de la insulina del nematodo *V. elegans*. Empresa financiadora: Grupo Hojiblanca S.C.A

Participating entities: Universidad Pablo de Olavide, Grupo Hojiblanca S.C.A. 10/02/2011-10/08/2011. Principal Investigator: Manuel Jesús Muñoz Ruíz.